Self Study

Prepared for the

Council on Education for Public Health

By the

Instituto Nacional de Salud Pública

P R E L I M I N A R ▪ R E P O R T

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ELECTRONIC RESOURCE FILES

Link to on-line Electronic Resource File:
https://drive.google.com/open?id=1PbAyfasxapkSyjGxVsUSEhZQDX0RHO9s

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ABBREVIATIONS AND ACRONYMS

ABP: Problem Based Learning (PBL).
AESP: Public Health Students' Association.
ANUIES: National Association of Universities and Institutions of Higher Education.
ASPPH: Association of Schools and Programs of Public Health
CAD: Academic Teaching Commission.
CAE: External Advisory Committee
CAI: Academic Research Commission
CCINSHAE: National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission**.**
CEIS: External Commission of Health Research.
CENAPRECE: National Center for Disease Prevention and Control Programs.
CENIDSP: Information for Public Health Decisions Research Center.
CEPCI: Ethics and Conflict of Interest Prevention Committee.
CI: Research Centers.
CIEE: Evaluation and Surveys Research Center.
CIFRHS: Inter-institutional Commission for the Education of Human Resources in the Health Sector
CINyS: Nutrition and Health Research Center.
CISEI: Infectious Disease Research Center.
CISP: Population Health Research Center.
CISS: Health Systems Research Center.
CITI: Collaborative Institutional Training Initiative.
CLIMA: Massive Open Online Course.
CONACyT: National Council for Science and Technology.
CONGISP: Congress on Research and of Public Health.
CPPOP: Programs with Professional Orientation Commit.
CRISP: Regional Public Health Research Center.
DAF: Direction of Administration and Finance.
DCSS: Doctorate in Quality of Health Systems.
DGE: General Directorate of Epidemiology.
DIP: Primary Instructional Faculty.
DISP: Comprehensive Public Health Assessment.
DrPH: Doctorate in Public Health.
EEIPPDS: Specialization in Comprehensive Evaluation of Social Development Policies and Programs.
EMP: Specialty in Preventive Medicine.
ENARM: National Exam of Medical Residency.
ENIM: National Survey of Children, Girls and Women
ENSANUT: National Health and Nutrition Examination Survey
ESPM: School of Public Health of Mexico.
ETV: Vector-Borne Diseases.
ICM: Researchers in Medical Sciences.
ICT: Information and Communication Technologies
IH: Independent hours

IM: Intervention Mapping.
INCMNSZ: Salvador Zubirán National Institute of Medical Sciences and Nutrition
INDRE: Institute of Epidemiological Diagnosis and Reference.
INER: National Institute of Respiratory Diseases.
INSP: National Institute of Public Health.
JCR: Journal Citation Reports.
LIM: Research Lines by Mission
MBE: Medicina Basada en la Evidencia.
MGCSS: Master in Quality Management in Health Services.
MICS: Multiple Indicators Cluster Survey
MIR: Results Indicator Matrix
MNC: Master in Clinical Nutrition.
MPH: Master of Public Health.
NIBA: National Network for the Promotion of Broad-band Services.
NLM: National Library of Medicine.
OIC: Office of Internal Control.
PAHO: Pan American Health Organization
PARASALUD: Health Reform Program
PASPE: Training Program in Public Health and Epidemiology.
PAT: Programa Anual de Trabajo.
PHP: Public Health Program.
PhD: Doctorate of Sciences
PND: National Development Plan.
PNPC: Mexican Postgraduate Quality Program.
PROFAE: Alumni Academic Training Program.
PROSESA: Health Sector Program.
PTP: Final Professional Project.
RIACSP: Open Institutional Repository for Knowledge in Public Health.
RNCyT: National Repository of Sciences, Technology and Innovation.
SAC: Office of Academic Affairs
SEP: Ministry of Public Education.
SIGAA: Automated Academic Management Information System.
SIID: Electronic Information System for Research and Teaching.
SIMS: Sistema de Monitoreo y Seguimiento.
SNI: National Researchers System.
SPH: School of Public Health.
SPF: Ministry of Public Function.
SSA: Ministry of Health.
TH: Teacher hours
UCL: University College London.
UD: Course
UNAM: National Autonomous University of Mexico.
WHO: World Health Organization
WoS: Web of Service.

Introduction

1) Describe the institutional environment, which includes the following:

a. year institution was established and its type (eg, private, public, land-grant, etc.)

The National Institute of Public Health of Mexico (INSP) was created in 1987 and has become the leading public health institution in Mexico, with a focus on teaching, research and service, and a growing leadership position in Latin America. It is a public health institution founded within the Ministry of Health of Mexico. It is one of the 13 National Institutes of Health in the country and the only one that is also recognized as a Higher Education Institution; this enables it to offer academic programs and to grant graduate academic degrees.

b. number of schools and colleges at the institution and the number of degrees offered by the institution at each level (bachelor's, master's, doctoral and professional preparation degrees)

INSP offers 28 graduate educational programs, distributed as follows: 1 medical specialty, 1 specialty, 1 master´s degree in public health with 8 concentration areas in the in-person format, 2 of which are also offered in the executive format, 1 master's degree in public health online, 8 master's degrees in public health sciences, 2 master's degrees in other areas of health, 1 doctorate in public health in the executive format, 5 doctorates in science, and 1 doctorate in Quality of Health Systems.

c. number of university faculty, staff and students

The faculty of INSP consists of 295 professors; of these, 225 are primary instructional faculty (PIF) members who participate in teaching and research activities, and 70 are non-primary instructional faculty, i.e. professors who collaborate partially or part-time in academic activities of the educational programs. From the total of faculty, 211 PIF and 32 Non-PIF participate in teaching of the public health programs (See Criteria C2 and E1). INSP also has 613 administrative staff members, and a total of 512 enrolled students (March, 2019).

d. brief statement of distinguishing university facts and characteristics

INSP is a public institution with unique characteristics in the country. It is a decentralized agency of the Federal Government of Mexico, it is part of the Ministry of Health, and it is recognized as a higher education institution. INSP comprises seven Research Centers that generate scientific knowledge and services in areas of public health derived from institutional strategic lines: the Information for Public Health Decisions Research Center (CENIDSP), the Evaluation and Surveys Research Center (CIEE), the Nutrition and Health Research Center (CINyS), the Health Systems Research Center (CISS), the Population Health Research Center (CISP), the Infectious Disease Research Center (CISEI), and the Regional Public Health Research Center (CRISP).

These attributes encourage a tripartite vision that includes the training of human resources, the generation of research, and the development of services that strategically promote public health in Mexico. The programs of INSP incorporate three major focuses into their training: the inclusion of biomedical sciences, a population-based approach in research, and service and support in health systems research. Another one of its distinctive features is that most full-time teachers of the 28 programs of INSP are recognized researchers who participate in teaching and research activities and are members of the seven Research Centers. The programs are taught at the three campuses of INSP in the country. The main campus is located in Cuernavaca, Morelos; the second one, in Mexico City (Campus Tlalpan), and the third, in Tapachula, Chiapas, in the south of the country.

e. names of all accrediting bodies (other than CEPH) to which the institution responds. The list must include the regional accreditor for the university as well as all specialized accreditors to which any school, college or other organizational unit at the university responds

The INSP has been recognized as a higher education institution by the Ministry of Public Education (SEP), and complies with the educational policies and guidelines established by the authorities of SEP who are responsible for granting recognition to the academic programs of the INSP. All of the full-time graduate the programs of INSP have also received accreditation from the National Council for Science and Technology (CONACyT), which is responsible for accrediting the quality of the graduate academic programs in Mexico. CONACyT's Mexican Postgraduate Quality Program (PNPC) evaluates and accredits academic programs that meet high quality standards.

f. brief history and evolution of the school of public health (SPH) and related organizational elements, if applicable (eg, date founded, educational focus, other degrees offered, rationale for offering public health education in unit, etc.)

INSP was created in 1987 as a single institution with the purpose of training human resources to become highly qualified in public health practice and research, as well as to generate an environment that would promote collaboration between public health research and teaching. Three existing institutions of the government health sector merged to create INSP: the School of Public Health of Mexico, the Population Health Research Center, and the Infectious Disease Research Center.

The merger combined the long-standing teaching tradition of the School of Public Health of Mexico (founded in 1922) with new research approaches in public health. The result is an institution with a multidisciplinary perspective that is able to study the population-based dimensions of health, disease and health/disease determinants, as well as the organized social response to disease prevention and health promotion. A fundamental premise for creating INSP was that excellence in public health education can be achieved only within a context in which both faculty and students actively participate in cutting-edge research for improving the population's health. The objective was to educate public health professionals and academicians while conducting high-quality research.

In 1995, INSP was reorganized to further enhance and expand public health research and education. The Institute formed additional research centers and brought in leading academicians and public health practitioners. In addition, degree programs became linked directly to a research center, which promoted faculty participation in both teaching and research by requiring all experienced researchers to teach. The Faculty Colleges (collegiate bodies that focus on specific fields of study) were created to give support and focus to teaching programs. These colleges serve as the academic core for program development and provide forums for critical discussion and exchange of ideas among academicians. The reorganization has allowed INSP to make major advances in integrating teaching and research, conducting multidisciplinary mission-oriented research, and developing high-quality, cutting-edge practices in health promotion and disease prevention that advance public health in Mexico. Later, a curriculum reform was developed; it focused on competency-based education, offering continuing education through multiple formats (online, executive and blended), reorganizing research to become mission-oriented, adding planning and evaluation dimensions, and developing public health services that are linked to scientific results from INSP research projects.

In addition, the INSP broadened its international scope through the first accreditation by the CEPH in 2006, which opened new collaboration opportunities with Public Health Schools, mainly in the United States. Furthermore, in 2018, it became a member of tropEd, a network for higher education institutions in international health, thereby increasing its collaboration with other institutions of Asia and Europe.

In accordance with its mission, INSP constantly works to enhance academic opportunities and to strengthen its role in Mexico in order to improve population health promotion and social equity, with a specific focus on vulnerable social groups. In order to achieve this goal, INSP collaborates with federal and state governments, national and international health organizations, community groups, and alumni. INSP's integration of education and research provides the synergy needed to strengthen and expand public health activities, increase the quality of teaching and research, and improve public health practice in Mexico and Latin America.

2) Organizational charts that clearly depict the following related to the school:

a. the school's internal organization, including the reporting lines to the dean

In Mexico, the highest authority in the health sector is the Ministry of Health (SSA), which is responsible for public health as well as promoting and regulating medical care in the country. The SSA includes the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE), which coordinates the activities of the 13 National Institutes of Health, including INSP. INSP has direct communication with the Minister of Health through his role as chairman of the Institute's Governing Board. In addition, INSP's Director General/Dean participates in monthly meetings held by the General Coordinator to evaluate the activities of the National Institutes of Health and to oversee their progress.

The Director General/Dean is directly accountable to the Governing Board. The Academic Dean, who directs the Office of Academic Affairs, and seven adjunct directors who are responsible for the Research Centers, report to the Director General/Dean (see Figure 1). The Office of Academic Affairs is responsible for the institutional planning, operations and evaluation of all academic activities.

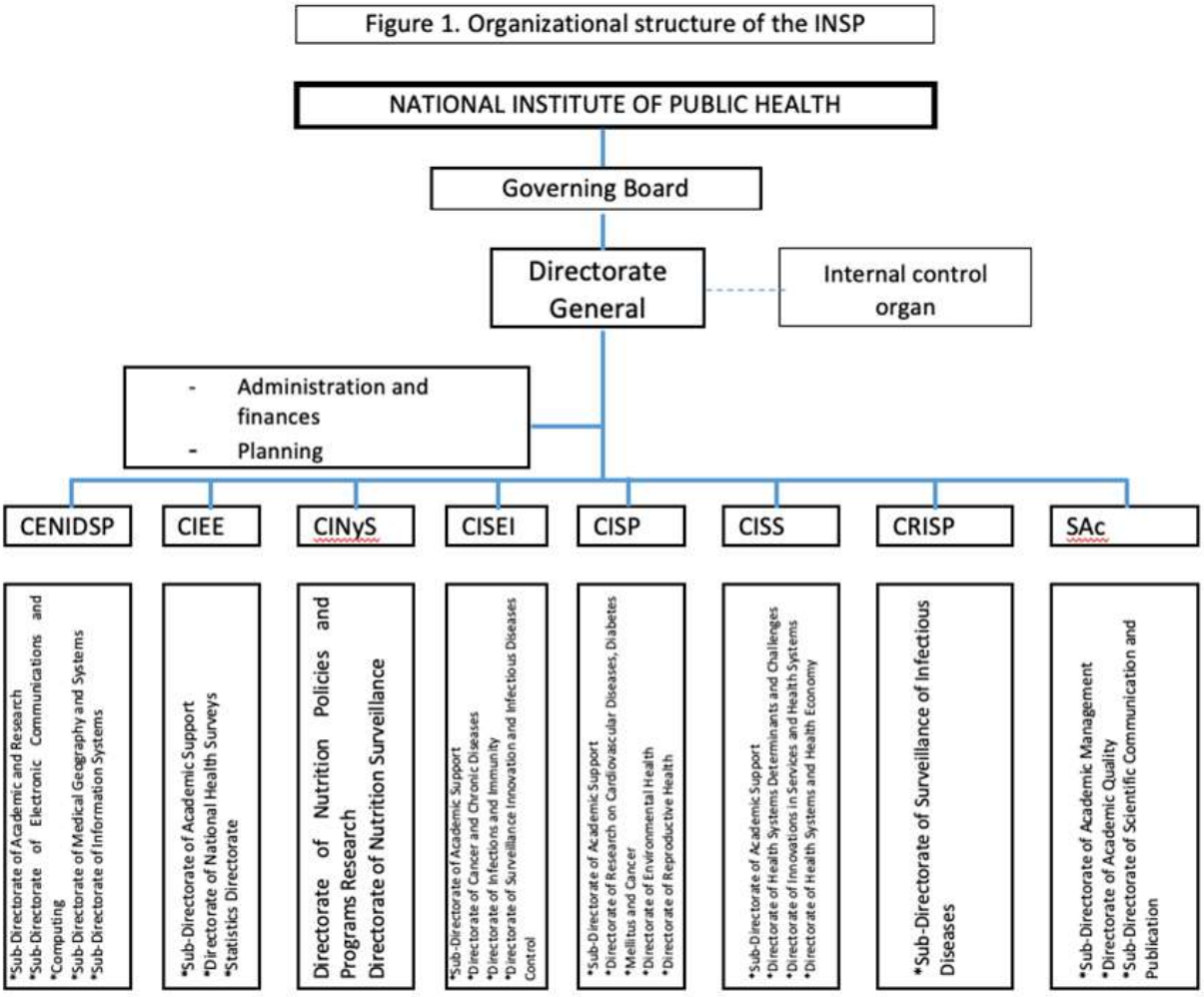
The Director General/Dean and Governing Board analyze all actions and processes related to the diverse areas of institutional development. Issues related to teaching, the faculty and the student body are coordinated by the Office of Academic Affairs, which collaborates directly with the Director General/Dean and the Research Centers. For administrative matters, the Director General/Dean is assisted by the directors of Planning and of Finance and Administration.

The Planning Office assists the General Director in the coordination of the development of the annual plan and in the follow-up of the objectives, goals and activities of the Institutional Plan 2017-2022 and the annual strategic plan. In addition, the Planning Office oversees the Human Resources Training Programs established in the Results Indicator Matrix (MIR - Results Indicator Matrix in Spanish), informed to the Coordinating Commission of the National Institutes of Health and High Specialty Hospitals. (CCINSHAE), as well as in the Specific Action Program of the federal government for Scientific Research, High Specialty Medicine and Training of specialized human resources in public health (PAEIS and PAEMAE) that verify the fulfillment of the objectives.

The Director of Administration and Finance manages INSP's general budget, oversees all contracts and scholarships, and is responsible for managing information within INSP. The Director is also responsible for supervising the use of the facilities.

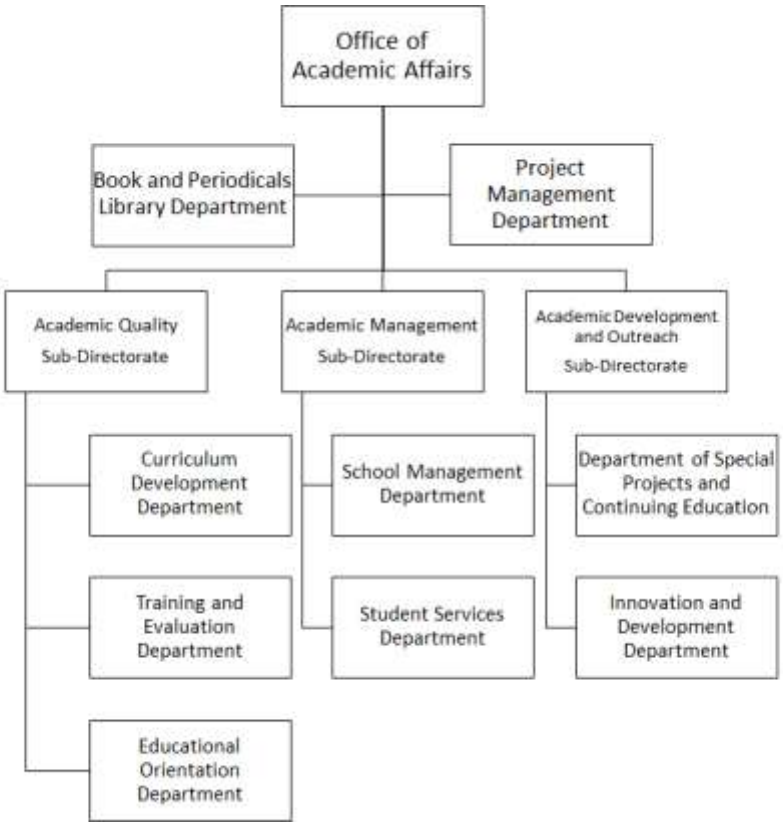
The service and support areas (DAF and the Office of Planning and the Internal Control Office) collaborate with the other areas in INSP to support work related to the specific academic, research and service areas. These areas present reports to the Director General/Dean, with the exception of the Internal Control Office, which, though part of INSP, reports directly to the federal SFP.

Figure 1. Organizational Structure of the INSP.



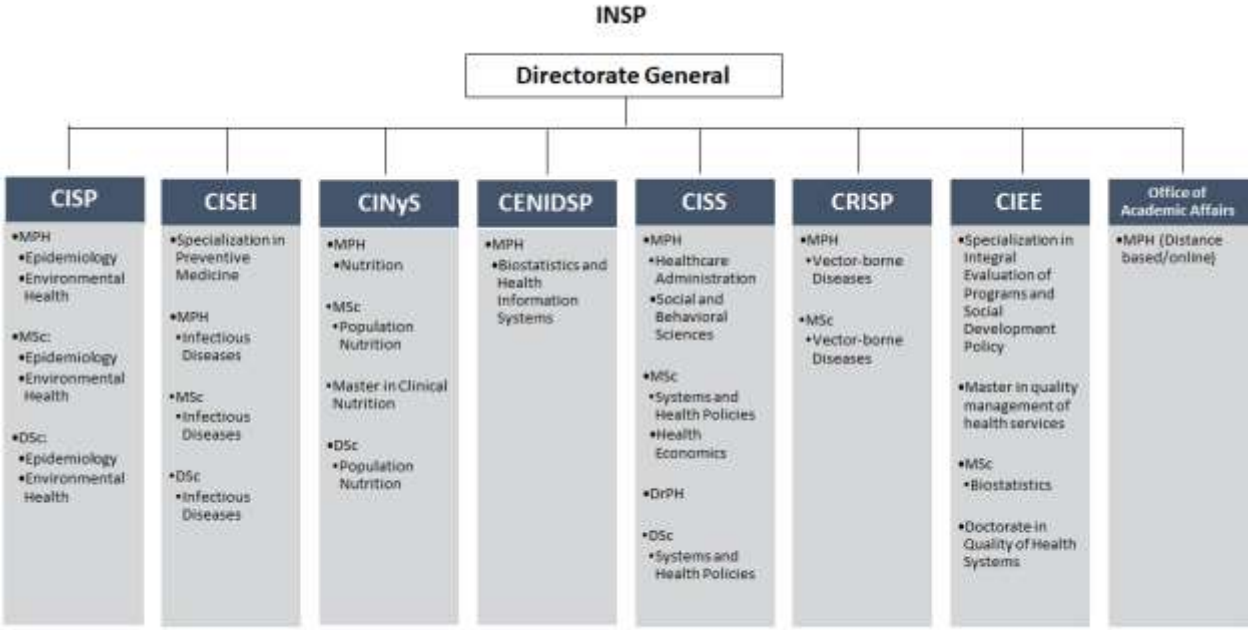
The Office of Academic Affairs is responsible for academic leadership and planning INSP's educational activities. It implements and periodically evaluates programs jointly with the Research Centers (see Figure 2).

Figure 2. Organizational Structure of Office of Academic Affairs.



The Research Centers, coordinated by their corresponding Directors, oversee the academic programs in the areas whose research lines best correspond to the scientific field of the relevant concentration area. The Directors of the Research Centers appoint academic coordinators for the programs and ensure sufficient faculty to support the programs (see Figure 3).

Figure 3. Graduate programs assigned to Research Centers and Office of Academic Affairs.



The directors of the Research Centers are responsible for fulfilling their respective center's mission and are charged with providing academic leadership, appointing academic coordinators and ensuring sufficient faculty to support programs, establishing the internal structure of each center in keeping with INSP guidelines. Each center conducts research, teaching and service activities in a specific public health area.

The decisions regarding the academic and institutional activities of the INSP are distributed among the Research Centers, the collegiate bodies, the program coordinators, the Faculty, and the Office of Academic Affairs. All the full-time professors are attached to a Research Center and participate in at least one of the collegiate bodies that determine the decisions regarding the programs and the various institutional activities.

Figure 4. Committee Structure Organization at the INSP.

Academic and Teaching Commission (Directorate General)	Programs Committees (General Directorate)	Committee for Graduate Programs with Professional Orientation Master of Science Committee Doctoral Committee	
	Collegiate bodies of CISEI	College of Infectious Diseases	Chapter of Doctors in Infectious Diseases Chapter of Vector-borne Diseases
	Collegiate bodies of CISP	College of Environmental Health College of Epidemiology College of Reproductive Health Intercollegiate Chapter of Residency in Public Health	Chapter of Doctors in Environmental Health Chapter of Doctors in Epidemiology
	Collegiate bodies of CISS	College of Health Systems, Policies and Services College of Health Economics College of Social Sciences and Health College of Education and Health Intercollegiate Chapter of Doctors in Public Health	Chapter of Doctors in Systems
	Collegiate bodies of CIEE	College of Biostatistics and Data Processing College of Health Systems Quality Intercollegiate Chapter of Monitoring and Evaluation	Chapter of Doctors in Health Systems Quality
	Collegiate bodies of CINYS	College of Nutrition and Health	Chapter of Doctors in Nutrition and Health

b. the relationship between school and other academic units within the institution. Organizational charts may include committee structure organization and reporting lines

Not applicable to INSP.

c. the lines of authority from the school's leader to the institution's chief executive officer (president, chancellor, etc.), including intermediate levels (eg, reporting to the president through the provost)

Not applicable to INSP.

d. for multi-partner schools and schools (as defined in Criterion A2), organizational charts must depict all participating institutions

Not applicable to INSP.

3) An instructional matrix presenting all of the school's degree schools and concentrations including bachelor's, master's and doctoral degrees, as appropriate. Present data in the format of Template Intro-1.

The 28 programs that INSP offers are listed in the instructional matrix (Template Intro-1).

Introduction Template 3-1. Instructional Matrix - Degrees and Concentrations.

Concentration	Academic	Professional	Categorized as public health*	Campus based	Executive	Distance based
Specialization	**Academic**	**Professional**				
Specialization in Preventive Medicine		RPH	No	RPH		
Specialization in Comprehensive Evaluation of Social Development Policies and Programs		SCESDPP	No			SCESDPP
Masters	**Academic**	**Professional**				
Epidemiology	MSc	MPH	X	MSc MPH	MPH	
Health Systems Administration		MPH	X	MPH	MPH	
Environmental Health	MSc	MPH	X	MSc, MPH		
Biostatistics	MSc	MPH	X	MSc, MPH		MPH
Social and Behavioral Sciences		MPH	X	MPH		
Population Nutrition	MSc		X	MSc		
Nutrition		MPH	X	MPH		
Vector-borne-Diseases	MSc	MPH	X	MSc, MPH		
Infectious Diseases	MSc	MPH	X	MSc, MPH		
Health Systems and Policies	MSc		X	MSc		
Health Economics	MSc		X	MSc		
Clinical Nutrition		MCN	No	MCN		
Master of Public Health		MPH	X			MPH
Quality Management in Health Services		MQMHS	No			MQMHS
Doctorates	**Academic**	**Professional**				
Epidemiology	ScD		X			
Health Systems	ScD		X			
Infectious Diseases	ScD		X			
Population Nutrition	ScD		X			
Environmental Health	ScD		X			
Doctorate in Public Health		DrPH	X		DrPH	
Doctorate in Quality of Health Systems		DQMHS	No			DQMHS

4) Enrollment data for all of the school's degree schools, including bachelor's, master's and doctoral degrees, in the format of Template Intro-2. Schools that house "other" degrees and concentrations (as defined in Criterion D19) should separate those degrees and concentrations from the public health degrees for reporting student enrollments.

The enrollment data for the 28 programs that INSP offers are identified in the instructional matrix (Template Intro-2.1). The information corresponds to the current total of students enrolled by March 2019.

Template Intro-2.1. Current enrollment in all the programs at INSP.

Degree		Current Enrollment*
Specialization		51
1	Specialization in Preventive Medicine *	34
2	Specialization in Comprehensive Evaluation of Social Development Policies and Programs *	17
Masters		346
	MPH	200
3	Healthcare Administration	37
4	Epidemiology	40
5	Environmental Health	8
6	Social and Behavioral Sciences	13
7	Master of Public Health	54
8	Nutrition	18
9	Infectious Diseases	17
10	Biostatistics	13
11	Vector-borne-Diseases	0
	Academic public health Master's	77
12	Epidemiology	11
13	Health Economics	5
14	Infectious Diseases	10
15	Vector-borne-Diseases	11
16	Biostatistics	8
17	Environmental Health	4
18	Health Systems and Policies	14
19	Population Nutrition	14
	All remaining master's degrees	69
20	Clinical Nutrition *	27
21	Quality Management of Health Services *	42
Doctoral Programs		115
22	Doctorate in Public Health	29
	Academic public health doctoral programs	77
23	Health Systems	12
24	Infectious Diseases	8
25	Population Nutrition	18
26	Environmental Health	10

27	Epidemiology	29
	Other doctoral programs	9
28	Doctorate in Quality of Health Systems *	9
Total		512

*Non public health programs.
Source: School Services Data as of March 31, 2019.

A1. Organization and Administrative Processes

The school demonstrates effective administrative processes that are sufficient to affirm its ability to fulfill its mission and goals and to conform to the conditions for accreditation.

The school establishes appropriate decision-making structures for all significant functions and designates appropriate committees or individuals for decision making and implementation.

The school ensures that faculty (including full-time and part-time faculty) regularly interact with their colleagues and are engaged in ways that benefit the instructional school (eg, participating in instructional workshops, engaging in school-specific curriculum development and oversight).

1) List the school's standing and significant ad hoc committees. For each, indicate the formula for membership (eg, two appointed faculty members from each concentration) and list the current members.

Within the National Institute of Public Health (INSP), the Office of Academic Affairs (SAC) is responsible for the leadership, coordination and oversight of the teaching activities of the INSP. Together with the Research Centers, the SAC coordinates the 28 graduate programs, organized in such a manner as to allow an academic management that will benefit the teaching, the learning, and the services related with these tasks, especially with the active participation of the collegiate bodies. The research and service activities developed by the INSP in order to fulfill its mission in these areas are carried out by the researchers attached to the Research Centers (CI) of the INSP itself.

The Academic Dean reports to the Director General and is a member of the Board of Directors, which is chaired by the Director General and includes the Directors of the Research Centers and the Directors of the Offices of Planning and Administration and Finances. The Board of Directors holds meetings every two weeks; this facilitates the coordination between the faculty and the Office of Academic Affairs, the Research Centers, and the Administration and Planning areas. Furthermore, the staff of the Office of Academic Affairs communicates regularly with the staff of the Research Centers, including the coordinators of the program and of the collegiate bodies and the faculty, in order to facilitate the cooperation and collaboration with the ultimate purpose of ensuring academic quality.

Participation and collaboration between the Research Centers, the Coordinators, the Faculty, and the Office of Academic Affairs

The academic structure of the INSP consists of: the Directorate General, the Office of Academic Affairs, the Directorates of the Research Centers, Head and Assistant Coordinators of the academic programs, the collegiate bodies (Faculty Colleges, Chapters of Doctors, Intercollegiate Chapters, Program Committees), and professor-researchers.

The Academic Coordinators of the programs are appointed by the Director of the Research Center to which each program is attached. The Office of Academic Affairs and the Research Center Directors lead the operation of the academic programs, and each Director is responsible for overseeing the adequate functioning of the academic programs that are coordinated in their respective Center. Interdisciplinary collaboration is promoted through the participation of each faculty member in one or several of the following collegiate bodies: Faculty Colleges, Chapters of Doctors, and Program Committees. In the meetings of Colleges, Chapters or Committees, the faculty of all disciplines and research areas interact to analyze academic issues, providing different perspectives and experiences, and thus encouraging an interdisciplinary approach. Student representatives participate in some of the collegiate bodies: Academic Teaching Comission (CAD) and the three Program Committees. This structure creates interdisciplinary groups which collaborate to analyze and solve training, research, and service related issues that affect the INSP. The main goals of the collegiate bodies meet the needs of the various sectors of the Institute and establish a permanent communication with all the actors involved in the academic, research, and service processes.

Each Faculty College is overseen by the Research Center to which it is attached. The members of these colleges are professor-researchers specialized in the disciplines or thematic areas of the colleges. Although each College is embedded in the Center in charge of the specific discipline or thematic area of the college, its members include professor-researchers from other Centers; external professors can also participate by invitation, allowing for multidisciplinary visions and approaches. Research Center Directors interact with the Colleges, overseeing their performance as well as their participation in the academic operation of their programs.

The Office of Academic Affairs consists of four sub-directorates and two departments directly accountable to the Office of Academic Affairs. The sub-directorates that answer to the SAC are: Academic Quality, Academic Management, Academic Development and Outreach, and Scientific Communications and Publications. The departments that answer to the same Directorate are the Project Management Department and the Book and Periodicals Library.

Each of the Sub-Directorates of the Office of Academic Affairs is composed of departments that interact with the collegiate bodies, coordinators, faculty members, and students, depending on the functions for which they are responsible, and attends to the academic and administrative commitments in order to ensure the excellence of the Academic Programs.

The INSP comprises 31 Commissions and Committees, 26 of which are collegiate bodies that regulate the academic activities of the educational programs, as well as the functions of the faculty and of the students. The Academic commission with the greatest authority is the Academic and Teaching Commission (CAD), where the academic policies and the general functioning of the training of the public health professionals and researchers of the INSP are defined. The academic work of each program is jointly analyzed and discussed by the Faculty Colleges (11), the Chapters of Doctors (8), and the Intercollegiate Chapters (3). In addition, there is an Academic Research Commission (CAI) that regulates the research activities of the faculty and of the students. All the committees are listed and briefly described in Table A1.1.2. The list of the members for all the collegiate bodies is located as an electronic resource file.

Table A1.1.2. Committees for the regulation of the academic activities of the INSP

Name of the Committee	Members	Functions	Total number of Committees
Academic and Teaching Commission (CAD)	Chair: Director General Technical Secretary: Academic Dean Members: -Directors of the Research Centers -Chairs of Faculty Colleges, Chapters of Doctors, and Intercollegiate Chapters -Program Coordinators -Students' Representatives: Doctorate, MPH, and MSc; appointed by the Students' Association.	It is the ultimate collegiate body that formulates recommendations and pronouncements on academic affairs for consideration by the Director General of the Institute. It revises the issues unresolved by other academic bodies. The Commission attends to matters of: planning, organization and evaluation of the faculty; release, revision and approval of the academic regulations applicable to professor-researchers and students of the INSP and surveillance of compliance with the school regulations, as well as with the procedures established by the Institute in faculty-related matters.	1
Academic Research Commission (CAI)	a) The Director General of the Institute, b) The Chair of the Research Commission, also to be the Technical Secretary; C) A technical pro-secretary; c) Internal spokespersons who are professor-researchers of the INSP; d) Three external spokespersons who are researchers external to the INSP, appointed by the Director General.	It formulates and oversees the application of policies and processes related to the evaluation and follow-up of the quality of the research and service activities. It is supported by 3 additional committees that issue pronouncements on the research activities of the students and the faculty (Research Committee, Ethics Committee, and Biosafety Committee).	1
Research Committee	a) A President who is a researcher appointed by the Director General b) A technical secretary: a researcher appointed by the Chair of the Committee. c) 2 spokespersons for each Research Center d) The Chair of the Committee on Research Ethics e) The Chair of the Biosafety Commission	It ensures that the research projects are articulated with the institutional policies and strategic objectives of the INSP; it assesses the research protocols, the final reports, and the publications ensuing from the research, and it evaluates the products resulting from the researches and services (lectures, training courses for researchers).	1
Ethics Committee	Ten members with the following characteristics: pertaining to both genders, with different professions; at least three of the members must be health professionals and have experience in scientific research. The internal members must be appointed ICM-C, D, E or F level researchers. At least one of the members must be external to the Institute. Two representatives of each Research Center of the Institute; one of the members must have non-scientific areas as their main interest and represent community interests.	It assesses the research protocols of the faculty and of the students in order to ensure compliance with the ethical criteria in the development of the suggested research activities.	1

Biosafety Committee	-A President, appointed by the Director General of the Institute; -A Technical Secretary, appointed by the Chair of the Committee, -An Auxiliary Secretary, appointed by the Chair of the Committee, -The Professor-Researcher in charge of Radioactivity of the INSP; -Eight spokespersons who are nominated professor-researchers: two on behalf of the ClSEI, and one more for each of the following establishments: CISP, CISS, CINyS, CRISP, CIEE, and DAF.	It assesses the research protocols of the faculty and the students in order to ensure compliance with the biosafety criteria for research development.	1
Faculty Colleges	Constituted by: a President, a Secretary, and the Faculty of the corresponding area of knowledge; Permanent and guest professors.	Foremost collegiate body of faculty members organized by areas of knowledge, who make decisions, formulate recommendations and issue pronouncements in relation to academic issues for the master's educational program in that area.	11 -Epidemiology -Biostatistics and Data Processing -Environmental health -Healthcare Systems, Policies and Services -Social and Health Sciences -Education and Health -Infectious diseases -Reproductive health -Health Economics -Nutrition and Health -Quality of the Health Systems
Chapters of Doctors	Chair; Secretary, doctor members.	A collegiate body of professors with a doctor's degree, derived from the Faculty Colleges by area of knowledge. It analyzes, formulates recommendations and pronouncements in relation to academic issues for the Doctorate programs of this area.	8 -Epidemiology. -Environmental health -Systems -Vector-borne diseases -Infectious diseases -Nutrition and Health -Quality of the Health Systems

Intercollegiate Chapters	Professor-researchers who form collegiate groups that interact with, and are constituted by members of several Colleges or Centers.	It oversees the academic qualities of programs which, due to their multi- and transdisciplinary nature, include subjects of study that correspond to several Faculty Colleges, or demand the participation of several Research Centers of the Institute. The graduate programs with intercollegiate chapters are: Specialty in Comprehensive Assessment of Social Programs, Specialty in Preventive Medicine, Doctorate in Public Health	3 -Monitoring and Evaluation -Doctors in Public Health -Residency in Preventive Medicine.
Program Committees	-President: General coordinator (Doctorate, Master in Science degree or Graduate Programs with Professional Orientation) - Academic Dean -Technical Secretary: Staff of the Office of Academic Affairs -Spokesperson members: Program Coordinators -Students' representatives	They define the operational and quality criteria of each of the three types of graduate programs: Professional programs, Master in Science programs, and Doctorates.	3 -Doctorate, -Master in Science programs -Professional Graduate Programs
Continuing Education Committee	-President: Academic Dean -Coordinator of the Sub-Directorate of Academic Development and Outreach -Technical Secretary, appointed by the Office of Academic Affairs -Spokesperson representative of each one of the Research Centers of the INSP -Two representatives of the Office of Academic Affairs.	Ensure the academic quality of both the degree and the diploma courses in all their formats, with all their components.	1

Table A1.1.3. shows a detailed list of the current chairs of the Faculty College and the Chapter of Doctors, the Intercollegiate Chapter, and the Graduate Committees.

Table A1.1.3. Chairs of the Collegiate Bodies that regulate the educational programs

GRADUATE PROGRAM COMMITTEES	PRESIDENT
Doctoral Committee	Dr. Mario Henry Rodríguez López, PhD
Master in Science Committee	Dr. Arantxa Colchero Aragonés, PhD
Committee on Graduate Programs with Professional Orientation	Dr. Juan Francisco Molina Rodríguez, MPH
FACULTY COLLEGE AND CHAPTER OF PROFESSORS	**PRESIDENT**
Nutrition and Health	Dr. Ismael Campos Nonato, PhD
Infectious Diseases	Dr. Humberto Lanz Mendoza, PhD

Epidemiology	Dr. Aurelio Cruz Valdez, PhD
Environmental Health	Dra. Marlene Cortez Lugo, MSc
Reproductive Health	Dra. Marcia Galván Portillo, PhD
Social Sciences and Health	Dra. Sandra Treviño Siller, PhD
Healthcare Systems, Policies and Services	Víctor Becerril Montekio, MSc
Education and Health	Dr. Lorena Castillo Castillo, MSc
Health Economics	Dr. Mónica Arantxa Colchero Aragonés, PhD
Biostatistics and Data Processing	Eduardo Ortiz Panozo, MSc
Quality of Health Systems	Dr. Sergio Flores Hernández, MSc
Chapter of Vector-Borne Diseases	Dr. Rosa Patricia Penilla Navarro, PhD
CHAPTER OF DOCTORS	**PRESIDENT**
Chapter of Doctors in Nutrition and Health	Dr. Mario Flores Aldana, PhD
Chapter of Doctors in Infectious Diseases	Dr. Humberto Lanz Mendoza, PhD
Chapter of Doctors in Epidemiology	Dr. Gabriela Torres Mejía, PhD
Chapter of Doctors in Environmental Health	Dr. Paulina Farías Serra, MSc
Chapter of Doctors in Healthcare Systems	Dr. René Leyva Flores, PhD
Chapter of Doctors in Quality of the Healthcare Systems	Dr. Sergio Flores Hernández, MSc
INTERCOLLEGIATE	**PRESIDENT**
Intercollegiate Chapter of Public Health Residency	Dr. Hugo López-Gatell Ramírez, PhD
Intercollegiate Chapter of Doctors in Public Health	Dr. María Cecilia González Robledo, MSc
Intercollegiate Chapter of Monitoring and Assessment	Dr. Mishel Unar Munguía, PhD

2) Briefly describe which committee(s) or other responsible parties make decisions on each of the following areas and how the decisions are made:

    a. Degree requirements

Requirements for obtaining the degree: The Academic and Teaching Commision (CAD) is the collegiate body in charge of authorizing the regulations that indicate the requirements for obtaining the degree. The collegiate bodies that correspond to each type of program —Faculty Colleges, Chapters of Doctors, or Intercollegiate Chapters— are responsible for choosing the thesis directors (research-oriented programs) and final professional project directors (PTP, Master of Public Health degree); for authorizing the thesis committees and the juries of faculty members that will evaluate the exam with which the students will obtain the degree. These committees also oversee the progress of each student and the compliance with the requirements of each educational program for the obtainment of the respective degree. The Office of Academic Affairs is responsible for overseeing the observance of the requirements for the obtainment of the degree, according to the process indicators defined in the academic regulation.

b. Curriculum design

Curricular Design of the Programs. The Faculty Colleges, the Chapters of Doctors, and the Intercollegiate Chapters are in charge of designing and redesigning the curricular maps, as well as the contents of the courses. The Office of Academic Affairs is the area responsible for overseeing the process of designing and redesigning the curriculum of the programs. These committees are in charge of proposing to the CAD the incorporation of new courses, curricula and syllabi, as well as modifications to the existing ones. The CAD is responsible for approving the curricula of the educational programs and any changes made to these, as well as for the creation suspension, and cancellation of educational programs.

c. Student assessment policies and processes

Student assessment policies and processes. The policies and processes are defined in the academic regulations of the INSP, particularly in the General Regulation Governing Graduate Studies. This regulation is approved and can be modified by the Academic and Teaching Commission. The Faculty Colleges, the Chapters of Doctors, and the Intercollegiate Chapters, together with the coordinators of the educational programs, are responsible for overseeing the application of the policies and processes for the evaluation of the students. Besides, the Faculty Colleges appoint the juries for the evaluation of students seeking to obtain their degree.

d. Admissions policies and/or decisions

Admissions policies and/or decisions. The Office of Academic Affairs coordinates the annual process of selection of the students, from their recruitment to their enrollment in the programs. The Faculty Colleges, the Chapters of Doctors, and the Intercollegiate Chapters are in charge of evaluating the candidates and determining the total number of students to be accepted in terms of the amount of faculty members available to attend to the candidates, as well as of suggesting changes in the policies and procedures for the admission of students into the programs. The Graduate Committees (Doctorate, Master in Science, and Professionalizing Programs) endorse or rectify the decisions of the students admitted to each one of the programs suggested by the Faculty Colleges, the Chapters of Doctors and the Intercollegiate Chapters; they participate in the updating of the policies for each group of programs and establish general guidelines for their implementation where required. If the admissions policies require changes in the current legislation, the CAD will analyze and authorize the new academic regulations and will oversee the compliance with the established procedures.

e. Faculty recruitment and promotion

Faculty recruitment and promotion. In order to recruit, evaluate and grant promotions to full-time faculty members, the INSP must comply with the policies of the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE), which establish the recruitment of Researchers in Medical Sciences (ICM) who are also faculty members as part of their institutional duties. This type of position encompasses teaching, research and service activities. The CCINSHAE issues annual calls for the evaluation of the ICMs of the National Institutes of Health, one of which is the INSP. This program assigns to the ICMs 6 levels of professional accreditation, from "A" to "F", according to the following criteria: professional experience, development and academic degree, scientific publications, and thesis direction, among others. As for the permanence and promotion, the External Commission of Health Research (CEIS), a committee of the CCINSHAE, evaluates the merits of the candidates and determines the corresponding level. A, B and C level ICMs must be evaluated every 3 years, and D, E and F level candidates, every 5 years. Within the INSP, the Directors of the Research Centers propose to the Director General suitable candidates to fill the vacancies in each Center or Office of Academic Affairs. The Director can consult the opinion of the Board of Directors in order to appoint the candidates for the positions. For the last six years, the Federal government, through the National Council for Science and Technology, has assigned by competition the researchers' positions for specific research programs proposed by the established researchers of the INSP, who tutor the candidates appointed to these positions. These positions, known as Chairs, have made it possible to recruit 20 young researchers, who have joined the faculty. Researchers with chairs are jointly evaluated by the tutors and by CONACyT. The Faculty Colleges, Chapters of Doctors and Intercollegiate Chapters define the criteria for assigning the courses to the faculty members by means of the following actions: a call issued in order to identify those faculty members who are interested in teaching the vacant courses, a review of the results of the evaluations of the quality of the faculty by the students, a follow-up of the educational outcomes of the course taught by the faculty member.

f. Research and service activities

Research and service activities. The research and service activities are developed by each Research Center according to the research priorities of the various research lines of the INSP. The service activities are the result of or are associated with the research activities, particularly with the efforts made to translate the research results into healthcare actions and policies, and with the demand of the federal and state authorities and agencies of the healthcare sector and of other sectors related to the public health.

Within the INSP, the Board of Directors takes into account the current research groups of each Center in order to develop the recommendations and guidelines regarding the research areas and research lines. The opinion of key officials of the sectors involved in the public health actions, services and policies, obtained through inquiries, are also considered. Twice a year the Director General/Dean reports to the ultimate governing body of the Institute (the Governing Board) on the performance of the institute in matters of research, teaching, and service. Furthermore, the Director General has appointed an External Counseling Committee, which will meet once every two years in order to evaluate the performance of the institution in terms of research, teaching, and service. Three additional committees are in charge of the evaluation and monitoring of the quality of the ensuing research and service activities. The Research Committee ensures the articulation of the research projects with the institutional policies and strategic goals of the INSP; evaluates the research protocols, their final reports and the ensuing publications, and assesses the byproducts of the research and service activities. In addition, the Ethics and Biosafety Committees evaluate the research protocols of the researchers and students in order to ensure their compliance with the ethical and biosafety criteria.

3) A copy of the bylaws or other policy documents that determine the rights and obligations of administrators, faculty and students in governance of the school.

The INSP, as part of the Ministry of Health of the Federal Government, is governed by a set of regulations that are applicable to other public agencies; they include:

- National Institutes of Health Act

As a decentralized agency of the Federal Government, the INSP is governed by an Organic Statute that describes its structure, attributions and functions.

- Organic Statue of the National Institute of Public Health

A continuación se enumera la normativa que regula la actividad de los órganos colegiados descritos en la tabla A1.1.2.:

- Regulation of the Academic and Teaching Commission
- Regulation of the Academic Research Commission
- Regulation of the Faculty Colleges, Chapters of Doctors, Intercollegiate Chapters, and Faculty
- Regulation Governing the Committee on Continuing Education
- Internal Regulation Governing the Biosafety Commission
- Guidelines of the Committee on Research Ethics of the INSP

La normatividad que establece las políticas y procesos de los programas académicos de posgrado se encuentra en los siguientes reglamentos académicos:

- General Regulation Governing Graduate Studies
- Regulation Governing the Doctoral and Postdoctoral Programs
- Regulation Governing the Graduate Programs with Professional orientation
- Regulation Governing the Master in Science Program
- Regulation Governing the Program for Teaching Performance Incentives

They are available on the electronic resource files.

4) Briefly describe how faculty contribute to decision-making activities in the broader institutional setting, including a sample of faculty memberships and/or leadership positions on committees external to the unit of accreditation.

Not applicable to INSP.

5) Describe how full-time and part-time faculty regularly interact with their colleagues (self-study document) and provide documentation of recent interactions, which may include minutes, attendee lists, etc.

The full- and part-time faculty members interact through ordinary and extraordinary sessions of the Colleges and Chapters of Professors, following these dynamics:

- The Colleges and Chapters of Professors hold ordinary sessions in the last week of every month, and extraordinary sessions are held according to the specific needs of each College.

- The Chapters of Doctors and Intercollegiate Chapters hold ordinary sessions every three months, preferably in the months of March, June, September, and December, according to the annual process for the selection of students, in the last week of each month, and the extraordinary sessions are held according to the specific needs of each Chapter.

- The Intercollegiate Chapters hold sessions according to the calendar established by them; these sessions can be ordinary when they are considered in the calendar, or extraordinary, if unscheduled sessions are required.

Professors who are registered in the Faculty College or in the Chapter and who have tenure, an assistantship or an invitation from an academic unit, and external or part-time professors who are holders of a course participate in these sessions.

They are available on the electronic resource files, a sample of the proceedings and agreements of the faculty colleges:

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has a wide variety of *ad hoc* committees that allow the faculty and the authorities of the INSP to participate in the decisions that govern the academic, research and service activities. The work of the committees is subjected to regulations that allow monitoring and follow-up of the academic activities of the INSP, as well as identification of the committees responsible for each task in order to distribute the functions and responsibilities pertaining to each process.

The Working Group for improving the quality and pertinence of the faculty, mentioned in section 4 of this Criterion carried out a diagnosis of the functioning of the Collegiate Bodies, including the Faculty Colleges and of the Organizations that coordinate the academic programs. According to this diagnosis, although there is a regulation for the functioning of the various collegiate bodies (Faculty Colleges, Chapters of Doctors, Academic and Teaching Commission) and for the organisms in charge of coordinating the programs, the interactions between the collegiate bodies and the coordinating organizations are diverse and in many cases inefficient, generating a large burden on the management of the faculty. For this reason, the raison d'être and the overall role of these organs must be revised, and the regulations that govern their interactions must be updated; it is also necessary to revise the processes and develop strategic and procedural guidelines for the evaluation of these bodies.

The governing body has developed a plan to reduce the academic management burden that impacts the functioning of the collegiate bodies today. The goal is to make changes that may contribute to focalize the actions of the collegiate bodies on those academic issues and decisions that require deliberation. This plan will be presented before the CAD and, subsequently, before the Regulation Improvement Committee of the INSP in order to modify the regulations and achieve an alignment, systematization and automation of the academic management as required.

A2. Multi-Partner Schools (applicable ONLY if functioning as a "collaborative unit" as defined in CEPH procedures)

Not applicable.

A3. Student Engagement

Students have formal methods to participate in policy making and decision making within the school, and the school engages students as members on decision-making bodies whenever appropriate.

1) Describe student participation in policy making and decision making at the school level, including identification of all student members of school committees over the last three years, and student organizations involved in school governance. Schools should focus this discussion on students in public health degree programs.

The students enrolled in the educational programs of the INSP participate actively in the following academic committees: The Academic and Teaching Commission (CAD), the Doctoral Committee, the Master in Science Committee, and the Graduate Committee with Professional Orientation.

The CAD —the most important academic collegiate body of the INSP— includes among its members a students' representative for each of the three types of graduate programs, i.e. programs with professional orientation, the Master in Science, and the Doctorates in Science. The participation of these students is regulated by article 6, section VIII of the Regulations of the CAD. Within this committee, the student representatives participate in the design and supervision of the main policies that govern the academic life of the institution.

In keeping with Article 87, Section V, of the Doctoral Committee Regulations, this Committee —the collegiate body that attends to issues related with doctoral programs— includes among its members, a student of the Doctorate in Public Health Sciences for each concentration area, a student of the Doctor in Population Nutrition Sciences, a student of the Doctorate in Environmental Health Sciences, and a student of the Doctorate in Public Health. The tenure of this post is 2 years. Each student representative has a substitute, who attends the meetings when the appointed student is unable to participate.

The Master in Science Committee —a collegiate body that attends to matters related to the academic activities of the Master in Science— includes, in keeping with Article 43, Section V, of its Regulation, the participation of a student representative of the Master in Science and a substitute. The tenure of this position is two years.

The Committee on Graduate Programs with Professional Orientation includes in its structure the participation of a student representative of these programs throughout the duration of the program in question, in compliance with Article 48. The election of the representative is coordinated by the Public Health Students' Association.

In addition to the participation of the student representatives in the academic committees that determine and regulate the decisions regarding the academic activities of the INSP, the General Regulation Governing Graduate Studies also envisages that the INSP's Students' Association is constituted democratically by active students and on their own initiative, and that regular INSP students can enter this Association by their own decision.

This Association is governed by a Board of Directors elected for the 2018-2019 cycle. It is constituted by student representatives of the various programs of INSP, who are elected each year by simple majority vote by all the students enrolled in the programs. Among other activities, they organize the process of selection of the student representatives who participate in the collegiate bodies described above, and also identify various student issues and suggest actions for their solution with the Academic Dean. Periodical work meetings are held in order to provide the Academic Dean with feedback on student life, build proposals for improvement and strategic plans for the development of new academic projects in order to obtain better professional training through the various programs of the INSP.

Table A.3.1.1. Student members in committees 2016-2019

	2016-2017	2017-2018	2018-2019
CAD	Gabriela Armendariz - MPH Programs	José Antonio Duran de la Cruz (AEESPM)	José Antonio Duran de la Cruz (AEESPM)
	Ricardo Baruch – Doctoral Programs	Jorge Octavio Acosta Montes – Doctoral Programs	Cinthya Ayerim Lucio – Master in Science
Committee on Graduate Studies with Professional Orientation.	Alhelí Calderón Villarreal – Students' Representative	Alhelí Calderón Villarreal – Students' Representative	José Antonio Duran de la Cruz (AEESPM)
Master in Science Committee	Anahi Dreser – Master in Science Programs	Libni Avib Torres Olascoaga – Master in Science Programs	Libni Avib Torres Olascoaga - Master in Science Programs
Doctoral Committee	Antonieta Moreno - Doctorate in Systems	Jorge Octavio Acosta Montes – Doctoral Programs	Antonieta Moreno - Doctoral Programs
	Jorge Octavio Acosta Montes - Doctorate in Environmental Health		
Student Associations	Cynthya Maya Hernández (AEESPM)	José Antonio Duran de la Cruz (AEESPM)	Julián Romero Mónico (AEESPM)

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Student representatives are present in all the committees of the INSP that analyze and regulate the academic processes of the programs, ensuring their participation in the strategic decisions that are made to benefit their academic training. Constant communication between the Office of Academic Affairs and the Public Health Students' Association has been promoted to facilitate joint efforts for the benefit of the student community and of the INSP.

The diversity of formats of the educational programs of the INSP and their location in 3 geographically distant campuses has been a challenge for promoting an agile communication between the students' representatives and the entire student body, as well as with the various committees and areas of the INSP, which demands the creation of mechanisms to ensure the identification of the needs of all the students, particularly those of the Tlalpan and Tapachula campuses. In 2017, the Office of Academic Affairs met with the students of the Tapachula campus, after which concrete actions were undertaken to support the needs and requests of the students.

A4. Autonomy for Schools of Public Health

A school of public health operates at the highest level of organizational status and independence available within the university context. If there are other professional schools in the same university (eg, medicine, nursing, law, etc.), the school of public health shall have the same degree of independence accorded to those professional schools. Independence and status are viewed within the context of institutional policies, procedures and practices.

1) Briefly describe the school's reporting lines up to the institution's chief executive officer. The response may refer to the organizational chart provided in the introduction.

The organizational structure of the INSP is established in its Organic Statute. As mentioned under Criterion A1, the INSP's model differs from traditional models in which academic programs are offered within Universities, where other academic programs are offered by other schools. It is headed by a Director General/Dean, to whom 7 General Adjunct Directors who direct the 6 Research Centers, 1 Service and Technology Transfer Center, the Office of Academic Affairs (SAC) and an Area Director who heads the Office of Administration and Finance (DAF) are accountable. Furthermore, the INSP includes an Office of Internal Control (OIC) that does not answer to the Director General/Dean but which performs oversight and surveillance functions for reporting to agencies of the Federal Government.

The Director General/Dean is directly accountable to the Governing Board. He created the Institutional Program for the period 2017-2022, which was approved by the Governing Body and is the basis for the annual plans. The Academic Dean, who heads the Office of Academic Affairs, and seven adjunct directors who are responsible for the research and service centers report to the Director General/Dean. The Office of Academic Affairs is responsible for Institutional planning, operations and evaluation of all academic activities.

2) Describe the reporting lines and levels of autonomy of other professional schools located in the same institution and identify any differences between the school of public health's reporting lines/level of autonomy and those of other units.

The INSP includes no other professional schools in its structure. The roles and responsibilities of the various academic and administrative units are defined in the Organic Statute and in the Organizational Manual, which inform both the faculty and the administrative staff of the mission, the vision and the organization. The Organic Statute and the Organizational Manual are available the Electronic Resource File.

Like the 12 National Institutes of Health that belong to the Ministry of Health, the INSP has a high level of autonomy for determining its policies and strategic goals in matters of research, teaching and service. Because the INSP is recognized as a higher education institution by the Ministry of Public Education (SEP), it has the autonomy to determine the design and redesign of the graduate programs it implements and is accredited to grant academic degrees in compliance with the statutory guidelines demanded by SEP from all the higher education institutions in Mexico.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The National Institute of Public Health of Mexico is the National Institute of Health with the highest level of autonomy in matters of teaching, as it is the only one that has attained recognition as a higher education institution by the Ministry of Public Education, the ultimate governing body of education in Mexico.

Although the INSP has been recognized as a public higher education institution, unlike the Autonomous Universities of the states of the Mexican Republic and other federal higher education institutions, it does not have the budget for all the activities related to teaching.

We shall advocate with the new Federal Government for additional federal funds for the INSP as a higher education institution in order to finance those expenses that are currently covered with recuperation fees paid by the students. The highest recuperation fees are from foreign students in all programs, which renders us a less appealing option for students from other Latin American countries, for whom the INSP is a benchmark institution. However, it is an advantage that both Mexican and foreign students can obtain a scholarship from CONACyT.

A5. Degree Offerings in Schools of Public Health

A school of public health offers a professional public health master's degree (eg, MPH) in at least three distinct concentrations (as defined by competencies in Criterion D4) and public health doctoral degree programs (academic or professional) in at least two concentrations (as defined by competencies in Criterion D4). A school may offer more degrees or concentrations at either degree level.

1) Affirm that the school offers professional public health master's degree concentrations in at least three areas and public health doctoral degree programs of study in at least two areas. Template Intro-1 may be referenced for this purpose.

The INSP offers 28 graduate educational programs: a Master of Public Health program, with 8 concentration areas, in the in-person format, 2 of which are also offered in the executive format; an online general Master of Public Health program; two specialty programs, a Master in Science with eight concentration areas; two Masters in other areas of health; a Doctorate in Public Health in the executive format; five Doctorates in Science, and a Doctorate in another area of health.

The instructional matrix (Intro-1 Form), included previously in Part 3 of the Introduction to the Self-Study section lists all the programs.

2) An official catalog or bulletin that lists the degrees offered by the school.

The academic program describes the INSP's offer of graduate degrees. It can be accessed on the following link:
http://www.espm.mx/oferta-academica/convocatoria.htmlhttp://www.espm.mx/oferta-academica/685-programa-academico-pdf

B1. Guiding Statements

The school defines a *vision* that describes how the community/world will be different if the school achieves its aims.

The school defines a *mission statement* that identifies what the school will accomplish operationally in its instructional, community engagement and scholarly activities. The mission may also define the school's setting or community and priority population(s).

The school defines *goals* that describe strategies to accomplish the defined mission.

The school defines a statement of *values* that informs stakeholders about its core principles, beliefs and priorities.

1) A one- to three-page document that, at a minimum, presents the school's vision, mission, goals and values.

The National Institute of Public Health (INSP) is a public institution whose actions are guided by its mission, vision, objectives and institutional values, as described below.

Mission
To contribute to social equity and the full realization of the right to health protection through the generation and dissemination of knowledge, top level human resource training, and innovation in multidisciplinary research for the development of evidence-based public policies.

Vision
The National Institute of Public Health is the main research and teaching center, taken as a reference and having high impact in Latin America. The INSP leads in the comprehensive training of the public health workforce and in the generation of knowledge that is required reference material for the formulation, organization and direction of public policies for health.

Institutional Values

Excellence
To strengthen an organizational culture that seeks to fulfill the INSP's mission in order to generate and support the application of knowledge for human resource training, with emphasis on quality and relevance as basic components of excellence.

Responsibility
To promote responsible management, leadership based on example, as well as responsible interaction with the community.

Liberty
To conduct mission-guided research, respecting and preserving creative freedom, cultivating a culture of respect for freedom of intellectual opinion.

Respect
The institutional community will behave in an austere manner and free from ostentation. They will treat people in general with dignity and cordiality, including their co-workers, superiors and subordinates, considering their rights in a way that will favor courteous dialogue and the harmonious application of resources that will lead to understanding, efficacy and the public interest.

Integrity
The INSP community will always act in a way that is consistent with the principles that must be observed in the performance of a job, position, duty or function, agreed upon by everyone's commitment to showing, through the performance of their duty, an ethical conduct that responds to the public interest and involves complete honesty.

Cooperation
Institute members must collaborate with each other and foster teamwork, in order to attain the common objectives foreseen in governmental plans and programs, thus generating full vocation for public service for the common good and promoting citizens' trust in their institutions.

Leadership
The INSP community must be a guide and an example, and promote a code of ethics. It must also encourage and apply, in the performance of its tasks, the principles of the Law and the Constitution, as well as those additional values that are essential in civil service.

Transparency
Timely and clear accountability of institutional activities and use of funds, to all individuals and groups who participate in or are affected by the performance of Institute activities.

Accountability
INSP officials must fully take on responsibility, before society and its authorities, as derived from the practice of their job, position or commission, for which they will inform, explain and justify their decisions and actions and will be subject to a system of penalties, as well as to evaluation and public scrutiny of their functions by the citizenry.

Equity and Justice
To participate in the fight for health equity in Mexico, as well as within INSP and in the institutional interactions with other individuals, groups and institutions. To strengthen the work on equity, with no discrimination by gender, race, economic position, religion or sexual orientation.

Ethics
The INSP will develop its activities with the highest ethical standards of responsibility and integrity, established in a code of honor and ethics whose main purpose is to reinforce those values in the institutional community.

Honesty
To develop all institutional activities with the transparency required by the INSP community, as well as by our funders and the Mexican population.

Social commitment
The INSP community will work with commitment to the population and will develop academic activities to help improve the health of the most vulnerable social groups, thus contributing to the attainment of social equity.

Strategic Action Axes

In the 2017-2022 Strategic Plan, the institutional objectives are grouped into five action axes, from which goals, actions and indicators are defined. What follows is a brief description of each one of the guiding axes, as they are conceived in 2019, and the corresponding objectives are specified.

- **Guiding Axis 1.** Strengthen human resource capabilities and development at INSP

One of the main purposes of the National Institute of Public Health is to preserve and increase the development of high quality research, faced with the urgent need for generational turnover in the next decade through the institutionalization of a mentoring program to support the professional development of researchers who are in the process of consolidation and of those in early stages of their career. This guiding axis considers the diagnosis of the situation of women researchers at INSP, taking into account the development of an exercise to identify the barriers that are responsible for gender inequity and propose support strategies that may be effective so that women researchers can overcome obstacles faced in their professional development.

The objectives of Guiding Axis 1 are the following:

1.1 Integrate support programs for the development and consolidation of the careers of professor-researchers, as well as foreseeing generational turnover.
1.2 Develop actions to increase the staff of professor-researchers to take care of the growing demand for research, teaching and consultancy at INSP.
1.3 Integrate a program for equipment purchases and maintenance.
1.4 Align the incentives that the institution offers the INSP community to favor the harmonious and balanced development of the institution's central function.
1.5 Identify actions and supports that are needed to favor the development of research careers for women.
1.6 Foster a stimulating work environment by promoting greater participation of researchers in institutional life.

- **Guiding Axis 2.** Increase research quality, pertinence and relevance.

The Institute has been successful in raising funds for research projects; however, faced with the Federal Government's budgetary restrictions for 2018-2024, and our Institute's high dependence on external funds to hire support personnel for projects, a structural support program for INSP and its research centers, needs to be developed to find funding opportunities, develop research proposals, as well as for support and consultancy for data analysis for publications that will allow us to increase research quality, pertinence and relevance.

The objectives of Guiding Axis 2 are the following:

2.1 Institutionally support the search for opportunities, the development of high quality and competitive research proposals, as well as publications in scientific journals.
2.2 Search for research funding opportunities in national and international scenarios of funding uncertainty.
2.3 Build capacity at the National Institute of Public health for the development and analysis of national surveys and for the evaluation of programs and policies.
2.4 Increase the pertinence and relevance of research for health systems and society at large2.5 Strengthen scientific communication.
2.6 Support health research and the dissemination of results.
2.7 Promote publishing.
2.8 Support institutional identity and accountability.

- **Guiding Axis 3**. Strengthen training programs for researchers and public health professionals.

The INSP's academic programs answer to the needs and demands of the Health Sector and have as their basis innovative strategies that respond to new challenges in specialized human resource training. One of the INSP's main functions is to educate the new generations of public health researchers and broaden the Institute's participation in academic networks, collaborations and national and international alliances. Teaching is one of the Institute's most valuable assets, and it has helped to maintain accreditation with the National Council of Science and Technology (CONACyT) and the Council on Education for Public Health (CEPH) which positions it as one of the leading institutions in Latin America for human resources development.

The objectives of guiding Axis 3 are the following:

3.1 Raise the quality, relevance and efficiency of the Institute's academic offering.
3.2 Ensure a favorable environment for students, leading to learning and to their active participation.
3.3 Align continuous education with the health system's strategic needs and to innovation in public health research.
3.4 Strengthen the virtual academic and continuous academic programs, as well as the development of massive online and open courses (MOOC).
3.5 Generate our own resources through sales of training services, educational programs and certification programs.
3.6 Create an area of educational innovation, research and consultancy that will be a reference for international health education.
3.7 Consolidate the Research and Training Unit for Quality in Health Systems.

- **Guiding Axis 4. Liaison and Dissemination.**

Due to its relevance and pertinence, research conducted at the National Institute of Public Health requires close linkages to those who are responsible for the design and operation of public policies, programs and services that aim to improve the population's health. The development of these linkages is a substantial part of the actions planned for the PAT (Annual Work Plan). Scientific evidence that is generated by the Institute needs to be disseminated to support the Ministry of Health and other institutions of the Health Sector, as well as decision-makers, in the design of actions for public policy and innovations in the Health Systems, in order to respond to the challenges of national public health.

The objectives of Guiding Axis 4 are the following:

4.1 Create close linkages to the key sectors and actors in the design and operation of health policies and programs.
4.2 Disseminate scientific evidence and recommendations to researchers and decision-makers.
4.3 Increase liaison activities with universities and research centers at the national and global levels.
4.4 Disseminate health information to the general population.

- **Guiding Axis 5. Efficiency in institutional administration and strategic planning.**

To increase administrative efficiency at the National Institute of Public Health, a re-engineering of administrative processes is taking place to guarantee greater synergy between the two large administrative levels, the Office of Administration and Finances (DAF) and the Research Centers. This re-engineering will allow for agile and efficient management of material, financial and human resources according to the current regulations of the Federal Public Administration. These actions will strengthen and increase the efficiency of the Office of Administration and Finances of the Institute, in view of the urgent needs of the Research Centers, for efficiency and the realization of research projects, as well as for all Administrative Units, so they can fulfill the functions for which the Institute was created.

The objectives of Guiding Axis 5 are the following:

5.1 Establish an administrative system that links efficient management of institutional resources with compliance with the federal regulations.
5.2 Revise the DAF structure and functions to identify areas for opportunities to increase its efficiency.
5.3 Take advantage of the benefits of the new guidelines for self-generated fund raising that is suitable for the support of institutional projects.
5.4 Public Works.
5.5 Strengthen an organizational culture based on a vocation for service and community participation in the different processes.
5.6 Favor training and the development of support personnel for research and teaching, and personnel in charge of resource management to reach higher quality and efficiency in administration, as well as greater satisfaction.
5.7 Establish control systems for internal management to monitor fulfillment of institutional goals, as well as feedback processes for decision-making.

2) If applicable, a school-specific strategic plan or other comparable document.

The strategic plan that guides INSP activities is the "2017-2022 Work Program"; this strategic plan is expressed in the annual work program where the strategic objectives, goals and actions are presented in order to fulfill the mission of the National Institute of Public Health and achieve a greater social impact in research as well as in human resource training. The 2017-2022 Program and the annual work programs may be consulted at:
https://www.insp.mx/planeacion-estrategica/programas-institucionales.html

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

B2. Graduation Rates

The school collects and analyzes graduation rate data for each public health degree offered (eg, BS, MPH, MS, PhD, DrPH).

The school achieves graduation rates of 70% or greater for bachelor's and master's degrees and 60% or greater for doctoral degrees.

1) Graduation rate data for each degree in unit of accreditation. See Template B2-1.

Graduation rates are reported for masters in public health, masters in public health sciences, doctorate in public health and doctorate in sciences in Tables B.2.1.1 to B.2.1.5.

Table B.2.1.1. Graduation Rates for Students in the MPH (IN-PERSON) Degree, by Cohorts, Entering Between 2015-2016 and 2018-2019.

	Cohort of Students	2015-16	2016-17	2017-18	2018-19
2015-16	# Students entered	52			
	# Students withdrew, dropped, etc.	0			
	# Students graduated	0			
	Cumulative graduation rate	0%			
2016-17	# Students entered	52	58		
	# Students withdrew, dropped, etc.	0	2		
	# Students graduated	43	0		
	Cumulative graduation rate	83%	0%		
2017-18	# Students entered	9	56	45	
	# Students withdrew, dropped, etc.	1	1	0	
	# Students graduated	8	40	0	
	Cumulative graduation rate	98%	69%	0%	
2018-19	# Students entered	0	15	45	51
	# Students withdrew, dropped, etc.	0	1	0	0
	# Students graduated	0	14	0	0
	Cumulative graduation rate	98%	93%	0%	0%

Notes:
- The school year goes from September to August of each year.
- Maximum time for graduation from the conclusion of program is **2.5 years**.
- Data from 7 concentration areas are included. Graduation rates for the MPH in Vector-Borne Diseases are not included, as this program was not being offered during the reported years. See *Criterion B2 3.*
- Data are reported up to 3/31/2019.

Table B.2.1.2. Graduation Rates for students in the "MPH – Executive and virtual formats" degree, by cohorts enrolled in the program between 2014-15 and 2018-19.

	Cohort of Students	2014-15	2015-16	2016-17	2017-18	2018-19
2014-15	# Students who enrolled	48				
	# Students who withdrew, dropped out, etc.	3				
	# Students who graduated	0				
	Cumulative graduation rate	0%				
2015-16	# Students who enrolled	45	37			
	# Students who withdrew, dropped out, etc.	5	2			
	# Students who graduated	0	0			
	Cumulative graduation rate	0%	0%			
2016-17	# Students who enrolled	40	35	38		
	# Students who withdrew, dropped out, etc.	2	4	5		
	# Students who graduated	20	0	0		
	Cumulative graduation rate	42%	0%	0%		
2017-18	# Students who enrolled	18	31	33	63	
	# Students who withdrew, dropped out, etc.	5	1	3	2	
	# Students who graduated	14	18	3	0	
	Cumulative graduation rate	71%	49%	8%	0%	
2018-19	# Students who enrolled	0	12	27	61	33
	# Students who withdrew, dropped out, etc.	0	0	1	9	0
	# Students who graduated	0	9	6	0	0
	Cumulative graduation rate	71%	73%	24%	0%	0%

Notes:
- The school year goes from September to August of each year.
- The maximum time allowed for graduation from the Master of Public Health s program, in the executive and virtual formats is 3 years.
- Graduation rates are included for the Master of Public Health programs with concentration in Healthcare Administration and Epidemiology (executive format), the Master of Public Health with concentration in Biostatistics (virtual format) and the general Master of Public Health (virtual format).
- Data in the report correspond to 03/31/2019.

Table B.2.1.3. Graduation rates for students in the Master in Public Health Sciences program, by cohorts who enrolled between 2015-16 and 2018-19.

	Cohort of students	2015-16	2016-17	2017-18	2018-19
2015-16	# Students who enrolled	39			
	# Students who withdrew, dropped out, etc.	2			
	# Students who graduated	0			
	Cumulative graduation rate	0%			
2016-17	# Students who enrolled	37	40		
	# Students who withdrew, dropped out, etc.	1	0		
	# Students who graduated	27	0		
	Cumulative graduation rate	69%	0%		
2017-18	# Students who enrolled	9	40	51	

	# Students who withdrew, dropped out, etc.	1	0	6	
	# Students who graduated	6	36	0	
	Cumulative graduation rate	85%	90%	0%	
2018-19	# Students who enrolled	3	4	45	32
	# Students who withdrew, dropped out, etc.	0	0	0	0
	# Students who graduated	2	2	0	0
	Cumulative graduation rate	90%	95%	0%	0%

Note:
- The school year goes from September to August of each year.
- Maximum time for graduation from the conclusion of the program is 2.5 years.
- Includes graduation rates for all concentration areas of the Master of Public Health program.
- Data are reported until 03/31/2019.

Table B.2.1.4. Graduation rates for students in the Doctorate in Public Health, by cohorts who enrolled in 2012-13 and 2018-19.

	Cohort of students	2012-2013	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
2012-13	# Students who enrolled	11						
	# Students who withdrew, dropped out, etc.	0						
	# Students graduated	0						
	Cumulative graduation rate	0%						
2013-14	# Students who enrolled	11	6					
	# Students who withdrew, dropped out, etc.	0	0					
	# Students graduated	0	0					
	Cumulative graduation rate	0%	0%					
2014-15	# Students who enrolled	11	6	4				
	# Students who withdrew, dropped out, etc.	0	1	0				
	# Students graduated	0	0	0				
	Cumulative graduation rate	0%	0%	0%				
2015-16	# Students who enrolled	11	5	4	10			
	# Students who withdrew, dropped out, etc.	0	0	0	0			
	# Students who graduated	7	0	0	0			
	Cumulative graduation rate	64%	0%	0%	0%			
2016-17	# Students who enrolled	4	5	4	10	9		
	# Students who withdrew, dropped out, etc.	1	1	1	2	0		
	# Students who graduated	3	0	0	0	0		
	Cumulative graduation rate	91%	0%	0%	0%	0%		
2017-18	# Students who enrolled	---	4	3	8	9	8	
	# Students who withdrew, dropped out, etc.	---	1	0	0	1	0	
	# Students who graduated	---	3	2	0	0	0	
	Cumulative graduation rate	91%	50%	50%	0%	0%	0%	
2018-19	# Students who enrolled	---	---	1	8	8	8	8

	# Students who withdrew, dropped out, etc.	---	---	0	0	0	0	2
	# Students who graduated	---	---	0	2	0	0	0
	Cumulative graduation rate	91%	50%	50%	20%	0%	0%	0%

Notes:
- The school year goes from September to August of each year.
- Maximum time for graduation in this program is 4.5 years.
- Graduation rates are included for 7 generations since the last CEPH accreditation, in order to offer a historical context of the program. *See Criterion B2.3.*
- Data are reported up to 03/31/2019.

Table B.2.1.5. Graduation rates for students in the Doctorate in Public Health Sciences programs, by cohorts who enrolled between 2013-14 and 2018-19.

	Cohort of students	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
2013-14	# Students who enrolled	22					
	# Students who withdrew, dropped out, etc.	0					
	# Students graduated	0					
	Cumulative graduation rate	0%					
2014-15	# Students who enrolled	22	16				
	# Students who withdrew, dropped out, etc.	1	0				
	# Students who graduated	0	0				
	Cumulative graduation rate	0%	0%				
2015-16	# Students who enrolled	21	16	29			
	# Students who withdrew, dropped out, etc.	1	1	2			
	# Students who graduated	0	0	0			
	Cumulative graduation rate	0%	0%	0%			
2016-17	# Students who enrolled	20	15	11	9		
	# Students who withdrew, dropped out, etc.	0	0	1	0		
	# Students who graduated	9	0	0	0		
	Cumulative graduation rate	41%	0%	0%	0%		
2017-18	# Students who enrolled	11	15	26	22	18	
	# Students who withdrew, dropped out, etc.	0	1	3	1	1	
	# Students who graduated	11	6	0	0	0	
	Cumulative graduation rate	91%	38%	0%	0%	0%	
2018-19	# Students who enrolled	---	8	23	21	17	15
	# Students who withdrew, dropped out, etc.	---	1	1	0	0	0
	# Students who graduated	---	4	0	0	0	0
	Cumulative graduation rate	91%	63%	0%	0%	0%	0%

Notes:
- The school year goes from September to August of each year.
- Maximum time for graduation from the conclusion of program is 4.5 years.
- Graduation rates are included for all 5 Doctorates in Sciences.
- Data are reported until 03/31/2019.

2) Data on doctoral student progression in the format of Template B2-2.

Data of the students' progress in the 6 Doctorates are shown in Table B2.2

Table B2.2. Doctoral Student Data for year 2018-2019.

	DSP	DCEPI	DCSS	DCEI	DCSA	DCNUTP
# Newly admitted in 2018-2019	8	3	3	3	2	4
# Currently enrolled (total) in 2018-2019	33	30	14	8	11	20
# Completed coursework during 2017-2018	27	28	12	6	15	21
# Advanced to candidacy (cumulative) during 2017-2018	7	7	0	0	4	6
# Graduated in 2017-2018	5	4	5	1	3	5

Note:
- Data are reported up to the 2018-2019 period, with cut-off date of 04/17/2019.

3) Explain the data presented above, including identification of factors contributing to any rates that do not meet this criterion's expectations and plans to address these factors.

Monitoring of each student's career path in the INSP's academic program is a comprehensive strategy for enabling the students to obtain their degree within the established time frame. For this purpose, a coordinated effort is carried out among the different academic offices involved in the students' training.

The Office of Academic Affairs, with its different areas, the academic coordinators, the collegiate bodies and the thesis committees work jointly and effectively to permanently monitor the academic trajectory of the students. There is permanent and systematic supervision of their academic and administrative performance, as well as compliance with the program's requirements. These are the assignment of an institutional tutor, the appointment of a thesis committee as required, the development of these products, the proposal of a jury for the degree exam, and the administrative tasks to first defend the protocol and finally present the degree exam. The successful conclusion of the graduate program is thus guaranteed.

Monitoring is carried out through an administrative-school module called Student Monitoring, that is part of the Automated Academic Management Information System (SIGAA) which is a tool used to record and obtain detailed information on the students' academic activity in this graduate program, and identify weaknesses in order to attend to them and provide immediate solutions. The academic coordinator informs the corresponding collegiate body of the students' situation so that together they evaluate and take necessary steps to provide support and ensure their adequate stay in the graduate program. The collegiate bodies meet periodically to monitor the students' performance and comply with the indicators of the degree process.

The INSP considers the students' active participation in its collegiate bodies to be extremely important. In these, they have a say, express their opinions and propose actions that will influence their career path. For this reason, a student representative is a member of the Doctoral Committee, the Master of Science Committee, the Committee on Graduate Programs with Professional Orientation, as well as the Academic and Teaching Commission (CAD). All of the above ensures plurality and legitimacy in decision-making, which in the end will benefit the student community.

The above-mentioned actions have helped us attain a final efficiency of over 70% in **most graduate programs**.

The programs that are under the expected rates are the following:

Master of Public Health (executive and virtual formats)

The executive format has been designed to offer health professionals greater access to carry out in-person graduate studies in public health, considering that they also carry out other work-related activities. This is a weekend graduate program that has the same contents, quality and compliance with academic regulations as the in-person master's programs, but which requires a longer time to fulfill the academic activities.

These are some examples of the flexibility offered to the students by this format:

- The cohort that enrolled in 2016 and is still within the established time period for graduation has requested an extension to defend their theses, in accordance with what is established in the academic regulations.
- In the case of the MPH with a concentration in Epidemiology, three students have requested extensions until August 2019.
- In the MPH with a Healthcare Administration concentration, we have two students who are set to graduate in June and August, 2019. One student has a leave of absence; therefore, according to regulations, she still belongs to the 2016 cohort but joined the 2018 cohort; for this reason, her time period to graduation is longer.

In the case of the virtual format, the Master of Public Health has been designed for students who are working and require distance education for their graduate studies. For this reason, they have a broader calendar in the modules, unlike the other graduate program formats. At present, 9 students are taking the courses defined in their curricular map and are within the time period for graduation. In addition, two students requested a leave of absence, considered in the academic regulations and have joined the 2018 cohort, which lengthened their time period for graduation. Finally, one student is on a leave of absence.

Each of these cases is monitored individually to ensure compliance with the expected time periods and the increase in graduation rates. The effort and timely monitoring of students in the public health masters' programs in the executive and virtual formats will be reflected in the statistics of success during the month of September, when year after year the Graduation Ceremony takes place.

Master of Public Health (in-person format): Concentration in Vector-borne diseases

Graduation rates for the Master of Public Health with concentration in Vector-Borne Diseases, were not reported, since there were no students in this concentration area during the 2015-2019 analyzed period. The decision was made to offer this program every two years because of the existence at this same site of the Master in Sciences in Vector-Borne Diseases. However, in the last years there has been little demand for this program by the students, and there are few teachers with the required professional profile, since their training has a research orientation, and therefore students and teachers are more inclined to go this route. In the last curricular assessment, given the results, we decided to not continue to offer this program until it has been re-designed.

Doctorate in Public Health

The DrPH is a program offered to decision-makers working mainly in public health services, and the challenges they face are due to their status as part-time students, or to the lack of support in their jobs and the risk of losing support from their superiors because of changes in government administrations. The specific profile of the DrPH students also makes them vulnerable to high risk of withdrawal from the program. The graduation rate reported for the 2013 class was 33% as calculated due to taking the maximum validity period established in our graduate regulations. The following table proves that DrPH students have exceeded the graduation deadline stated on the reports that we sent before. The current maximum time period for graduation was 3.5 years. However, note that the average time period needed for graduation is 4.5 years.

Table B.2.3. Historical report of graduation rates for the Doctorate in Public Health.

Class	Average Graduation time (Years)	Number of Students	Number of graduated students	Graduation rate	Withdrew
2008-2011	4.2	9	6	67%	33%
2009-2012	5.0	13	7	54%	46%
2010-2013	4.6	9	7	77%	23%
2011-2014	4.1	7	4	57%	43%
2012-2015	4.4	11	10	91%	9%
2013-2016	4.2	6	2	33%	67%
Average	**4.4**	**55**	**36**	**65%**	**35%**

Therefore, in order to increase the graduation rate of the program, the INSP has implemented the following regulatory, curricular and assessment actions:

1) An amendment to the academic regulation has been approved by the *Doctoral Committee* to extend this period to 4.5 years instead of 3.5 years, and also it was approved by *INSP Regulatory Improvement Committee* as the final step towards official authorization. This modification will result in more accurate and realistic reports that will be reflected in the Self Study Final Version.

2) The DrPH program was redesigned in 2015 and included seminars to support the follow-up and progress of the thesis in a timely manner (Preliminary thesis, Protocol development, Thesis Seminar I, Thesis Seminar II, Thesis I and Thesis II) which are part of the integration component.

3) Reinforcement of the mentoring program. At least two meetings with the student (one of them is in person and the other is online) per semester. The topics of focus include knowing whether the student is facing a personal, academic or employment problem; the mentor has to verify the student's performance and any progress and has to provide orientation regarding various processes. Every meeting has to be consolidated into one report, which has to be uploaded to an online platform. These reports classify the student's performance (Traffic light process). If classified in Red: Requires detailed following; Yellow: the student's performance could be at risk; Green: Everything is on track.

In the case of the 2014-2015 cohort, considering that the time period allowed until graduation is 4.5 years, one of the students will be able to graduate in a timely and adequate manner, which will increase the corresponding graduation rate.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The Chapter of Doctors in Public Health and the Committee on Doctoral Programs carried out a detailed revision and analysis of results for the Doctor in Public Health Program regarding graduation rates, the executive structure of the program and the students' profile as leaders in health institutions. The need to re-design and extend the program's period to graduation from three to 4.5 years was determined. This modification in the time to degree has been reflected in the academic regulations submitted and approved by the INSP's Committee for Internal Regulatory Improvements (COMERI), and published for the academic and student community.

This academic decision has been beneficial for ensuring coherence between the program's executive format, the students' profile and the academic quality. This is an example in which the regulations have been adjusted to accommodate the needs and characteristics of the academic programs, particularly to the formats in which the students enroll in a graduate program on a part-time basis. The process and this collegiate decision have led to a greater strength in the Doctorate in Public Health program, rendering the program more flexible and ensuring high quality academic trajectory and outcomes.

B3. Post-Graduation Outcomes

The school collects and analyzes data on graduates' employment or enrollment in further education post-graduation, for each public health degree offered (eg, BS, MPH, MS, PhD, DrPH).

The school achieves rates of 80% or greater employment or enrollment in further education within the defined time period for each degree.

1) Data on post-graduation outcomes (employment or enrollment in further education) for each degree. See Template B3-1.

The Alumni Academic Stregthening Program (*PROFAE*), includes a description of the employment situation of the graduates from the INSP educational programs. It has a tool that is shared with the graduates so they can keep their data up-to-date and be linked to other graduates or possible employers. This tool can be accessed from any internet browser or within the digital platform of the School of Public Health of Mexico (ESPM) http://www.espm.mx/egresados/registro.html. This allows continued strengthening communication links and the continued presence and identity of the INSP's graduates. In addition, phone calls are made and e-mails are sent to the graduates to collect data about their employment situation.

Below, we show graduates' employment situation, which is classified according to their program.

Table B.3.1.1. Employment situation of the graduates from the Master of Public Health Program.

Results after graduation	July 2012-June 2013	July 2013-June 2014	July 2014-June 2015	July 2015-June 2016	July 2016-June 2017
Employed	107 (94%)	132 (94%)	89 (89%)	87 (88%)	79 (81%)
Continuous education/training (not employed)	0 (0%)	2 (1%)	3 (3%)	3 (3%)	2 (2%)
Chooses not to search for employment or further/complementary education	0 (0%)	0 (0%)	0 (0%)	0(0%)	0 (0%)
Is actively looking for employment or higher education	5 (4%)	6 (4%)	6 (6%)	8 (8%)	17 (17%)
Unknown	2 (2%)	1 (1%)	2 (2%)	1 (1%)	0 (0%)
Total (n=552)	114 (100%)	141 (100%)	100 (100%)	99 (100%)	98 (100%)

Table B.3.1.2. Employment situation of graduates from the Master of Science Program.

Results after graduation	July 2012-June 2013	July 2013-June 2014	July 2014-June 2015	July 2015-June 2016	July 2016-June 2017
Employed	42 (74%)	65 (80%)	45 (92%)	35 (80%)	25 (72%)
Continuous education/training (not employed)	7 (12%)	8 (10%)	1 (2%)	0 (0%)	4 (11%)
Chooses not to search for employment or further/complementary education	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Is actively looking for employment or higher education	5 (9%)	6 (8%)	3 (6%)	9 (20%)	6 (17%)
Unknown	3 (5%)	2 (2%)	0 (0%)	0 (0%)	0 (0%)
Total (n=552)	57 (100%)	81 (100%)	49 (100%)	44 (100%)	35 (100%)

Table B.3.1.3. Employment situation of the graduates from the Doctorate in Public Health Program.

Results after graduation	July 2012-June 2013	July 2013-June 2014	July 2014-June 2015	July 2015-June 2016	July 2016-June 2017
Employed	5 (100%)	4 (100%)	9 (100%)	6 (100%)	9 (100%)
Continuous education/training (not employed)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Chooses not to search for employment or further/complementary education	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Is actively looking for employment or higher education	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total (n=552)	5 (100%)	4 (100%)	9 (100%)	6 (100%)	9 (100%)

Table B.3.1.4. Employment situation of the graduates from the Doctorate in Science Program.

Results after graduation	July 2012-June 2013	July 2013-June 2014	July 2014-June 2015	July 2015-June 2016	July 2016-June 2017
Employed	8 (100%)	17 (100%)	12 (86%)	10 (100%)	12 (92%)
Continuous education/training (not employed)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Chooses not to search for employment or further/complementary education	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Is actively looking for employment or higher education	0 (0%)	0 (0%)	1 (7%)	0 (0%)	1 (8%)
Unknown	0 (0%)	0 (0%)	1 (7%)	0 (0%)	0 (0%)
Total (n=552)	8 (100%)	17 (100%)	14 (100%)	10 (100%)	13 (100%)

Table B.3.1.5. Employment situation of graduates from non-public health programs*.

Results after graduation	July 2012-June 2013	July 2013-June 2014	July 2014-June 2015	July 2015-June 2016	July 2016-June 2017
Employed	15 (88%)	28 (93%)	16 (89%)	19 (90%)	25 (86%)
Continuous education/training (not employed)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Chooses not to search for employment or further/complementary education	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Is actively looking for employment or higher education	2 (12%)	2 (7%)	2 (11%)	2 (10%)	4 (14%)
Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total (n=552)	17 (100%)	30 (100%)	18 (100%)	21 (100%)	29 (100%)

Note:
*****Includes the following programs: Specialty in Preventive Medicine, Specialty in Comprehensive Assessment of Social Development Programs and Policies, Master of Healthcare Quality Management and Master of Clinical Nutrition.

2) Explain the data presented above, including identification of factors contributing to any rates that do not meet this criterion's expectations and plans to address these factors.

Master of Public Health Program

According to the information provided by the graduates from the Master of Public Health program, 552 students graduated between July 2012 and June 2017; 492, i.e. 89.5% of these graduates are currently employed.

Master of Public Health Sciences Program

According to the information provided by the Master of Science graduates, 266 students graduated between July 2012 and June 2017, of whom 212 (79.7%) are currently employed. However, graduates from research-oriented master's level programs have a greater preference for continuing with their studies after graduation than graduates from programs with a professional orientation. Such is the case of 20 graduates who, together with those with employment, add up to 87.2% of the graduate students. Starting in 2018, the Doctoral Committee, together with the program coordinators, are identifying the best students with a research-oriented profile, in order to promote and facilitate their access to doctoral studies by ratifying their master studies and giving continuity to their research projects.

Doctorate in Public Health

The profile criteria for students of the Doctorate in Public Health require that candidates be working in a public health-related scenario. The executive format of the program allows students to continue working throughout their studies; once they graduate they often go back to their work activities full-time. This explains why 100% of the graduates from this program who were evaluated during the June 2012 - July 2017 period were employed.

Doctorate in Public Health Science

According to the information provided by the alumni of the Doctorate in Sciences, 71 students graduated between July 2012 and June 2017, of whom 59 (83.1%) were employed.

Other Non-Public Health Programs

Between July 2012 and June 2017, 115 students graduated from non-public health programs, of whom 103 (89.6%) are currently employed. These programs include: Specialty in Preventive Medicine, Specialty in Comprehensive Assessment of Social Development Programs and Policies, Master of Healthcare Quality Management and Master of Clinical Nutrition.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

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B4. Alumni Perceptions of Curricular Effectiveness

For each public health degree offered, the school collects information on alumni perceptions of their own success in achieving defined competencies and of their ability to apply these competencies in their post-graduation placements.

The school defines qualitative and/or quantitative methods designed to maximize response rates and provide useful information. Data from recent graduates within the last five years are typically most useful, as distal graduates may not have completed the curriculum that is currently offered.

1) Summarize the findings of alumni self-assessment of success in achieving competencies and ability to apply competencies after graduation.

The design process of the syllabi and curricula are in part based on the findings of the data related to the alumni perceptions about curriculum. For example, a review of the Master of Public Health program, in 2016, led to finding new areas of opportunity, such as:

- A need to increase the flexibility of the curricular map in order to have a less school-based program.
- Revision of the syllabi of certain courses in order to ensure the teaching of the common core basics.
- Incorporation of practical exercises during the courses.
- Credit hour adjustment in certain courses.
- Managerial and administrative approach applied to the real working situations.
- Balance between the qualitative and the quantitative approaches.
- Chronological adjustment of the theoretical-practical contents of the Comprehensive Assessment of Population Health I and II courses.

Another recently exercise related to alumni perception was developed in March 2019. A survey was applied to 39 alumni who attended the Congress on Research in Public Health, and, based on the information thus collected, 87.2% of the surveyed alumni were found to be satisfied with the competencies developed by them during the program that they took. The alumni also mentioned that the competencies that they developed during their graduate program, and which they apply in their work setting are, notably: the creation and analysis of databases, the use of statistical methods, research methodology and skills, the design and application of public health interventions, program design and assessment, improvement plan design, team work, the application of quantitative and qualitative methods, the management of health services, teaching, and self-education.

2) Provide full documentation of the methodology and findings from alumni data collection.

Process of design and redesign of curricula

In order to collect all the information possible, the internal and external context integrated and used in the design of the syllabi and curricula are studied and analyzed. The external analysis involves identifying the training needs of public health professionals in the region and in the country, according to the labor market, social and cultural challenges; for this purpose, questionnaires or discussion groups with alumni are utilized to learn about the work demands of their profession, the developed competencies (sufficiency or lacks), and the professional performances achieved by them in the labor market. The information thus obtained is processed and analyzed, and an assessment report is prepared with the findings, which is of use for analyzing and identifying the opportunity areas or the challenges in the training of public health human resources. As evidences of this process, we attach the assessment reports for the updating of the 2011 Master of Science program and the 2016-2017 Master of Public Health program.

New Methodology for collect, analysis and use of Alumni Perceptions of Curricular Effectiveness

Phase 1. Analysis of consistency between the competencies expected to be developed through the academic programs and the competencies achieved.

- The competencies expected to be developed in each academic program will be selected, and the activities planned by the teachers to articulate the knowledge and know-how in the solution of problems, situations or significant cases will be identified.

- Analysis of consistency between what was programmed and what has been achieved in the practice.

Phase 2. Analysis of competencies of the academic programs and their application in the development of work activities.

- Design and implementation of a survey on the follow-up of graduates in order to find out their perception on the implementation of the competences in their field of work.
- Interview with a sample of employers for the purpose of finding out their perception on the competencies of graduates who are incorporated into work.
- Focus groups with graduates will be conducted to deepen the knowledge of the skills they use most or that are most needed in their occupational activities, and their proposals for improving the strategies and situations to facilitate their development through the academic programs will be received.

Phase 3. Integration, processing, analysis and presentation of results in terms of disciplinary and transversal competencies and their contributions to the curriculum and to the actions for enhancing the academic programs.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

In graduate studies, the development of competencies by the students through the various academic programs and courses is essential to the attainment of the graduate profile and is closely linked to the development of cognitive and procedural processes and skills and attitudes for solving problems in real-life situations.

The National Institute of Public Health has developed various actions to perceive and assess the development of disciplinary and transversal competencies by the students and alumni. These actions include, among others, the process of design and redesign of curricula, the views of the student community regarding teachers, and the collegiate bodies who, in their work meetings, review the compliance and consistency of their competencies with the graduate profiles. Although this is a valuable information, which makes it possible to enhance the educational practices, make recommendations to teachers, and improve the courses, it has not been systematized with foundations that allow qualifying and quantifying the progress achieved in the practice.

For this reason, the INSP designed a new methodology that includes a variety of initiatives and research techniques involving alumni and employers. It is expected to yield results by September of this year. Therefore, this criterion, particularly the findings of alumni self-assessment of success in achieving competencies will be updated in the Final Self-study Document.

B5. Defining Evaluation Practices

The school defines appropriate evaluation methods and measures that allow the school to determine its effectiveness in advancing its mission and goals. The evaluation plan is ongoing, systematic and well-documented. The chosen evaluation methods and measures must track the school's progress in 1) advancing the field of public health (addressing instruction, scholarship and service) and 2) promoting student success.

1) Present an evaluation plan that, at a minimum, lists the school's evaluation measures, methods and parties responsible for review. See Template B5-1.

Table B5-1 Evaluation Plan based on key indicators related to instruction, scholarship and service

Evaluation Measures	Data collection method for the measurement	Responsibility for the review
Number of academic programs that maintain or increase their level at PNPC CONACYT* Target 2018: 22 programs Advance 2018: 22 programs	PNPC Assessment and final reports from CONACYT	INSP General Director, Research Centers Directors, Academic Dean, Directors of Planning and Administration /Governing Board/INSP community
Specialization Programs, Master and Doctorate Programs Graduation rates Target 2018: 80.5% Advance 2018: 80.6%	MIR/PNPC Formal registration of graduation processes in SIGAA	Student Services Department, Office of Academic Affairs/Programs Committee/ INSP General Director, Research Centers Directors, Academic Dean, Directors of Planning and Administration.
Percentage of candidates accepted to the graduate programs Target 2018: 34.4% Advance 208: 38.9%	MIR Formal registration to selection process in SIGAA	Student Services Department, Office of Academic Affairs /Academic Program Coordinators/Faculty Colleges/INSP General Director and Research Centers Directors/Governing Board
Percentage of health professionals with complete continuing education at the INSP. Target 2018: 80% Advance 2018: 76.4%	MIR Diploma delivered by the Academic Development and Outreach Sub-directorate	Academic Development and Outreach, Office of Academic Affairs
Percentage of health professionals of high academic quality level Target 2018: 57.6% Advance 2018: 57.4%	MIR Official reports from CCINSHAE and CONACYT Registration in the SIID	Research committee/ / INSP Community
Productivity mean per researcher Target 2018: 1.7 Advance 2018: 1.8	MIR Registration in SIID	Research committee/ INSP General Director and Research Centers Directors /INSP Community
Percentage of articles published in high impact scientific journals Target 2018: 81.4% Advance 2018: 84.4%	MIR Registration in SIID	Research committee/ INSP General Director, Research Centers Directors and Academic Dean / INSP Community

2) Briefly describe how the chosen evaluation methods and measures track the school's progress in advancing the field of public health (including instruction, scholarship and service) and promoting student success.

The evaluation measures and key indicators selected in Criterion B5.1 are those which better describes the academic advance in the field of public health and the academic success of the students, they are included in two complementary assessment systems: The Results Indicators Matrix, and the Mexican Postgraduate Quality Program PNPC.

Result Indicators Matrix

Most of the evaluation methods and measures used by the INSP described in Criterion B5.1. are included in a Outcome Matrix called (MIR) *Results Indicator Matrix* which is an assessment system to evaluate the results of the activities. This system applies to all the institutions from the Federal Government based on a Logic Framework Methodology. The CCINSHAE designs the indicators for all the National Health Institutes such as the INSP that reports every three months the advance of the outcomes that belongs to the goals defined for each year. Access to all the key indicators for the National MIR system can be consulted in the following link: https://www.gob.mx/insalud/acciones-y-programas/consulta-sobre-la-matriz-de-indicadores-para-resultados-mir

The indicator related to the number of high profile health professionals describe the INSP researchers that have been externally evaluated by the Institutional Research System coordinated by the CCINSHAE and by the National System of Researchers (SNI) by CONACYT. Both systems reports the advance and quality of the research activities in faculty. Likewise the indicators of *Productivity mean per researcher* and *Percentage of articles published in high impact scientific journals* track the INSP advancing the field of public health.

The graduation rates for all the INSP graduate programs is another of the measures for assessing the success related to the formative processes of the programs. Also, the evaluation of the percentage of accepted candidates in the programs reports the quality of the admission process and reflects the INSP capacity to attract students with ideal profiles for all the academic offerings.

Indicators and measures related to the PNPC CONACYT

Also, a measure to define the quality of the INSP graduate programs include the admission, the continuity and level of advance at the PNPC category. This measure allows to compare the graduate programs with other universities that offer public health programs in Mexico.

The National Council for Science and Technology (CONACYT) and the Ministry of Public Education (SEP), through the Mexican Postgraduate Quality Program (PNPC), have the goal of reviewing and periodically assessing the quality and relevance of the programs curricula taught at the INSP. The outcome related to the number of academic programs that maintain or increase their level of accreditation at PNPC CONACYT is highly relevant at a national and international level. The model for the PNPC evaluation is of a qualitative-quantitative nature and is based on a flexible approach focusing mainly on the results and the impact of the programs and having a prospective vision. The review and evaluation process is carried out by a committee of peers specialized in the field of public health, based on generic criteria and standards at the national level to account for the relevance and the quality level of programs and good practices identified for the evaluation procedures. There are five main categories and seventeen criteria for Program accreditation at PNPC as described in Table B5.2, that together are useful to monitor the advancement in the field and the individual performance of the students.

Table B5.2. Categories and Criteria for program accreditation at the PNPC CONACYT

	Category 1. Institutional commitment	Category 2. Academic Staff and Structure	Category 3. Students	Category 4. Infrastructure	Category 5. Results and Community Outreach
Criteria	Institutional commitment. Internal system for quality assurance.	Curricula. Teaching and learning Process. Primary Faculty. Research Lines.	Student Admission. Academic Trayectory Monitoring. Student Mobility. Student Dedication to the program.	Space area laboratories and equipment resources. Library and technological resources.	Program importance and coverage. Program effectiveness. Contribution to knowledge in the field. Community Outreach. Funding.

3) Provide evidence of implementation of the plan described in Template B5-1. Evidence may include reports or data summaries prepared for review, minutes of meetings at which results were discussed, etc. Evidence must document examination of progress and impact on both public health as a field and student success.

The advance of the measures designed by the PNPC-CONACYT and the MIR are included in the Biannual Report that is presented to the Governing Board. The summary reports can be consulted on the following link: **https://www.insp.mx/planeacion-estrategica/informes-institucionales.html**., furthermore after each Governing Board session the General Director holds a meeting with all the INSP community to report the level of success and advance in these and/or other related indicators as detailed in the following link: **https://www.insp.mx/avisos/4811-informe-junta-gobierno.html**.

The measures for teaching are discussed in detail in the meetings of the Faculty Colleges, Programs Committees and the periodical sessions that are organized with the General Director, the Research Centers Directors and the Academic Dean.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

B6. Use of Evaluation Data

The school engages in regular, substantive review of all evaluation findings, as well as strategic discussions about the implications of evaluation findings.

The school implements an explicit process for translating evaluation findings into programmatic plans and changes and provides evidence of changes implemented based on evaluation findings.

1) Provide two to four specific examples of programmatic changes undertaken in the last three years based on evaluation results. For each example, describe the specific evaluation finding and the groups or individuals responsible for determining the planned change, as well as identifying the change itself.

At the INSP a process of continuous evaluation is carried out, as explained in the previously described criteria. In addition, its activity is influenced by institutional national or global changes that require new approaches to strategic objectives in order to meet emerging challenges in public health in Mexico.

Some of the programmatic changes in institutional development were generated when the presence of internal or external factors made it necessary to undertake adjustments. One of the significant factors that has intensified institutional assessment and the reappraisal of institutional objectives has been a change of authorities in the INSP and the upcoming closure of the 2012-2018 National Health Plan, as well as the transition to a new National Health Plan for 2018-2024. There are two examples of programmatic changes that have been generated in the last two years (2017-2018).

1. Adjustments in the Annual Work Program 2018 of the INSP.

A strategic analysis of the goals and commitments established in the 2017-2022 Work Plan of the INSP was undertaken, linking the five strategic axes, goals and actions within the framework of the 2013-2018 National Development Plan (PND), according to the commitments of the 2013-2018 Health Sector Program (PROSESA) and considering the progress of the Institute during 2017. The 2017 PAT raised the need to develop proposals to ensure excellence and relevance of research and training of the Institute's human resources, based on the results of the Annual Work Programs assessment from previous years.

With the support of the Steering Group, four working groups were created in order to propose the criteria and processes to be implemented in 2017 for the purpose of attaining the objectives of four important areas on which some elements of diagnosis and recommendations were stated. The groups and areas were:

Mentoring System for Researchers.

I. Evaluation system for managerial positions and permanence and turnover criteria.
II. Working Group for the improvement of the quality and relevance of research.
III. Working Group to improve the quality and relevance of teaching.

The Group IV *Working Group to improve the quality and relevance of teaching*, based on results indicators, PNPC recommendations, 2016 CEPH Criteria, among other sources, addressed issues related to the improvement of the quality and relevance of teaching; the group was composed of teacher-researchers from academic programs of doctorate, master of science and MPH programs, as well as advisors in the area of pedagogy and instructional design of the Office of Academic Affairs. The Group IV assessed and made proposals relating *inter alia* to the identification of strategies to improve the quality and ensure the updating of the programs, didactic units, and teachers.

In the 2019 Annual Work Program the following actions are highlighted:

- The document to strengthen the educational model frame of reference will be validated and published, focused on the renewal of learning situations of the courses in Public Health training.

- There will be a continued effort in instructional training for the professors of the INSP through the *Course planning workshops: renewal of learning situations*.

- The reorganization of the branches and department heads that make up the Office of Academic Affairs will be consolidated in order to ensure their alignment with the structure and function according to the working plan of the Director General, ensuring consistency with the Organic Statute, the recommendations of the Faculty, and the new criteria of accrediting body of the CEPH.

2. Comprehensive Evaluation by the National Council for Science and Technology (CONACyT) of the Doctorate in Environmental Health Sciences program.

In the year 2017, CONACyT assessed the Doctorate in Environmental Health Sciences aiming at its permanence within the Mexican Graduate Quality Program (PNPC). For this purpose, comments and suggestions were submitted in relation to: a) The basic academic core, b) Generation and/or knowledge application guidelines c) Transcendence, coverage and evolution of the program, among others. This institution issued a report through the evaluation committee, which considered that the program should be revised once it has at least one generation of graduates. Therefore, the final opinion was that the program should be evaluated again the following year, in the category of developing countries.

In keeping with this opinion, in 2018 the Doctorate in Environmental Health Sciences program underwent a new evaluation, in which the Office of Academic Affairs in collaboration with the Academic Coordination of the program complied with the recommendations and undertook various actions to develop self-assessment, an instrument that helps setting a better monitoring of the program's quality. An example of this is the fact that the first graduate generation obtained a 100% final efficiency, that is to say, 50% above the established minimum for this indicator: In the same way, there was a restructuring of the curriculum that made it possible to improve the students' mobility, both nationally and abroad.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

C1. Fiscal Resources

The school has financial resources adequate to fulfill its stated mission and goals. Financial support is adequate to sustain all core functions, including offering coursework and other elements necessary to support the full array of degrees and ongoing operations.

1) Describe the school's budget processes, including all sources of funding. This description addresses the following, as applicable:

    a) Briefly describe how the school pays for faculty salaries. If this varies by individual or appointment type, indicate this and provide examples.

The salaries of the full-time faculty of the INSP rated as researchers in medical sciences (ICM) or holding a position within the structural organization are covered by the federal budget received by this institution. The activities of the ICMs include teaching in the INSP programs in which they are involved.

In the case of faculty members who do not have an ICM position or who do not have a budget-based position (i.e. part-time professors), the administrative area of the SAC, in coordination with the DAF, prepares and manages the budget in order to fulfill the teaching activities and meet the goals of the Academic and Continuing Education Programs. The resources for the fees paid to the part-time faculty originate from the students' tuitions or from the revenue from collaboration agreements with other institutions to which the INSP provides educational services.

Moreover, those INSP faculty members who participate in one of the continuing education modalities or in teaching, research and/or dissemination projects outside their working hours will be entitled to an economic incentive in addition to their salary in payment for this activity whenever funds are available for this purpose and as determined by the project leader.

    b) Briefly describe how the school requests and/or obtains additional faculty or staff (additional = not replacements for individuals who left). If multiple models are possible, indicate this and provide examples.

The INSP has the authority to recruit the faculty and administrative staff required to meet the academic needs of the programs. In this sense, it complies with the policies for the recruitment, performance review and assessment of the faculty established by the General Coordination of the National Institutes of Health within the framework of the 2007-2012 National Health Program and the Law for the National Institutes of Health. The INSP also complies with the policies of the Mexican Federal Government regarding non-discrimination and equal opportunities in terms of employment and salary raises for both the faculty and the administrative staff. The process of selection of the researchers who enter the INSP not only is based on the guidelines of the General Coordination of the National Health Institutes but also is under the responsibility of the Research Commission of the INSP, which coordinates this process and is in charge of evaluating the applications. In the case of the faculty who are to teach the subjects of the educational programs, the Faculty Colleges carry out this evaluation.

In order to have the capacity to provide continuing education, professors involved in the development, teaching and coordination of one of the continuing education modalities are recruited predominantly from the Institute's faculty. If INSP professors are unavailable to meet these academic and administrative needs, the SAC has the authority to invite external professors to the Institute; these will have the same rights and obligations as internal professors and as the administrative staff incorporated for specific projects. The salaries of the invited part- or full-time professors will be financed as per the scheme mentioned in section C.1.a. On the other hand, new federal positions can be requested for the administrative staff required to manage specific projects. However, in recent years, the creation of new administrative staff positions has been restricted –even though the request for these is pertinent and justified–, due to a scarcity of budgetary resources; therefore, the INSP has opted for hiring additional staff for specific projects, under temporary contracts, using the revenue generated by the Institute.

c) Describe how the school funds the following:
   a. operational costs (schools define "operational" in their own contexts; definition must be included in response)

The operational costs of the INSP are the operating expenditures that render the daily institutional activities possible. These include payments for basic operation services (water, electricity, telephone, internet, maintenance of physical spaces). These costs are covered by the federal budget received by the INSP.

Additional operating expenditures are included for the operation of academic and continuing education programs, in order to support those academic activities of the faculty, the students and the administrative staff that are embedded in the educational programs. These costs include: instructional design, graphic design, design and publishing of teaching materials and virtual platforms, virtual platform management, programmers, administration and operation of the Office of Academic Affairs, classroom teaching materials, and academic and administrative activities required for the operation of the programs. These operational costs are defined by each academic area of the INSP in its annual budget and are covered with the tuition or with the income from those project agreements that generate additional revenue (continuing education or academic services).

   b. student support, including scholarships, support for student conference travel, support for student activities, etc.

Of the 28 programs offered by the INSP, 22 are accredited by the Mexican Postgraduate Quality Program (PNPC) of the National Council for Science and Technology (CONACyT). All the students enrolled in the PNPC programs receive a monthly grant during their stay at the program in order to support their maintenance and personal expenditures to allow their exclusive, full-time dedication to their studies.

In addition, if these students wish to carry out an academic or research stay in another (national or international) educational institution, they can compete for additional financial support from CONACyT in order to be able to carry out a 1 to 6 month stay in the case of Master's degrees, or a 1 to 12 month stay in the case of Doctorates.

The CONACyT grants for student mobility with international academic stays offer the students a monthly sum of 1,052.63USD[1], which results from adding the national monthly maintenance allowance with a complementary Mobility Grant allowance, as well as a monthly stipend for the purchase of medical insurance and a one-time allowance for transportation expenditures. In the case of the National Mobility Grants for academic stays within Mexico, a single allowance of 10,000.00 MXN (526.00 USD) is offered in addition to the National Grant. The Mobility Grant is crucial support allowing students to carry out stays, both within Mexico and abroad, that will result in better professional training and higher quality dissertations.

In other cases, when the students collaborate in externally funded research projects coordinated by INSP professors, they receive financial support in order to be able to present their academic work at national or international Conferences. In addition, the INSP offers the Continuing Education Program in Public Health and Epidemiology (PASPE) every year and holds an International Congress on Research in Public Health (CONGISP) every two years. Both these events offer discounts in the registration fees in order to promote updating and presentations by the students.

c. faculty development expenses, including travel support. If this varies by individual or appointment type, indicate this and provide examples

The INSP allots surplus resources derived from external projects that generate additional funds for supporting their faculty by covering travel and accommodation expenses, as well as registration fees for external academic events in which the academic programs are promoted, attending work meetings, teaching classes at alternative INSP campuses (Tlalpan and Tapachula), and representing the INSP at academic events.

The Office of Academic Affairs also provides support to professors for this type of expenses when they have participated for free in continuing education activities. No federal funding from the institutional budget is available to cover the expenses of the faculty for complementary activities.

d) In general terms, describe how the school requests and/or obtains additional funds for operational costs, student support and faculty development expenses.

The additional funds that are not part of the federal budget allotted each year to the INSP as one of the National Institutes of Health, are obtained by generating revenue and by obtaining external funds from specific projects related to academic service activities.

Internal funds. These are all the funds generated by the academic activities of the INSP, specifically those originated from tuition and academic paperwork for the educational programs taught at the three campuses of the Institute.

[1] USD/MXN = 19.00

External funds. These result from collaboration agreements and contracts for the provision of services for the conduction of academic activities, such as continuing education, consulting, and educational programs at venues outside the INSP. These agreements are made with government agencies, entities or states. The allocation of resources received from these projects is specified by the departments conducting the work, according to the needs they deem necessary for a satisfactory fulfillment of the projects. Overhead costs are calculated into the revenues allotted for the activities they involve. In addition, collaboration agreements for funding research projects are established with external sources of funding, both national (e.g. CONACyT, SSA) and international (e.g. WHO, PAHO), as a result of the involvement of the faculty in calls to compete for these funds or of specific requests to the funding bodies. Finally, the INSP provides external institutions with a great variety of public health services, as it is one of the major institutions that generate health assessments at a large scale, such as the national health surveys of the evaluation of health programs at a local and national level, as well as specialized advising to other national and international health organizations. Any surplus from these projects is used to cover expenditures to support faculty members and students, as well as to support expenditures on the academic, research, and service development of the INSP.

e) Explain how tuition and fees paid by students are returned to the school. If the school receives a share rather than the full amount, explain, in general terms, how the share returned is determined. If the school's funding is allocated in a way that does not bear a relationship to tuition and fees generated, indicate this and explain.

A 100% of tuition and fees go back to the INSP. In addition, the funds obtained from agreements or contracts whereby the INSP offers graduate or continuing education programs to other institutions are allocated for the operation of the Academic Program through payment to professors (when they collaborate in online programs or outside the institutionally established working hours, or when they are external to the institution), for the staff participating in the instructional design, graphic design, programmers, publishers, operations coordinators, administrative staff, teaching materials, academic and team-building events organized for the students in order to encourage students' international mobility, for transportation to academic sessions or activities outside the Institute, and for other operating expenditures required for fulfilling academic activities.

The recovery and administration of these funds is coordinated by the Office of Academic Affairs, and they are invested in activities of the school.

f) Explain how indirect costs associated with grants and contracts are returned to the school and/or individual faculty members. If the school and its faculty do not receive funding through this mechanism, explain.

The indirect costs associated with grants and contracts are applied to the maintenance of the laboratories, classrooms, researchers' cubicles and common areas at the INSP. These funds also serve to hire additional support staff for the area that administrates projects with third-party resources and is responsible for managing the received resources, as well as to pay for memberships and activities related to the process of accreditation by CEPH.

Furthermore, third-party funds may be used to grant financial support to researchers who manage or participate in research projects.

If the school is a multi-partner unit sponsored by two or more universities (as defined in Criterion A2), the responses must make clear the financial contributions of each sponsoring university to the overall school budget. The description must explain how tuition and other income is shared, including indirect cost returns for research generated by the school of public health faculty appointed at any institution.

This criterion does not apply to the INSP.

2) A clearly formulated school budget statement in the format of Template C1-1, showing sources of all available funds and expenditures by major categories, for the last five years.

Table C1.1. Budget* of the INSP for the 2013-2018 period.
*** Figures in USD (Exchange rate: 19.37 MXN = 1 USD). Source: Banco de México (Bank of Mexico), Date: 29/03/2019).**

	2013	2014	2015	2016	2017	2018
Funding sources						
Tuitions and fees	336,210.6	581,342.3	661,362.9	723,701.6	669,778.0	678,280.8
Contribution by the Government	21,857,733.6	20,501,822.4	21,574,728.9	25,769,994.8	22,353,267.9	26,203,784.2
College Funds	0.0	0.0	0.0	0.0	0.0	0.0
Grants /Contracts	3,908,905.5	3,758,699.0	3,352,571	4,082,199.3	3,804,016.5	3,953,686.1
Overhead	0.0	0.0	0.0	0.0	0.0	0.0
Endowment	0.0	0.0	0.0	0.0	0.0	0.0
Donations	0.0	0.0	0.0	0.0	0.0	0.0
Other (Explain) Third-party funds (1)	8,754,558.6	8,812,209.6	10,179,984.5	9,764,682.5	9,476,396.5	9,657,547.8
Other (Explain) Grant funds	83,040.8	106,112.5	85,596.3	178,477.0	103,206.0	31,115.1
Other (Explain)	0.0	0.0	0.0	0.0	0.0	0.0
Total	39,940,449.1	33,760,185.9	35,854,243.7	40,519,055.2	36,406,664.9	40,524,414.0
Expenditures						
Salaries and benefits of the faculty	15,099,432.1	16,122,101.2	16,951,440.4	18,102,478.1	18,208,544.1	18,988,033.0
Salaries and benefits of the staff	2,310,247.8	930,898.3	1,084,812.4	1,380,856.6	1,236,071.2	2,009,097.2
Operations (2)	15,003,815.2	14,695,875.1	15,420,749.8	19,575,958.9	15,569,594.4	18,016,180.7
Travel allowance	841,739.8	737,041.8	332,787.8	989,174.7	720,341.9	974,522.6
Student support	83,040.8	114,088.8	85,596.3	187,421.4	109,919.3	39,635.6
College tax	0.0	0.0	0.0	0.0	0.0	0.0
Other (explain) E.g. Investment (3)	2,700,815.7	635,302.0	471.581.7	192,054.4	498,682.8	496,944.8
Other (explain)	0.0	0.0	0.0	0.0	0.0	0.0
Other (explain)	0.0	0.0	0.0	0.0	0.0	0.0
Total	36,039,091.4	33,235,307.2	34,346,968.4	40,427,944.1	36,343,153.7	40,524,413.8

Key notes:
1) Third-party funds are the funds made available to Decentralized Organizations by national or foreign individuals or legal persons (public or private entities) for financing research projects and which may or may not have been obtained, or disposal of which may or may not have been promoted by researchers.
2) Allocated primarily for maintenance, basic services, consulting, and leases required by the institutional operation and by the operation of the projects.
3) Acquisition of furniture and equipment, audiovisuals and laboratory equipment, construction of a nutrition laboratory, and maintenance of apartment buildings for the researchers.
2014 Acquisition of transportation, computer and laboratory equipment and guardhouse.
2015 Acquisition of an emergency plant, laboratory equipment and IT assets.
2016 Acquisition of computer equipment, laboratory equipment, and machinery.
2017 Acquisition of computer equipment, laboratory equipment.
2018 Acquisition of computer, laboratory and administrative equipment.

If the school is a multi-partner unit sponsored by two or more universities (as defined in Criterion A2), the budget statement must make clear the financial contributions of each sponsoring university to the overall school budget.

This criterion does not apply to the INSP.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

One of the major challenges of the INSP in recent years has been the budgetary reduction of federal funds. Despite the financial restriction of federal funds, the INSP has succeeded in meeting its needs in terms of payment of human resources (faculty and administrative staff) thanks to the great variety of collaboration agreements and to its offer of services to external institutions.

On the other hand, research at the INSP has several sources of funding thanks to the management by researchers and to the obtainment of external funds, both national and international, for developing research projects.

A great benefit for the funding of the students' tuition and living expenses is that most full-time postgraduate programs are accredited in the PNPC-CONACyT (22/28), and, therefore, the students have the possibility to request grants that will allow them to devote themselves exclusively to their training and to compete for additional funding in order to achieve external academic mobility.

A weakness is the inexistence of a Federal Budget to support complementary academic activities (attendance to conferences, travel and housing expenditures for field work by the students and the faculty, etc.), the development of which depends on the generation of service projects that can change year after year.

C2. Faculty Resources

The school has adequate faculty, including primary instructional faculty and non-primary instructional faculty, to fulfill its stated mission and goals. This support is adequate to sustain all core functions, including offering coursework and advising students. The stability of resources is a factor in evaluating resource adequacy.

Students' access to a range of intellectual perspectives and to breadth of thought in their chosen fields of study is an important component of quality, as is faculty access to colleagues with shared interests and expertise.

All identified faculty must have regular instructional responsibility in the area. Individuals who perform research in a given area but do not have some regular expectations for instruction cannot serve as one of the three to five listed members.

1) A table demonstrating the adequacy of the school's instructional faculty resources in the format of Template C2-1.

Table C2.1.1. Adequacy of the school's instructional faculty (2019).

Concentration	Master's Degree			Doctorate	Faculty Complement
	PIF 1	PIF 2	Faculty Members 3	PIF 4	
EPIDEMIOLOGY	Elsa Yunes 1.0	Ana Burguete 1.0	Manuel Palacios 1.0	Eduardo Salazar 1.0	PIF: 29 No-DIP: 3
MPH					
MPH, Executive					
MSc					
DSc					
BIOSTATISTICS	Lina Palacio 1.0	Martín Romero 1.0	Edgar Leonel 1.0	NA	PIF: 15 No-DIP: 4
MPH					
MPH, Distance					
MSc					
NUTRITION	Verónica Mundo 1.0	Armando García 1.0	Otilia Perichart 0.5	Mario Flores 1.0	PIF: 36 Non- PIF: 14
MPH					
MSc					
DSc					
Clinical Nutrition					
ENVIRONMENTAL HEALTH	Albino Barraza 1.0	Leticia Hernández 1.0	Margarita Sánchez 1.0	Horacio Riojas 1.0	PIF: 12 Non- PIF: 4

MPH					
MSc					
DSc					
INFECTIOUS DISEASES	Elizabeth Ferreira 1.0	Miguel Sánchez 1.0	Leticia Ferreyra 1.0	Carmen Rodríguez 1.0	PIF: 34 Non- PIF: 2
MPH					
MSc					
DSc					
VECTOR-BORNE DISEASES	Teresa López 1.0	Jorge Torres 1.0	Rogelio Danis 1.0	NA	PIF: 11 Non- PIF: 2
MPH					
MSc					
SOCIAL AND BEHAVIORAL SCIENCES	Margarita Márquez 1.0	Sandra Treviño 1.0	Rosibel Rodríguez 1.0	NA	PIF: 10 Non- PIF: 0
MPH					
HEALTH SYSTEMS	Jacqueline Alcalde 1.0	Emanuel Orozco 1.0	Alma Lucila 1.0	Hortensia Reyes 1.0	PIF: 23 Non-PIF: 1
MPH -Administration					
MPH -Administration, Executive					
MSc					
DSc					
HEALTH ECONOMY	Sandra Sosa 1.0	Arantxa Colchero 1.0	Itza Tlaloc Quetzalcóatl López 0.5	NA	PIF: 4 Non- PIF: 0
MSc					
HEALTHCARE QUALITY	Pedro Saturno Hernández 1.0	Jesús Vértiz 1.0	Sergio Flores 1.0	Ofelia Poblano 1.0	PIF: 5 Non- PIF: 21
Master's in Health Services Management, Distance					
Doctorate in Quality, Distance					
PUBLIC HEALTH	Rosaura Atrisco Olivos 1.0	Aurelio Cruz Valdez 1.0	Víctor Manuel Becerril Montekio 1.0	Lorena Elizabeth Castillo Castillo 1.0	PIF: 15 Non- PIF: 15
MPH, Distance					

	DPH					

Concentration	Specialty			Faculty Complement
	PIF 1	**PIF 2**	**Faculty 3**	
PREVENTIVE MEDICINE	Janet Real Ramírez 1.0	Manuel Palacios 1.0	Roxana Trejo González 0.5	PIF: 9 Non- PIF: 5
Specialty in Preventive Medicine				
PROGRAM EVALUATION	María Cecilia González Robledo 1.0	Emanuel Orozco 1.0	Juan Pablo Gutiérrez Reyes 0.5	PIF:1 Non- PIF: 1
Specialty in Integral Program Evaluation and Social Development Policies, Distance				

Table C2.1.2. Total faculty represented in Table C2.1.1.

Faculty	Total
Appointed PIF	42
Total PIF	225*
Non-PIF	70

*Key: Table C2.1.1. reports all the faculty that collaborates in the 28 educational programs of the INSP, including the public health programs as well as the non-public health programs. The total of PIF is **225**, from which 21 of those collaborate in 2 programs due to their academic profiles and professional experience assessed as pertinent to contribute in multiple concentration areas.

2) All primary instructional faculty, by definition, are allocated 1.0 FTE. Schools must explain the method for calculating FTE for any non-primary instructional faculty presented in C2-1.

All the INSP faculty listed in Table C2.1.1 participate in teaching and research activities and have been allocated an FTE of 1.0 because they work full-time. The primary instructional faculty are qualified to participate in teaching activities and provide advice in the specific concentration area due to their research experience or to their ample knowledge in the field of public health. The non-primary instructional faculty are faculty external to the INSP or staff whose core function is not teaching at the INSP. They are extremely important for the incorporation of practical applications to the curriculum and for providing the students with knowledge in their specialization areas; by definition, they are allocated 0.5 or .25, according to the number of courses taught per semester.

The formula for calculating the work effort (FTE) of each faculty member is as follows:

Primary Instruccional Faculty:
a. Professors/researchers with full-time positions = 1 FTE

Non-primary Faculty (those without a permanent position):
b. Half-time (those who teach more than 2 courses per semester) = .5 FTE
c. Part-time (those who teach less than 1 course per semester) = .25 FTE

3) If applicable, provide a narrative explanation that supplements reviewers' understanding of data in the templates.

Because the INSP belongs to the Ministry of Health, it classifies its faculty according to the same procedures as the other 10 National Institutes of Health. The designations are based on the institutional research model, and the faculty consists of appointed professor-researchers with ICM levels ranging from A to F, as by the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE), which is in charge of coordinating all the activities of the National Institutes of Health and serves as a link between the Ministry of Health and the institutes. This coordination provides the regulatory framework for the academic appointments at the INSP.

The INSP, as mentioned in the previous criteria, is a higher education institution accredited by the SEP; however, its configuration does not correspond with the traditional university model. Therefore, the range of professions and the classification of its faculty are very different from those of US universities.

Faculty members with ICM levels C, D, E and F participate in teaching activities as course instructors or thesis supervisors. Some faculty members also perform management functions in the educational programs, including the coordination of academic programs, faculty committees or faculty colleges. In addition, they are expected to engage in high quality research and to compete for research projects. Furthermore, faculty members with ICM levels C, D E and F work as tenured professors of courses and are responsible for the planning and development of the courses they teach, for evaluating the students, and for teaching most of the topics of the course.

Faculty members with ICM levels A and B provide support to the tenured professors in the design and evaluation of the course and teach less than 50% of the course, in coordination with the tenured professor.

The non-primary instructional faculty do not have an appointment as professors or researchers at the INSP. This category includes those professors who work at public health organizations or who belong to the faculty of other universities. The former contribute their knowledge of the applications of public health, in order to prepare program students for the practice in this field; the latter teach courses together with INSP faculty members, and contribute their experience in specific areas.

4) Data on the following for the most recent year in the format of Template C2-2. See Template C2-2 for additional definitions and parameters.

    a. Advising ratios (faculty and, if applicable, staff) by degree level (bachelor's, master's, doctoral), as well as the maximum and minimum. If both faculty and staff advise, present and calculate both ratios

Table C2.4.1 refers to the advising directors of the Master's and doctoral public health programs at the INSP. The students are also assigned academic tutors who will support the orientation and monitoring of their academic trajectory from the time of their entry to the end of the postgraduate course.

Table C2.4.1. Advising ratios by degree.

Degree	Average	Minimum	Maximum
Master's	2.43	1	10
Doctorate	2.22	1	5

b. If applicable, average number of baccalaureate students supervised in a cumulative or experiential activity

This criterion does not apply for the INSP because it does not offer bachelor's programs.

c. Average number of MPH students supervised in an integrative learning experience (as defined in Criterion D7), as well as the maximum and minimum

Table C2.4.2. Advising ratios of MPH empirical learning activities.

Average per faculty member	Minimum	Maximum
3.40 students	1	6

d. Average number of DrPH students advised, as well as the maximum and minimum

Table C2.4.3. Advising ratio in DrPH integrating learning experience.

Average per faculty member	Minimum	Maximum
2.25 students	1	4

e. Average number of PhD students advised, as well as the maximum and minimum

Table C2.4.4. Advising ratio of the Doctorate in Sciences.

Average per faculty member	Minimum	Maximum
2.08 students	1	4

f. Average number of academic public health master's students advised, as well as the maximum and minimum

Table C2.4.5. Advising ratio of the Master's in Sciences.

Average per faculty member	Minimum	Maximum
2.00 students	1	7

5) Quantitative data on student perceptions of the following for the most recent year. Schools should only present data on public health degrees and concentrations.

   a. Class size and its relation to quality of learning (eg, The class size was conducive to my learning)

Within the framework of the 2019 Congress on Research in Public Health, a survey was applied to a sample of students, consisting of 25 Master's in Public Health students, 16 Master's in Sciences students, and 8 students of the Doctorate in Public Health and the Doctorate in Sciences. This survey addressed the topic of the students' perception regarding the group size and its relationship with the quality of learning and the availability of faculty, according to a 5-point Likert scale. The results were the following:

78% of the surveyed students expressed satisfaction or relative satisfaction with the group size; they consider that this was adequate for the development of the courses.

- Master's in Public Health 56%
- Master's in Sciences 100%
- Doctorate in Sciences and Doctorate in Public Health 100%

b. Availability of faculty (ie, Likert scale of 1-5, with 5 as very satisfied)

83.6 % of the surveyed students expressed satisfaction or relative satisfaction with the number of professors who participated in the development of the courses.

- Master's in Public Health 76%
- Master's in Sciences 88%
- Doctorate in Sciences and Doctorate in Public Health 100%

6) Qualitative data on student perceptions of class size and availability of faculty. Only present data on public health degrees and concentrations.

The September 2017 – February 2018 teacher evaluation by the common core students of the Master's in Public Health identified the following in relation to the number of members of a group that make up the course:

The students of the Biostatistics concentration area pointed out that the group size interferes with the understanding of the topics; as for the students of the Social and Behavioral Sciences area, they expressed that, because the group is large, it is difficult to pay adequate attention to student presentations. The students of the Epidemiology concentration area mentioned that the size of the group, which is large, made the learning, the participation, and the development of the class difficult. The opinions collected from the abovementioned courses correspond to the common core of the Master in Public Health program, in which the students of all the different concentration areas are grouped together.

On the other hand, in the February-July 2018 evaluation, four MPH students of the Social and Behavioral Sciences concentration area pointed out that the size of the group limited participation and the development of the activities.

Furthermore, according to the results obtained from the survey applied to a sample of 49 students in the course of the 2019 Congress on Research in Public Health, qualitative results on the students' perceptions regarding the group size and the relationship with the quality of learning, in courses such as: Epidemiology and Biostatistics, Qualitative Methods, Advanced Epidemiology, and Comprehensive Diagnosis of Public Health, students expressed that the group was too large, so that communication, discussion, participation, the posing of questions and the clearing of doubts were difficult.

As for the availability of faculty, the number of professors was found to be adequate; it was also pointed out that in certain courses it would be desirable to have the participation of more guest professors, and that the faculty must be proportional to the number of students.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has a highly rated faculty in terms of its size and its multidisciplinary nature, as well as of the academic background of its members, their specialization and research areas, and their practical experience. They are capable fully supporting the institution in the fulfillment of its mission, aims and goals. An objective, well-defined accreditation process is implemented through an internal and external evaluation system.

The total primary and non-primary instructional faculties are sufficient to teach the public health program; this agrees with the students' perception. Furthermore, there is sufficient availability of faculty to supervise the advising and integrative learning experiences offered by the Master in Public Health and the Doctorate in Public Health programs, in addition to the final projects of the students of the Master's and Doctorate in Sciences.

The students' perception regarding their level of satisfaction with the class size has been identified, and in the case of the courses of the common core of certain programs –particularly of the MPH, given that all the students take common subjects–, the size of the group is large and makes learning difficult. Together with the Faculty Colleges, the INSP will seek to promote learning strategies to improve the teaching methodology of the common core units.

C3. Staff and Other Personnel Resources

The school has staff and other personnel adequate to fulfill its stated mission and goals. The stability of resources is a factor in evaluating resource adequacy.

1) A table defining the number of the school's staff support for the year in which the site visit will take place by role or function in the format of Template C3-1. Designate any staff resources that are shared with other units outside the unit of accreditation.

Table C.3.1. INSP support staff (2019).

Role/function	General Directorate	CISEI	CISP	CISS	CINYS	SAC	CENIDSP	CIEE	DAF	PLANNING	OIC	TOTAL
Administrative support	9	51	28	12	12	47	26	22	116	3	12	338
Academic management support and research technician	0	3	12	5	3	8	0	10	1	0	0	42
Coordinators of the Academic, Research and Service Management areas and Programs	0	14	15	9	8	15	7	9	11	1	0	89
Laboratory Support Staff	0	43	9	0	1	0	0	0	0	0	0	53
Field work support staff (research and services)	0	29	6	0	4	0	1	1	0	0	0	41
Rodent breeder colony management support staff	0	5	0	0	0	0	0	0	0	0	0	5
Directors and Sub-Director of Research Centers, Academic Dean and Academic-Administrative Management Areas	1	7	5	5	3	5	5	6	4	1	3	45
Sub-total	10	152	75	31	31	75	39	48	132	5	15	613

2) Provide a narrative description, which may be supported by data if applicable, of the contributions of other personnel.

Table C.3.1 identifies the 613 members of the governing board and the administrative and management support personnel who are part of the staff supporting the development of the instructional, research and service tasks of the INSP, organized by areas.

Most of the staff (75 individuals) who provide support directly to the students and to the faculty of the educational programs of the INSP are located at the Office of Academic Affairs (SAC). The staff appointed for performing functions in order to carry out the management of the student's and faculty's processes is organized as three sub-directorates of the SAC: Academic Management, Academic Quality, and Academic Development and Outreach.

The Sub-Directorate of Academic Management is in charge of coordinating the school's processes of the students and the faculty, with the aid of the Department of School Services, which is responsible for the academic follow-up of the students, of their academic files, their academic trajectories from the selection process through enrollment and graduation, as well as the record of their grades and of the management of the classrooms, spaces and schedules for carrying out the academic activities. It also has the support of the *School Management Department*, responsible for registering the educational programs with the Ministry of Public Education and for monitoring the faculty, as well as for coordinating the accreditation of the programs before CONACyT and managing the grants allocated by this organization. In addition, the Academic Management Sub-Directorate aids the collegiate bodies that make decisions regarding the academic activities for the operation and regulation of educational problems, receives the students' complaints, and monitors the response to these.

The Sub-Directorate of Academic Quality is responsible for the academic oversight of the teaching and learning processes of the programs, as well as of the design and periodical update of new educational programs, including educational advising to the faculty and assessment of the students' performance for the continuing improvement of educational processes. The *Department of Faculty Training and Evaluation*, which manages training actions and the teacher evaluation carried out by the students at the end of every school cycle; the *Department of Educational Orientation*, which manages psychopedagogical support , academic tutoring, and orientation for the stays and the academic mobility of students and program teachers outside the INSP, and welcomes the guest students and teachers, and the *Department of Curriculum Development*, which is in charge of providing advice for the instructional design of the virtual postgraduate programs, as well as of monitoring the curriculum design processes of the various programs, all report to this Sub-Directorate.

The *Sub-Directorate of Development and Academic Outreach* integrates the staff in charge of designing, managing and coordinating the educational offer of the online and continuing education programs of the INSP, as well as the special projects educational services and collaborations with institutions in the training of the public health workforce.

The *Office of Community and Professional Practice* supports the students and the faculty in implementing and monitoring the practicum activities of the Master in Public Health programs.

In addition, each of the Research Centers of the INSP has staff for supporting the instructional, research and service duties of the researchers attached to each unit, who facilitate the operation and oversight of various activities (Table C3.1).

Besides the permanent staff of the INSP, described in criterion C.3.1, temporary staff for services or research projects is hired and funded with the revenues obtained from student registration fees. This temporary staff helps carry out administrative, management activities or provides instructional, research or services support. Their activities are defined by monthly periods and are directed to meeting specific goals. Examples of this are the hiring of temporary technical and administrative staff for the application of the National Health Surveys, instructional designers for the development and operation of continuing education courses, and administrative support (logistics, project management, technical analyses, liaison between sectors) for the fulfillment of tasks related to academic and research projects and services at the Research Centers.

Another example of temporary staff is the incorporation of students into the programs of the INSP as research project assistants and into support services for researchers and faculty. Most of the students of the INSP receive a grant from CONACyT that allows then to work at the INSP while they are taking their academic program. Their support activities must not exceed 8 hours a week.

Furthermore, students of the Master in Sciences and of the Doctorate in Science programs must engage in instructional activities as part of their academic training: they must complete 10 hours of teaching in the Master in Science program, and 40 hours of teaching in the Doctorate in Science. They can serve as assistant professors, guest professors, or group instructors (Regulation for the Program of Master's in Sciences and Doctorate). These activities allow them to develop professional skills and teaching competencies in their training, as well as to contribute to the fulfillment of the mission of the INSP.

The INSP also receive bachelor's students in the fields of health and education from other public universities seeking to comply with their social service requirements (of participation in professional support, mandatory for all the bachelor's students after they conclude their programs in Mexico), consisting of 480 hours of volunteer work, during which they usually assist researchers in the fulfillment of research project tasks and services.

More recently, the INSP has been registered as an academic institution of the Federal Government's "Youth building the future" program, whose purpose is to provide young people aged 18 to 29 years with an opportunity to develop key skills that may increase the likelihood of their obtaining a stable job. To the present date, more than ten young people have been incorporated into the scientific and administrative activities of the Institute, and this figure will increase. Young people involved in the program receive a monthly financial support for a one year period from the Federal Government.

3) Provide narrative and/or data that support the assertion that the school's staff and other personnel support is sufficient or not sufficient.

The INSP has sufficient, well-organized managerial and administrative staff for the fulfillment of its mission and its established goals. The main function of this staff is to generate the conditions of administration, operation, management, and technical support for the multidisciplinary activity of the Research Centers and their interaction with the Office of Academic Affairs (SAC), to ensure the successful development of the instructional, research and service activities. The organizational structure is sufficient to meet the operative needs and it facilitates communication between the academic actors and the collegiate bodies, favoring cooperation and collaboration for the ultimate purpose of attaining academic excellence. Whenever the INSP engages in projects at a national scale or in service and continuing education programs, it must hire additional staff.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The staff of the INSP is well organized in all the areas and sufficient to support the instructional, research and service tasks for the fulfillment of its institutional mission. The incorporation of temporary staff in order to support the specific needs of projects funded with self-generated revenue has enabled the growth and strengthening of essential actions for the INSP, such as the development and application of the national health surveys.

The reduction of public funding for the allocation of job positions assigned to the staff in all public institutions has limited the possibility to develop stable professional careers for the support staff. In recent years, the government has implemented restrictions for the hiring of temporary staff, rendering the fulfillment of services and continuing education projects on a large scale difficult.

In order to continue to hire temporary staff for its tasks, the INSP seeks administrative and management strategies to use self-generated revenue for payment of the salaries of temporary staff while complying with the new national guidelines for the hiring of the technical staff required by specific projects of importance to the school.

C4. Physical Resources

The school has physical resources adequate to fulfill its stated mission and goals and to support instructional schools. Physical resources include faculty and staff office space, classroom space, student shared space and laboratories, as applicable.

1) Briefly describe, with data as applicable, the following. (Note: square footage is not required unless specifically relevant to the school's narrative.)

The INSP carries out its activities and runs 28 educational programs at three campuses situated in Cuernavaca, Morelos; Mexico City, and Tapachula, Chiapas. These cover a total area of 76 000 m², with 47 667 m² of interior space.

- Faculty office space

Most of the academic programs offered by the Institute are conducted in its headquarters, located in Cuernavaca, Morelos. Spanning a total of 56 000 m² (approximately 12 acres). It accommodates 148 cubicles for faculty and three apartment buildings for faculty and a parking lot for 270 vehicles.

With a total area of 11 000 m², the Mexico City campus encompasses four buildings with a total of 4 000 m² of interior space. These facilities include 37 cubicles for faculty, and a parking lot for 100 vehicles.

The Regional Public Health Research Center (CRISP), located in Tapachula, Chiapas, extends over 9 000 m² and has 2 800 m² of interior space with 16 offices for faculty.

- Staff office space

The main campus in Cuernavaca accommodates three buildings composed of 52 administrative offices and at the Mexico City campus, it accommodates 7 administrative offices; and 2 meeting rooms. The Regional Public Health Research Center (CRISP) includes several staff offices.

- Classrooms

Each of the classrooms from the 3 campuses includes:

- 1 desktop computer
- 1 projector
- 1 digital interactive whiteboard, interconnected with the preceding equipment to optimize time and provide immediate service upon activation;
- an electrical installation that is accessible and sufficient for connecting additional electronic equipment; and
- wireless high-speed Internet service with extensive coverage.

The infrastructure of the INSP headquarters, in Cuernavaca, includes 11 classrooms for group activities with a capacity of 15-55 students. The academic areas are located in the basement and on the ground floor of the main building, with classrooms distributed across three levels. The INSP has two rooms for seminars and a computer laboratory used also as classrooms when required. The basement accommodates Classrooms A, B, C, D and E; the "Dr. Guillermo Soberón" Auditorium, which has a capacity of 258 persons; the assembly hall, with a capacity of 64 persons.

The Mexico City campus includes 2 classrooms and a computer classroom with a capacity of 25 users, 1 multipurpose room with a capacity of 40 persons and the ability to be divided to accommodate two simultaneous activities. The Regional Public Health Research Center (CRISP), includes one classroom.

- Shared student space

In the Cuernavaca campus shared student and faculty space includes 3 rooms for institutional conferences and seminars with a capacity of 80-280 participants; 4 meeting rooms for work sessions with groups of students; and 1 assembly hall equipped with a projector, a computer, a digital interactive whiteboard and a presidium for the jury. The INSP headquarters also includes a videoconference room with a capacity of 20 participants *in situ*. It is equipped for distance transmissions, is capable of receiving and sending the signal to 160 conference rooms across Mexico, and is implemented with an unlimited number of connections for international transmissions. There is also, a small dining room for students close to the classrooms.

In the Mexico City Campus the shared student and faculty space includes an auditorium for 100 persons, and a multipurpose room and a library. The Regional Public Health Research Center (CRISP) includes a library with space for student work.

- Laboratories, if applicable to public health degree school offerings

The INSP has 23 laboratories, coordinated by its educational and research centers as detailed below. Additionally, in the Cuernavaca campus there is a small animal facility, and an insectarium. The Regional Public Health Research Center (CRISP), also includes two small animal facilities and two insectariums.

a. **Infectious Diseases Research Center (CISEI).** This center has 13 laboratories for research in molecular virology, sexually transmitted diseases, and vector-borne diseases and bacterial resistance. Laboratory activities are performed in coordination with the following degree programs: Doctorate in Sciences, Master in Sciences and Master of Public Health, all of which have concentration areas associated with the CISEI research areas.

b. **Regional Public Health Research Center (CRISP).** This center has 8 laboratories for research and educational activities pertaining to the INSP Master of Science Degree in Vector-Borne Diseases.

c. **Population Health Research Center (CISP).** The CISP laboratory, on the Mexico City (Tlalpan) campus, is used for tobacco consumption studies. The Analytical Laboratory for Tobacco Compounds (Lacot) analyzes compounds related to tobacco and its metabolites and provides technical and scientific support in the quantification of active tobacco consumption and involuntary exposure to environmental tobacco smoke. The Lacot uses the gas chromatography technique for analyzing tobacco and its metabolites. It performs three processes to determine environmental nicotine levels by means of passive diffusion monitors (PDMs); nicotine and cotinine concentrations in urine samples, with both techniques validated by the Johns Hopkins Bloomberg School of Public Health and the University of San Francisco, respectively; and nicotine and humectant (glycerol-propylene glycol) concentrations in raw tobacco.

d. **Nutrition and Health Research Center (CINyS).** The CINyS conducts research in the Nutritional Biochemistry Laboratory, located on the ground floor of the INSP headquarters. This laboratory contributes to research with testing and analytical assessments of nutrients, metabolites and biochemical markers, using highly diversified analytical technologies such as immunoassays, liquid and gas chromatography, atomic absorption and mass and optical plasma emission spectrometry. The laboratory can determine the levels of plasma proteins such as ferritin, transferrin and C-reactive protein (CRP); vitamins such as retinol, vitamin E, vitamin D, homocysteine, saturated and unsaturated fatty acids, cis, trans, omega 3, omega 6 and omega 9 insulin, vitamin B12, folic acid, glucose, triglycerides and HDLC; and minerals such as zinc, copper, iron and magnesium. It also studies the isotopic relationships between C13, 018, deuterium and others. The type of analytical matrix used varies between whole blood, serum, plasma, urine, maternal milk, food, and other substances. To provide quality control, this laboratory uses materials traceable to international reference materials from the institutions of the National Institute of Standards and Technology USA (NIST) and the National Institute of Biological Standards and Control UK (NIBSC). The INSP Nutritional Biochemistry Laboratory is part of the International VITAL EQA Program established by the Center for Disease Control and Prevention (CDC).

Table C.4.1. Description of the 23 INSP laboratories and equipment.

Research center	Laboratory	Specific equipment
CISEI	**12 General Laboratories**	Basic equipment in the laboratories: ● 14 liquid nitrogen automated chambers ● 40 ultrafreezers ● 55 freezers ● 62 refrigerators ● 13 biosafeaty hoods ● 2 ultracentrifuges ● 2 high-speed centrifuges ● 13 fluorescent microscopes ● 2 beta counters ● 2 micro ELISA readers ● 30 electrophoresis instruments with power supply ● 6 inverted microscopes ● 20 optical microscopes ● 1 Gas and liquid chromotograph ● 1 Genesis 100 robot for automated ELISA processing ● 4 analytical balances ● 3 tubs for water baths and 2 tubs for dry baths ● 1 instrument for automated detection of chemiluminescence ● 2 electronic balances ● 5 autoclaves ● 2 high-speed cooling centrifuges ● 4 cold rooms
	Cryopreservation Facility	● 1 Cryopreservation unit which covers an area of 300 m² and serves to store biological samples for the INSP. Over 80 000 blood samples and 40 000 leukocyte membranes are preserved at -150° C in 14 automated nitrogen chambers ● 20 ultrafreezers and 4 freezers (-20° C); this unit can also be used for laboratory work, as it has two automated ELISA testing devices, two computer terminals, two safety hoods, one blood bank refrigerator, two table-top cooling centrifuges and one microcentrifuge Note: This facility preserves specimens collected in national surveys and the 1988 historical sample (80 000 blood samples and 40 000 leukocyte membranes for DNA analysis).

	Genomic and Proteomic Studies Unit	● 1 Rapid Translation System (RTS 500) ● 1 DNA sequencing system (Applied Biosystems 3100) ● 1 Spectrofluorometer (LS 55 model from FLWINLAB) ● 1 Capillary electrophoresis system (Beckman) ● 1 Confocal microscope (Bio-Rad) ● 7 Real-time PCRs ● 1 HPLC chromatograph ● 1 C1000 thermal cycler (Bio-Rad)
	Genomic Sequencing Laboratory	This facility has all the necessary areas for PCR library construction, emulsion breaking and sequencing, basic bioinformatic analysis, genome sequencing of bacteria and viruses, molecular analysis of cell repertoire diversity and human genetic diversity. It includes ● 1 Stereomicroscope
	Area for small animals and insectarium	The facility for small animals allows researchers to obtain, reproduce and store high-quality biological components required for animal research. It includes ● 1 ultrasonic processor ● 1 probe micro-analyzer
	Molecular Analysis and Diagnosis Unit	● 1 ABI PRISM 3100 Genetic Analyzer: a DNA sequencer with 16 capillaries (Applied Biosystems) which generates 500-700 pb sequences using the Sanger method (16 reactions in three hours) ● 1 Epics XL flow cytometer (Beckman-Coulter) for analyzing cell subpopulations and DNA content by flow cytometry ● 1 Electronic microscope (JEOL JEM-1011): 7900 HT Real-Time PCR System ABI PRISM Sequence Detection System (Applied Biosystems) with a 384-well block module; RT-PCR and quantitative PCR; allelic discrimination ● 1 Tempo LC MALDI system which combines a gel and an HPLC system and connects them to the MALDI TOF technique ● 1 Spectrophotometer ● 1 Image acquisition system (photodocumentation) ● 1 Ph meter ● 1 Dual module for thermal cycler ● 1 Incubator ● 1 Hemocytometer
	Genomic Sequencing Laboratory	● 1 Coulter particle count and size analyzer which quantifies the particles in complex mixtures ● 1 2100 Bioanalyzer (Agilent) which analyzes microcapillaries (microchips) in DNA, RNA or protein concentrations ● 1 Pulsed field electrophoresis
	Influenza Laboratory	● BL-3 area for sample inactivation ● Viral RNA extraction area ● Master Mix preparation area ● Area for placing samples and positive control area ● FAST7900 Real-time thermal cycler (Applied Biosystems) ● RNA purification robot (Qiagen)

CRISP	Vector Biology Laboratory	• 5 Autoclaves • 8 Analytical balances • 3 Digital balances • 30 Electrophoresis chambers • 13 Centrifuges • 4 Cooling centrifuges • 6 Microcentrifuges • 2 Cold rooms • 2 Gas and liquid chromotographs • 1 Microscope with power supply and photographic camera • 2 Binocular microscopes • 16 Microscopes • 2 Dissecting microscopes • 1 Immunofluorescence microscope • 3 Entomological microscopes • 12 Stereomicroscopes • 3 Optical microscopes • 10 Thermal cyclers • 1 Ultracentrifuge • 6 Ultrafreezers
	Vector Control Laboratory	
	Insect Taxonomy Laboratory	
	Immunoparasitology Laboratory	
	Biochemistry Laboratory 1	
	Biochemistry Laboratory 2	
	Molecular Biology and Genetics Laboratory	
CISP	Analytical Laboratory for Tobacco Compounds (Lacot)	• 1 Freeze centrifuge • 1 clinical centrifuge • 1 Analytical balance • 1 High-precision balance • 1 Microbalance • 2 Freezers (-30° C) • 2 Refrigerators (4° C) • 1 Ultrafreezer (-70° C) • 1 Water purification equipment • 1 Sonicator • 1 Water bath • 1 Hood • 1 Electronic rotary evaporator • 1 Multi-pulse instrument • 1 Multi-pulse instrument with solvent concentration • 1 Small dry-ice machine • 1 Gas chromotograph (Varian) with two detectors (electron and nitrogen-phosphorus capture) and an automatic autosampler • 1 Gas chromotograph (Varian) with two detectors (a nitrogen-phosphorus and a thermionic flame detector) and an automatic autosampler

CINyS	Nutritional Biochemistry Laboratory	• Freeze centrifuges • Clinical centrifuges • Analytical balances • High-precision balances • Microbalance • Ultrafreezers (-70ºC) (7) • Freezers (-20° C) (3) • Refrigerators (4° C) (5) • Water purification equipment • Sonicator • Water bath • Hood • Microwave digester • UV Visible Spectrometer • Isotope ratio mass spectrometer • Optical plasma emission spectrometer • Atomic absorption spectrometer • DEXA dual energy x-ray absorptiometer for body composition (four-component model) • Liquid chromotograph with FD detector • Liquid chromotograph with DAD detector • Liquid chromotograph with electrochemical detector • Gas chromotograph with a flame ionization detector (FID) • ELISA plate reader • Immunoanalyzer • Automatic clinical chemistry analyzer • Bod Pods (2) • Uninterruptible power system, UPS (30 kVA)

2) Provide narrative and/or data that support the assertion that the physical space is sufficient or not sufficient.

The INSP has sufficient and appropriate physical spaces to serve as a higher education institution engaged in closely related educational and research activities. In all academic programs, faculty and students have adequate space to carry out their academic activities. However, there is a lack of sufficient and well-adapted spaces that full-time students might use for self-study.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The Institute has sufficient space in its headquarters, in Cuernavaca, for instructional activities, research laboratories, program administration, classrooms, services and teaching equipment for postgraduate students. The INSP also has two other campuses in Mexico City and Tapachula, Chiapas. However, it is necessary to implement a permanent maintenance and replacement program for the furniture and electronic equipment of the Institute with the view of preventing their deterioration. The INSP is planning to redistribute and recondition the space currently occupied at its headquarters by the library and computer center with the intention of providing space for self-study and for teamwork among students and teachers.

C5. Information and Technology Resources

The school has information and technology resources adequate to fulfill its stated mission and goals and to support instructional schools. Information and technology resources include library resources, student access to hardware and software (including access to specific software or other technology required for instructional schools), faculty access to hardware and software (including access to specific software required for the instructional schools offered) and technical assistance for students and faculty.

1) Briefly describe, with data if applicable, the following:

    - library resources and support available for students and faculty

The INSP has three libraries: the Jose Luis Bobadilla, located in its headquarters, in Cuernavaca, one at the Mexico City campus and another at its Tapachula campus. These three combined possess a collection of approximately 30 224 classified volumes, theses and scientific publications which come in regularly and are available for use by students, researchers and the general public.

The Jose Luis Bobadilla Book and Periodicals Library in Cuernavaca supports research and training in public health, and is one of the most complete libraries in its field in Mexico. It contains 17 870 books on public and environmental health, epidemiology, biostatistics, health statistics, service management and social medicine, in addition to more than 4 179 theses, 2 200 videos, 2 753 volumes of the Julio Frenk Mora collection specializing in health economics and 217 cutting-edge scientific journals. During the period 2012-2019, the bibliographical collection grew by 13.8%, while the collection of scientific publications increased by 10.5% in acquisitions supporting the needs of the academic program and research projects.

Electronic information resources
The INSP belongs to councils and organizations in the area of higher education which certify high-quality postgraduate degrees; these institutions include the National Consortium of Scientific and Technological Information Resources (CONRICyT) and the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE). Such memberships have entitled the INSP to a free subscription to the following data bases: *Web of Science* (WoS 2nd ed) the *Journal Citation Reports* (JCR) from Clarivate Analystics, and Scopus from Elsevier publishers, tools used to locate and obtain publication citations. The INSP also has access to these additional data bases: Dynamed Plus, Medline Complete, MedicLatina and the EBSCO Newswires, which together offer more than 10 130 magazines available as complete texts or as updates. The Institute also has access to 2 405 scientific journal titles from the Elsevier package, Science Direct Freedom Collection Journals, and a package of medical-related materials from Gale Cengage Learning, a source of medical references, as well as to 94 eBooks from Wiley publishers. Through the Mexican Librarian Association, A.C. (AMBAC) and the Central South Region Library Network (Rebics) of the National Association of Universities and Institutions of Higher Education (ANUIES), the Institute has temporary access to online sources of information from different providers, such as Elsevier, Sage, Science Direct, Springer and Wiley, among others. Finally, information exchange agreements have been established with more than 48 institutions in the areas of higher education, medicine and, more specifically, hospital care, in the country. These services and sources of information are available by email and through the Internet page of the Institute.

The Jose Luis Bobadilla Book and Periodicals Library in Cuernavaca has the following electronic databases: EBSCOhost Research Databases, BVS Mexico, Popline, Biomed Central, Lilacs and ARIES, Medigraphics, the Official Journal of the Federation, HighWire Press, the Index of Latin American Journals in Sciences-Periodical, the Index of Higher Education Journals (Iresie), PloS Medicine, PubMed National Library of Medicine (NLM) and SciELO México, among other sources available to researchers, students, and the general public interested in public health through the following link: https://www.insp.mx/bibliotecas/jose-luis-bobadilla/fuentes-de-informacion-bibliograficas/base-de-datos.html.

The Jose Luis Bobadilla Books and Periodicals Library participated in the development of the Open Institutional Repository for Knowledge in Public Health (RIACSP) from 2016 to 2017 in order to offer the scientific community and the public free access to research results from the National Institute of Public Health (INSP). The intention was to contribute to the contents of the National Repository of Science, Technology and Innovation (RNCyT) and join in a common effort to strengthen the national heritage of knowledge and the training of human resources in this field. This national repository is available to all, and integrates scientific articles, books, titles, theses and conferences of congresses through the following site: https://www.repositorionacionalcti.mx/.

The CRISP houses the third library, located at the Tapachula campus, which possesses an array of 3,300 book titles and 165 scientific journals, as well as the Lilacs and Artemisa databases. Students, teachers and researchers at the Tapachula and Tlalpan campuses and those participating through the online program have access to more than 10 130 full-text journals included in the three EBSCOhost Research Databases, as well as to scientific journals online.

Support for students and teachers
The Jose Luis Bobadilla Library is open Monday to Friday, from 8:00 to 20:30. It provides services such as on-site consultations, lending of material, document reproduction (i.e., photocopies) and study areas. Students, teachers, researchers and health professionals can access electronic resources such as periodicals, databases, online books and online catalogs to locate works in the [https://www.insp.mx/bibliotecas/jose-luis-bobadilla/nuestros-servicios/catalogo-en-linea.html] collection. In addition, users can look up national and international documents, publication tables of contents, send the contents of publications to researchers (by means of the EBSCOhost database), verify author references and conduct bibliographic searches.

This library responds to requests for information from the scientific and academic community from the three INSP campuses, and from health researchers in Mexico, the United States, Latin America, Spain and other countries. It offers citation analysis of researchers evaluated by CONACYT, CCINSHAE, and other institutions. Documents requested by students, teachers, researchers and health professionals located throughout Mexico are obtained through the establishment of collaboration and information-sharing agreements with more than 48 information centers at institutions of higher education. Documents obtained from abroad are purchased from the National Library of Medicine.

In order to ensure that the student and academic community is aware of the information resources available through the Book and Periodicals Library guided visits, presentations of services, and access to databases are offered during student orientation courses and educational programs. Likewise, guided visits are offered throughout the year to groups of three or more upon request.

Electronic Services. Document services available to the other INSP campuses and the online program are disseminated through email and through new-acquisition bulletins posted on the Internet and on the INSP online catalog. An electronic account (recuperacion@insp.mx) was created and linked to four email addresses in the Jose Luis Bobadilla Books and Periodicals Library as a means to deal with requests from users in a timely manner. Students, teachers, researchers and health professionals have access to electronic resources outlined in the section, *Nuestros Servicios* [https://www.insp.mx/bibliotecas/jose-luis-bobadilla/nuestros-servicios.html].

- student and faculty access to hardware and software (including access to specific software or other technology required for instructional schools)

a. Computer laboratory

Two computer laboratories are located at the Cuernavaca and Mexico City campuses, both open 24 hours a day. They offer the use of computer equipment for students and teachers, and are equipped with the following:

Cuernavaca: 15 computers with the Intel Core 2 Duo processor and with a speed of 3.00GHz (2 cores) 4 Gb of RAM memory, and a hard disk capacity of 500 Gb.

Mexico City: 23 computers with the Intel Core 2 Duo processor and a speed of 3.00GHz (2 cores) 4 Gb of RAM memory, and a hard disk capacity of 500 Gb.

Licensing of Core and Specialized Software

The DAF/SG0360/2017 contract covers the renewal of the software license in its most recent version for the following:

- Subscription to Microsoft OVS (operating system, updates and core software for office)

- Antivirus protection for equipment and institutional servers (Kaspersky).

Moreover, we have a specialized license for research, available for postgraduate students:
- Statistics software in the IBM SPSS Statistics and Regression network for three concurrent users.
- Statistics software in the Stata IC network, version 12, for 60 users.

Local Network and Perimeter Security

The INSP offers managed technology services concerning network communication for the local area and perimeter security. These include preventive and corrective maintenance, support and technical assistance including qualified personnel onsite tasked with attending to the equipment that forms part of the technological infrastructure for the local converged network; INSP perimeter security is a part of the technological support that the INSP relies on to achieve its desired results in the areas of research and teaching.

Storage and Virtualization

The INSP offers administrative services in the areas of virtualization, processing and storage under a contract with outside services, thus creating value in the different areas of the institution. As a tool for achieving institutional objectives, these services include the following:

- A virtualization platform
- Physical servers for storage
- Technical personnel on site for infrastructure management and problem resolution
- Memory, processing and storage resources for the 140 servers which the institution currently possesses. These servers, which belong to specific projects, house databases and research resources

Internet

The facilities have wireless Internet coverage with a total radius of 90% within the INSP. A contract for external services provides the institution with the following:

Headquarters (Cuernavaca)

- Main corporate link – 80 Mbps
- Secondary corporate link (backup) – 20 Mbps
- Cuernavaca-Tlalpan link - LAN-TO-LAN - 10 Mbps
- Cuernavaca-Tapachula link MPLS - 2 Mbps

Mexico City Campus

- Main corporate link – 20 Mbps
- Corporate link (Infinitum) – 50 Mbps
- Corporate link (Infinitum) – 150 Mbps

Tapachula Campus

- Main corporate link – 10 Mbps
- Corporate link (Infinitum) – 50 Mbps

Likewise, the INSP is part of the National Network for the Promotion of Broadband Services (NIBA), whose free expertise is provided by the Coordination of Knowledge and Information Society of the Ministry of Communications and Transportation. This network has 500 Mbps of broadband.

- faculty access to hardware and software (including access to specific software or other technology required for instructional schools)

Faculty shares common hardware and software resources with the students as previously described. Specifically, each professor-researcher has in their office at least a computer for its personal use for their research, teaching and service activities.

- technical assistance available for students and faculty

The computer laboratories have a "Table of support for ICT users," providing services through a company with personnel qualified to manage the three INSP campuses. This table is responsible for solving problems and responding to requests related to corrective and preventive maintenance, technical support and advice on the use of the computer equipment owned by the INSP. The INSP also provides printing, photocopying and scanning services using multifunctional equipment at the three campuses. This service offers users the possibility of printing, photocopying and scanning in either black and white or color through a contract with a company employing qualified personnel, which supplies, installs and configures multifunctional equipment. It also performs preventive and corrective maintenance (including the provision of spare parts, labor and support for maintaining the equipment in optimal conditions). The contract also comprises the delivery of supplies and services for operating, monitoring and training personnel in the use of the equipment by means of remote management software.

2) Provide narrative and/or data that support the assertion that information and technology resources are sufficient or not sufficient.

The information and technological infrastructure of the Institute is sufficient and provides support and attention to students and teachers in the performance of their functions. The information technology department attends to and provides maintenance for computer equipment in the Tlalpan and Tapachula campuses for students and teachers through the institutional maintenance program. The equipment has the software necessary to maintain functionality and meet the requirements of students and professors at the external campuses. The "Table of support for ICT users," the response to problems and requests for services related to corrective and preventive maintenance, technical support and advice for the use of the computer equipment belonging to the INSP at its three campuses are all sufficient.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has sufficient information and technology resources to fulfill the mission and goals established for supporting its academic programs. These information and technology resources include library and electronic information resources, electronic services, access to computer laboratories, and specific software for students and teachers. The appropriate handling of these resources allows for the successful development of teaching, research and service activities.

D1. MPH & DrPH Foundational Public Health Knowledge

The school ensures that all MPH and DrPH graduates are grounded in foundational public health knowledge.

The school validates MPH and DrPH students' foundational public health knowledge through appropriate methods.

1) Provide a matrix, in the format of Template D1-1, that indicates how all MPH and DrPH students are grounded in each of the defined foundational public health learning objectives (1-12). The matrix must identify all options for MPH and DrPH students used by the school.

The foundational public health knowledge is promoted in the students through the learning objectives located in several courses of the MPH programs and the DrPH as it is reported in Tables D.1.1.1 and D.1.1.2.

Table D.1.1.1. Foundational public health knowledge coverage for MPH programs.

Content	Course number(s) & name(s) or other educational requirements
1. Explain public health history, philosophy and values	CPOP05. Introduction to Public Health.
2. Identify the core functions of public health and the 10 Essential Services	CPOP05. Introduction to Public Health. CPOP03 Comprehensive population health assessment I.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	CS30. Qualitative methods applied to public health.
	EP60. Epidemiology and biostatistics.
	NS06. Design, monitoring and evaluation of nutritional programs.
	NS44. Assessment of nutritional status in populations
	BE69. Information and communication technologies
	SP49. Design and evaluation of public health interventions
	EP61. Foundations of social epidemiology
	EP62. Epidemiological surveillance and intelligence
	EP63. Applied epidemiology I
	EP66. Applied epidemiology II
	BE64. Design and evaluation of health information systems
	BE37. Intermediate biostatistics
	BE36. Advanced biostatistics
	SP46. Management and innovation in public health
	SP49. Design and evaluation of public health interventions
	CS29. Social determinants, ethics and human rights
	BE42. Information systems for decision making
	ED48. Healthy behaviors, environments and policies
	SP50. Health quality and safety
	SP70. Health resources management and administration

	CPOP03. Comprehensive population health assessment I
	CPOP04. Comprehensive population health assessment II
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	EP60. Epidemiology and biostatistics.
	EP61. Foundations of social epidemiology
	EP62. Epidemiological surveillance and intelligence
	EP63. Applied epidemiology I
	EP66. Applied epidemiology II
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	ED48. Healthy behaviors, environments and policies.
	ED49. Participation in social health.
	ED53. Health education methodologies
	ED40. Health communication
	ED52. Health promotion initiatives
	NS45. Promotion of nutrition and healthy environments
	CS31 Behavioral change models in Public Health
	SA61 Environmental risk assessment and management
	ED48 Healthy behaviors, environments and policies.
	SP49 Design and evaluation of public health interventions
	SA49 Environmental legislation and management
6. Explain the critical importance of evidence in advancing public health knowledge	Institutional seminars. Cycle of interactive videoconferences
	CPOP03 Comprehensive population health assessment I
	CPOP04 Comprehensive population health assessment II
7. Explain effects of environmental factors on a population's health	SA59. Environment and public health.
	SA54. Basic environmental measurement and control processes.
	SA61. Environmental risk assessment and management.
	SA59 Environment and public health
	SA60 Toxicology applied to public health
	SA61 Environmental risk assessment and management
8. Explain biological and genetic factors that affect a population's health	EI68. Infectious diseases in the population
	EI66. Biological determinants of infectious diseases
	EI67.Infectious diseases in the individual
	CS29 Social determinants, ethics and human rights
9. Explain behavioral and psychological factors that affect a population's health	ED48. Healthy behaviors, environments and policies.

	CS31. Behavioral change models in Public Health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	CS29. Social determinants, ethics and human rights.
	BE42. Information systems for decision making
	EI69. Perspectives, challenges and public policies in infectious diseases
	SP69. Economics for healthcare administration
	SP70. Management and administration of health resources
	SA49. Environmental legislation and management
	NS43. Health and nutrition policies in Mexico
	SP45 Health systems and policies
	ED48 Healthy behaviors, environments and policies
11. Explain how globalization affects global burdens of disease	SS1. Foundations of global health.
	SA59. Environment and public health
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	SA60.Toxicology applied to Public Health CPOP03 Comprehensive population health assessment I. ED48 Healthy behaviors, environments and policies

Table D.1.1.2. Foundational public health knowledge coverage for the DrPH program.

Content	Number(s) and name(s) of the course(s) and other educational requirements
1. Explain public health history, philosophy and values	DSP52.Bioethics
	DSP37.Public health management
	DSP40 Public health programs and policies
2. Identify the core functions of public health and the 10 Essential Services*	DSP37.Public health management
	DSP49 International politics and global health
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	DSP45.Biostatistics
	DSP44.Assessment of programs I
	DSP48. Assessment of programs II
	DSP38.Qualitative methods
	DSP41.Epidemiology applied to public health
	DSP42 Operations research in public health I
	DSP46 Operations research in public health II
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	DSP41. Epidemiology applied to public health
	DSP40 Public health policies and programs
	DSP49 International politics and global health
	DSP53 Determinants of public health
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	DSP37.Public health management
	DSP50 Seminar on public health case studies
6. Explain the critical importance of evidence in advancing public health knowledge	DSP42 Operations research in public health I
	DSP46 Operations research in public health II
	DSP40 Public health policies and programs
7. Explain effects of environmental factors on a population's health	DSP53.Determinants of environmental health
8. Explain biological and genetic factors that affect a population's health	DSP41. Epidemiology applied to public health
9. Explain behavioral and psychological factors that affect a population's health.	DSP50 Seminar on public health case studies
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	DSP52.Bioethics
	DSP36.Social determinants of health
	DSP37.Public health management
	DSP40. Public health policies and programs
	DSP49. Public health policies and programs
11. Explain how globalization affects global burdens of disease	DSP53. Determinants of environmental health
	DSP36. Social determinants of health
	DSP49.International politics and global health

12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	DSP53. Determinants of environmental health

2) Document the methods described above. This documentation must include all referenced syllabi, samples of tests or other assessments and web links or handbook excerpts that describe admissions prerequisites, as applicable.

Attached in electronic resource files are the syllabi of the courses listed in Tables D.1.1.1. and D.1.1.2., for review.

3) If applicable, assessment of strengths and weaknesses related to this criterion and plans for improvement in this area.

The students of the MPH and DrPH programs carry out informative activities in order to cover the foundational knowledge in public health. During the induction course, the students of the Master's in Public health complete the teaching unit CPOP05 *Introduction to Public Health*, which provides INSP students with an initial and overall vision of the fundamental aspects of Public Health that will serve as a basis for their insertion into their profession. The students of the Doctorate in Public Health complete the teaching units DSP37 *Public health management*, DSP40 *Public health policies and programs*, and DSP49 *International politics and global health*, which ensure that all the students of this program share the same benchmark foundational knowledge in public health.

D2. MPH Foundational Competencies

The school documents at least one specific, required assessment activity (eg, component of existing course, paper, presentation, test) for each competency, during which faculty or other qualified individuals (eg, preceptors) validate the student's ability to perform the competency.

Assessment opportunities may occur in foundational courses that are common to all students, in courses that are required for a concentration or in other educational requirements outside of designated coursework, but the school must assess *all* MPH students, at least once, on each competency. Assessment may occur in simulations, group projects, presentations, written products, etc. This requirement also applies to students completing an MPH in combination with another degree (eg, joint, dual, concurrent degrees). For combined degree students, assessment may take place in either degree school.

1) List the coursework and other learning experiences required for the school's MPH degrees, including the required curriculum for each concentration and combined degree option. Information may be provided in the format of Template D2-1 or in hyperlinks to student handbooks or webpages, but the documentation must present a clear depiction of the requirements for each MPH degree.

Tables D.2.1.1 to D.2.1.8. below offer a detailed list of the curricular requirements of each concentration area in the Master of Public Health program. All the listed courses are obligatory for the concentration area of the Master of Public Health programs. The courses CS29, SP45, SA59, EP60, BE42, CS30, ED48, CPOP03 and CPOP04 are part of the common core of the Master of Public Health program and are taken by the students of all the concentration areas. Their contents are developed in the first and second semesters. In addition to the listed courses, the Faculty Colleges propose optional subjects allowing a more customized product according to the particular needs of each group of students. The learning activities of these courses are performed according to the following scheme:

- TH (Teacher Hours) under the conduction of a teacher within the institution (i.e. in classrooms, centers, workshops or laboratories) or in external spaces.
- IH (Independent Hours): independently, within or outside the institution, out of the established class hours and as part of autonomous processes linked to the course or learning unit.

Attached are the hyperlinks to the websites providing further information on the requirements of each concentration area of the MPH programs.

- Master of Public Health- Epidemiology concentration [http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-epidemiologia]

Table D.2.1.1. Requirements for the Master of Public Health-Epidemiology concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
EP61	Foundations of social epidemiology	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
EP62	Epidemiological surveillance and intelligence	th=40, ih=40, c=5.0
EP63	Applied epidemiology I	th=40, ih=40, c=5.0
EP64	Final professional project I	th=20, ih=40, c=4.0
EP66	Applied epidemiology II	th=40, ih=40, c=5.0
EP65	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health -Healthcare Administration concentration [http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-as]

Table D.2.1.2. Requirements for the Master of Public Health -Healthcare Administration concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
SP69	Economics for healthcare administration	th=40, ih=40, c=5.0
SP67	Final professional project I	th=20, ih=40, c=4.0
SP50	Health quality and safety	th=40, ih=40, c=5.0
SP70	Health resource management and administration	th=60, ih=60, c=8.0
SP68	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health -Environmental Health concentration [http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-sa]

Table D.2.1.3. Requirements for the Master of Public Health -Environmental Health concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
SA60	Toxicology applied to Public Health	th=30, ih=30, c=4.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SA54	Foundational environment measurement processes	th=30, ih=30, c=4.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
SA49	Environmental legislation and management	th=30, ih=30, c=4.0
SA62	Final professional project I	th=20, ih=40, c=4.0
SA61	Environmental risk assessment and management	th=40, ih=40, c=5.0
SA63	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health with a Social and Behavioral Sciences concentration [http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-ciencias-sociales-comportamiento]

Table D.2.1.4. Requirements for the Master of Public Health- Social and Behavioral Sciences concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
CS31	Behavior change models in Public Health	th=50, ih=50, c=6.0
ED40	Health communication	th=30, ih=30, c=4.0
ED49	Social participation in health	th=30, ih=30, c=4.0
CS32	Final professional project I	th=20, ih=40, c=4.0
ED52	Initiatives in health promotion	th=40, ih=40, c=5.0
CS33	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health - Nutrition concentration
  [http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-nutricion]

Table D.2.1.5. Requirements for the Master of Public Health -Nutrition concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
NS43	Health and nutrition policies in Mexico	th=30, ih=30, c=4.0
NS44	Assessment of nutritional status in populations	th=50, ih=50, c=6.0
NS46	Final professional project I	th=20, ih=40, c=4.0
NS06	Design, monitoring and assessment of nutrition programs	th=40, ih=40, c=5.0
NS45	Promotion of healthy nutrition and environments	th=40, ih=40, c=5.0
NS47	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health -Infectious Diseases concentration

[http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-enfermedades-infecciosas]

Table D.2.1.6. Requirements for the Master of Public Health -Infectious Diseases concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
EI66	Biological determinants of infectious diseases	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
EI67	Infectious diseases in individuals	th=40, ih=40, c=5.0
EI70	Final professional project I	th=20, ih=40, c=4.0
EI68	Infectious diseases in populations	th=40, ih=40, c=5.0
EI69	Perspectives, challenges and public policies on infectious diseases	th=40, ih=40, c=5.0
EI71	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health - Biostatistics and Information Systems concentration [http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-bsis]

Table D.2.1.7. Requirements for the Master of Public Health -Biostatistics and Information Systems concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
BE64	Design and evaluation of health information systems	th=40, ih=40, c=5.0
BE69	Technologies of information and communication	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
BE37	Intermediate biostatistics	th=40, ih=40, c=5.0
BE67	Final professional project I	th=20, ih=40, c=4.0
BE36	Advanced biostatistics	th=40, ih=40, c=5.0
BE68	Final professional project II	th=20, ih=40, c=4.0

- Master of Public Health - Vector-borne Diseases concentration
  This program has been temporarily suspended while its curricular structure is assessed.

Table D.2.1.8. Requirements for the Master of Public Health -Vector-borne Diseases concentration.

Course number	Course name	Credits
CS29	Social determinants, ethics and human rights	th=40, ih=40, c=5.0
SP45	Health systems and policies	th=40, ih=40, c=5.0
SA59	Environment and public health	th=40, ih=40, c=5.0
CPOP03	Comprehensive population health assessment I	th=50, ih=50, c=6.0
EP60	Epidemiology and biostatistics	th=80, ih=80, c=10.0
BE42	Information systems for decision making	th=40, ih=40, c=5.0
CS30	Qualitative methods applied to public health	th=40, ih=40, c=5.0
ED48	Healthy behaviors, environments and policies	th=40, ih=40, c=5.0
EV44	Ecosystemic Approach to VBDs	th=40, ih=40, c=5.0
CPOP04	Comprehensive population health assessment II	th=20, ih=30, c=3.0
SP46	Public health management and innovation	th=60, ih=60, c=8.0
SP49	Design and evaluation of public health interventions	th=40, ih=40, c=5.0
EV15	Medical entomology	th=40, ih=40, c=5.0
EV45	Ecological interactions in VBDs	th=40, ih=40, c=5.0
EV47	Final professional project I	th=20, ih=40, c=4.0
EV46	Comprehensive interventions on VBDs	th=40, ih=40, c=5.0
EV48	Final professional project II	th=20, ih=40, c=4.0

2) Provide a matrix, in the format of Template D2-2, that indicates the assessment activity for each of the foundational competencies. If the school addresses all of the listed foundational competencies in a single, common core curriculum, the school need only present a single matrix. If combined degree students do not complete the same core curriculum as students in the standalone MPH school, the school must present a separate matrix for each combined degree. If the school relies on concentration-specific courses to assess some of the foundational competencies listed above, the school must present a separate matrix for each concentration.

Tables D.2.2.1- D.2.2.7 show the concentration-specific and common core courses that promote the foundational competencies and their assessment activities for each MPH program. Although most foundational competencies are developed through the common core courses, the students take other subjects of the concentration area in order to complete these competencies.

Table D2.2.1. Assessment of Competencies for MPH in Epidemiology Concentration.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based Approaches to Public Health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	EP60. Epidemiology and biostatistics	Survey studies: Students are requested to solve a case study on a tobacco-related topic in order to apply cross-sectional studies and their statistical modeling.
	EP66. Applied Epidemiology II	Case study: Analysis of epidemiological data with repeated or prospective measurements for describing the health status of populations. The students must devise a case study of an ailment subjected to epidemiological surveillance. In order to create it, they must search for information from reliable sources on the morbidity and the mortality caused by this ailment.
	EP64. Final professional project I EP65. Final professional project II	In both instructional units, the students develop work plans considering the application of epidemiological methods and propose strategies that may have an impact on the main determinants of the process of meeting the needs, demands and expectations of the population through a health services social response. During the instructional units, the students present the progress of research protocol in writing. These presentations are helpful for putting the reviewed methodology into practice on specific research problems developed by each student in their research protocol.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use these in their practice of basic statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health.	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	EP66. Applied Epidemiology II	Assessment and interpretation of continuous epidemiological data utilizing linear regression. In order to acquire the competency, the students must research reliable secondary sources for the causes that may have generated the event selected for the case study. At this stage, the students devise surveys in order to collect the information for their thesis or final professional project.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	EP60. Epidemiology and biostatistics	Use of software: The students utilize the main measures of frequency, relationship and impact in the epidemiology by solving exercises using STATA with a database as part of the topic main frequency, relationship and impact measures in epidemiology.
	CS30. Qualitative methods applied to public health	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	EP66. Applied Epidemiology II	Case study: The students utilize the STATA software. Using the data collected from secondary sources, they must perform the corresponding calculations according to the topics seen during the instructional unit. They will use the software that best adjusts to the data obtained for analysis. The students can decide what software they will use and how they will analyze the information.

4. Interpret results of data analysis for public health research, policy or practice	BE42. Information systems for decision making	Case study: Information systems. The students identify and read the reference Vidal, J. 2012. Decision Theory: Interaction Process or Organizations as Decision Systems. Cinta Moebio 44: 136-152 http://bit.ly/1sfp95U They subsequently review the case of Chronic Kidney Disease in Morelos. They describe and present, in one page, the decision they would make in relation to this disease.
Public Health & Health Care Systems		
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	SP49. Design and evaluation of public health interventions	Having formed teams, the students carry out an analysis of the health status, which can be municipal or at state level, considering the epidemiological and demographic profiles; political and socioeconomic aspects; social inequalities in terms of health, and the organized social response. The students give an oral presentation of the result of this analysis and deliver it in writing. Subsequently, each student solves an exam, answering the following questions: What is a health status analysis and what are its elements?, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health	CPOP04. Comprehensive population health assessment II (DISP)	Analysis of results: The students choose a prioritization method designed according to the health issues identified as social determinants, risks, damages and organized social response. This method is applied to municipal and/or health authorities in the community assigned to the Comprehensive Population Health Assessment (DISP) team.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	SP49. Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.
9. Design a population-based policy, program, project or intervention	ED48. Healthy behaviors, environments and policies	Methodology for public health initiatives: students form work teams to research a health topic in order to develop a PRECEDE/PROCEED instructional methodology. They implement an educational intervention, assessing the process and the outcome. They present the results at the end of the instructional unit.
	SP49. Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.

10. Explain basic principles and tools of budget and resource management	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.
11. Select methods to evaluate public health programs	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Policy in Public Health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	CS29. Social determinants, ethics and human rights	Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
15. Evaluate policies for their impact on public health and health equity	SP45. Health systems and policies	Assessment of a policy and its equity in terms of health: The students analyze the article "Research on the implementation on health policies: A practical guide"; they subsequently form work teams to discuss it in order to carry out this activity.
Leadership		
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.

17. Apply negotiation and mediation skills to address organizational or community challenges	SP46. Public health management and innovation	The students develop dynamics and case analyses that allow them to apply conflict management and negotiation skills to management decision making in order to solve organizational issues and problems related to the community health services. A checklist is used to evaluate the participation in class of each student.
Communication		
18. Select communication strategies for different audiences and sectors	SP46. Public health management and innovation	Topic 4. Leadership in interdisciplinary work (oral and written communications). The students carry out a critical review of research papers and engage in group discussions. They subsequently analyze the case of "the absentee", a resource related to management skills and communication strategies for leading work teams.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health authorities.
20. Describe the importance of cultural competence in communicating public health content	CS29. Social determinants, ethics and human rights	Video analysis: Having formed work teams, the students analyze videos showing the living and health conditions of certain ethnic groups in Latin America. For the analysis, the students answer the following questions: What is the condition of the indigenous peoples in the situations shown in these videos, in terms of the social determinants, health, equity and human rights? How important is interculturality for the actions of the healthcare staff? After viewing the video, each team reports its analysis in writing, in half a page (see the checklist).
Interprofessional Practice		
21. Perform effectively on interprofessional^ teams	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.
Systems Thinking		
22. Apply systems thinking tools to a public health issue.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

Table D.2.2.2. Assessment of Competencies for MPH in Healthcare Administration.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based Approaches to Public Health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	EP60. Epidemiology and biostatistics	Survey studies: The students are requested to resolve a case study on a tobacco-related topic applying cross-sectional studies and their statistical modeling.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use it in their practice of basic making statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	EP60. Epidemiology and biostatistics	Use of software: The students utilize the main measures of frequency, relationship with and impact on epidemiology by solving exercises using STATA with a database as part of the "Main frequency, relationship and impact measures in epidemiology" topic.
	CS30. Qualitative methods applied to public health	Use of software: Organization and analysis of qualitative data. The students organize qualitative information as data analysis matrices using Atlas.ti.
4. Interpret results of data analysis for public health research, policy or practice	BE42. Information systems for decision making	Case study: Information systems. The students identify and read the reference Vidal, J. 2012. Decision Theory: Interaction Process or Organizations as Decision Systems. Cinta Moebio 44: 136-152 http://bit.ly/1sfp95U They subsequently review the case of Chronic Kidney Disease in Morelos. They describe and present, in one page, the decision they would make in relation to this disease.
Public Health & Health Care Systems		
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
	SP69. Economics for healthcare administration	Exposition: For the producer theory topic, students present and discuss the concepts of technical and allocative efficiency as a mechanism to improve the performance of the health systems in addressing the different health issues and health services in different national and international scenarios.

6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	SP49. Design and evaluation of public health interventions	Having formed teams, the students carry out an analysis of the health status, which can be municipal or at state level, considering the epidemiological and demographic profiles; political and socioeconomic aspects; social inequalities in terms of health, and the organized social response. The students give an oral presentation of the result of this analysis and deliver it in writing. Subsequently, each student solves an exam, answering the following questions: What is a health status analysis and what are its elements?, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health	CPOP04. Comprehensive population health assessment II (DISP)	Analysis of results: The students choose a prioritization method designed according to the health issues identified as social determinants, risks, damages and organized social response. This method is applied to municipal and/or health authorities in the community assigned to the Comprehensive Population Health Assessment (DISP) team.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	SP49. Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.
9. Design a population-based policy, program, project or intervention	ED48. Healthy behaviors, environments and policies	Methodology for public health initiatives: students form work teams to research a health topic in order to develop a PRECEDE/PROCEED instructional methodology. They implement an educational intervention, assessing the process and the outcome. They present the results at the end of the instructional unit.
	SP49. Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.
10. Explain basic principles and tools of budget and resource management	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.
	SP69. Economics for healthcare administration	Health funding workshop: the students develop a workshop in which they estimate the financial resources used to provide health services. They analyze the distribution and impact of public funding, the allotment mechanisms, and the role of funding in the reduction of the gaps of inequity, inequality and social injustice.
11. Select methods to evaluate public health programs	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Policy in Public Health		

12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	CS29. Social determinants, ethics and human rights	Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
15. Evaluate policies for their impact on public health and health equity	SP45. Health systems and policies	Assessment of a policy and its equity in terms of health: The students analyze the article "Research on the implementation on health policies: A practical guide"; they subsequently form work teams to discuss it in order to carry out this activity.
Leadership		
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.
17. Apply negotiation and mediation skills to address organizational or community challenges	SP46. Public health management and innovation	The students develop dynamics and case analyses that allow them to apply conflict management and negotiation skills to management decision making in order to solve organizational issues and problems related to the community health services. A checklist is used to evaluate the participation in class of each student.
Communication		
18. Select communication strategies for different audiences and sectors	SP46. Public health management and innovation	Topic 4. Leadership in interdisciplinary work (oral and written communications). The students carry out a critical review of research papers and engage in group discussions. They subsequently analyze the case of "the absentee", a resource related to management skills and communication strategies for leading work teams.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health authorities.

	NS43. Health and nutrition policies in Mexico	Training workshops on development of policy briefs: the students design instruments for the formulation and promotion of public health political action, in order to strengthen their competencies for assertive communication of proposals for designing public health policies.
20. Describe the importance of cultural competence in communicating public health content	CS29. Social determinants, ethics and human rights	Video analysis: Having formed work teams, the students analyze videos showing the living and health conditions of certain ethnic groups in Latin America. For the analysis, the students answer the following questions: What is the condition of the indigenous peoples in the situations shown in these videos, in terms of the social determinants, health, equity and human rights? How important is interculturality for the actions of the healthcare staff? After viewing the video, each team reports its analysis in writing, in half a page (see the checklist).
Interprofessional Practice		
21. Perform effectively on interprofessional^ teams	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.
Systems Thinking		
22. Apply systems thinking tools to a public health issue.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

Table D.2.2.3. Assessment of Competencies for MPH in Environmental Health.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based Approaches to Public Health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	EP60. Epidemiology and biostatistics	Survey studies: Students are requested to solve a case study on a tobacco-related topic in order to apply cross-sectional studies and their statistical modeling.
	SA59. Environment and public health.	Case study: the students are requested to identify environmental hazards that may put health at risk, as part of the health risk assessment and communication and organized social response topic.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use it in their practice of making basic statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health.	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	SA59. Environment and public health.	The students are requested to review the database on atmospheric contaminants for the establishment of surveillance programs. Topic 2.1. Water. The students solve a case study related to the topic of water.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	EP60. Epidemiology and biostatistics	Use of software: The students utilize the main measures of frequency, relationship and impact on epidemiology by solving exercises using STATA with a database as part of the topic main frequency, relationship and impact measures in epidemiology.
	CS30. Qualitative methods applied to public health	Use of software: Organization and analysis of qualitative data. The students organize qualitative information as data analysis matrices using Atlas.ti.
	SA61. Environmental risk assessment and management.	Topic II. Methodologies for risk assessment. Topic. Step III Exposure assessment. Description of the activity: Having formed work teams, the students are requested to estimate the total (lifetime and daily) exposure. The information available for this activity is the data monitoring and analysis. After finishing the topic, each team presents their progress in step III of their case study.
4. Interpret results of data analysis for public health research, policy or practice	BE42. Information systems for decision making	Case study: Information systems. The students identify and read the reference Vidal, J. 2012. Decision Theory: Interaction Process or Organizations as Decision Systems. Cinta Moebio 44: 136-152 http://bit.ly/1sfp95U They subsequently review the case of Chronic Kidney Disease in Morelos. They describe and present, in one page, the decision they would make in relation to this disease.
	SA54. Foundational processes for environment measurement.	Topic: Uses of Geographic Information Systems (GIS) in environment measurement processes. Description of the activity: The students are requested to carry out an exposure analysis using spatial data, and to discuss the usefulness of the GIS in environment measurement processes. In addition, the students solve case studies that illustrate the actual use of GIS in projects involving environment measurements.
Public Health & Health Care Systems		

5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	SP49. Design and evaluation of public health interventions	Having formed teams, the students carry out an analysis of the health status, which can be municipal or at state level, considering the epidemiological and demographic profiles; political and socioeconomic aspects; social inequalities in terms of health, and the organized social response. The students give an oral presentation of the result of this analysis and deliver it in writing. Subsequently, each student solves an exam, answering the following questions: What is a health status analysis and what are its elements?, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	SP49. Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.
9. Design a population-based policy, program, project or intervention	ED48. Healthy behaviors, environments and policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.
	SP49. Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.
	SA61. Environmental risk assessment and management.	Presentation of the final work. Activity. Proposal of interventions for environmental health risk management. The students must carry out a 15-minute presentation of a case study on risk assessment.
10. Explain basic principles and tools of budget and resource management	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.
11. Select methods to evaluate public health programs	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.

	SA54. Foundational processes for environment measurement.	Review of the programs geared at the control and evaluation of air pollution. The importance of environmental measurements for managing the quality of the air is exposed from the perspective of the local government of the state of Morelos. The students visit the monitoring station downtown Cuernavaca in order to reinforce theoretical concepts. Using the collaborative learning technique, the students describe, discuss and assess the various methods for measuring air pollutants.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Policy in Public Health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	CS29. Social determinants, ethics and human rights	Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
	SA59. Environment and public health.	Analysis of global emissions in environmental health and international conventions.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes programs that will improve health in diverse populations	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
14. Advocate for political, social or economic policies and	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
15. Evaluate policies for their impact on public health and health equity	SP45. Health systems and policies	Assessment of a policy and its health equity: the students analyze the article "Research on the implementation of health policies: A practical guide"; they subsequently form work teams to discuss it in order to carry out the activity.
Leadership		
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.

17. Apply negotiation and mediation skills to address organizational or community challenges	SP46. Public health management and innovation	The students develop dynamics and case analyses that allow them to apply conflict management and negotiation skills to management decision making in order to solve organizational issues and problems related to the community health services. A checklist is used to evaluate the participation in class of each student.
	SA49. Environmental legislation and management	Environmental regulation: the students are requested to review the regulations or norms in relation to air pollutant concentrations.
Communication		
18. Select communication strategies for different audiences and sectors	SA61. Environmental risk assessment and management.	At the end of the risk perception and communication class, the students perform a case study in which they form teams with different roles (the population, the industry, decision makers, researchers, etc.); they will then have to communicate the risk according to the posture of their role, but based on the premise that they must reach agreements in which there is an understanding between the parts and the environmental issues of the area are solved. In the final assignment, each student designs a strategy to carry out a risk perception study and a risk communication study that will contribute to the participation of the population in the risk prevention and/or abatement actions.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health authorities.
20. Describe the importance of cultural competence in communicating public health content	CS29. Social determinants, ethics and human rights	Video analysis: Having formed work teams, the students analyze videos showing the living and health conditions of certain ethnic groups in Latin America. For the analysis, the students answer the following questions: What is the condition of the indigenous peoples in the situations shown in these videos, in terms of the social determinants, health, equity and human rights? How important is interculturality for the actions of the healthcare staff? After viewing the video, each team reports its analysis in writing, in half a page (see the checklist).
Interprofessional Practice		
21. Perform effectively on interprofessional^ teams	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.
Systems Thinking		
22. Apply systems thinking tools to a public health issue.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

Table D.2.2.4. Assessment of Competencies for MPH in Social and Behavioral Sciences.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based approaches in public health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	EP60. Epidemiology and biostatistics	Survey studies: Students are requested to solve a case study on a tobacco-related topic in order to apply cross-sectional studies and their statistical modeling.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context.	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use it in their practice of making basic statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	CS31. Behavior change models in Public Health	Measurement and assessment of the psychosocial processes of behavior: the students identify the various scales and instruments contributed by the behavior theories and models to the measurement of the various constructs (self-efficiency, knowledge, skills, attitudes, beliefs, etc.), and how they can be used for designing health programs.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	EP60. Epidemiology and biostatistics	Use of software: The students utilize the main measures of frequency, relationship and impact on epidemiology by solving exercises using STATA with a database as part of the topic main frequency, relationship and impact measures in epidemiology.
	CS30. Qualitative methods applied to public health	Use of software: Organization and analysis of qualitative data. The students organize qualitative information as data analysis matrices using Atlas.ti.
4. Interpret results of data analysis for public health research, policy or practice.	BE42. Information systems for decision making	Case study: Information systems. The students identify and read the reference Vidal, J. 2012. Decision Theory: Interaction Process or Organizations as Decision Systems. Cinta Moebio 44: 136-152 http://bit.ly/1sfp95U They subsequently review the case of Chronic Kidney Disease in Morelos. They describe and present, in one page, the decision they would make in relation to this disease.
	CS31. Behavior change models in Public Health	Research analysis: based on the data on public health research, the students choose the theory or behavioral model best adjusted to the design of population behavior change programs.
Public Health & Health Care Systems		

5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.	SP49: Design and evaluation of public health interventions	Having formed teams, the students carry out an analysis of the health status, which can be municipal or at state level, considering the epidemiological and demographic profiles; political and socioeconomic aspects; social inequalities in terms of health, and the organized social response. The students give an oral presentation of the result of this analysis and deliver it in writing. Subsequently, each student solves an exam, answering the following questions: What is a health status analysis and what are its elements?, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
	CS29. Social determinants, ethics and human rights	Topic: Ethnicity and health affectations (session 14). Activity: the students draw a timeline in which they identify the ethnicity through the history of humankind. The students analyze specific situations of ethnical groups in which they analyze health, equity and social justice.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.
	ED48. Behaviors, environments and public policies	Methodology of public health initiatives: using the PRECEDE methodology in the health programs' planning stage, the students identify the needs of the population and the skills for designing an education program for health.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.	SP49: Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.
	ED48. Behaviors, environments and public policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.

9. Design a population-based policy, program, project or intervention.	ED48. Healthy behaviors, environments and public policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.
	SP49 Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.
10. Explain basic principles and tools of budget and resource management.	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.
11. Select methods to evaluate public health programs.	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.
	ED52. Health promotion initiatives	Evaluation model: the students review health promotion initiatives in order to revise their assessment model; they present specific assessment models, and they apply the assessment model that is relevant to the initiative developed by them. Integration of the initiative and its assessment is the final product of this instructional unit.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Policy in Public Health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.	CS29. Social determinants, ethics and human rights	Presentation: Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
	ED48. Behaviors, environments and public policies.	Topic 1. Conceptual framework for the promotion of health. Subtopic. Lines of action (public policies, settings, participation, reorientation of services, personal skills and aptitudes). The evidence for the formulation of public health policies is analyzed, after which the students analyze actual public policies in various countries and the way in which these have affected or improved the health of the population.

13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
	ED49. Social participation in health	The students analyze the various types of health participation in civil society groups in order to identify stakeholders, coalitions and partnerships.
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations.	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
15. Evaluate policies for their impact on public health and health equity.	SP45. Health systems and policies	Assessment of a policy and its equity in terms of health: The students analyze the article "Research on the implementation on health policies: A practical guide"; they subsequently form work teams to discuss it in order to carry out this activity.
Leadership		
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.
17. Apply negotiation and mediation skills to address organizational or community challenges.	SP46. Public health management and innovation	The students develop dynamics and case analyses that allow them to apply conflict management and negotiation skills to management decision making in order to solve organizational issues and problems related to the community health services. A checklist is used to evaluate the participation in class of each student.
Communication		
18. Select communication strategies for different audiences and sectors.	ED48. Behaviors, environments and public policies.	Communication strategies workshop: the students review conceptual aspects of social marketing in health and communication; then they carry out a workshop in order to identify the message, channels, audiences, and purpose of the communication.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health authorities.

20. Describe the importance of cultural competence in communicating public health content.	CS29. Social determinants, ethics and human rights	Video analysis: Having formed work teams, the students analyze videos showing the living and health conditions of certain ethnic groups in Latin America. For the analysis, the students answer the following questions: What is the condition of the indigenous peoples in the situations shown in these videos, in terms of the social determinants, health, equity and human rights? How important is interculturality for the actions of the healthcare staff? After viewing the video, each team reports its analysis in writing, in half a page (see the checklist).
Interprofessional Practice		
21. Perform effectively on interprofessional teams.	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.
	ED48. Behaviors, environments and public policies	Assessment of a health program: having formed work teams, the students design, implement and assess an education for health program in such a way that they must carry out negotiations in order to perform effectively within their respective teams.
Systems Thinking		
22. Apply systems thinking tools to a public health issue.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

Table D.2.2.5. Assessment of Competencies for MPH in Nutrition.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based approaches in public health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice.	EP60. Epidemiology and biostatistics	Survey studies: Students are requested to solve a case study on a tobacco-related topic in order to apply cross-sectional studies and their statistical modeling.
	NS46. Final professional project I	Topic 2 task. In relation to the topic to be studied in their final professional project, each student develops and turns in a detailed review of 5 articles on (a) health issues related to the topic, (b) epidemiological data related to the topic, (c) national and international experiences (interventions/public policies).
2. Select quantitative and qualitative data collection methods appropriate for a given public health context.	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use it in their practice of making basic statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	NS44. Assessment of nutritional status in populations	Final assessment session: The students design a proposal for the comprehensive assessment of the nutritional status of a population as an introduction to the planning of the assessment of malnutrition in a population.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	EP60. Epidemiology and biostatistics	Use of software: The students utilize the main measures of frequency, relationship and impact on epidemiology by solving exercises using STATA with a database as part of the topic main frequency, relationship and impact measures in epidemiology.
	CS30. Qualitative methods applied to public health	Use of software: Organization and analysis of qualitative data. The students organize qualitative information as data analysis matrices using Atlas.ti.
4. Interpret results of data analysis for public health research, policy or practice.	BE42. Information systems for decision making	Case study: Information systems. The students identify and read the reference Vidal, J. 2012. Decision Theory: Interaction Process or Organizations as Decision Systems. Cinta Moebio 44: 136-152 http://bit.ly/1sfp95U They subsequently review the case of Chronic Kidney Disease in Morelos. They describe and present, in one page, the decision they would make in relation to this disease.
	NS44. Assessment of nutritional status in populations	Final assessment session: The students design a proposal for the comprehensive assessment of the nutritional status of a population as an introduction to the planning of the assessment of malnutrition in a population.
Public Health & Health Care Systems		

5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.	SP49. Design and evaluation of public health interventions	Having formed teams, the students carry out an analysis of the health status, which can be municipal or at state level, considering the epidemiological and demographic profiles; political and socioeconomic aspects; social inequalities in terms of health, and the organized social response. The students give an oral presentation of the result of this analysis and deliver it in writing. Subsequently, each student solves an exam, answering the following questions: What is a health status analysis and what are its elements?, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.	SP49. Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.
9. Design a population-based policy, program, project or intervention.	ED48. Healthy behaviors, environments and policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.
	SP49. Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.
	NS45. Promotion of healthy nutrition and environments.	(Final) integrating work. Having formed work teams, the students design a communication campaign that includes proposals for dissemination to address a nutrition-related public health issue. This campaign takes into account the social determinants of health and elements of virtual education in their search for innovative approaches.
	NS43. Health and nutrition policies in Mexico	Sessions 11 and 12. Design and presentation of instruments for the assertive communication for the formulation of public health policies.
10. Explain basic principles and tools of budget and resource management.	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.

11. Select methods to evaluate public health programs.	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Public Policy in Public Health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.	CS29. Social determinants, ethics and human rights	Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
	NS43. Health and nutrition policies in Mexico	Topic 10. The role of research in the development of nutrition policies. In this topic, the students reflect and discuss the relevance of the context, power, actors, and processes in the interactions with political actors linked to public health.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
	NS43. Health and nutrition policies in Mexico	Training workshops on development of policy briefs: the students reflect on the relevance of the context, the power, the actors, and the processes when interacting with political actors linked to public health. They design instruments for the formulation and promotion of public health political action, in order to strengthen their competencies for assertive communication of proposals for designing public health policies.
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations.	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
15. Evaluate policies for their impact on public health and health equity.	SP45. Health systems and policies	Assessment of a policy and its health equity: The students analyze the article "Research on the implementation of health policies: A practical guide". They then form work teams to discuss it in order to carry out this activity.
	NS06. Nutrition programs design, monitoring and assessment	Assessment of results and impact: The students design assessment plans for the results and impact on the health and nutritional status of nutritional programs applying concepts, foundations and differences of the evaluation of results and impact. Topic 4. Nutrition variables and indicators.
Leadership		

16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.
17. Apply negotiation and mediation skills to address organizational or community challenges.	NS45. Promotion of healthy nutrition and environments	Communication campaign: having formed work teams, the students design a communication campaign including proposals for dissemination material for addressing a nutrition-related public health issue detected among a population group. The choice of the issue to be attended and the search for solutions are from the point of view of that population (principles of social marketing). In order to develop this technique, the students choose a population group with whom they wish to work and carry out a series of negotiations with the key informers (e.g. mayors, group leaders, parents, school directors, students, etc.) in order to inform about the characteristics of the study and its objective, and to request authorization and/or participation in order to work with the group of interest. During the work process with the population, the students face situations that may be helpful (availability of people to work, interest in health topics) or interfere (lack of interest in participating, social conflicts in the community where he work will be performed, etc.) with the execution of the work. In the face of these situations, the students must use their skills to conciliate, in encourage or reach an agreement to fulfill the purpose of their communication campaign, and this can be achieved by becoming familiar with the social structure of the population (identifying those people who embody authority in the locality, as well as the clash groups).
Communication		
18. Select communication strategies for different audiences and sectors.	NS45. Promotion of healthy nutrition and environments	Communication and education in nutrition promotion of healthy environments: the students design communication strategies for the prevention and promotion of nutrition and health issues among different population groups (campaigns, design of dissemination materials, use of information and communication technologies)
19. Communicate audience-appropriate public health content, both in writing and through oral presentation.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health authorities.
	NS43. Health and nutrition policies in Mexico	Training workshops on development of policy briefs: the students design instruments for the formulation and promotion of public health political action, in order to strengthen their competencies for assertive communication of proposals for designing public health policies.
	NS45. Promotion of healthy nutrition and environments.	Communication and education in nutrition and promotion of healthy environments. The students design oral and written communication strategies for the prevention and promotion of nutritional and health issues in different population groups (campaigns, design of dissemination materials, use of information and communication technologies). Final assessment session: As the final product, the students present, in interdisciplinary group, the design of a communication campaign: videos, digital games, infographics, etc., targeting a particular population group.

20. Describe the importance of cultural competence in communicating public health content.	CS29. Social determinants, ethics and human rights	Having formed work teams, the students analyze videos that show the health and living conditions in which some of the ethnic groups in Latin America live. For the analysis, they individually answer trigger questions, including the following: in the actions of healthcare staff, what is the importance of interculturality? One of the evaluation criteria is that, within the analysis of the videos, the students identify elements of interculturality.
Interprofessional Practice		
21. Perform effectively on interprofessional teams.	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.
	NS47. Final professional project II	The students develop their final professional Project and their practicum in settings in which they collaborate in interprofesional teams, outside the field of public health, such as civil society organizations, schools, government departments and agencies, the army, among others, and interact with professionals of other areas tan health, such as lawyers, anthropologists, social activists, economists, etc., in order to seek and develop alternatives that can provide a solution to a particular health issue by taking into account the perspective of various disciplines.
Systems Thinking		
22. Apply systems thinking tools to a public health issue.	NS46 Final professional project I NS47. Final professional project II	During these two courses, the students learn the steps to carry out a research Project (particularly for the design, implementation and/or evaluation of a health intervention) and apply this knowledge to a real case scenario when they perform their research on the health topic that they have chosen. As they carry out their research, the students face real-life situations and get to know the elements that interact in the environment and how these elements interact, as well as why people act a certain way in the face of a health theme. Thus, the final result of their research project is conditioned by the interests and values of the people involved in the health topic to be studied.
	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

Table D.2.2.6. Assessment of Competencies for MPH in Biostatistics.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based approaches in public health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice.	EP60. Epidemiology and biostatistics	Survey studies: Students are requested to solve a case study on a tobacco-related topic in order to apply cross-sectional studies and their statistical modeling.
	BE37. Intermediate biostatistics	Correlation workshop: a database on smoking and cancer is analyzed. The students review the literature on these topics and develop a workshop in which the variables of greatest relevance for the development of the ailment are identified. Evidence: the students turn in the resolution of workshop.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context.	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use it in their practice of making basic statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health.	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	BE64. Design and evaluation of public health interventions	Assessment frameworks and tools of the health information systems: the students apply the Performance of Routine Information System Management (PRISM) for the collection of data and the assessment of the health information system.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	BE37. Intermediate biostatistics	Workshop: Exploratory analysis and inference. Assessment: in this workshop, the database "Hipertension_entrega.dta", included in the National Health and Nutrition Survey (ENSANUT) module, serves as the basis for the exploratory analysis of the most relevant variables in the development of arterial hypertension (AHT) for the purpose of making decisions together with health workers. Evidence: delivery of the completed workshop.
	BE36. Advanced biostatistics	Logistic regression and binomial-log workshop: The students carry out the analysis using STATA and model interpretation in order to identify the determinants of major public health issues and of the organized social response. Evidence: Written document with the completed workshop.
	BE63. Geographic Information systems in public health	Thematic map design: the students use QGIS (Geographic Information System) to relate tabular information to geographic information and compute crude rates. Evidence: thematic maps will be created for each mortality year.
	BE69. Information and communication technologies	Final activity: having formed work teams, the students give a presentation on the health information systems from the point of view of information and communication technologies. The presentation must address the following points: a) Importance (as technological developments); b) Advantages and use of storage in databases; c) Importance of the technologies: Software, Hardware, Services, Trends, and Conclusions. Each team will have 15 minutes for its presentation, and all team members must participate.

4. Interpret results of data analysis for public health research, policy or practice.	BE36. Advanced biostatistics	Workshop 1: "Logistic regression and binomial log" Topic 3: Generalized Linear Models: binary response variables. The students will analyze the models using STATA and model interpretation. Evidence: Written document with resolution of the workshop.
	BE78. Advanced biostatistics topics or models	Term paper on topic 3: Non-stationary multivariate models. The students will analyze a time series of at least 100 observations. Evidence: Delivery of a report.
Public Health & Health Care Systems		
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
	BE64. Design and evaluation of public health interventions	Use of the Health Metrics Network (HMN) assessment tool: The students complete the Health Metrics Network (HMN) framework in order to assess the Health Information System of Mexico.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.	SP49: Design and evaluation of public health interventions	Having formed teams, the students carry out an analysis of the health status, which can be municipal or at state level, considering the epidemiological and demographic profiles; political and socioeconomic aspects; social inequalities in terms of health, and the organized social response. The students give an oral presentation of the result of this analysis and deliver it in writing. Subsequently, each student solves an exam, answering the following questions: What is a health status analysis and what are its elements?, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
	CS29. Social determinants, ethics and human rights	Topic. Ethnicity and effects on health (session 14). Activity: The students draw a timeline on which they identify the ethnicity in the history of humankind. The students analyze specific situations of ethnical groups in relation to which they discuss health, equity and social justice.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.
	ED48. Behaviors, environments and public policies	Methodology for public health initiatives: using the PRECEDE methodology at the health programs planning stage, the students identify the needs of the population and the capacities for the design of a health education program.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.	SP49: Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.

	ED48. Behaviors, environments and public policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.
9. Design a population-based policy, program, project or intervention.	ED48. Healthy behaviors, environments and public policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.
	SP49 Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.
10. Explain basic principles and tools of budget and resource management.	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.
11. Select methods to evaluate public health programs.	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Public policy on public health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.	CS29. Social determinants, ethics and human rights	Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
	ED48. Behaviors, environments and public policies.	Topic 1. Conceptual framework for the promotion of health. Subtopic. Lines of action (public policies, settings, participation, reorientation of services, personal skills and aptitudes). The evidence for the formulation of public health policies is analyzed, after which the students analyze actual public policies in various countries and the way in which these have affected or improved the health of the population.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
	ED49. Social participation in health	The students discuss the various types of health participation in civil society groups in order to identify stakeholders, coalitions and partnerships.

14. Advocate for political, social or economic policies and programs that will improve health in diverse populations.	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
15. Evaluate policies for their impact on public health and health equity.	SP45. Health systems and policies	Assessment of a policy and its health equity: The students analyze the article "Research on the implementation of health policies: A practical guide". They then form work teams to discuss it in order to carry out this activity.
Leadership		
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.
17. Apply negotiation and mediation skills to address organizational or community challenges.	SP46. Public health management and innovation	The students develop dynamics and case analyses that allow them to apply conflict management and negotiation skills to management decision making in order to solve organizational issues and problems related to the community health services. A checklist is used to evaluate the participation in class of each student.
Communication		
18. Select communication strategies for different audiences and sectors.	SP46. Public health management and innovation	Topic 4. Leadership in interdisciplinary work (oral and written communications). The students carry out a critical review of research papers and engage in group discussions. They subsequently analyze the case of "the absentee", a resource related to management skills and communication strategies for leading work teams.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health
20. Describe the importance of cultural competence in communicating public health content.	CS29. Social determinants, ethics and human rights	Video analysis: Having formed work teams, the students analyze videos showing the living and health conditions of certain ethnic groups in Latin America. For the analysis, the students answer the following questions: What is the condition of the indigenous peoples in the situations shown in these videos, in terms of the social determinants, health, equity and human rights? How important is interculturality for the actions of the healthcare staff? After viewing the video, each team reports its analysis in writing, in half a page (see the checklist).
Interprofessional practice		
21. Perform effectively on interprofessional teams.	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.

Systems thinking		
22. Apply systems thinking tools to a public health issue.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.
	BE67. Final professional project I	Development of the Protocol for the Final Professional Project (PT): The students present the progress in the protocol for the PT. Evidence: Document of the protocol for the PT.
	BE68. Final professional project II	Development of the Protocol for the Final Professional Project (PT): The students present the progress in the protocol for the PT. Evidence: Word file or presentation with previews of the PT document.

Table D.2.2.7. Assessment of Competencies for MPH in Infectious Diseases.

Competency	Course number(s) and name(s)	Specific assessment opportunity
Evidence-based approaches in public health		
1. Apply epidemiological methods to the breadth of settings and situations in public health practice.	EP60. Epidemiology and biostatistics	Survey studies: Students are requested to solve a case study on a tobacco-related topic in order to apply cross-sectional studies and their statistical modeling.
	E168. Infectious diseases in populations.	Workshop: previously to the session, scientific articles and standards and procedures of the Health System are shared via Dropbox. During the session, a workshop on an outbreak of meningitis is resolved. At the end of the workshop, the teacher gives an integrating and closing presentation, focusing on the raising of awareness of environmental health risks. This activity is part of Topic 1. Environment and infectious diseases. Sub-topic: a) Environmental determinants: habitat of the agent and conditions favoring its dissemination: vectors and non-human reservoirs.
	E170. Final professional project I	Protocol for the Final Professional Project: The students integrate the sections of the protocol: a) Background; b) Theoretical/Conceptual Framework, and c) Statement of the issue. Once the protocol is completed, it must be submitted to the Research Ethics Committee.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context.	EP60. Epidemiology and biostatistics.	Describing populations: The students design a data entry mask for the survey and for anthropometric data of the student population in order to use it in their practice of making basic statistical estimates, measures of frequency, etc.
	CS30. Qualitative methods applied to public health.	Information collection techniques: theory and practical exercises. The students identify the principles that guide the main techniques for gathering information and exercising their use (observation, interview, focus groups).
	E171. Final professional project II	Workshop: The students are provided scientific bibliography, guidelines and dissemination materials on the topic of "Implementation and Assessment of Health Projects", as well as a working guide. A workshop is taught on prevention, control, management and assessment of a health program or project on infectious diseases. Previews of the integrated information are presented in each session. At the end of the workshop, a summary is presented in the form of a table.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	EP60. Epidemiology and biostatistics	Use of software: The students utilize the main measures of frequency, relationship and impact on epidemiology by solving exercises using STATA with a database as part of the topic main frequency, relationship and impact measures in epidemiology.
	E168. Infectious diseases in the populations	Workshop: before the session, the students read and analyze the bibliographic materials. During the session, they engage in a workshop that requires epidemiological figures and epidemiological and statistical methods, and they discuss the results of their analysis of the documents made available to them previously to the session. Finally, an integrating conclusion on the topic is presented, and questions are answered. The teacher presents the closing topic to the students.
	CS30. Qualitative methods applied to public health	Use of software: Organization and analysis of qualitative data. The students organize qualitative information as data analysis matrices using Atlas.ti.

4. Interpret results of data analysis for public health research, policy or practice.	BE42. Information systems for decision making	Case study: Information systems. The students identify and read the reference Vidal, J. 2012. Decision Theory: Interaction Process or Organizations as Decision Systems. Cinta Moebio 44: 136-152 http://bit.ly/1sfp95U They subsequently review the case of Chronic Kidney Disease in Morelos. They describe and present, in one page, the decision they would make in relation to this disease.
	E169. Perspectives and challenges in the design, implementation and assessment of public policies on infectious diseases	Case study: TB Orizaba, Veracruz. During the session, work teams are formed in order to solve the case study. This resolution is subsequently presented by each of the teams; the conclusions are discussed, and questions are answered. The students turn in an essay on the consequences of an infectious disease of interest.
Public Health & Health Care Systems		
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.	SP45. Health systems and policies	Plenary discussion: Health systems definition, functions and levels and Topic 4. Health organizations (types and characteristics). Students are requested to complete the following compulsory readings: De Savigny, D., & Adam, T. (Eds.). (2009). Systems thinking for health systems strengthening. World Health Organization. Scott, W. R. (1982). Managing professional work: three models of control for health organizations. Health services research, 17(3), 213. http://www.who.int/whr/2000/en/whr00_ch1_es.pdf?ua=1 The teacher lectures on the topics and then holds a plenary discussion with the group.
	E169. Perspectives and challenges in the design, implementation and assessment of public policies on infectious diseases	Drafting of a Guidebook: The students are sent bibliographic materials and a guide for building work teams and for the analysis and presentation of these materials. During the in-person session with their work team, the students develop the Guidebook on "Health quality and its impact on health: Diarrhea and the rotavirus vaccine" by shifts, and the teacher addresses questions to each team. A comprehensive closure on the topic is presented. The students turn in the filled-out guidebook after the in-person session.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.	SP49. Design and evaluation of public health interventions	: The students make a situational assessment of a community or a health institution, followed by a health prioritization, which serves as a base for stating in writing the central issue for a public health intervention proposal.
	E169. Perspectives and challenges in the design, implementation and assessment of public policies on infectious diseases	Panel discussion: previously to the session, the students are provided with bibliographic materials. During the session, these engage in a panel discussion on scientific articles. The evaluation is based on an essay on this topic.
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

	E168. Infectious diseases in populations.	Semantic map: the students read and analyze the bibliographic materials provided to them. During the session they draw and present a semantic map with active participation in a situation room. At the end of the session, the teacher listens to comments and helps answer the students' questions, and conclusions are stated.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.	SP49. Design and evaluation of public health interventions	Intervention planning and design: The students carry out a sociopolitical analysis of the context in order to determine the health situation, identifying the issues and needs. In addition, they collect qualitative data from key actors of the community or vulnerable groups that will serve as a basis for the design of a public health intervention.
	E169. Perspectives and challenges in the design, implementation and assessment of public policies on infectious diseases	Case analysis: the teacher coordinates the session using a "Natural disaster case" and asks questions leading to a discussion of the most important aspects. The students turn in an essay on the relevance of public disaster prevention policies considering environmental, social, cultural and economic hazards.
9. Design a population-based policy, program, project or intervention.	ED48. Healthy behaviors, environments and policies	Methodology for public health initiatives: having formed work teams, the students research a health related topic and develop a PRECEDE/PROCEED educational methodology. They implement an instructional intervention assessing the process and the outcome. They present the results at the end of the instructional unit.
	E170. Final professional project I	Final professional project: based on a previous assessment of a health situation, the students define a final professional project and a site for their practicum related to the theme of their project. The students draft the protocol for their (individual) project, advised by their committee and their teachers. Once they complete it, they submit it to the Research Ethics Committee.
	SP49. Design and evaluation of public health interventions	Presentation of a public health intervention design: the students present a public health intervention project.
10. Explain basic principles and tools of budget and resource management.	SP70. Health resource management and administration	Financial resource management: the students answer a questionnaire with structured questions in order to approach the programming and budget regulations. Exchange of views/discussion regarding a) video: public expenditure and its standards, b) document: Programming and Budget, Chapter 1, articles 24-29 of the Federal Budget and Fiscal Responsibility Law.
	E168. Infectious diseases in the populations	Essay: the students must turn in an essay on the relevance of information systems in public health decision making in relation to the topic of Investment in health.
11. Select methods to evaluate public health programs.	SP49. Design and evaluation of public health interventions	Monitoring and assessment of public health interventions: according to the type of intervention, the students develop the epidemiological design for their public health intervention proposal. The quasi-experimental or community method is suggested.
	SP46. Public health management and innovation	In a Results Indicator Matrix (MIR), the students identify the creation of indicators data sheets as part of topic 4. Management in the organizational setting and 4.1.4 Control and evaluation.
Public Policy in Public Health		

12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.	CS29. Social determinants, ethics and human rights	Ethical approach to the social determinants analysis: the students address public health issues with a focus on ethics, equity and human rights. Description of the activity: 1. Each student engages in a general review of the topic: post 2015 Millennium Development Goals – Sustainable Development Goals. 2) The students form teams to organize a PowerPoint presentation to be shown during the in-person session.
	E168. Infectious diseases in populations	Essay: During the in-person session, the teacher presents the topic, asking questions with the aim of discussing the main aspects. The students must turn in an essay on the relevance of information systems for public health decision making.
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	SP46. Public health management and innovation	Workshop: Establishment of priorities. A workshop is carried out with the students' participation on analysis of groups of interest in order to perform a mapping to identify the different group types (Against: enemies, hinderers, adversaries and critics, and in favor: allies, sympathizers, collaborators, and friends). Each team applies and proposes strategies to minimize or approach and promote alliances with those in favor of public health policies, services, programs and actions. A checklist is used to evaluate the participation of each student in the workshop.
	E168. Infectious diseases in populations	Case analysis: Bibliographic materials and an outline for building work teams are sent via Dropbox before the session. The students carry out a critical analysis of the "Cases" and create a presentation. During the session, the "Cases" are presented by the various teams, and a group discussion takes place. The teacher delivers a comprehensive closure on the topic. The students turn in their presentation and the conclusions of the session.
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations.	SP45. Health systems and policies	Presentation in a plenary session: once all the topics that make up the course have been addressed, the students put together a PowerPoint presentation in which they analyze an issue from the study perspective of health policies.
	E169. Perspectives and challenges in the design, implementation and assessment of public policies on infectious diseases	The students form teams, resolve a case, and prepare a written executive report and an exposition. During the session, they present the assigned case on new infectious diseases, re-emerging infectious diseases, control-elimination of infectious diseases, etc., constituting a domestic and/or global public health issue; they must take into account the topics reviewed during the sessions and apply the acquired knowledge.
15. Evaluate policies for their impact on public health and health equity.	SP45. Health systems and policies	Assessment of a policy and its health equity: The students analyze the article "Research on the implementation of health policies: A practical guide". They then form work teams to discuss it in order to carry out this activity.
	E169. Perspectives and challenges in the design, implementation and assessment of public policies on infectious diseases	"Drug-resistant tuberculosis case": The students turn in a written executive report and prepare a presentation. During the in-person session, the session is coordinated with questions addressed to the students in order to generate discussions, and the students' questions are answered. Finally, the teacher will close the session.
Leadership		

16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.	SP46. Public health management and innovation	Planning workshop including the formulation of the business strategy: create a vision, state the mission, establish the values and principles of the organization or institution. Organizational design workshop: The students apply management models and tools in the design, organization and leadership dynamics, communication, motivation and team work, as well as in dynamics for the application of conflict analysis and negotiation for management decision making in the formation and conduction of interdisciplinary work teams and relationships with the population to promote their collaboration and health empowerment. A checklist is used to evaluate the participation of each student in the proposed workshops.
17. Apply negotiation and mediation skills to address organizational or community challenges.	SP46. Public health management and innovation	The students develop dynamics and case analyses that allow them to apply conflict management and negotiation skills to management decision making in order to solve organizational issues and problems related to the community health services. A checklist is used to evaluate the participation in class of each student.
	E170. Final professional project I E171. Final professional project II	Practicum: During this academic activity (at least 200 hours), the students are exposed to regulatory, scientific, dissemination, operational information, and program or intervention assessment. They analyze and interpret information that helps them make decisions, enriches them in management, administrative and leadership aspects. They collaborate or are tutored by decision makers at various levels of healthcare administration.
Communication		
18. Select communication strategies for different audiences and sectors.	SP46. Public health management and innovation	Topic 4. Leadership in interdisciplinary work (oral and written communications). The students carry out a critical review of research papers and engage in group discussions. They subsequently analyze the case of "the absentee", a resource related to management skills and communication strategies for leading work teams.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of the results of the DISP: The students present an oral and written report of the results of the DISP to the INSP faculty, the municipal authorities, and the health
	NS43. Health and nutrition policies in Mexico	Training workshops on development of policy briefs: the students design instruments for the formulation and promotion of public health political action, in order to strengthen their competencies for assertive communication of proposals for designing public health policies.
20. Describe the importance of cultural competence in communicating public health content.	CS29. Social determinants, ethics and human rights	Video analysis: Having formed work teams, the students analyze videos showing the living and health conditions of certain ethnic groups in Latin America. For the analysis, the students answer the following questions: What is the condition of the indigenous peoples in the situations shown in these videos, in terms of the social determinants, health, equity and human rights? How important is interculturality for the actions of the healthcare staff? After viewing the video, each team reports its analysis in writing, in half a page (see the checklist).
Interprofessional Practice		

21. Perform effectively on interprofessional^ teams.	CPOP03. Comprehensive population health assessment I (DISP). CPOP04. Comprehensive population health assessment II	In both instructional units, the students form work teams according to their background and to their concentration area within the Master's in Public Health. Each team consists of professionals from areas other than health, such as lawyers, anthropologists, psychologists, business administrators, etc. These teams work during two semesters on the protocol, collection, processing and analysis of quantitative and qualitative data and conclude this work by presenting a DISP results report.
Systems thinking		
22. Apply systems thinking tools to a public health issue.	CPOP04. Comprehensive population health assessment II (DISP)	Presentation of DISP results: Having formed work teams, the students collect, process and analyze quantitative and qualitative data of the health issues identified in the assigned community under three headings: social determinants, risks and damages, and organized social response. They finish by writing and presenting a report of DISP results.

3) Include the most recent syllabus from each course listed in Template D2-1, or written guidelines, such as a handbook, for any required elements listed in Template D2-1 that do not have a syllabus.

The syllabi of the courses listed in Tables D2.1 and D2.2 of the MPH are among the electronic resource files.

Today, the INSP is working actively with its faculty members to make the syllabi reflect clearly what the professors achieve in their subjects, and this is presented in the matrices. Likewise, work is being done with the faculty members in order to unify the course planning form in all the subjects listed under tables D2.1 and D2.2, in order to facilitate review by the evaluating team. The Final Self-Study will include the final version of all the course syllabi translated into English.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

All the students of the concentration areas of the Master of Public Health fulfill the foundational competencies when they complete the common core instructional units BE42, CS30, CS29, CPOP04, CPOP05, ED48, EP60, SP45, SP46, SP49, and SP70. These common instructional units provide a solid basis in terms of values and of the history, the methods and the functions of public health, as well as the foundational knowledge and skills required by public health professionals. The assessment opportunities for the fulfillment of foundational competencies are present in both core and concentration-specific courses.

D3. DrPH Foundational Competencies

The school documents at least one specific, required assessment activity (eg, component of existing course, paper, presentation, test) for each competency, during which faculty or other qualified individuals (eg, preceptors) validate the student's ability to perform the competency.

Assessment opportunities may occur in foundational courses that are common to all students, in courses that are required for a concentration or in other educational requirements outside of designated coursework, but the school must assess *all* DrPH students, at least once, on each competency. Assessment may occur in simulations, group projects, presentations, written products, etc.

1) List the coursework and other learning experiences required for the school's DrPH degrees. Information may be provided in the format of Template D3-1 or in hyperlinks to student handbooks or webpages, but the documentation must present a clear depiction of the requirements for each DrPH degree.

The list of courses and other learning activities required to obtain the Doctor of Public Health degree are detailed in Table D3.1. We also include a link to the website where program requirements are described in detail: http://www.espm.mx/oferta-academica/doctorados/salud-publica.

Table D3.1. Requirements for DrPH degree.

Course number	Course name*	Credits
DrPH36	Social Determinants of Health	ths: 40, ihs: 40, c: 5
DrPH37	Public Health Management	ths: 40, ihs: 40, c:5
DrPH39	Draft of Thesis	ths: 40, ihs:60, c:6
DrPH38	Qualitative Methods	ths: 20, ihs: 40, c:4
DrPH40	Public Health Policies and Programs	ths: 40, ihs: 40, c:5
DrPH41	Epidemiology Applied to Public Health	ths: 40, ihs: 40, c:5
DrPH43	Protocol Development	ths: 40, ihs:60, c:6
DrPH42	Operations Research in Public Health I	ths: 20, ihs: 40, c:4
DrPH44	Program Assessment I	ths: 40, ihs: 40, c:5
DrPH47	Thesis Seminar I	ths: 20, ihs: 80, c:6
DrPH45	Biostatistics	ths: 40, ihs:60, c:6
DrPH46	Operations Research in Public Health II	ths: 20, ihs: 40, c:4
DrPH48	Program Assessment II	ths: 40, ihs: 40, c:5
DrPH49	International Politics and Global Health	ths: 40, ihs: 40, c:5
DrPH51	Thesis Seminar II	ths: 20, ihs: 80, c:6
DrPH50	Seminar on Case Studies in Public Health	ths: 20, ihs: 40, c:4
DrPH52	Bioethics	ths: 20, ihs: 20, c:3
DrPH53	Environmental Health Determinants	ths: 40, ihs: 40, c:5
DrPH54	Public Health Leadership and Decision-making Workshop	ths: 20, ihs: 40, c:4
DrPH55	Health Communication Workshop	ths: 20, ihs: 40, c:4
	Practicum*	ths: 80
	Thesis	c: 12
	Total Credits	109
	Total US Credits Approximate equivalence in US system* 1 Mexican credit equals approximately .75 US credit unit	82

Key notes:
Teaching hours (ths): Under the leadership of an academic, in indoor spaces within the institution such as classrooms, centers, workshops or laboratories, or in outside spaces
Independent hours (ihs): In internal or external spaces, outside of established classroom hours and as part of autonomous processes linked to the subject or course
Credit (c): A credit in the Mexican educational system is equivalent to 16 class hours or contact time during a semester.
Practicum* has as its objective applying knowledge and the development of specific skills in the management of health programs and policies. Practicums are carried out in Mexican or foreign institutions through visits, meetings, seminars and other strategies in which students share information with managers and researchers concerning research projects or on the implementation of public policies. Practicums have a duration of 80 hours.

2) Provide a matrix, in the format of Template D3-2, that indicates the assessment activity for each of the foundational competencies. If the school addresses all of the listed foundational competencies in a single, common core curriculum, the school need only present a single matrix. If the school relies on concentration-specific courses to assess some of the foundational competencies listed above, the school must present a separate matrix for each concentration.

Table D3-2, below, describes the foundational competencies enumerated from 1 to 20, the names of the courses and the specific assessment opportunity for each competency.

Table D3.2. Assessment of Competencies for DrPH.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
Data & Analysis		
1. Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels	**DrPH36** **Social Determinants of Health**	Oral presentation: with the help of slides, the students make a presentation with a question-and-answer period and a guided discussion. Students identify the principles of measuring health inequalities as expressions of social inequalities and the choice of information sources that make it possible to construct inequality indicators in health.
	DrPH38 **Qualitative Methods**	Guided group discussion: students complete the recommended reading prior to the class, conduct a guided group discussion during the session and perform an analysis that is applicable to the research topic in public health, based on the proposed thesis. Teaching and guided presentations: the professor offers a presentation followed by a discussion among students on the criteria for convenience sampling, considering the number of informants/participants to include and how to conduct recruiting.
	DrPH41 **Epidemiology Applied to Public Health**	Practical exercises: through practical group exercises, students develop a research proposal based on epidemiological studies to resolve a population health problem.
	DrPH42 **Operations Research in Public Health I**	Presentation: students present results of research on applications for public health. By means of an online conference with classmates and professors, they present the developed proposal in a simple, technical, useful and ethical manner, taking into account interpretation and communication with different audiences.

2. Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue	**DrPH46** **Operations Research in Public Health II**	Research proposal: based on a specific subject (preferably the topic of their thesis), the students individually develop multidisciplinary contributions towards the solution of public health problems from a multicultural and community perspective.
	DrPH47 **Doctoral Thesis Integration Matrix with DrPH Courses from DrPH39.** **Thesis Draft for DrPH43.** **Protocol Development for DrPH47.** **Seminar for Thesis I DrPH51.** **Doctoral Thesis Seminar**	Research Project: the students construct an applied (operational) research project to understand, evaluate and propose public policy actions. This activity is conducted over the course of 2.5 years with the guidance of a thesis committee composed of the director, co-director and one or two advisors.
3. Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health	**DrPH41** **Epidemiology Applied to Public Health**	Presentation: based on previous reading and lectures by the professor, students propose a public health monitoring activity based on the timely identification and control of public health events. During the presentation, students assess the impact of intervention programs and propose measures for their improvement (using a tracer).
	DrPH48 **Programs Assessment II**	Assessment plan: students work in teams to propose a comprehensive assessment plan.
Leadership, Management & Governance		
4. Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners	**DrPH36** **Social Determinants of Health**	Oral presentation: with the help of slides and guided discussion, students identify the importance and necessity of generating, translating and communicating evidence on health inequalities for decision making.
5. Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies	**DrPH55** **Workshop on Public Health Communication**	Presentation: students offer a presentation on public health topics, citing the concepts and basic practices of contemporary theories regarding the complexity of the communicative process.
6. Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems	**DrPH50** **Seminar on Case Studies in Public Health**	Case studies: students present the theoretical framework and methodology of case studies and group discussions: a. Analysis of conceptual foundation b. Presentation of examples of situations in health services for applying case studies

	DrPH49 **International politics and Global Health**	Analysis and group discussion: on the basis of a lecture by the professor, students analyze comparative data on the global burden of disease in different countries and the disease control strategies (policies/programs) that these countries have developed.
7. Create a strategic plan.	**DrPH37** **Public Health Management**	Guided discussion: students complete the recommended readings on this topic prior to the session and, organized in groups, they review the health program of Mexico or another Latin American country. During class (in-person format), the professor reviews with the students the basic guidelines of strategic planning and its contribution to public health. Strategic planning workshop: organized in groups, students review the strategic plans/long-term programs of selected countries and answer the following questions: What is the mission? What is the vision? What identifiable elements in the mission and vision are oriented towards the achievement of the development goals? What elements, goals or strategies are missing to contribute to the achievement of sustainable development? What strategies must be developed to implement the plan/program in subnational units (states, departments or regions)? Each team prepares a 10-minute presentation to share with their classmates.
8. Facilitate shared decision making through negotiation and consensus-building methods	**DrPH54** **Workshop on Leadership and Decision- making in Public Health**	Group discussion and practical exercise: students engage in difficult conversations based on the three dimensions of a conversation, negotiation, and conflict management that allow for leading multidisciplinary teams in making public health decisions.
	Policies and Programs	Problem-based learning: focusing on a global health problem, students identify, explain and compare the different strategies of various countries to successfully control tobacco use, as well as their results.

9. Create organizational change strategies	**DrPH37** **Public Health Management**	Workshop: prior to the session, the students review the readings proposed for the subject and prepare a graphic summary. During the session, the professor reviews the characteristics of the objectives with the students. Organized in groups, the latter prepare an objective tree diagram and provide support for their main change components based on scientific evidence.
10. Propose strategies to promote inclusion and equity within public health programs, policies and systems	**DrPH36** **Social Determinants of Health**	Guided discussion with a rubric: with the help of slides, students analyze and come to understand the impact of the inequalities associated with globalization and life styles, and their consequences for the health of populations.
	DrPH52 **Bioethics**	Presentation by professor and students: students identify mechanisms for accessing a population during research and intervention projects. Subsequently, as part of their evaluation, each student prepares a presentation in ppt format including a maximum of five slides, showing the thesis project title, objectives, methods and ethical considerations.
11. Assess one's own strengths and weaknesses in leadership capacities including cultural proficiency	**DrPH54** **Workshop on Leadership and Decision- making in Public Health**	Lecture and practical exercise: using examples, students examine the effects of organizational justice mediators on the relationship among ethical leadership, work commitment, and organizational misconduct. By means of a practical exercise, the students analyze and apply the concepts examined.
12. Propose human, fiscal and other resources to achieve a strategic goal	**DrPH42** **Program** Assessment **I**	Practical exercise: by means of a practical exercise, the students analyze the concepts, indicators, and methodology for conducting performance assessments of health systems.
13. Cultivate new resources and revenue streams to achieve a strategic goal	**DrPH48** **Program** Assessment **II**	Analysis and group discussion: students offer presentations in which they learn the relevance of assessing health programs as part of improving results, allowing for accountability, and strengthening the efficiency of resource allocation.
Policy & Programs		

14. Design a system-level intervention to address a public health issue	**DrPH46** **Operations Research in Public Health II**	Project design: through an applied theoretical focus adapted to the rules of the ASPPH DrPH task force, students design the TDRs and the rubrics to assess applied research and community intervention projects in public health (using a health tracer).
15. Integrate knowledge of cultural values and practices in the design of public health policies and programs	**DrPH52** **Bioethics**	Case studies and active participation: students identify the public health focus from the perspective of human rights and their application in different scenarios.
16. Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis	**DrPH40** **Policies and Programs in Public Health**	By means of a class lecture, analysis, teamwork/workshop and group discussion, students analyze policies from the perspective of the actors (single, multiple, complex, etc.), as well as methodologies for mapping the actors within public policy.
17. Propose interprofessional^ team approaches to improving public health	**DrPH36** **Social Determinants of Health** **DrPH40** **Policies and Programs in Public Health**	Students of diverse professions unrelated to health, such as engineers, lawyers, administrators and computer scientists, have entered the program from the 2011-2104 class onward; this has allowed for the interprofessional work needed in public health. In doctoral seminars, students work in groups, with the interprofessional focus provided by the diversity of professions in these groups. In the seminars, they analyze public health problems and make proposals for resolving them. Specifically, they create a policy brief.
Education & Workforce Development		
18. Assess an audience's knowledge and learning needs	**DrPH55** **Health Communication Workshop**	Students develop skills that facilitate educational activities, particularly at the organizational and community levels. The principal objective of these actions is to contribute to the generation of information, communication and learning processes that facilitate the creation of links between health institutions and communities.
19. Deliver training or educational experiences that promote learning in academic, organizational or community settings		
20. Use best practice modalities in pedagogical practices		

3) Include the most recent syllabus from each course listed in Template D3-1, or written guidelines for any required elements listed in Template D3-1 that do not have a syllabus.

The syllabi for the courses listed in Table D3-1 are included as electronic resources files. The INSP is currently working actively with its faculty to make the syllabi clearly reflect what the professors achieve in their subjects, which is presented herein in the matrices. Likewise, work is being done with the faculty to unify the class planning format of all the subjects listed in tables D2.1 and D2.2, in order to facilitate review by the evaluating team. The Final Self-Study will incorporate the final version of all the course syllabi translated into English.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

D4. MPH & DrPH Concentration Competencies

The school defines at least five distinct competencies for each concentration or generalist degree at each degree level in addition to those listed in Criterion D2 or D3.

The school documents at least one specific, required assessment activity (eg, component of existing course, paper, presentation, test) for each defined competency, during which faculty or other qualified individuals (eg, preceptors) validate the student's ability to perform the competency.

If the school intends to prepare students for a specific credential (eg, CHES/MCHES) that has defined competencies, the school documents coverage and assessment of those competencies throughout the curriculum.

1) Provide a matrix, in the format of Template D4-1, that lists at least five competencies in addition to those defined in Criterion D2 or D3 for each MPH or DrPH concentration or generalist degree, including combined degree options, and indicates at least one assessment activity for each of the listed competencies. Typically, the school will present a separate matrix for each concentration.

Tables D.4.1.1 to D.4.1.8 show a detailed assessment of competences in the concentration areas of the Master of Public Health and Doctorate in Public Health degrees.

D.4.1.1. Assessment of competencies for MPH with concentration in Epidemiology.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Assessing the health status of the population in order to set priorities to guide integral health interventions	CPOP03. Comprehensive Population Health Assessment	Health diagnosis: The students meet as a team to identify the different health diagnoses in order to implement a public health initiative. Group Activity: the students identify the type of diagnosis and define the methodology to be developed (research based on the participation of the community or ecosystemic approach); subsequently, they make a brief description of the stages of a comprehensive health assessment. Individual activity: Exam and Coevaluation
	EP62. Epidemiological surveillance and intelligence	Case studies: through 3 different pages web of health surveillance, the students make a comparison of the surveillance perspective. This allows setting a reference point for the examples seen in class in relation to the social determination of the studied localities as to what risks of emerging or reemerging diseases and other health events to plan for, given the priorities of the respective regions. Simulators and practical exercises: Topics 3 to 5 explore several methods of classical epidemiological surveillance and epidemiological intelligence for the incorporation of more comprehensive explanations of health phenomena with various degrees of inference for the unit of observation of the sources of information and their time frame.

	EP61. Foundations of social epidemiology	Workshop: the students analyze the reading material "Measuring the magnitude of socio-economic inequalities in health" and participate in the workshop on "Socioeconomic level measures" in order to analyze health-disease issues from an individual /collective perspective and apply epidemiological measures to the assessment of population health issues.
2. Effectively communicating to health professionals, decision makers, and the public in general the health risks for their control or elimination.	EP62. Epidemiological surveillance and intelligence	Sociodrama: On the subject of risk communication, the students are required to interpret the position of different decision-makers with different (preliminary to detailed) reports and provide answers in a press conference.
3. Assess the damage and needs arising from epidemiological emergencies as a basis for prevention and control actions.	EP62. Epidemiological surveillance and intelligence	Final assignment: The students develop and deliver the design of a new surveillance system. The students must identify which elements within the system must generate early warnings, allow the analysis of trends and mechanisms in such a way that the information will serve for the planning of actions.
4. Monitor the behavior of the problems and determinants of health in order to establish trends and projections that will allow recognizing contingency situations (such as outbreaks and other epidemiological emergencies).	EP62. Epidemiological surveillance and intelligence	Workshop: The students build endemic channels, epidemic curves, the use of the Epi-Info calculator and the construction of 2x2 tables for the estimation of relative risks for the prevention and control of transmission mechanisms, as well as for decision-making with regard to verification of the initial hypotheses. Simulators: The students are required to develop a simulator on an outbreak.
	EP66. Applied Epidemiology II	Case study: Analysis of epidemiological data with repeated or prospective measurements for describing the health status of populations. The students must develop a case study of any condition subject to epidemiological surveillance. In order to develop it, the students must search reliable sources for information on the morbidity and mortality of the condition.
5. Evaluating health interventions in order to reorient the planning of programs and new actions.	EP62. Epidemiological surveillance and intelligence	Final assignment: For the development and final delivery of the design of a new surveillance system, the students must identify which elements within the system should be to enable them to propose indicators of potential impact measures that will account for the fractions attributable to different preventive actions. This is addressed in the topic: Design and evaluation of an epidemiological surveillance system.

	SP49. Design and evaluation of public health interventions	Evaluation indicators: Prior to the session, the students review three documents on models of evaluation of interventions and development of indicators of process and outcome. During the in-person session, the professor presents the basic criteria for the construction of indicators of results of the intervention in terms of order, purpose, component and the contents of the assessment plan. The students read individually about building indicators and about health interventions assessment models. They must take an exam whereby the knowledge acquired by them is evaluated. Subsequently, the students, in small groups, build a matrix of indicators to assess the proposed intervention.
6. Generating information for the development of interventions through the use of information systems, surveillance and research methods in applied epidemiology.	EP62. Epidemiological surveillance and intelligence	Practical workshops on epidemiological study designs and measurement of variables.
	EP66. Applied Epidemiology II	Case study: Analysis of epidemiological data with repeated or prospective measurements for describing the health status of populations. The students must develop a case study of any condition subject to epidemiological surveillance. In order to develop it, the students must search reliable sources for information on the morbidity and mortality of the condition.
7. Ethically and legally substantiating health actions to reduce inequities among the population.	EP62. Epidemiological surveillance and intelligence	Role playing: The students analyze the article "How to reduce inequities in health by acting on their social determinants? The role of the health sector in Mexico." Subsequently: a) two representatives are chosen to participate in the role play; each representative is assigned a role to develop in the situation explained by the professor; c) during approximately half an hour the students play the assigned role and interact with the rest of the participants. 4. While the participants develop the assigned role, the rest of the group analyzes the situation depicted, according to the following: How are the following determinants —gender, social class (social mobility, poverty), territory, employment status, ethnicity, social media— become involved, or how are they reflected? At the end, the teaching team and the students develop and spell out concepts addressed during the session.

Table D.4.1.2. Assessment of competencies for the MPH with concentration in Healthcare Administration.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Analyzing the organizational and environmental factors that affect the management and performance of health systems and services.	SP46. Public health management and innovation	SWOT planning workshop: The students deliver a PowerPoint presentation that shows the solution of the workshop that they developed. The SWOT analysis provides the necessary input to the process of strategic planning, providing the information required for the implementation of corrective actions and measures and the generation of new or better improvement projects.
	SP70. Health resources management and administration	Time line: The students review videos: Social mobility in Mexico http://bit.ly/2xNFND5 and Health Sector Program http://bit.ly/2vKXTDZ. After reviewing videos, the students reflect and write a conclusion on the relationship between social mobility and health. They are required to design a timeline of at least 10 of the most significant events in the field of health since 1917 that have had an impact on the provision of health services in Mexico.
2. Developing strategies, plans, programs and projects designed to improve the performance of health systems, organizations and services.	SP69. Economics for healthcare administration	Practical activity: Within the theory of the producer topic, the students individually analyze, discuss and solve exercises on the concepts of allocative and technical efficiency as mechanisms for improving the performance of health systems in the care of the various health conditions and of health services in different national and international scenarios.
	SP50. Health quality and safety	Priorization Matrix: The students identify the process approach in organizations based on reading materials about the provision of health services. Working in small groups: based on a health issue, the students identify processes and develop priorization matrix for selecting and attending to an organizational process.
3. Managing health strategies, plans, programs, projects, services and resources, with an emphasis on improving the quality, safety and continuity of care in order to meet the needs and demands of the population's health.	SP50. Health quality and safety	Presentation in plenary session: the students organize themselves by work teams. Each team should describe the general aspects of one of the quality improvement methods. The four steps to improvement: Shewhart Cycle, Deming Cycle, Chang's continuous process improvement, Path of the quality, Seven steps for improvement, Evidence-based participatory quality improvement (EPQI), Relationship between quality-based management systems and quality improvement models. In plenary discussion, the students analyze their relationship with quality-based management models.

	SP70. Health resources management and administration	Financial resources management: the students respond to a questionnaire with questions that are structured so to approach the provisions on programming and budget. Exchange of views/discussion on a) video: public expenditure and its regulations b) document: Chapter I of the National Planning and Budget Act, Articles 24 to 29 of the Federal Budget and Fiscal Responsibility Act.
4. Evaluating the performance of the organizations and individuals related to health systems and services.	SP69. Economics for health administration	Health financing workshop: the students develop a workshop in which they estimate the financial resources used in the provision of health services. The students analyze the distribution and impact of public funding, allocation mechanisms and the role of the funding in the reduction of the gaps of inequity, inequality and social injustice.

D.4.1.3. Assessment of competencies for the MPH with concentration in Environmental Health.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Analyzing the environmental factors that are involved in the health-disease process of the population for disease prevention, care and control.	SA60. Toxicology Applied to Public Health	Analysis of an article of an experimental study on some environmental pollutant of interest. This analysis is presented in stages according to the topics addressed in the course; it is submitted in writing and in a PowerPoint presentation. Every submission is integrated into the subject's final project.
2. Evaluating the implementation and updating laws, regulations and sanitary and environmental requirements for the prevention of and protection from health risks associated with the environment	SA49. Environmental legislation and management.	Presentation and Workshop: the professor presents the theoretical foundations of the legislation on health regulation, and the students identify how health risks are managed in Mexico. Workshop in which the students individually analyze and evaluate regulations on: health risks management, legislation on the management of air pollution and legislation on waste management based on requests for environmental information according to the theme of the students' thesis.
	SA54. Basic processes of environmental measurement.	The students visit the monitoring station in downtown Cuernavaca for reinforcement of theoretical concepts. Using the collaborative learning technique, the students describe, discuss and assess the different methods of measuring air pollutants.
3. Designing and implementing operational research projects to solve health problems related to environmental factors.	SA60. Toxicology Applied to Public Health	Final Project: the students present, in written form and using a PowerPoint presentation, the characteristics of the selected pollutant, its health effects, the experimental models and analytical methods of the article discussed throughout the course.
4. Designing strategies to promote the involvement of the population in improving the environmental conditions and health.	SA61. Assessment and Management of Environmental Risks.	At the end of the class on risk perception and communication, a case study is performed in which the students form teams with different roles (population, the industry causing the risk, decision-makers, researchers, etc.). These will have to communicate the risk according to their position, but with the premise that they must reach agreements in which there is a mutual understanding between all the parties and these will solve the environmental issues of the area. For the final assignment, each student designs a strategy to carry out a risk perception study and a risk communication study to contribute to the participation of the population in the risk prevention and/or abatement.

5. Evaluating programs and interventions in environmental health to improve the health conditions of the population.	SA61. Assessment and Management of Environmental Risks.	Topic II. Risk assessment methodologies. Step III. Exposure assessment. Activity description: Having formed teams, the students are required to estimate the daily and total (life-long) exposure. The information available for this activity is obtained through monitoring and data analysis. At the end of the topic, each team presents the progress in step III of their case study.

D.4.1.4. Assessment of competencies for the MPH with concentration in Social and Behavioral Sciences.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Applying the social determinants of health approach in order to understand the conditions that influence the health status of the population within the framework of human rights.	CS29. Social determinants, ethics and human rights	Double Entry Journal: the students are required to provide a review of the "Science, technology and innovation with a gender perspective" video and of readings materials. With the reviewed information, the students individually prepare a double entry journal on their analysis of the readings and video. The students meet by teams and agree (or improve) upon a single version of the double entry journal. They use a checklist for this purpose. They prepare a presentation with the information in the information in the journal. The purpose of this activity is to apply a gender perspective in public health problems with a focus on ethics, equity and human rights.
2. Generating initiatives based on behavioral change models in order to influence policies, environments and behaviors.	CS31. Behavior change models in public health	Throughout the course, the students design a Project-Based Learning (PBL) on healthy nutrition, physical activity and environmental health. In some cases, the students incorporate PBL components to their Final Professional Project, adapting them to the condition s of the community, the characteristics of the population, and the public policies and the environment in which they work. The results of the Final Projects identify the effects on the behavior or its determinants according to the theoretical model utilized and, in certain cases, on the environment. We promote that, once the students have concluded their initiative, they should present their results to the authorities of the participating institutions or sectors, along with their follow-up suggestions. Due to time limitations, no changes in the policies are directly observable.
3. Promoting social participation in the formulation and evaluation of actions aimed at improving population health.	ED49. Social participation in health	Debate: the students individually review the following reading materials: "Social Participation in Health: the representations and practices" and "Between ideology and pragmatism. Ambiguities and contradictions". All students ask reflective questions and set forth critiques for the debate, which they must deliver printed on the day of the class on community participation in health. Four experts are chosen to answer questions from the audience (the audience will be formed by students who are not part of the expert panel). The teacher takes up the main points of the debate and summarizes the discussion generated.

4. Incorporate strategies for effective communication in health in the design and dissemination of messages and campaigns	ED48. Behaviors, environments, and public policies.	Workshop on communication strategies: Students review conceptual aspects of social marketing in health and communication; they subsequently conduct a workshop to identify the message, channels, hearings and the purpose of communication.
	ED40. Health communication	With the aid of user-centered methodologies —such as spring design, design thinking, and using different approximation techniques such as: interview, survey, observation, etc. , the students verify the best practices and preferences in the use of written language and audiovisual that are common to their audience. The students use their findings to develop Public Health contents. The students deliver presentations on Public Health attending to fundamental aspects like the proper use of time, the moderate and effective use of non-verbal language, creative ability to manipulate information, control of the audience, etc.
5. Evaluating initiatives for the promotion, care and maintenance of health that drive social processes with the population and strengthen the organized social response.	ED52. Health promotion initiatives	Assessment plan: the students present a proposal for the assessment of a health promotion initiative. Based on a guide, the students answer the following questions: a) What will be the design of the study or research? B) What will be the study population? C) How many measurements shall be taken, and when? The Evaluation Guide contains two types of assessments. 1) Process assessment with expected results, indicators and measurement tools and results, and 2) Impact assessment, containing: expected results, indicators and measuring instruments.

D.4.1.5. Assessment of competencies for the MPH with concentration in Nutrition.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Determining the nutritional status of the population in order to identify specific issues by means of appropriate indicators.	NS44. Assessment of the nutritional status in populations	Evaluation of the final assignment: The students design a proposal for a comprehensive assessment of the nutritional status of a population, by way of an introduction to the planning of malnutrition assessment in a population. In this document, the students identify and justify the use of appropriate dietary, biochemical and anthropometric indicators in the assigned topic. The students form work teams at random. The topics are proposed by the professors. The students are provided with a guide of the contents to be covered within the said topic and they assess it using a checklist, marking the fulfillment of each section according to the contents guide.
2. Analyzing the factors of the environment and the surrounding community, family and individual nutrition status to develop comprehensive analytical models aimed at the prevention and/or resolution of problems.	NS45. Promotion of nutrition and healthy environments	Search for and analysis of information (inverted classroom approach), review of information through digital media, readings, assignments, workshops and other collaborative activities in order to apply basic concepts of behavior change theories and models for the design of nutrition promotion interventions for improvement of the health of the population.
3. Analyzing the social determinants of an individual and community response to the use of nutrition support programs to promote the involvement of the community as agents of change.	NS43. Health and nutrition policies in Mexico	Exposure and of brainstorming: within the context of the topic of the role of civil society in the development of nutrition policies, the students reflect and discuss the relevance of the context, the power, the actors and the processes in the interaction with political actors in relation to public health.
4. Designing, implementing and assessing evidence-based strategies and programs for the adequate care and prevention of nutrition and population health issues.	NS06. Design, monitoring and assessment of nutrition programs	Program draft: The students present the proposal for a program on nutrition containing the following sections: Introduction; theoretical framework; exposition of the problem; target population; general and specific objectives; Theory and logical model; process indicators and monitoring matrix; process assessment plan; timetable and budget. Presentation of advances is required throughout the course.
	NS45. Promotion of nutrition and healthy environments	Communication Campaign: Having formed teams, the students design a communication campaign that includes proposals for dissemination materials for the purpose of addressing a nutrition-related public health issue. The proposals must consider the social determinants of health and the elements of virtual education in the search for innovative approaches. The completed assignment is presented in writing and presented in class by the team during the final sessions of the course.

5. Analyzing and contributing to the analysis and formulation of policies and plans for the prevention and care of nutritional issues in the population.	NS43. Health and nutrition policies in Mexico	Advances in Policy Brief workshop: The students reflect on the relevance of the context, the power, the actors, and the processes involved in the interaction with political actors in relation to public health. In this workshop, instruments for the formulation and promotion of political action in public health are designed in order to strengthen competencies for the assertive communication of proposals for public health policies.

D.4.1.6. Assessment of competencies for the MPH with concentration in Infectious Diseases.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Explaining the biological, epidemiological and social determinants involved in the development of infectious diseases and their implications for population health.	E168. Infectious diseases in the population.	Workshop: prior to the session, the students are provided —via Dropbox— with scientific articles and Health System rules and procedures. During the session, the students resolve a workshop of an outbreak of meningitis. After the workshop concludes, each student presents and explains the obtained results in order to receive feedback. At the end, the professor delivers an integration and closing presentation focusing on raising awareness of environmental health risks. This activity is carried out in the topic 1. Environment and infectious diseases. Sub-topic: a) Ecological Determinants: habitat of the agent and conditions conducive to its dissemination: vectors and extra human reservoirs.
2. Critically analyzing the technical and scientific information on infectious diseases in order to develop prevention and control plans and programs in the populations.	E169. Prospects and challenges of the design, implementation and assessment of public policies on infectious diseases.	Development of a semantic map: Prior to the session, the students read and analyze the bibliographic materials on public health strategies for prevention. During the session, they discuss the bibliography in a semantic map format. At the end of the session, the professor listens to comments and supports the clearing of doubts by the students, and conclusions are reached.
	E170. Final Professional Project I	Protocol of the Final Professional Project: The students integrate the protocol sections: a) Background; b) Conceptual/theoretical framework, and (c) Statement of the problem", and submits them to the Research Ethics Committee.
3. Designing interventions and/or programs for epidemiological surveillance, prevention and control, in the field of infectious diseases.	E171. Final Professional Project II	Final Professional Project: Based on their Final Professional Project protocol, the students carry out their study and integrate information using the proposed methodology. The students present their advances and, upon finishing the assignment, take their degree examination.
4. Applying epidemiological surveillance programs for the prevention and control of infectious diseases through multi- and interdisciplinary work.	E170. Final Professional Project I E171. Final Professional Project II	Practicum: during this academic activity (for a minimum of 200 hours), the students come into contact with regulatory and scientific information, as well as with information on the application of programs for the prevention and control of infectious diseases, and assessment of programs or interventions. They analyze and interpret information that aids them in decision-making and enriches them in aspects of management, administration and leadership. They collaborate with or are tutored by decision-makers at various levels of healthcare administration.

5. Evaluating the policies, interventions and programs of public and private organizations in epidemiological surveillance, prevention and control of infectious diseases.	E169. Prospects and challenges of the design, implementation and assessment of public policies on infectious diseases	Elaboration of a Guide: The students are provided with bibliographic materials on the topic of "Healthcare quality: achievements, progress and setbacks in the control of acute diarrheal diseases (ADDs) in Mexico", and a guide for integration of work teams for its analysis and presentation. During the in-person session in work team, students develop a Guide on "Healthcare quality and its impact on health: diarrhea and rotavirus vaccine". The professor addresses questions to the teams, by turns. The students present a comprehensive closure on the topic. The students deliver the completed guide after the in-person session.
	E171. Final Professional Project II	Workshop: the students are provided with scientific, regulatory, and dissemination literature on the topic of "Implementation and assessment of health projects", as well as a work guide. The students participate in a workshop on prevention, control, administration and assessment of a health program or project on infectious diseases. In each session, they present the progress made with respect to the information integrated. At the end of the workshop, they deliver a summary table.

D.4.1.7. Assessment of competencies for the MPH with concentration in Biostatistics.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1. Developing the health information systems from their planning to their operation in order to produce evidence for decision-making	BE64. Design and assessment of health information systems	Workshop: health information systems assessment models: the students apply the Performance of Routine Information System Management (PRISM) tool to collect data and assess the health information system. Indicators: I. Quality, timeliness, accuracy II. Dissemination and use of information III. Organizational and behavioral factors. IV. Tools and results
2. Evaluating the information systems identifying the factors that determine the quality and use of information in order to propose continuous improvement strategies.	BE69. Information and Communication Technologies	Final activity: having formed teams, the students deliver a presentation on the health information systems from the perspective of the information and communication technologies. The presentation must address the following points. a) Importance (as technological developments); (b) Advantages and use of storage in databases; (c) The importance of technologies: Software, Hardware, Services, Trends and Conclusions. Each team has 15 minutes for their presentation, and all team members participate.
	BE64. Design and assessment of health information systems	Application of the Health Metrics Network (HMN) tool: Students complete the Health Metrics Network (HMN) framework in order to assess the health information system of Mexico.
3. Analyzing the data obtained through the health information systems through state-of-the-art statistical methods with the aim of producing health indicators of relevance to decision-making.	BE36. Advanced Biostatistics	Workshop: Logistic regression and binomial log. The students conduct data analysis using STATA and model interpretation in order to identify the determinants of important public health issues and of the organized social response. Evidence: Document with written resolution of the workshop.
4. Interpreting the statistical information in order to produce evidence to support decision-making.	BE37. Intermediate biostatistics	Workshop: Exploratory analysis and inference. Evaluation: the database called "Hipertension_entrega.dta", in the module of the National Health and Nutrition Examination Survey (ENSANUT) model is used for developing the workshop on the exploratory analysis of the most relevant variables involved in the development of AHT (arterial hypertension) for purposes of decision-making with health agents. Evidence: Delivery of the resolved workshop.
	BE63. Geographic Information Systems in public health	Design of topic maps: The students use QGIS (Geographic Information System) to relate tabular information with geographical information and generate crude rates. Evidence: Topic maps will be created for each year of mortality.

Table D.4.1.8. Assessment of competencies for the Doctorate in Public Health.

Competency	Course number(s) and name(s)	Specific assignment(s) that allow assessment
1.- Translating the knowledge for decision making and strategically addressing the challenges in public health at both national and global levels.	DSP42. Operations Research in Public Health I	Oral presentation with slides and guided discussion assessing the students through the analysis of the importance and need to generate, translate and report evidence of health inequities for purposes of decision-making.
	DSP55. Workshop on Health Communication	Essay: Writing of an essay integrating basic conceptual elements that will contribute to improve decision-making for the design of innovative strategies and media.
	DSP36. Social determinants of health	Policy Briefs: the students draft a policy brief to demonstrate their skills for effective written communication.
2.- Contributing to the development, management and innovation of public health policies and programs.	DSP37. Public health management	Workshop: The students analyze and present the processes of negotiation and harmonization of conflicts for the establishment of priorities in public health. They establish relationships between population health issues and propose alternatives for their solution within the framework of public policies.
	DSP40. Public health policies and programs	Practical workshops: for the purpose of developing in the students skills in the formulation of policies and programs and, finally, self-learning through reading, search and analysis of information that may contribute to a healthy discussion and updating of the topics for study
	DSP49. International politics and global health	Guided Discussion and workshops: By means of sessions and workshops, the students analyze and understand the formulation and scope of international policies on public health and draft a Policy Brief.
3.- Developing leadership and advocacy roles, and proactive attitudes to facilitate public health management at multiple levels of action (public policies, organizational settings and community environments).	DSP37. Public health management	Keynote presentation and practical exercise: the students identify the main types of leadership for effective direction.
	DSP54. Workshop on leadership and decision-making in public health	Through workshops, analysis and group discussion, the students draw a practical and applicable operational plan based on leadership techniques.
	DSP49. International politics and global health	The students participate in workshops and analyze the basic concepts of global health and international health as a general framework of knowledge.
4.- Managing strategic planning, operational and monitoring processes to facilitate the implementation of public health interventions.	DSP37. Public health management	Presentation of their proposals for a public health intervention: the participants will have 25 minutes for their presentations and 20 minutes to receive feedback from their peers.
	DSP44. Program assessment I	Presentations: the students analyze and understand the importance of evaluating health programs in order to improve their results, allow accountability, and strengthen the efficiency in the allocation of resources.

	DSP48. Program assessment II	Assessment plan: the students develop a plan for comprehensive assessment in public health.
5.- Efficiently using the funding of operational research projects in Public Health.	DSP48. Program assessment II	Based on a lecture and a guided discussion, the students identify the types of economic assessments of health programs and their importance.
6.- Disseminating research results through appropriate channels, to faculty members, policy makers and the community at large.	DSP55. Workshop on Health Communication	The professor and the students present the contents, in order for the latter to learn, master, and transfer, within the field of public health, the foundational concepts and practices of contemporary theories in relation to the study of the complexity of the communicative process.
	DSP54. Workshop on leadership and decision-making in public health	
7.- Developing and implementing methods of planning, implementation and evaluation of strategies for disease surveillance and control	DSP41. Epidemiology applied to public health	Presentation by the students, integrating the contents of Epidemiological response, Resolution of epidemiological response issues, Epidemiological surveillance: definition, selection of indicators, study design. Work summary.
8.- Leading multidisciplinary teams for decision-making in public health.	DSP54. Workshop on leadership and decision-making in public health	Designing a practical and applicable operational plan based on leadership skills, a practical workshop, group discussion and workshop assessment.

2) For degrees that allow students to tailor competencies at an individual level in consultation with an advisor, the school must present evidence, including policies and sample documents, that demonstrate that each student and advisor create a matrix in the format of Template D4-1 for the plan of study. Include a description of policies in the self-study document and at least five sample matrices in the electronic resource file.

This criterion does not apply to any of the graduate programs of the INSP.

3) Include the most recent syllabus for each course listed in Template D4-1, or written guidelines for any required elements listed in Template D4-1 that do not have a syllabus.

The most recent syllabus for the courses mentioned above can be found in the archives of electronic resource files. The INSP is currently working actively with its faculty to make the syllabi clearly reflect what the professors achieve in their subjects, which is presented herein in the matrices. Likewise, work is being done with the faculty to unify the class planning format of all the subjects listed in tables D2.1 and D2.2, in order to facilitate review by the evaluating team. The Final Self-Study will incorporate the final version of all the course syllabi translated into English.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

After completing the common core curriculum, the Master of Public Health students continue with the courses pertaining to their concentration area, which are intended to provide the specific competencies for the interests of the students and interdisciplinary requirements of the public health workforce. According to their concentration area, the students are evaluated individually or as a group on the development of the competency, ensuring that they are able to effectively apply in a professional environment the knowledge, skills and attitudes acquired in the classroom.

The Doctorate in Public Health program is a generalist program that aims to train leaders capable of translating knowledge into decision making and of responding strategically to the public health challenges at the national and global levels, thereby contributing to the development, management and innovation of policies and programs. The competencies established in the program and the manner in which they are assessed allow the students to obtain advanced public health knowledge, exercise leadership roles and advocacy, and maintain proactive attitudes for facilitating health management at multiple levels of action, from public policies and organizational areas to community environments.

D5. MPH Applied Practice Experiences

MPH students demonstrate competency attainment through applied practice experiences.

The applied practice experiences allow each student to demonstrate attainment of at least five competencies, of which at least three must be foundational competencies (as defined in Criterion D2). The competencies need not be identical from student to student, but the applied experiences must be structured to ensure that all students complete experiences addressing at least five competencies, as specified above. The applied experiences may also address additional foundational or concentration-specific competencies, if appropriate.

The school assesses each student's competency attainment in practical and applied settings through a portfolio approach, which demonstrates and allows assessment of competency attainment. It must include at least two products. Examples include written assignments, projects, videos, multi-media presentations, spreadsheets, websites, posters, photos or other digital artifacts of learning. Materials may be produced and maintained (either by the school or by individual students) in any physical or electronic form chosen by the school.

1) Briefly describe how the school identifies competencies attained in applied practice experiences for each MPH student, including a description of any relevant policies.

Students of the Master of Public Health program acquire competencies through experiential practice in two academic activities:

a) Community Practicum
b) Professional Practicum

Through these experiences, students show they are capable of integrating theoretical and methodological aspects, as well as those pertaining to public health instruments that will allow them to address public health issues in the future, in a specific area; establish their relevance to the social and cultural context of the population's health conditions, and design strategies that will enable them to analyze the main factors involved in the studied issue.

a) Community Practicum

As part of the training component of the Master of Public Health (MPH) program offered by INSP, in its different educational formats: in-person, virtual and executive, we find the common curricular experience called: "Comprehensive Public Health Assessment I and II" (DISP), offered during the first and second semester to all MPH students.

This curricular program has as its objective the development by the students– with the community's participation– of a comprehensive health diagnosis of the population, incorporating basic elements of social determinants, risks and damages, as well as the organized social response. Thus, the DISP is defined as public health research whose purpose is to evaluate the collective health situation and propose viable and feasible alternatives to the solution of the detected issues. The DISP must consider the study of three main aspects:

- ***Social determinants.*** Factors or elements that have an impact on the population's health; for example: housing, migration and sociodemographic conditions.
- ***Risks and damages.*** This refers to factors that affect the population's health, such as diseases, death and disability, as well as risks such as: car accidents, violence and addictions.

- ***Organized social response.*** This refers to all the available resources for responding to health issues that have been detected, i.e. human resources (physicians, dentists, nurses, health promoters, traditional doctors, bone healers, traditional healers, among others); material resources (hospitals, health centers, public and private doctors' offices and allopathic and alternative medicines, as well as the materials at the medical units), besides the infrastructure needed to respond to the detected health issues.

The DISP is formed by 2 components:

1) ***Theoretical component:*** This refers to academic work in the classroom that students develop with their advisors, based on the methodological theoretical axes of the DISP I and II Courses (*UD*). In this program, students learn different topics required for performing a DISP, such as: creation and presentation of the protocol and report of DISP findings, in addition to the planning of activities to be carried out during visits to the community.

2) ***Practice component:*** This refers to community work where the planned activities are implemented for the development of DISP in Community Practicums, such as: a) collecting data from primary sources, using qualitative techniques like the administration of a questionnaire, semi-structured interviews, social cartography, free listings, vital records information, observation guide and field diary, as well as quantitative techniques – the medical unit check list; b) carrying out an exercise to prioritize health issues under the three great headings: social determinants, risks and damages, and organized social response; c) issuing pertinent recommendations in the final DISP report. Community Practicum is common to all MPH concentration areas, and the activities are carried out in collaborative teams of MPH students from different concentration areas whose advisors are professor-researchers.

Sites for in-person practicums are counties in the state of Morelos with high marginalization indexes or complex public health problems; thus, on the one hand, students learn about real public health problems and, on the other, the community gains from the knowledge of the public health professionals. Something similar occurs in the other formats; however, in the executive format – at the Tlalpan campus – students and advisors carry out their practicum in different Mexico City boroughs. Community practicum is closely linked to the Mexican health services, since these are the main authority in the country in matters pertaining to health. Thus, strategies for the assessment of the population's health are established with them, and they are informed as to the students' contributions to community public health.

The DISP I and II processes for curricular activities are described as follows:

DISP I

This is a theoretical-practical course for community-based learning, where students apply the theoretical and methodological knowledge they acquired in the classroom in a community context.

At the end of the first semester, the students are asked to design a DISP protocol, with instruments and letters of informed consent, to be approved by the Research Ethics Committee of the INSP. To achieve this, students have four key supports: the head professor of DISP, the practice advisors, team members, and the Community Practicum Coordination (*CPC*). Each actor's functions may be seen in the Notebook Annex: "Community Practicum in the Master of Public Health. Comprehensive Population Health Assessment". Summarizing, the objective of this unit is to create a DISP, based on the investigation of social determinants, risks and damages, as well as the organized social response and the phases of a DISP protocol, to be applied during the second semester.

Students develop the following activities during the DISP I unit:

1) Determining the prevailing health situation, jointly and in a participative manner with the community, as well as their public health problems and needs.
2) Determining the different health diagnoses in order to carry out a public health initiative.
3) Acknowledging the function of Public Health in the work with the population.
4) Applying the necessary tools to the work with the population.
5) Integrating the steps for the creation of the DISP protocol and determining the research process for the development of the final report.

Students, together with their practice advisors, carry out a community visit during the semester. The activities include:

- Meeting with the municipal and health authorities to explain the work to be developed.
- A first approach to getting to know the community and its actors, using an observation guide to identify the social determinants and the organized social response.

Each team writes a report, taking into account the information collected with the observation guide; subsequently, more information is gathered from the following visits in the second semester and will be included in the final report. The information collected during the visits results in a protocol, to which the quantitative and qualitative instruments are attached, as are the letters of informed consent approved by the Ethics Committee. The students, working in a group, have the last two weeks in the semester to develop carry out the assessment in an intensive manner, to analyze the information, and to develop the report on the health diagnosis.

DISP II

Based on the protocol developed during the DISP I Course (UD), the students collect data from primary sources on the population's health situation, using qualitative and quantitative techniques. The collected data are processed and analyzed; later, priorities are established in the results in order to determine the population's health problems, under three broad headings: social determinants, risks and damages, and organized social response. Once the problems have been identified, recommendations are developed for each one of them.

The final step is to put together a report on the DISP's results. The students create three presentations for different audiences, through which they develop their communication skills; the first one is for the INSP academic community; the second, which emphasizes the results, is for the health authorities; and the third, in which a clear, informal language and graphs are used to help people understand the information, and photographs of the work carried out in the community are included, is for the population.

The active participation of team members and the accompaniment and orientation provided by the practicum advisors are key to the development of the students' competencies, and help these complete their academic exercise in due time and proper form. Once the results have been obtained, students may select a problem to work on through their Degree Project. This academic exercise will allow them to study the health status at the population level, based on the reality of the social and cultural context of the localities; this will facilitate the planning of actions in order to have an impact on the main factors associated with the situation on hand.

Activities to be developed at the DISP II Course (UD)

1) Creating the structure of the final report in order to reach the objectives set forth in the DISP protocol.

2) Applying different instruments to collect and process data with quantitative and qualitative approaches.
3) Applying both types of analyses of results from the quantitative and qualitative perspectives in order to put together the DISP.
4) Defining priorities to identify relevant public health problems.
5) Presenting the DISP results before different audiences: the community, municipal and health authorities, as well as the INSP academic community.

b) Professional Practicum

Professional Practicum (PP) is an activity that allows students to apply, in a real-life work situation, the competencies (knowledge, abilities, skills) acquired throughout their public health training. It is an activity that expects to build a scenario that is the closest to the real one that the graduates will face in their work environments.

All students of the Master of Public Health program, in any of its concentration areas and formats, carry out a Professional Practicum of at least 200 hours. This allows them to apply the knowledge, abilities and skills acquired during their training to a real life situation. The Professional Practicum helps them integrate theory and practice in public health training, revealing the development of general, specific and cross-sectional competencies of the graduate programs which allow the students to:

1) Get to know the work environment
2) Develop professional skills and those for social interaction
3) Increase their chances of employment
4) Acquire maturity and reach their full potential
5) Develop positive attitudes towards supervision
6) Develop self-confidence in their training
7) Achieve practical and logical reasoning when faced with their future functions
8) Apply and integrate the knowledge acquired at public health institutions in order to carry out more efficient processes

The purposes of the practicum are the following:

a) To broaden, apply and consolidate the competencies developed throughout the graduate program, in order to concretize the theory and recognize its limitations in real-life situations.

b) Contribute to the development of professional competencies in the graduate program in order to:

- Analyze and define priorities among health needs at the different levels, from an inter- and multidisciplinary perspective of social determinants and the right to health.
- Actively participate in the evaluation and resolution of present health issues, as well as of emerging, re-emerging and residual diseases, and find possibilities for innovation in the implementation of collective health actions.
- Design public health strategies that promote the generation of healthy environments and behaviors in the population, promoting interaction between the state and civil society.
- Use the information and research systems to recover scientific evidence in order to support or reorient decision-making for the management of health services and programs.
- Strengthen the health systems through management of quality in services

c) Bring students closer to possible work environments where they can develop professionally.

The PP may be fulfilled in any of the following ways:

Continuous: This practice is carried out during the third and fourth semesters, through 4-6 hr work days per week, over a period of 33 to 50 weeks, outside of classroom time.

Intensive: This will be done in periods of 16 to 20 hours per week, covering 200 hours in 2-3 months, at the beginning of the third semester, in the middle of the second year or at the end of the fourth semester. This kind of practice format is adjusted according to the time needs and programming of the national and international stays of students in the academic mobility program.

Academic stays (internships): This is the period during which the students develop a program of activities as a requirement of academic exchange; this must be geared towards the enrichment of their final professional project. The stays may be considered as Professional Practicum, as long as they fulfill the 200 hours and the developed activities contribute to the solution of a problem detected in the involved organizations or else are their own activities as part of a research project previously established by the educational institutions.

The settings where Professional Practice may be performed are:

- In the community studied during DISP or in any community, according to the student's interest.
- In the institutions where health services are offered, at the local, municipal, regional, state or national levels.
- At institutions in other sectors that are developing actions directly related to health (Education, Social Development, Comprehensive Family Development - *DIF*, Environment and Natural Resources, etc.)
- At civil society organizations related to health
- In health-related private sector organizations
- At other institutions/organizations (boroughs and municipalities, schools, factories, etc.)
- At institutions that offer stays for academic mobility.
- PP can also be done within a research project in any public health area where there is a problem that requires an operational approach.

All the research lines in the INSP mission potentially offer opportunities for PP development, including the public health school, and not necessarily at health centers, hospitals, schools, etc.

Each concentration area in the Master of Public Health program evaluates the competencies acquired by each student, obtained in spheres where the students carry out their Professional Practice. The delivered products are:

a) Work plan: The students, under the guidance and support of their steering committee, formulate a work plan that will guide their activities during their professional practicum.

On the Final PP Report: This is the document where the student manifests which were the problems faced with respect to the demands that arose from the studied problem and required the application of their competencies in public health, showing which measures were implemented to solve or try to solve it. Also, the student presents recommendations for interventions through projects or the strengthening of health programs.

2) Provide documentation, including syllabi and handbooks, of the official requirements through which students complete the applied practice experience.

All practicum requirements are communicated to students in the notebook entitled, *Community Practicum in Public Health. Comprehensive Population Health Assessment*. This publication helps guide the academic work carried out by MPH students during the year; practice advisors provide accompaniment, as well as timely and pertinent orientation on students' work and for professors in charge of student training, in order to link academic activities and promote coherent training.

The course curricula attached are the Comprehensive Population Health Assessment I and II curricular syllabi where Community Practicum is established.

The specific requirements, Community Practicum registration and approval processes, are explained in detail in the following document: *Guidelines for the realization of professional practicum in the Master of Public Health Program*.

3) Provide samples of practice-related materials for individual students from each concentration or generalist degree. The samples must also include materials from students completing combined degree schools, if applicable. The school must provide samples of complete sets of materials (ie, Template D5-1 and the work products/documents that demonstrate at least five competencies) from at least five students in the last three years for each concentration or generalist degree. If the school has not produced five students for which complete samples are available, note this and provide all available samples.

Attached are materials related to the work plan and the final practicum carried out by students in the Master of Public Health program with its different concentration areas.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The Community Practicum and Professional Practicum experiences are core aspects of the Master in Public Health curriculum; thus, they are carried out throughout the program. These are experiences that integrate contents from the course in the different concentration areas of the MPH and they are part of the compulsory curriculum which validates the development of competencies in the students. These experiences involve not only a contribution to the students' academic training but also an important link between the INSP and the external community.

D6. DrPH Applied Practice Experience

The work product may be a single project or a set of related projects that demonstrate a depth of competence. It may be completed as a discrete experience (such as a practicum or internship) or integrated into school coursework. In either case, the deliverable must contain a reflective component that includes the student's expression of personal and/or professional reactions to the applied practice experience. This may take the form of a journal or other written product, a professional portfolio or another deliverable as appropriate for the school.

The school identifies a minimum of five foundational and/or concentration-specific competencies (as defined in Criteria D3 and D4) that are reinforced and/or assessed through application. The school may either choose at least one competency from the leadership, management and governance domain in Criterion D3 or choose a concentration-specific competency identified in Criterion D4 if it relates to leadership skills. Competencies may differ from student to student.

1) Briefly describe how the school identifies competencies attained in applied practice experiences for each DrPH student, including a description of any relevant policies.

In their sixth (last) semester, students are required to carry out an Institutional Practicum on the subject of their thesis. The objective of this activity is for them to apply the knowledge they have acquired and develop specific skills for managing health programs and policies. Practices can be performed in either Mexican or foreign institutions. Through visits, meetings, seminars and other strategies, the students establish contact with managers and researchers, sharing information on projects related to research or to the implementation of public health policies.

Below are examples of institutions where DrPH students have carried out their practices:

- The National Center for Disease Prevention and Control Programs (Mexico)
- The General Directorate of Performance Evaluation (Mexico)
- UNICEF (México)
  - Johns Hopkins University (USA)
  - University of Michigan (USA)
- The Ministry of Health of Colombia (Colombia)
- University of Sao Paolo (Brazil)
- The Directorate of Health Benefits, IMSS (Mexico)

The selection of practicum sites is based on the subjects of the theses and can be suggested by the students themselves, their thesis directors or their program coordinators. Practices are authorized by the thesis directors and the Intercollegiate Chapter of the DrPH Program.

Having identified their practice sites, students submit a Work Plan to their program coordinator, specifying the activities they intend to develop. These must include leadership and management functions as well as research in the field of public health. Students must propose activities that support the development of their doctoral thesis project.

The DrPH Program requires students to complete a total of 80 hours of practice. Once a practice site has been determined, the director of the selected institution is contacted and asked to designate a supervisor for the student. Practicums cannot be carried out in the same place where the students work. On concluding their practices, the students must present two documents: (1) a Practicum Certificate signed by the practicum supervisor, indicating the number of hours spent in the practicum and the activities performed, and (2) a Practicum Report describing the activities and products developed during the practicum. Finally, students self-evaluate their work as to the usefulness of the practicum for their professional lives. Based on these two documents, the DrPH Coordination Office determines whether or not the Program competencies have been fulfilled; in order to pass, the students must have developed at least five of the eight DrPH competencies. Table D.6-1, included as an electronic resource file, presents five examples of final Practicum Reports from five DrPH students, identifying the Program competencies achieved as part of their Work Plans.

2) Explain, with references to specific deliverables or other requirements, the manner through which the school ensures that the applied practice experience requires students to demonstrate leadership competencies.

Academic practices have proved particularly helpful in developing leadership competencies. As part of their final Practice Report, students self-evaluate the extent to which they have complied with acquiring the competencies they chose to develop throughout their practicum and in general. The head of the institution where they perform their practicum also presents an evaluation report. Reports have demonstrated that DrPH students develop high-level leadership and management competencies in public health programs. Five examples of evaluations have been selected for diverse types of practices in national and international institutions (see Table D.6-1 as a electronic resource file). Mexican institutions include the National Institute of Respiratory Diseases (INER), the National Center for Disease Prevention and Control Programs (CENAPRECE) and the General Directorate of Health Promotion (DGPS); international practice sites include the Johns Hopkins University (USA) and the Gorgas Memorial Institute for Health Studies (Panama). Below are examples of student evaluations from the head of the institutions:

1. *"During her academic practice, the student fully complied with the suggested work agenda and contributed to reviewing and adjusting a proposal for a National Plan on a Comprehensive Approach to Persistent Diseases."* The student played the role of strategic group leader in the work performed at the CENAPRECE. It is worth noting that she is head of the PAHO Program for Neglected Diseases (Washington). Dr. Jesús Felipe González Roldán, Assistant Director, CENAPRECE

2. *"This practicum focused on providing support for the INFLUMI Project by ensuring the administration and translation of the results of a questionnaire on knowledge, attitudes and practices concerning influenza and Zika among pregnant women [in Panama and El Salvador] as a basis for generating public health policies."* The type of leadership exercised was effective leadership. The student coordinated one of the work sessions, which culminated with a questionnaire on knowledge, attitudes and practices concerning influenza and Zika among pregnant women. The questionnaire was later validated for administration. Rodrigo Deantonio, student of the 2014-2017 class.

3. *"The present education and action proposal for primary-health-care personnel was elaborated within the framework of an institutional practicum pertaining to the INSP Doctor of Public Health Program. It can be used as reference and serves as a contribution to the operationalization of the School Food Program (PAE) and the National Strategy for the Prevention and Control of Overweight, Obesity and Diabetes in Mexico." Transformational lea*dership was developed by the student through intellectual stimulation (whereby the leader motivates group members to be creative and innovative in finding solutions for problems and challenges). Harold Mauricio Casas, student of the 2012-2015 class.

4. *"In the case of this particular practicum, the possibility of finding an institution that combined three basic expressions of a service highly specialized in research, the development of human talent and care for patients with extremely complex conditions allowed the student to maximize his academic and professional benefits, given the excellent quality and warmth of the human talent and services involved. The practicum was therefore considered highly convenient and relevant. The student was able to make contributions in different spaces as a consequence of his experience in other social, community, institutional and political contexts."* Effective leadership was the type of leadership developed during this practicum. Elkin de Jesús Osorio, student of the 2012-2015 class.

5. *"It is important to highlight the excellent academic performance of Dr. de la Garza, as well as her technical and professional commitment to the advances of applied epidemiology in the reinforcement of public health. Implementing the prepared proposal will undoubtedly be of great benefit in strengthening the analytical capacity of the Directorate General of Epidemiology and, hence, in facilitating the incorporation of innovation into the systems responsible for the surveillance and analysis of the health status of the country."* Dr. Carlos Castillo, Director of the DrPH Program with concentration in Epidemiology, Johns Hopkins University.

3) Provide documentation, including syllabi and handbooks, of the official requirements through which students complete the applied practice experience.

The syllabi and handbooks of the requirements for DrPH students to develop the Institutional Practicum are included as electronic resource files.

4) Provide samples of practice-related materials for individual students from each concentration or generalist degree. The school must provide samples of complete sets of materials (ie, Template D6-1 and the work products/documents that demonstrate at least five competencies) from at least five students in the last three years for each concentration or generalist degree. If the school has not produced five students for which complete samples are available, note this and provide all available samples.

D6-1 electronic resources files provide samples of Practice Reports and Certificates from institutions where five DrPH students completed their academic practices.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

One strength of the INSP DrPH Program is the recognition it has earned from government institutions in Mexico as a result of its high educational quality. This has served to consolidate a network of Mexican government institutions willing to receive students for their institutional practicums. DrPH practices offer students an opportunity to have contact with other institutions and to work in non-academic contexts where they can give and receive through experience and training. They also provide an opportunity to establish relations with individuals whom it would otherwise be complicated to reach, thus contributing to stronger work and academic networks. Furthermore, practicums introduce students to a range of real-life scenarios where they can apply the competencies acquired in the program. Finally, because they involve public health projects that are priority concerns for the receiving institutions, institutional practices allow students to contribute to the achievement of strategic public health goals at the national and international levels.

It is important to point out, however, that international practices are subject to economic restrictions inasmuch as doctoral students are not eligible for scholarships. The Office of Academic Coordination considers it necessary to systematize practicums so that the students may gain access to the best institutions. In this regard, it is important to seek support from international organizations in the promotion of international practicums.

Furthermore, we believe that the deliverables produced during practicums should not be confined to individual reports; it is necessary to formulate a proposal for systematizing the experiences developed by students during their Institutional Practicums. Because Institutional Practicums are individual, the possibility of improving their institutional process/environment is remote. It is important to craft an Institutional Practice plan (coordination) for students to develop interprofessional work aimed at improving institutional issues/situations/environments/processes.

D7. MPH Integrative Learning Experience

MPH students complete an integrative learning experience (ILE) that demonstrates synthesis of foundational and concentration competencies. Students in consultation with faculty select foundational and concentration-specific competencies appropriate to the student's educational and professional goals.

Professional certification exams (eg, CPH, CHES/MCHES, REHS, RHIA) may serve as an element of the ILE, but are not in and of themselves sufficient to satisfy this criterion.

The school identifies assessment methods that ensure that at least one faculty member reviews each student's performance in the ILE and ensures that the experience addresses the selected foundational and concentration-specific competencies. Faculty assessment may be supplemented with assessments from other qualified individuals (eg, preceptors).

1) List, in the format of Template D7-1, the integrative learning experience for each MPH concentration, generalist degree or combined degree option that includes the MPH. The template also requires the school to explain, for each experience, how it ensures that the experience demonstrates synthesis of competencies.

The Final Professional Project (PTP) is an integrative learning experience (ILE) designed for all students in the Master of Public Health (MPH) Degree Program. While the specific types of initiatives selected for projects and the methodologies used to apply and evaluate these initiatives may vary according to the concentration area, all students are required to cover the same set of components and requirements. The PTP experience offers individualized opportunities for the evaluation of results.

Students from different concentration areas may select the same health issue for their projects; however, each one elaborates a unique PTP to demonstrate the competencies he/she has acquired during its development. PTP documents are elaborated during Academic Modules I and II of the MPH Program. Table D7.1 illustrates how students synthesize competencies during the development of their PTPs; it integrates the foundational and professional competencies of the MPH Program.

Table D7.1. MPH Integrative Learning Experience.

Integrative learning experience (list all options)	How competencies are synthesized	
	Competencies	**Synthesis**
Final Professional Project (PTP)	Assess population needs, assets and capacities that affect communities' health	PTPs are developed through a health situation diagnosis associated with the implementation of a strategy and/or program or with the performance of an institution or other entity attending to aspects of health in a population.
	Select quantitative and qualitative data collection methods appropriate for a given public health context	Students analyze the methodological steps that are suitable for the type of study they have chosen to develop and the approach required for their type of study. During this process, they ponder not only the data collection techniques, scope and methodological limitations of their project, but also how to process, interpret and present the data obtained during their work.
	Interpret results of data analysis for public health research, policy or practice	
	Analyze quantitative and qualitative data utilizing biostatistics, informatics, computer programming and software, as appropriate.	PTPs can focus on designing a health program or initiative to address a specific public health problem. In this case, students are required to formulate a document that transcends what is expected of a general proposal while including all the elements that ensure the feasibility and sustainability of their projects in a well-defined context. Students are expected to describe the settings, end-results, purposes, components, strategies, actions and indicators involved in the evaluation of the health program or initiative they have selected
	Design a population-based policy, program, project or intervention.	
	Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	While developing their PTPs, students contribute to the integration of service networks that assist clearly defined population groups based on a person- and community-centered approach and on effective health promotion actions.

2) Briefly summarize the process, expectations and assessment for each integrative learning experience.

The process of elaborating a MPH PTP invariably requires the students to synthesize and finally integrate all the knowledge that they have acquired in their concentration areas. This is achieved while developing the project, drafting a final report, and defending the proposal at the degree examination.

This exercise requires the support of an Advisory Committee composed of a Director and an Advisor, one of whom must be an INSP staff member. Both members of the Committee are required to offer the students continuous guidance as they develop their PTPs.

During PTP work, students need to clearly distinguish between the following processes:

1) Identifying and selecting a health problem;
2) Studying the determinants of the problem or structuring a health initiative to address the problem; and
3) Formulating evidence-based recommendations.

These three elements are essential for the evaluation of PTPs, whose culmination entails the following stages:

1. The student registers her/his Advisory Committee and PTP title, and delivers the registration form to the Program Academic Coordinator. The Coordinator presents the proposed PTP to the Faculty College or the Committee on Graduate Programs with Professional Orientation, as appropriate, for approval. The student also submits a summary of his/her project together with brief biographies of the Advisory Committee members.

2. The Faculty College or the Committee on Graduate Programs with Professional Orientation approves registration of the Advisory Committee and PTP title and transfers the corresponding file to the attention of the Student Services Department of the Office of Academic Affairs. This department reviews the approval of the Faculty College or the Committee on Graduate Programs with Professional Orientation and issues an Approval Certificate addressed to the student, the Advisory Committee and the Academic Coordinator. From this moment on, the student may begin to elaborate a PTP Protocol.

3. Upon finalizing the PTP Protocol, the student elaborates a Work Plan in coordination with the Advisory Committee for review by the INSP Research and Ethics Committee; the Work Plan must include at least one or more informed consent letter(s) and research instrument(s). The student submits the Plan to the Academic Coordinator of his/her Program who, in turn, generates an Originality Report confirming that less than 20% of the text in the Protocol matches text in other documents on the Internet. The student delivers the Protocol and the Originality Report to the INSP Research Ethics Committee.

4. Having reviewed and approved the PTP Protocol, the INSP Research and Ethics Committee issues a Letter of Authorization to the attention of the Academic Coordinator who, in turn, communicates the decision to the student and the Advisory Committee. At this point, the student can initiate data collection for his/her project.

5. The student elaborates the PTP in coordination with the Advisory Committee and submits it to the Academic Coordinator. The file must include a proposal for a professional reader with extensive knowledge of and professional experience with the PTP theme, as well as a document containing the affirmative votes of the Advisory Committee. Having reached this stage, the student is prepared to defend his/her project. The Academic Coordinator presents the PTP proposal to the Faculty College or the Committee on Postgraduate Programs with Professional Orientation, as appropriate, requesting their approval of the reader proposed for the final document.

6. Once the reader has been designated and the final PTP document approved, the student can defend his or her PTP before a Degree Examination Jury.

To pass PTP Academic Module I, students attending classes in person need to have received approval for their Project from the Research Ethics Committee, whereas those participating online or using the executive format only need to have completed Protocol Registration.

To pass PTP Academic Module II, students attending classes in person need to have received approval for their project from their Advisory Committees, whereas those participating online or through the executive format need either an 80% score on their PTP Protocols or approval from their Advisory Committees.

3) Provide documentation, including syllabi and/or handbooks, that communicates integrative learning experience policies and procedures to students.

All MPH students have access to a handbook entitled Guidelines for Developing a Final Professional Project, available at http://www.espm.mx/docentes/coleccion-cuadernos-sac.html. The handbook is updated with each revised version of the MPH curricular map.

Located at the electronic resource files there are descriptions of PTP Academic Modules I and II by area of concentration.

4) Provide documentation, including rubrics or guidelines, that explains the methods through which faculty and/or other qualified individuals assess the integrative learning experience with regard to students' demonstration of the selected competencies.

Also attached are two handbooks: the one followed by the INSP Research and Ethics Committee to evaluate the Work Plans formulated by students after finalizing their PTP Protocols, and the previously mentioned Guidelines for Developing a Final Professional Project used by students and Evaluation Committees for approving the Final Report and resolving the degree examination. The enclosed rubrics are used by faculty to evaluate the different sections of PTP Protocols.

5) Include completed, graded samples of deliverables associated with each integrative learning experience option from different concentrations, if applicable. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

The electronic resource files includes graded samples equivalent to 10% of the deliverables of the ILEs pertaining to the various MPH concentrations.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The ILE gained by students while developing MPH PTPs offers them an opportunity to work on public health projects that are of interest to them. The culminating experience of completing a satisfactory PTP and the evaluation methods used to assess this academic activity ensure that students are capable of synthesizing, integrating and applying the foundational, professional and specific competencies acquired in their concentration areas, and that they are therefore prepared to identify, characterize and propose solutions for public health issues.

At present, the Committee on Postgraduate Programs with Professional Orientation is revising the Guidelines for Developing a Final Professional Project and the corresponding evaluation rubrics, such that students may be able to identify more clearly the general structure, formats, specific components, and gradual stages involved in the elaboration of their PTPs and final manuscript.

D8. DrPH Integrative Learning Experience

As part of an integrative learning experience, DrPH candidates generate field-based products consistent with advanced practice designed to influence schools, policies or systems addressing public health. The products demonstrate synthesis of foundational and concentration-specific competencies.

The integrative learning experience is completed at or near the end of the school of study. It may take many forms consistent with advanced, doctoral-level studies and university policies but must require, at a minimum, production of a high-quality written product.

1) List, in the format of Template D8-1, the integrative learning experience for each DrPH concentration or generalist degree. The template also requires the school to explain, for each experience, how it ensures that the experience demonstrates synthesis of competencies.

The DrPH is a generalist program with no areas of concentration. Table D8-1, below, describes how the DrPH integrative learning experiences enable students to synthesize the foundational and professional competencies established by the INSP.

Table D8-1. DrPH Integrative Learning Experience.

Integrative learning experience (list all options)	**How competencies are synthesized**	
	Competencies	**Synthesis**
Doctoral Thesis	**DrPH foundational competencies** · Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue· Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems· Propose strategies to promote inclusion and equity within public health programs, policies and systems Design a system-level intervention to address a public health issue· Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis. **DrPH professional competencies** · Translating knowledge for decision-making purposes and responding to public health challenges strategically at the national and global levels. - Contributing to the development, management and innovation of health	Students undergo an integrative learning experience across their stay in the program through preliminary project and protocol development seminars, and, subsequently, through thesis seminars (located on the integrative axis of the curricular map). The first product they generate is an **applied research protocol** for a previously identified health problem. By means of a conceptual and methodological proposal, students explain how to approach the problem and suggest a solution (based on evidence). Once the protocols have been approved, students implement their projects. At this time, they systematizing knowledge, employing a diverse range of research methods and techniques for collecting, organizing and analyzing data. At the end of the process, they generate a second product which can take one of two forms: an **article** for publication or a **final report** on the results of their study. These are integrative and synthesizing exercises during which the students provide a solution to a selected problem.

	policies and programs. - Efficiently utilizing funding for operational research projects in public health. - Disseminating research results through adequate channels for academics, decision makers, and the community at large. - Develop and apply methods for planning, implementing, and assessing strategies to monitor and control diseases.	
Institutional Practicum	**DrPH foundational competencies** · Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health · Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies· Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems· Create organizational change strategies· Design a system-level intervention to address a public health issue · Propose interprofessional^ team approaches to improving public health **DrPH professional competencies** · - Contributing to the development, management and innovation of public health policies and programs. - Developing leadership and advocacy roles as well as proactive attitudes in order to facilitate public health management at multiple levels of action (public policy, organizational areas, and community environments). · Disseminating the results of research through adequate channels for academics, decision makers and the community at large.	In this activity, the students pursue the objective of applying knowledge and developing specific skills in the management of health programs and policies. Practices are carried out in Mexican or foreign institutions through visits, meetings, seminars and other strategies designed to allow the students to share information with managers and researchers regarding research projects or the implementation of public policies. The fulfillment of this activity is substantiated by two documents: a **Practice Certificate** issued by the supervisor of the student at the institution where the practicum was developed, and a **Practicum Report** prepared by the student, in which he/she summarizes the activities performed and reflects upon his/her experience, particularly in regard to its usefulness for his/her professional life. Although the format of the report can be freely chosen by the student, his/her use of program competencies during the practicum is evaluated according to a rubric specifically established for that purpose. The evaluation exercise is performed by the program coordinator.
Qualifying Examination	**DrPH foundational competencies** Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels· Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems· · Propose strategies to promote inclusion and equity within public health programs, policies and systems. Design a system-level intervention to address a public health issue	Aimed at evaluating the competencies acquired by the students during the program, this activity includes two examinations determined by the Intercollegiate Chapter of Public Health Doctors. Both deal with a "real or fabricated case" posing a context and a problem of public health (social determinants of health, health systems, epidemiology, environmental health, and nutrition or program assessment). The students are expected to engage in a conceptual and methodological reflection and propose strategies for a solution. The qualifying average is obtained by adding up the grades of each examination. The minimum passing grade is seven (7). Students obtaining lower scores are accorded a second opportunity but must repeat both examinations. The following documents

	Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis. **DrPH professional competencies** - Translating knowledge for decision-making purposes and respond to public health challenges strategically at the national and global levels - Contributing to the development, management and innovation of public health policies and programs. - Developing and apply methods for planning, implementing and assessing strategies to monitor and control diseases	support this aspect of the program: the Qualifying Examination (resolution of **a case**), a **rubric** and an **examination** (students)

2) Briefly summarize the process, expectations and assessment for each integrative learning experience.

Doctoral thesis: From the first semester, the students are continually monitored in their efforts to develop a final product, which consists of an applied research project addressing a public health problem. Throughout this process, students are accompanied in two ways: by their thesis committee composed of a director and two advisors and through seminars: preliminary project and protocol development seminars (the first two semesters) and thesis seminars (the remaining four semesters). The seminars are linked to a course taught by principal and assistant professors as well as by guest lecturers who stimulate reflection and the development of the thesis. The two are complementary. The attached electronic resource file includes samples of a thesis protocol, a doctoral thesis and a scientific article elaborated by a student. The doctoral thesis process is evaluated semiannually by the thesis committee in conjunction with the head professor of the seminar (integration matrix). Each semester, students are required to show a certain amount of progress; their evaluation is based on criteria established in the seminar course.

Institutional Practicum: As explained in Section D6-1 of this document, Institutional Practicums are regarded as a second scenario where the students synthesize the competencies they have developed during the program. As practicums are linked to the topics of theses, institutions are selected in such a way that each student has the opportunity to carry out a significant stay allowing him/her not only to interact with executives, operational (management) personnel and researchers, but also to contribute to institutional development (e.g., programs and strategies). Until 2015 (class of 2013), the duration of practicums was 40 hours; however, as part of the curricular redesign implemented in 2015, it was extended to 80 hours. Evidence on the subject can be consulted in Section D6-1. The evaluation of Institutional Practicums is based on a Practicum Report submitted by the students at the end of their stay and guided by a rubric that allows for ascertaining which program competencies were developed during the practicum.

Qualifying Examination: the students perform this academic activity in their last semester (VI). To put into practice the competencies developed during the program, the students select a venue for their Institutional Practicum (preferably related to the topic of their theses). During two weeks (80 hours), they visit the selected institution and are in contact with researchers, managers and administrative personnel, who explain to them how they conduct their daily (decision-making) work. For performance evaluation, the students submit a Practicum Report containing the objectives of their practicum, a description of their activities and contributions to the institution, and their achievements, challenges, recommendations and deliverables. At the end of the practicum, the students are required to indicate the ways in which this experience benefited their professional development.

3) Provide documentation, including syllabi and/or handbooks, that communicates integrative learning experience policies and procedures to students.

The Regulation Governing the Doctoral and Postdoctoral Programs is attached as an electronic resource and describes the procedures related to the doctoral thesis and the qualifying examination as well as the institutional practicum for the DrPH integrative learning activities.

4) Provide documentation, including rubrics or guidelines, that explains the methods through which faculty and/or other qualified individuals assess the integrative learning experience with regard to students' demonstration of the selected competencies.

The attached electronic resources include the rubrics used to evaluate each integrative learning experience that students undertake in order to develop the required competencies.

1. Research protocols
2. Institutional practice reports (with the corresponding rubric)
3. Samples of Qualifying Examinations (with the corresponding rubric)

5) Include completed, graded samples of deliverables associated with each integrative learning experience option from different concentrations. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater. If the school does not have five recent samples for an option, note this and provide all available samples.

Completed and graded samples are attached for the different integrative learning experience options as electronic resource files.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The DrPH Program is offered with a professional orientation, providing students with integrative learning experiences during which they systematize and critically analyze information and data for decision-making in the design, implementation and assessment of interventions designed to solve public health problems. The only doctorate competency that is intentionally not developed through a practical experience concerns the leadership of multidisciplinary teams for decision-making in public health. This is a result of the limited time that students spend in person at the INSP campus.

By way of an improvement plan, a practicum will be programmed in which DrPH students will interact with students from the MPH Program in practical contexts (i.e., the Comprehensive Public Health Assessment-DISP courses). It is important to mention, however, that doctorate students are individuals who hold strategic and tactical positions in health systems –and, in some cases, in the educational system–, whose functions enable them to apply the knowledge acquired during the program. These students will provide evidence of this by including the aspects of their work that allow for identifying these practicums in their annual reports.

D9. Public Health Bachelor's Degree General Curriculum

Not Applicable.

D10. Public Health Bachelor's Degree Foundational Domains

Not Applicable.

D11. Public Health Bachelor's Degree Foundational Competencies

Not Applicable.

D12. Public Health Bachelor's Degree Cumulative and Experiential Activities

Not Applicable.

D13. Public Health Bachelor's Degree Cross-Cutting Concepts and Experiences

Not Applicable.

D14. MPH Program Length

An MPH degree requires at least 42 semester-credits, 56 quarter-credits or the equivalent for completion.

Schools use university definitions for credit hours.

1) Provide information about the minimum credit-hour requirements for all MPH degree options. If the university uses a unit of academic credit or an academic term different from the standard semester or quarter, explain the difference and present an equivalency in table or narrative form.

In accordance with the guidelines established by the Ministry of Education of Mexico (SEP) under article 14 of Agreement 279, 0.0625 credits are assigned for each effective hour of learning, defined in the following manner: "*Learning activity is understood to mean any action in which the student participates with the aim of acquiring the knowledge or skills required by a study plan."* One Mexican credit equals approximately 0.75 US credit unit.

Learning activities may be undertaken as follows:

1. With the guidance of a faculty member, in indoor spaces within the institution (such as classrooms, centers, workshops or laboratories) or in external spaces or
2. Independently as self-study, whether in internal or external spaces, outside of established classroom hours and as part of autonomous processes linked to courses or academic modules

The Master of Public Health Program in all its concentration areas requires a minimum of 97 to 100 Mexican credits (72.7 – 75 US credits), detailed in Table D.14.1

Table D.14.1. Credits Assigned per Program.

PROGRAM	Total Credits *(Mexican system)*	Total Credits *Equivalence approximately in U.S. system**	Mexican Credits per Academic Semester (20 weeks			
			1	2	3	4
Master of Public Health						
Master of Public Health with concentration in Epidemiology	100	75	41	36	9	4
Master of Public Health with concentration in Health Systems Administration	98	73.5	41	26	17	4
Master of Public Health with concentration in Environmental Health	100	75	41	29	13	4
Master of Public Health with concentration in Biostatistics and Information Systems	100	75	41	36	9	4
Master of Public Health with concentration in Social and Behavioral Sciences	99	74.2	41	31	13	4
Master of Public Health with concentration in Nutrition	100	75	41	31	14	4
Master of Public Health with concentration in Vector-borne Diseases	100	75	41	31	14	4
Master of Public Health with concentration in Infectious Diseases	100	75	41	31	14	4
Master of Public Health (online format)	97	72.7	49	16	4	4

*Note: Credits reflect the Mexican system, described in Criterion D14.1; 1 Mexican credit equals approximately .75 U.S. credit unit.

2) Define a credit with regard to classroom/contact hours.

A credit is the unit of measurement of the intended learning activities offered in an academic module of INSP study programs and is expressed as semester-week-hours. One credit (1) = 0.0625 semester-week-hour; that is, 16 semester-week-hour = 1 credit. This measure uses the same criterion of contact hours for those studying in groups as for those engaged in self-study. All INSP programs exceed the minimum required by the SEP and the CEPH. All INSP Master Programs in Public Health exceed the required 42 equivalent credits of the United States system, as can be seen in each concentration area of the Master of Public Health Program presented in Table 14.1.

D15. DrPH Program Length

The DrPH degree requires a minimum of 36 semester-credits of post-master's coursework or its equivalent. Credits associated with the integrative learning experience and, if applicable, a residency, internship or other applied practice experience conducted outside of a didactic course, do not count toward this requirement. The minimum credit requirement also does not count MPH-level prerequisite courses or their equivalent.

Schools use university definitions for credit hours.

1) Provide information about the minimum credit-hour requirements for all DrPH degree options. If the university uses a unit of academic credit or an academic term different from the standard semester or quarter, explain the difference and present an equivalency in table or narrative form.

The Doctorate in Public Health (DrPH) conceived as a general orientation program, requires a minimum of 109 Mexican credits (equivalent to 81.75 credits in the United States, where 1 Mexican credit is equivalent to approximately .75 US credit unit). In accordance with the guidelines established by the SEP in article 14 of Agreement 279, 0.0625 credits were assigned for each effective hour of learning, defined in the following manner: "Learning activity is understood to mean any action in which the student participates with the aim of acquiring knowledge or skills required by a syllabus." The learning activities may be undertaken as follows:

1. With the guidance of a faculty member, in indoor spaces within the institution (such as classrooms, centers, workshops or laboratories) or in external spaces, or
2. Independently as self-study, whether in internal or external spaces, outside of established classroom hours and as part of autonomous processes linked to courses or academic modules.

2) Define a credit with regard to classroom/contact hours.

A credit is the unit of measurement of the intended learning activities offered in an academic module of the INSP syllabi and in expressed as semester-week-hours. One credit (1) = 0.0625 semester-week-hour; that is, 16 semester-week-hour = 1 credit. This measure uses the same criterion of contact hours for those studying in groups as for those engaged in self-study. All INSP programs exceed the minimum required by the SEP and the CEPH. DrPH include 120 weeks of academic work with a total of 1 540 hours distributed as follows: 620 hours of contact with a teacher and 920 hours of self-study. Of the 109 total Mexican credits in the program, 97 pertain to courses, while 12 credits are assigned to thesis. The distribution over the six semesters of the DrPH is detailed in Table 15.1.

Table D.15.1. Credits Assigned to the DrPH Program.

PROGRAM	**Total Credits** *(Mexican system)*	**Total Credits** *Equivalence approximately in U.S. system**	**Mexican Credits per Academic Semester (20 weeks)**					
			1	**2**	**3**	**4**	**5**	**6**
Doctorate in Public Health	109	81.75	20	20	21	20	16	12

*Note: Credits reflect the Mexican system, described in Criterion D14.1; 1 Mexican credit equals approximately .75 U.S. credit unit.

D16. Bachelor's Degree Program Length

Not applicable.

D17. Academic Public Health Master's Degrees

These students also complete coursework and other experiences, outside of the major paper or project, that substantively address scientific and analytic approaches to discovery and translation of public health knowledge in the context of a population health framework.

Finally, students complete coursework that provides instruction in the foundational public health knowledge at an appropriate level of complexity. This instruction may be delivered through online, in-person or blended methodologies, but it must meet the following requirements while covering the defined content areas.

The school identifies at least one required assessment activity for each of the foundational public health learning objectives.

The school validates academic public health master's students' foundational public health knowledge through appropriate methods.

1) List the curricular requirements for each relevant degree in the unit of accreditation.

The Master in Sciences program currently has several concentration areas; this allows for a variety of professional profiles that make it easy to separate and understand each one of the modifications that occur in the theoretical-practical field of public health. The curricular requirements for the Master in Sciences programs are described in the INSP bulletin/catalog and are available in the following links:

Master of Science in Epidemiology
Master of Science in Environmental Health
Master of Science in Population Nutrition
Master of Science in Infectious Diseases
Master of Science in Health Systems and Policies
Master of Science in Vector-borne Diseases
Master of Science in Biostatistics
Master of Science in Health Economics

2) Provide a matrix, in the format of Template D17-1, that indicates the required assessment opportunities for each of the defined foundational public health learning objectives (1-12). Typically, the school will present a separate matrix for each degree school, but matrices may be combined if requirements are identical.

All the students in the Master of Science program demonstrate their mastery of the fundamental objectives of public health with the course: "*Foundations of public health*".

Topics	Sub-topics
1. Introduction to Public Health	1.1 Definition of Public Health 1.2 Public Health Functions
2. Areas of Public Health	2.1 Infectious diseases 2.2 Nutrition 2.3 Epidemiology 2.4 Health Systems 2.5 Public Health Economics 2.6 Biostatistics 2.7 Vector-borne Diseases 2.8 Environmental Health
3. Public Health and Research Issues	3.1 Definition of the issue 3.2 Research Methodology 3.3 Assessment

This course belongs to the common curriculum of the eight programs of the Master of Science in Public Health (MSPH). In addition, the students take other courses in each of the concentration areas that respond to these fundamental objectives. Assessment opportunities for the basic public health objectives are described in tables D.17.1.1 to D.17.1.8 for each concentration area of the Master of Science.

D.17.1.1. Content coverage for the Master of Science in Epidemiology.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain public health history, philosophy and values	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the core functions of public health and the 10 Essential Services*	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the Public Health Functions topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having built teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	EP82. Introduction to Epidemiology	Workshops: the students are required to identify the scope and limitations of the main epidemiological designs utilized in everyday scientific endeavors, in order to respond to a research hypothesis. The workshop is evaluated to provide feedback on the learning process.
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	EP82. Introduction to Epidemiology	Workshop: the students are required to take Workshop 1, on Morbidity on the topic of Characterization of the occurrence of the disease: Morbidity (Incidence, incidence and prevalence rate) is addressed.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	EP82. Introduction to Epidemiology	Problem solution: the students respond and discuss three health issues in order to identify the relationship between a health issue and primary, secondary and tertiary prevention. The evaluation is based on the resolution of exercises in class, which enable the students to develop the epidemiological concepts, taking into account the recommended readings and the feedback from their teachers.
6. Explain the critical importance of evidence in advancing public health knowledge	EP36. Clinical Trials	Trial: the students are required to carry out a randomized clinical trial.
7. Explain effects of environmental factors on a population's health	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, the level of comprehension, appropriation and interpretation achieved by the students.
8. Explain biological and genetic factors that affect a population's health	EP86. Intermediate Epidemiology	Workshop 3: diagnostic tests and case-control and cohort studies are assessed. Critical analysis of the literature, individual and group presentations.
9. Explain behavioral and psychological factors that affect a population's health	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic.

10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities		Each student has a specific time to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
11. Explain how globalization affects global burdens of disease		
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)		

D.17.1.2. Content coverage for the Master of Science in Environmental Health.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain public health history, philosophy and values	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the core functions of public health and the 10 Essential Services*	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the Public Health Functions topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having built teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	SA58. Environment Measurement Processes	Final assignment: students are required to submit a project related to the thesis protocol, detailing their methods for the sampling plan whereby they assess the population health exposure.
	SA73. Environmental Epidemiology	Case studies: the students identify and explain the various study designs, assessment of the exposure, and identification of statistical techniques.
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	SA70. Foundations of Environmental Health	Brainstorm: in the topics Introduction to environmental health and the nature of environmental health risk, the teacher discusses ideas in order to determine the environmental health issues detected in specific populations. The analysis and reflection by each student is evaluated.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	EP82. Introduction to Epidemiology	Problem solution: the students respond and discuss three health issues in order to identify the relationship between a health issue and primary and secondary prevention. The evaluation is based on the resolution of exercises in class, which enable the students to develop the epidemiological concepts, taking into account the recommended readings and the feedback from their teachers.
6. Explain the critical importance of evidence in advancing public health knowledge	SA48. Methodology for the assessment of the impact and management of environmental risks	Analysis of articles: students are evaluated based on the analysis of articles on epidemiology, toxicology and in vitro studies related to the theme of their thesis in order to determine the weight of the proposed scientific evidence.
7. Explain effects of environmental factors on a population's health	SA70. Foundations of Environmental Health	Workshops: The teacher develops workshops for a group analysis and explanation of various case studies; the conclusions derived from the analysis are recorded.

	SA48. Methodology for the assessment of the impact and management of environmental risks	Analysis of articles and resolution of case studies: The teachers evaluate their students based on: a) the analysis of articles on epidemiology, toxicology and in vitro studies related to the theme of their thesis and the determination of the weight of the evidence, b) The study, analysis, and resolution of risk assessment case studies. The results are submitted to the teacher, who provides feedback in order to improve the students' work.
8. Explain biological and genetic factors that affect a population's health	SA70. Foundations of Environmental Health	Workshops: The students form work teams for analyzing a case related to water and food biological contaminants and present their reflections in order to demonstrate their comprehension and interpretation level. The assessment is complemented with a written test.
	SA43. Intermediate Toxicology	Research protocol: the students are required to include in this document biological, toxicological and/or genetic mechanisms supporting the health risk. The participation of each student in class organized by way of a debate is evaluated.
9. Explain behavioral and psychological factors that affect a population's health	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary for each reviewed reading. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has a specific time to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	SA41. Global health and environment	Case studies and analysis of readings: the students are required to analyze and interpret the contents: Globalization and health, social determinants of health The evaluation is based on an essay explaining a global issue that includes a health effect associated with a global environmental risk, taking into account its social and economic dimensions.
11. Explain how globalization affects global burdens of disease	SA41. Global health and environment	Essay: the students are required to submit an analysis of the explanation of a global issue entailing a health effect associated with a global environmental risk, taking into account its social and economic dimensions.
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	SA45. Ecosystemic approach and human health	Questionnaire: the teacher presents the topic Ecosystemic Approach and Public Health. Subsequently, the students answer a questionnaire of 5 questions individually. In developing their thesis protocol, the students are required to use an ecosystemic approach to state the issue.

D.17.1.3. Content coverage for the Master of Science in Population Nutrition.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain public health history, philosophy and values	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the core functions of public health and the 10 Essential Services*	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the Public Health Functions topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having built teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	NS44. Assessment of the nutritional status in populations	Partial examination: in topic 1, Generalities of the various methods of assessment of the nutritional status, those students who identify the different types of indicators for the assessment of the nutritional state at population level are evaluated.
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	NS03. Nutrition in the life cycle	Partial examination: on the topic Analysis of nutrition in adults, food safety and feeding patterns.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	NS10. Nutritional Epidemiology	Final assignment: the students are required to present a project that involves learning about various aspects of population-based studies on nutrition and its relationship with other variables, such as the design, the implementation and the critical interpretation of the results, as well as the concepts needed for the assessment of the diet-health relationship in populations.
6. Explain the critical importance of evidence in advancing public health knowledge	NS10. Nutritional Epidemiology	Partial examination: this is evaluated based on the topic Design of Nutritional Epidemiology Studies.
7. Explain effects of environmental factors on a population's health	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having built teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
8. Explain biological and genetic factors that affect a population's health	NS31. Biochemical and physiological bases of nutrition in public health.	Partial examination: this is evaluated based on the topic: Introduction to Nutritional Genomics. The participation of individual students is also taken into account.

	NS33. Nutrition in the life cycle	Partial examination: this is evaluated based on the topic Analysis of nutrition in women of reproductive age and during pregnancy and childhood.
9. Explain behavioral and psychological factors that affect a population's health	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having built teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	NS03. Nutrition in the life cycle	Presentation: the students deliver a presentation on the topic of physical activity as a determinant of health.
11. Explain how globalization affects global burdens of disease 12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having built teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.

D.17.1.4. Contents coverage for the Master of Science in Infectious Diseases.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain the history of public health, its philosophy and its values.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which the level of comprehension, appropriation and interpretation achieved by the students.
	EI48. Immunology in infectious diseases	Examination: An exam is applied on the topic Immunology Historical background of vaccination as a Public Health intervention in order to evaluate the acquisition of knowledge.
	EI45. Biology and control of bacterial diseases in public health	Examination on the main findings in bacteriology.
2. Identify the foundational functions of public health and the 10 essential services*	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
	EI48. Immunology in infectious diseases	Examination and practice: The students take an examination and are also evaluated with an outbreak investigation practicum.
3. Explain the quantitative and qualitative outbreak of the methods and the sciences in the description and evaluation of population health.	EP82. Introduction to Epidemiology	Workshops: the students are required to identify the scope and limitations of the main epidemiological designs utilized in the everyday scientific endeavors, in order to respond to a research hypothesis. The workshop is evaluated to provide feedback on the learning process.
	CS43 Qualitative research methods	Field work: the students develop research techniques and apply them in the field in order to identify the contribution of the qualitative research to the field of health systems and to discriminate different procedures to select participants in a qualitative study.
4. List the main causes and trends of morbidity and mortality in the United States or another relevant community for the school or the program.	EP82. Introduction to Epidemiology	Workshop: the students are required to take the Workshop 1, on Morbidity on the topic of Characterization of the occurrence of the disease: Morbidity (Incidence, incidence and prevalence rate) is addressed.
	EI45. Biology and control of bacterial diseases in public health	Examination: the students are evaluated on the topic of Epidemiology of the main bacterial infections with an impact on public health in Mexico.
5. Discuss the progress of science in the primary, secondary and tertiary prevention of population health, including health promotion, detection, etc.	EI42. Cell biology in infectious diseases	Examination: This is evaluated based on concept integration problems. The students deliver a presentation and a final paper on the integration of concepts on an infectious disease, reviewed at a public health, epidemiological and molecular level.

	EI46. Biology and control of viral diseases in public health.	In order to assess the analytical and argumentative capacity of the students, the teacher evaluates the students considering as learning evidences: delivery of a final paper; the analysis of the case study, and the discussion of scientific articles in class.
	EI51. Epidemiology of infectious diseases	Final assignment: the students deliver a presentation of the topic of Globalization and infectious diseases, vaccination and influenza.
	EI48. Immunology in infectious diseases	Examination: this is evaluated based on the topic of Immunological foundations of the monitoring and diagnosis of different public health issues. Biological bases of vaccination, passive immunity.
6. Explain the critical importance of the evidence in the advancement of knowledge on public health.	EI46. Biology and control of viral diseases in public health.	Debate table: the students analyze and discuss the topic of viruses as biological agents.
	EI51. Epidemiology of infectious diseases	Final individual essay: the students present analyses on the following topics: Vaccines. Immunogenetics and infectious diseases. Antimicrobial resistance mechanisms.
7. Explain the effects of the environmental factors on population health.	EI46. Biology and control of viral diseases in public health.	Final assignment: in order to evaluate the analytical and argumentative capacity of the students, the teacher evaluates these considering as evidences of learning: the delivery of a final paper; the analysis of a case study and the discussion of scientific articles in class.
	EI47. Biology and control of parasite-borne diseases in public health	Examination and presentation: the students are evaluated on the topic of Vector-borne parasitic zoonoses
8. Explain the biological and genetic factors affecting population health.	EI42. Cell biology in infectious diseases	The teacher evaluates the students based on the following: presentation and final paper.
	EI48. Immunology in infectious diseases	This is evaluated based on Exam and a practice of use and analysis of genetic information.
9. Explain the psychological and behavioral factors affecting population health.	EI51. Epidemiology of infectious diseases	Presentation of the final assignment: the students deliver a presentation on the applications of molecular epidemiology to the case of tuberculosis and of Epidemiology to Sexually Transmitted Diseases (STDs) and AIDS.
	EI45. Biology and control of bacterial diseases in public health	Written examination on nosocomial bacterial infections. Sexually transmitted bacterial diseases
10. Explain the social, political and economic determinants of health and how they contribute to generate population health inequities.	EI47. Biology and control of parasite-borne diseases in public health	The teacher evaluates the following: Oral and written delivery of an essay on a research topic (quality of the presentation and of the written essay); group discussion based on the review of scientific articles.
	EI51. Epidemiology of infectious diseases	Participation in class: final individual essay and presentation of the final paper.
	EI48. Immunology in infectious diseases	Examination and practice of use and analysis of genetic information. Contribution in Malnutrition and extreme poverty to the development of immunological disturbances. Impact of PH and other determinants on the immune response of the population (population genetics, theory of hygiene, etc.)

11. Explain how globalization impacts the global burden of disease	EI46. Biology and control of viral diseases in public health.	Analysis and discussion of scientific articles and case resolution.
	EI48. Immunology in infectious diseases	Examination on the immunological contribution to the susceptibles' rate and the role of population migration. Furthermore, the students carry out an outbreak practice.
12. Explain, from the ecological perspective, the connections between human health, animal health, and ecosystem health (e.g. One Health).	EI47. Biology and control of parasite-borne diseases in public health	Oral and written delivery of an essay on a research topic, in which the quality of both the presentation and the written essay is taken into account.
	EI45. Biology and control of bacterial diseases in public health	In order to assess the construction of learning, the students analyze and discuss cases and scientific articles. In addition, they prepare summaries and graphic organizers (maps and/or presentations) that give an account of the level of comprehension and interpretation of the studied topics. The teacher also applies written examinations.

D.17.1.5. Contents coverage for the Master of Science in Health Systems and Policies.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain the history of public health and its philosophy and values.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the foundational functions of public health and the 10 essential services*	EP47. Foundations of Public Health	Readings and group discussion: each students analyzes the readings provided by the teacher on the topic of Public Health Functions. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having formed teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the quantitative and qualitative role of the methods and the sciences in the description and evaluation of population health.	EP82. Introduction to Epidemiology	Workshops: the students are required to identify the scope and limitations of the main epidemiological designs utilized in the everyday scientific endeavors, in order to respond to a research hypothesis. The workshop is evaluated to provide feedback on the learning process.
	CS43 Qualitative research methods	Field work: the students develop research techniques and apply them in the field in order to identify the contribution of the qualitative research to the field of health systems and to discriminate different procedures to select participants in a qualitative study.
4. List the main causes and trends of morbidity and mortality in the United States or another relevant community for the school or the program.	EP82. Introduction to Epidemiology	Workshop: the students are required to take the Workshop 1, on Morbidity on the topic of Characterization of the occurrence of the disease: Morbidity (Incidence, incidence and prevalence rate) is addressed.
5. Discuss the progress of science in the primary, secondary and tertiary prevention of population health, including health promotion, detection, etc.	EP82. Introduction to Epidemiology	Problem solution: the students respond and discuss three health issues in order to identify the relationship between a health issue and primary and secondary prevention. This is evaluated based on the resolution of exercises in class, which allow the student to develop the epidemiological concepts, taking into account the recommended readings and the feedback from the teacher.
6. Explain the critical importance of the evidence in the advancement of knowledge on public health.	SP26. Health policies	The teachers require their students to prepare policy briefs in order to inform decision makers about decisions regarding the scientific evidences that are a product of research studies and assessment of public health policies, as well as participation in class and resolution of practical exercises in teams.
7. Explain the effects of the environmental factors on population health.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.

8. Explain the biological and genetic factors affecting population health.		
9. Explain the psychological and behavioral factors affecting population health.	CS02. Social Sciences in Public Health	Analysis and group discussion: the students are required to discuss specific health-disease issues in order to evaluate the extent to which they have succeeded in integrating knowledge on social sciences into the study of health. The active participation through the review and analysis of scientific literature, the creation of graphic organizers (maps or presentations), and written examinations are considered.
10. Explain the social, political and economic determinants of health and how they contribute to generate population health inequities.	CS02. Social Sciences in Public Health	Creation of network matrices; analysis and discussion of specific health-disease issues; active participation through the review and analysis of scientific literature, the creation of graphic organizers (maps or presentations), and written examinations.
	SP26. Health policies	Participation in class and resolution of graphic exercises in teams, creation of a policy brief document, and presentation of a policy pitch.
11. Explain how globalization impacts the global burden of disease	CS02. Social Sciences in Public Health	Analysis and group discussion: the students are required to discuss specific health-disease issues in order to evaluate the extent to which they have succeeded in integrating knowledge on social sciences into the study of health. The active participation through the review and analysis of scientific literature, the creation of graphic organizers (maps or presentations), and written examinations are considered.
12. Explain, from the ecological perspective, the connections between human health, animal health, and ecosystem health (e.g. One Health).	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has a specific time to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.

D.17.1.6. Contents coverage for the Master of Science in Vector-borne Diseases.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain the history of public health and its philosophy and values.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the foundational functions of public health and the 10 essential services*	EP47. Foundations of Public Health	Readings and group discussion: each students analyzes the readings provided by the teacher on the topic of Public Health Functions. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having formed teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the quantitative and qualitative role of the methods and the sciences in the description and evaluation of population health.	EP82. Introduction to Epidemiology	Workshops: the students are required to identify the scope and limitations of the main epidemiological designs utilized in the everyday scientific endeavors, in order to respond to a research hypothesis. The workshop is evaluated in order to provide feedback on the learning process.
4. List the main causes and trends of morbidity and mortality in the United States or another relevant community for the school or the program.	EP82. Introduction to Epidemiology	Workshop: the students are required to take Workshop 1 on Morbidity, on the topic of Characterization of the occurrence of disease: Morbidity (Incidence, incidence and prevalence rate) is addressed.
5. Discuss the progress of science in the primary, secondary and tertiary prevention of population health, including health promotion, detection, etc.	EV54 Microbiology of VBDs	Group activity. Answer the question: Why vaccines for VBDs? In addition, the teacher promotes, through collaborative learning, the analysis and discussion in groups and small teams the topics of the class in order to assess their argumentative capacity and interpretation level.
6. Explain the critical importance of the evidence in the advancement of knowledge on public health.	EV58. Epidemiology of VBDs	Case study: the scientific evidence and the drugs/treatments for a VBD. The teacher proposes developing, through oral explanations, brainstorming, guided discussions, and group debates, of the argumentative capacity and the interpretation of ideas on the critical importance of the evidence in the advancement of knowledge on public health.
7. Explain the effects of the environmental factors on population health.	EP82. Introduction to Epidemiology	Problem resolution: The students answer and discuss three health issues and solve exercises in class; this allows them to develop the concepts, taking into consideration the recommended readings and the teachers' feedback.
	EV58. Epidemiology of VBDs	The teacher proposes, through oral explanation, brainstorming, guided discussions and group debates, the development of the argumentative capacity of the students.
8. Explain the biological and genetic factors affecting population health.	EV58. Epidemiology of the VBDs	Group debate: the students are required to explain the biological and genetic factors affecting population health. Building of generic concepts by means of exercises in class taking into account the interaction of biological factors that determine population health.

9. Explain the psychological and behavioral factors affecting population health.	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having formed teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
10. Explain the social, political and economic determinants of health and how they contribute to generate population health inequities.	EV58. Epidemiology of VBDs	Group debate: the students analyze the following risk determinants: Biological (characteristics of concurrent species in the infection); ecological (physical and chemical environments), and socioeconomic (water supply, disposal of stools, housing conditions, migrations, education level, knowledge, attitudes, and habits of the population); as well as factors that are particular to healthcare systems (coverage, access by the population).
11. Explain how globalization impacts the global burden of disease	EP47. Foundations of Public Health	Readings and group discussion: bibliographical review of the costs of the vector control activities and handling of cases, considering expenses related to the individual protection and/or treatment measures at a macroeconomic level.
12. Explain, from the ecological perspective, the connections between human health, animal health, and ecosystem health (e.g. One Health).	EV54. Microbiology of the VBDs	Peer review and analysis of articles; creation of graphic organizers (videos, infographs, mind maps); presentations; participation in laboratory practices, and preparation of summaries or reports on the studied topics, to be used as a basis for discussion.

D.17.1.7. Contents coverage for the Master of Science in Biostatistics.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain the history of public health and its philosophy and values.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the foundational functions of public health and the 10 essential services*	EP47. Foundations of Public Health	Readings and group discussion: each students analyzes the readings provided by the teacher on the topic of Public Health Functions. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having formed teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the quantitative and qualitative role of the methods and the sciences in the description and evaluation of population health.	EP82. Introduction to Epidemiology	Workshops: the students are required to identify the scope and limitations of the main epidemiological designs utilized in the everyday scientific endeavors, in order to respond to a research hypothesis. The workshop is evaluated to provide feedback on the learning process.
4. List the main causes and trends of morbidity and mortality in the United States or another relevant community for the school or the program.	EP82. Introduction to Epidemiology	Workshop: the students are required to take the Workshop 1, on Morbidity on the topic of Characterization of the occurrence of the disease: Morbidity (Incidence, incidence and prevalence rate).
5. Discuss the progress of science in the primary, secondary and tertiary prevention of population health, including health promotion, detection, etc.	EP82. Introduction to Epidemiology	Problem solution: the students respond and discuss three health issues in order to identify the relationship between a health issue and primary and secondary prevention. This is evaluated based on the resolution of exercises in class, which allow the student to develop the epidemiological concepts, taking into account the recommended readings and the feedback from the teacher.
6. Explain the critical importance of the evidence in the advancement of knowledge on public health.	BE54. Statistical inference	Tests or examinations for the assessment of foundational concepts of statistics —population, sample, variables, measuring scales— in order to become familiar with the most common statistical concepts: use of statistical packages; presentation for assessment of the students' analysis and interpretation competencies.
	BE55. Research Methodology	The students are assessed based on their participation in class and on the delivery of papers in which they identify a research question or issue, generate a theoretical framework and adequately justify the need of performing studies on the topic of interest.
7. Explain the effects of the environmental factors on population health.	EP47. Foundations of Public Health	Readings and group discussion: each student analyzes the readings provided by the teacher on the topic. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having formed teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide
8. Explain the biological and genetic factors affecting population health.		

9. Explain the psychological and behavioral factors affecting population health.		feedback on the students' coursework and performance.
10. Explain the social, political and economic determinants of health and how they contribute to generate population health inequities.		
11. Explain how globalization impacts the global burden of disease		
12. Explain, from the ecological perspective, the connections between human health, animal health, and ecosystem health (e.g. One Health).		

D.17.1.8. Contents coverage for the Master of Science in Health Economics.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain the history of public health and its philosophy and values.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading in connection with the Introduction to Public Health topic. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has 2 minutes to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
2. Identify the foundational functions of public health and the 10 essential services*	EP47. Foundations of Public Health	Readings and group discussion: each students analyzes the readings provided by the teacher on the topic of Public Health Functions. The study is complemented with the analysis of a podcast. Based on this individual effort, the students generate a question to be shared in a forum with their peers and teachers. In class, all the questions are answered by an invited expert. Having formed teams, the students identify the main ideas of the topic being analyzed. Self-assessment is proposed in order to identify what the student has learned, and co-assessment, in order to provide feedback on the students' coursework and performance.
3. Explain the quantitative and qualitative role of the methods and the sciences in the description and evaluation of population health.	ES60. Programs impact assessment	The students deliver a presentation of an article on health programs assessment. The information corresponds to Module 2. Assessment designs.
4. List the main causes and trends of morbidity and mortality in the United States or another relevant community for the school or the program.	EP82. Introduction to Epidemiology	Workshop: the students are required to take the Workshop 1, on Morbidity on the topic of Characterization of the occurrence of the disease: Morbidity (Incidence, incidence and prevalence rate).
5. Discuss the progress of science in the primary, secondary and tertiary prevention of population health, including health promotion, detection, etc.	EP82. Introduction to Epidemiology	Problem solution: the students respond and discuss three health issues in order to identify the relationship between a health issue and primary and secondary prevention. This is evaluated based on the resolution of exercises in class, which allow the student to develop the epidemiological concepts, taking into account the recommended readings and the feedback from the teacher.
6. Explain the critical importance of the evidence in the advancement of knowledge on public health.	ES60. Programs impact assessment	The students deliver a presentation of an article on health programs assessment. The information corresponds to Module 2. Assessment designs.
	ES55. Economic analysis of health systems and interventions	Workshop on the foundations of probability and statistics: the students solve exercises on estimation and interpretation of probability and statistical measures reported in the literature. In addition, they perform a case study on the resolution of efficiency issues in public health using standardized methodologies presented in class.
7. Explain the effects of the environmental factors on population health.	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has a specific time to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.

8. Explain the biological and genetic factors affecting population health.		
9. Explain the psychological and behavioral factors affecting population health.	ES56. Advanced topics in health economics	Review of articles on behavioral economics; class discussion and resolution of exercises, presentation by the students, and three partial examinations.
10. Explain the social, political and economic determinants of health and how they contribute to generate population health inequities.	ES56. Advanced topics in health economics.	Review of articles on behavioral economics; class discussion and resolution of exercises, presentation by the students, and three partial examinations.
11. Explain how globalization impacts the global burden of disease	EP47. Foundations of Public Health	Analysis of readings and group discussion: each student prepares a summary of each reviewed reading. Subsequently, the students form discussion groups where they are assigned a role for the explanation and analysis of the topic. Each student has a specific time to present their views. The teacher assesses through questions generated in the discussion, which evidence the level of comprehension, appropriation and interpretation achieved by the students.
12. Explain, from the ecological perspective, the connections between human health, animal health, and ecosystem health (e.g. One Health).		

3) Provide a matrix, in the format of Template D17-2, that lists competencies for each relevant degree and concentration. The matrix indicates at least one assessment activity for each of the listed competencies. Typically, the school will present a separate matrix for each concentration. Note: these competencies are defined by the school and are distinct from the foundational public health learning objectives defined in this criterion.

Tables D.17.2.1.- D.17.2.8 describes the mapping of specific competencies for the various concentration areas of the Master of Science programs.

D.17.2.1. Assessment of competencies for the Master of Science in Epidemiology.

Specific competencies	Course	Specific assessment opportunity
1. Using the epidemiological approach to analyze the health issues of the populations.	EP85. Foundational Epidemiology	Workshops: the students carry out activities related with the topics of causality, association and potential impact measures estimation; analyzing effect modifiers and different epidemiological study designs.
	EP86. Intermediate Epidemiology	Reading club: the students analyze articles and methodological reports on topics that are relevant to the health-disease process. In addition, the students give presentations and the professor guides the discussion, debates or team work.
	EP36. Clinical Trials	Research protocol: from an approach of clinical examinations, the students pose a relevant health-disease issue. Through practical activities, the students recognize the basic foundational methodologies of the clinical trials, the types of clinical trial design.
	EP83. Thesis protocol I	Research protocol: the students pose a research problem in relation to a health-disease population issue.
	EP84. Thesis protocol II	Research protocol: the students identify the main database information sources on line in order to engage in the systematic search of a health issue or population disease. This seminar emphasizes the aspect of methods, designs, and validity of a study.

2. Applying the epidemiological measures for describing and assessing health-disease conditions in the populations.	EP86. Intermediate Epidemiology	Workshops: the students apply, describe and assess health-disease conditions in the population. Survival analysis and Cox regression, evaluation of the validity of epidemiological studies, assessment of confounding, and assessment of interaction and effect modification are taken as references.
	EP88. Guide to good clinical practice	Examination: the students are evaluated in order that they may recognize the foundations in the Guides to Good Clinical Practice and apply them in clinical research. Also through a practical activity, they propose a randomized clinical trial, as well as the legal foundations of this type of trials.
	EP38. Clinimetry	Validation protocol: the students identify the best statistical tests used for validating an instrument to measure the health-disease conditions of the population.
	EP83. Thesis protocol I	Presentation of the protocol: the students present their thesis protocol advances, taking into account the assessment guidelines exposed by the professor.
	EP51. Thesis seminar I	Written presentation of the scientific paper: the students use the components of a clinical research protocol and the tools required to complete their master's dissertation.
	EP52. Thesis seminar II	Article: the students present the document generated based on the (article) protocol approved by the thesis committee, using databases; they perform statistical analyses and draft their thesis in a scientific article format.
3. Applying the epidemiological research designs as tools for the study of health-disease determinants in populations.	EP85. Foundational Epidemiology	Problem based learning (PBK): based on real scenarios, the students are required to analyze and understand epidemiological study designs, as well as the errors and biases that may affect the results and their interpretation.
	EP86. Intermediate Epidemiology	Reading club: the students analyze articles and methodological reports on topics that are relevant to the health-disease process. In addition, the students give presentations and the professor guides the discussion, debates or team work.
	EP36. Clinical Trials	Research protocol: the students develop a clinical trial protocol in relation to a relevant health-disease issue.
	EP38. Clinimetry	Practical activity: the students carry out a validation of an instrument for clinical application related to their master's dissertation or to their clinical research area of interest.
	EP83. Thesis protocol I	Presentation of the protocol: the students present their thesis protocol advances, taking into account the assessment guidelines exposed by the professor.
	EP84. Thesis protocol II	Protocol presentation: the students present their thesis protocol advances incorporating the methods, designs and validity of their epidemiological studies in relation to the corresponding thesis topic. The thesis protocol is evaluated based on the assessment guidelines exposed by the professor.
4. Applying the ethical principles in the development of epidemiological research.	EP36. Clinical Trials	Research protocol: from an approach of clinical examinations, the students pose a relevant health-disease issue. This document must include the health regulations for the development of this type of studies.
	EP88. Guide to good clinical practice	Analysis of documents: the students perform an analysis of the information sources in order to identify ethical foundations in clinical research.

	CET05. Research ethics	Formulation of questions: at the end of the session, the professor asks the students about the historical background from which the research ethics stemmed and requires them to interpret the national regulations and international agreements that govern the scientific research ethics in public health.
	EP51. Thesis seminar I	Written presentation of the scientific paper: the students use the components of a clinical research protocol and the necessary tools for completing their thesis taking ethical considerations into account.

D.17.2.2. Assessment of specific competencies for the Master of Science in Environmental Health.

Competencies	Course	Specific assessment opportunity
1. Analyzing the different environmental risks —chemical, physical, biological and social— in order to identify their impact on the deterioration of the environment, as well as on the health of the populations.	SA70. Foundations of Environmental Health	Workshops with case studies: the students are required to identify the different routes of exposure to chemical, physical and biological pollutants, to become familiar with the technology utilized for assessing exposure to these pollutants and with the strategies for their control. The purpose of these workshops is to assess the acquired knowledge.
	SA48. Methodology for the assessment of the impact and management of environmental risks	Case study: the students are notified about an intoxication by chemical agents in a population; they must indicate the source, the route, and the route of entry into the body. The final paper, which is a risk assessment based on a case study, must include, in addition to the aforementioned concepts, a description of the manner in which the agent is transported within the organism, the effect on the target organs, and the actions to abate or prevent damage to health caused by exposure to chemical agents.
2. Establishing the foundations of the forms of exposure and the action mechanisms of the environmental agents in human beings, as well as their gene-environment interaction for supporting actions in public health.	SA42. Foundational Toxicology	Drafting of a protocol: the students are required to draft a protocol integrating laboratory techniques applied in toxicology that are also applicable to research in human populations. This exercise is complemented with written exams.
	SA43. Intermediate toxicology	Research protocol: the students are required to present a protocol including biological, toxicological and/or genetic mechanisms supporting the health risk assessment. The participation in classes organized as debates is evaluated.
3. Developing monitoring and surveillance environmental health plans according to the type and characteristic of the pollutant and to the environment where the measurements are made in order to identify populations at risk.	SA58. Environmental measurement processes	Drafting of 3 essays: the students addressed the pollutants of different environments, which they research, describing the sources, exposure routes, and effect on the health of populations at risk, as well as the methods both for monitoring the pollutant and human exposure.
4. Applying the research and risk assessment methodologies to the testing of various hypotheses in favor of new knowledge on environmental health.	SA73. Environmental Epidemiology	Case studies: the students identify the various study designs, assess the exposure, and identify the statistical techniques utilized.
	SA48. Methodology for the assessment of the impact and management of environmental risks	At the end of the class on risk perception and communication, a case study is performed in which the students form teams with different roles (population, the industry causing the risk, decision-makers, researchers, etc.). These will have to communicate the risk according to their position, but with the premise that they must reach agreements in which there is a mutual understanding between all the parties and these will solve the environmental issues of the area.
		Final assignment: the students design a strategy for carrying out a risk perception study and a risk communication study that will contribute to the implementation of prevention and/or abatement actions with participation by the population.

	SA72. Research methodology	Drafting of a paper: the students apply the research methodology to develop a research idea, learn the background of an issue, seek information about it, pose the problem, and conclude by expressing in writing a goal and a research hypothesis in the environmental field.
	SA69. Protocol seminar in environmental health	Final paper: in this document, the student selects the correct choice of study design and statistical analysis plan, as well as the anticipation and control of potential biases.
	SA52. Thesis seminar I	Presentation of thesis results: the students are evaluated based on a document in which they present the methods and the final results of the statistical analysis performed.
	SA53. Thesis seminar II	Paper in article format: during the course, the students are prepared for drafting and integrating the final results of their thesis in order to prepare a manuscript to be submitted to a peer-reviewed journal.
5. Implementing interventions in environmentally vulnerable populations, in order to reduce the health-disease gap.	SA45. Ecosystemic approach and human health	Essay: the students draft the first essay, which includes the theoretical aspect of the reviewed topics: systemic learning and transdiscipline in relation to the topic of the thesis that they are developing, with the following sections: Structure of the essay, Introduction, Posing of the problem, Hypothesis, Objectives, Theoretical framework. The professor evaluates based on a checklist.
	SA59. Legislation and environmental management	Case study: the students analyze an environmental issue in order to determine what would be the regulatory framework and the environment management instruments for its solution or minimization (management).
6. Identifying the global environmental issues in order to assess their contribution to the global and regional disease burden.	SA41. Global health and environment	Exercises and case study analysis: based on the participation by the students in class debates, the professor evaluates their analysis and interpretation of the addressed contents, such as: Globalization and health, social determinants of health Students are also evaluated based on an essay identifying a global issue with a health effect associated with a global environmental risk, considering its social and economic dimensions.

D.17.2.3. Assessment of specific competencies for the Master of Science in Population Nutrition.

Competencies	Course	Specific assessment opportunity
1. Identifying the main indicators in relation to the assessment of nutritional status in populations.	NS44. Assessment of the nutritional status in populations	Final evaluation: the students design a proposal for the comprehensive assessment of the nutritional status of a population in order to introduce themselves into the planning of the assessment of malnutrition in a population.
	NS34. Seminar on critical review of the literature	Presentation and review of scientific articles: Identification of the indicators used for measuring the nutritional status.
2. Analyzing the individual, social and environmental factors related to population nutrition.	NS33. Nutrition in the life cycle	Partial examination: the students are evaluated on the topic of Analysis of nutrition in women of reproductive age and during pregnancy and childhood.
	NS10. Nutritional Epidemiology	Workshop and first partial exam: the students are evaluated on the topic of Adiposity assessment as an exposure factor.
	NS34. Seminar on critical review of the literature	Presentation and review of scientific article: the students are requested to identify the individual, social and environmental determinants related to the nutrition indicator addressed in the analysis, as well as those not considered, in order to discuss the implications of not having considered them.
	NS36. Thesis seminar I	Drafting of scientific paper: students are required to present the methodology section on the individual, social and environmental factors that they intend to analyze or are analyzing in their research as dependent, independent or adjustment variables.
	NS37. Thesis seminar II	Presentation of thesis advances: in class, the students deliver a presentation of the section on methodology, results and discussion of the individual, social and environmental factors analyzed by them in their research as dependent, independent or adjustment factors.
3. Interpreting the magnitude and severity of the population nutrition issues using both quantitative and qualitative methods.	NS44. Assessment of the nutritional status in populations	The students are required to develop Workshop 1. Estimation of adequacy and prevalence of inadequacy (database analysis is performed).
	NS34. Seminar on critical review of the literature	Presentation of a scientific article: using critical analysis, the students identify a nutrition issue stated in the article, as well as its magnitude and consequences.
	NS37. Thesis seminar II	The students present the results derived from their research (thesis).
4. Generating scientific knowledge with ethical bases in order to contribute to the solution of population nutrition issues.	NS10. Nutritional Epidemiology	Final assignment: the students are required to perform a state-of-the-art study of a relevant population nutrition topic.
	NS35. Research protocol	Presentation of the final protocol: the students develop, present and defend the research protocol indicating the scientific support of their statement, as well as the knowledge gaps in relation to the topic that they are studying.

	NS36. Thesis seminar I	Drafting of a scientific document: the students present their progress in their thesis, mentioning the approval of the study by the ethics committee, as well as the informed consent if the study was carried out on human beings, as well as the correct citation.
	NS37. Thesis seminar II	Presentation of thesis advances: the students present their finished thesis in an article format, according to the guidelines of the journal to which they plan to submit it and mentioning the approval of the study by the ethics committee, as well as the informed consent if the study was carried out on human beings.

D.17.2.4. Assessment of specific competencies for the Master of Science in Infectious Diseases.

Competencies	Course	Specific assessment opportunity
1. Identifying factors of the interaction between the host, the pathogenic agents, the environment, and the community that concur in the occurrence, emergency and dissemination of infectious diseases, based on an ecosystemic approach.	EI42. Cell biology in infectious diseases	Presentation and final paper: the students are required to integrate concepts on an infectious disease from a public health, epidemiological and molecular perspective. In modules 4-6, the students undergo an examination with concept integration problems.
	EI45. Biology and control of bacterial diseases in public health	Examination: the students are evaluated on the following topics: Bacterial structure and metabolism. Diseases caused by emerging bacteria and vaccines against bacterial diseases.
	EI46. Biology and control of viral diseases in public health.	Partial examination 1 and 2 Cell-virus interactions Concept of cell-virus receptor, internalization and uncoating Concept of viral infection, kinetics and virus particle production. Evolution of virus populations. Concept of imperfect vaccine. 3. Virus pathogenicity and host defense mechanisms
	EI47. Biology and control of parasite-borne diseases in public health	Oral and written presentation of an essay on a topic: Vector-borne parasitic zoonoses. The presentation assesses: 1) quality of the presentation; 2) quality of the written essay, and 3) correlation between the written essay and the oral presentation.
	EI48. Immunology in infectious diseases	Exam: the students are evaluated on the following topics: Biological foundations of vaccines, passive immunity. Immunological differences between species and their effect on animal and human health (bats and viral diseases).
	EI51. Epidemiology of infectious diseases	Final individual essay: the students are required to write a paper identifying Globalization and infectious diseases. Epidemiology of Vector-borne Diseases Antimicrobial resistance mechanisms.
2. Analyzing the issues and needs of surveillance, prevention and control of infectious diseases relevant to the population health at a national and global level.	EI45. Biology and control of bacterial diseases in public health	Exam: Epidemiology of the main bacterial infections with public health impact in Mexico. Existing vaccines included in the Official Vaccination Records.
	EI46. Biology and control of viral diseases in public health.	Case analysis and discussion of scientific articles: the students analyze information sources related to viral diseases: Epidemiology, surveillance and its impact on public health.
	EI47. Biology and control of parasite-borne diseases in public health	Oral and written presentation of an essay on the research topic: Characteristics of biology, pathology and pathogeny, clinical practice, diagnosis, treatment, and epidemiology of human helminthic parasites.
	EI51. Epidemiology of infectious diseases	Final essay: the students write an essay on the Epidemiology of sexually transmitted diseases (STDs) and AIDS.
3. Using borderline knowledge of the biomedical, computer, and epidemiological disciplines to study infectious diseases of importance in public health.	EI.49 Research residency on infectious diseases I	The students are proposed a discussion of the theoretical-practical aspects of the bioinformatic technique, cell biology, biochemistry and molecular biology, and drafting of an individual written report that includes a work log for each technique, specifying the controls, results, advantages and limitations of each.

	EI51. Epidemiology of infectious diseases	Essay: the students present an essay on the applications of molecular epidemiology to tuberculosis.
	EI52. Research protocol	Development of a protocol: the students are required to develop a research protocol containing a work hypothesis and general and specific objectives.
	EI53. Thesis seminar I	The students present in writing their progress in their experimental work, in their thesis, and in the review of articles for the discussion of their partial research outcomes.
	EI54. Thesis seminar II	The students are evaluated based on their thesis project, through which they a) develop skills for exposing the results of the advances or their research in a clear, substantiated manner; b) perform a critical, substantiated analysis of their results and of the progress in their research; c) draft a clear, substantiated report of the results of their research. Having received the written thesis, three professors evaluate the presentation and the questionings, based on a rubric.

D.17.2.5. Assessment of specific competencies for the Master of Science in Health Systems and Policies.

Competencies	Course	Specific assessment opportunity
1. Developing research from a systemic perspective on the functions of the health systems, including stewardship, training of human resources, provision of services, and funding, in order to contribute to improve the health of the population.	SP83. Research seminar I	Drafting of the protocol: the students present a draft of the article consisting of an Introduction (context, justification of the topic, research question, and objective of the article); methodology (type of approach, hypothesis or starting premise, sample, or profiles of the informants, statistical tests or triangulation forms, collection instruments, type of analysis proposed) and preliminary results.
	SP84. Research seminar II	Final assignment: the students develop the advances of their research periodically and, according to the content of the courses, they work around three components of the research to be carried out: 1) Materials and methods. 2) Results. 3) Discussion and conclusions.
	CS02. Social sciences in public health	Presentation of topics: the students deliver presentations emphasizing the analysis and discussion of specific health-disease issues, which will make it possible to integrate knowledge on social sciences into the health study.
	CS43. Qualitative research methods	In-class exercises and workshops: the students solve exercises to develop knowledge and tools in the field of social research, concretely of the qualitative health research methodology.
	SP58.Methodology for research on health systems	Research protocol in health systems: the students are required to draft a document that will allow situating their research topic within the conceptual framework that will support the research problem and enable them to build their project from the methodological approach in the area of health systems and services. The product is evaluated based on a rubric.
2. Analyzing and contribute to the design of public policies for improving the population health.	SP26. Health policies	Policy brief workshop: the students develop a workshop with the purpose of informing decision makers about the scientific evidences resulting from health policy research and assessment studies.
	SP54. Health systems I	Analysis of articles: the students are required to review articles related to the study of the objectives —to improve health conditions, to offer dignified treatment and to guarantee financial protection— and the functions —provision of service, funding, generation of resources and stewardship— of the health systems.
	SP89. Assessment of policies, programs and interventions	Participation and discussion: in class, the students discuss the foundational conceptual aspects for the comprehensive assessment of policies and programs, as well as the various perspectives of the assessment.
3. Evaluating programs and interventions in health systems in order to orient the decision making processes with equity and social inclusion criteria.	SP89. Assessment of policies, programs and interventions	Final assignment: having formed teams, the students select a policy, program, strategy or intervention in order to develop an assessment. The presentation of the results of their assessment must take into account the following criteria. The document contains a minimum of 3 000 words and a maximum of 4 000. A minimum of 30 bibliographic references cited according to the Vancouver referencing style. The document is assessed by considering the following sections: Background, Question and objective of the assessment, Methodology, Results, Conclusions and recommendations, and Bibliographic references.

D.17.2.6. Assessment of specific competencies for the Master of Science in Vector-borne Diseases.

Competencies	Course	Specific assessment opportunity
1. Analyzing the biological, epidemiological, ecological and social components associated to the vectors, pathogens and humans in order to understand the population and transmission dynamics.	EV57. Biochemistry and cell biology	Intervention proposal: the students prepare a proposal involving the use of a prophylactic or corrective measure for a particular infection in a specific population, including the theoretical and methodological bases of the action.
	EV23. Insect morphology	Practices: To collect insects with a public health importance in different areas where VBDs are endemic, in order to identify the morphological structure of the vectors.
	EV53. Insect ecology	To develop a life table of the vector insect populations that will allow quantifying the effect of environmental, social and control factors in VBD transmission dynamics.
	EV54. Microbiology of the VBDs	Based on the biological components of the pathogens involved in the transmission dynamics, the students are required to solve a problem of diagnosis, treatment and impact on transmission through group discussion, and to deliver a written summary.
	EV58. Epidemiology of the VBDs	To draft a proposal of a study that will include the components allowing to determine the basic case reproduction rate in VBD transmission areas.
2. Analyzing immuno-biochemical and molecular interactions between hosts and pathogens and their evolutionary processes for the development of interventions aimed at blocking the infection, disease and transmission.	EV57. Biochemistry and cell biology	The students are required three specific tasks: 1) Resolution of a problem exposed for a specific infection in a particular population; 2) reports of the laboratory practicum and the bioinformatic practicum; 3) creating an instructional video about microorganism transformation.
	EV54. Microbiology of the VBDs	Reports in a poster format and scientific article on the application of immuno-biochemical and molecular techniques in the measurement of the presence of and exposure to pathogens and assessment of their characteristics.
3. Applying the criteria and the technical, methodological and ethical foundations for the study and systematic sampling for the design of proposals for basic research and research applied to VBDs,	EV26. Pesticide toxicology and environmental risk	Application of the scientific method to the assessment of lethal concentrations using the basic methodology, thereby providing the foundations for making a correct decision in pesticide control of resistance to pesticides by disease-transmitting mosquitoes
	EV54. Microbiology of the VBDs	Preparation of a research pre-proposal: the students are required to integrate a basic proposal following the CONCACyT format. This proposal is evaluated by means of group discussion during the elaboration process.
	EV31. Research protocol	To develop research proposals that may allow quantification of the incidence and prevalence estimators, taking into account the various risk factors, associated to VBD transmission.

4. Evaluating integral control components in order to reduce the incidence and risk of VBD transmission.	EV54. Microbiology of the VBDs	Research pre-proposal (two pages): a proposal regarding the development and interaction of pathogens with their susceptible and refractory vectors in order to determine research needs in the blocking of transmission in vectors
	EV55. Residency: Vector control planning and operation: from the ecosystemic perspective	The students design an integrated cost-effective strategy for vector prevention and control.

D.17.2.7. Assessment of specific competencies for the Master of Science in Biostatistics.

Competencies	Course	Specific assessment opportunity
1. Developing the statistical analysis in order to contribute to the attainment of the goals of the public health research projects.	BE47. Regression models	Individual exposition on the final report of the assigned project: the students expose, justify and adapt each and every one of the aspects analyzed in the topics: Basic statistical procedures and multiple regression models.
	BE51. Multivariate analysis	The students work with information of a project embedded within the context of multivariate data and analyze this information statistically in order to respond to the objectives of the project. They also deliver written reports and an account for the evaluation of their active participation in the discussion sessions.
	BE57. Thesis seminar I	Presentation of the research with emphasis in the statistical analysis plan. The professor evaluates, based on a group discussion.
	BE58. Thesis seminar II	The students present the advances of their theses.
2. Analyzing the needs for research projects in order to translate them into the statistical context applied to public health.	BE47. Regression models	Individual presentation of the final report of the assigned Project: the students expose, justify and adjust each and every one of the aspects analyzed in the topics "Basic statistical procedures" and "Multiple regression models".
	BE55. Research methodology	Research Project: a project including the statement of the problem, the theoretical framework and the statement of the hypothesis. The evaluation is based on class participation.
	BE59. Statistical computation	Applications to practical cases workshop: the students are required to apply the basic statistical commands to exercise resolution.
	BE75. Longitudinal data	Workshops: the students are required to analyze time series in public health, as well as longitudinal and survival data. The evaluation is based on class participation.
3. Evaluate the statistical analysis developed in research projects to understand their scope and limitations.	BE47. Regression models	Practical cases workshop: Review of basic statistical concepts and procedures, Simple regression models and Multiple regression models.
	BE56. Research protocol	Session of questions and answers by the professors and fellow students on the analysis plan
4. Apply basic sampling designs and estimation sample size procedures in different types of epidemiological studies and comprehend complex designs for its adequate application in public health field.	BE74. Sampling	Practical exercises: the students apply sampling techniques for estimating parameters (characteristics) in order to describe the current health status of a population.
	BE76. Selected biostatistical topics	Practical workshop: the students analyze information drawn from the 2006 and 2012 editions of the ENSANUT as input for the analysis of complex surveys.
5. Employ appropriate statistical software to every specific phase in a research project.	BE51. Multivariate analysis	Having formed teams, the students solve application exercises and use databases: mathematical tools of EXCEL and SPSS and STATA statistical packages. They work with information from a project within the context of multivariate data, and analyze this information statistically in order to meet the goals of the project.

	BE59. Statistical computation	The students work with databases from epidemiological research projects of from public health surveys and use statistical software; they also participate in application to practical cases workshops.
	BE75. Longitudinal data	Exercise report with data from real-life studies of time series, repeated measures, and survival analysis.
6. Observe ethical norms and standards that regulate statistical processes and public health activities.	BE57. Thesis Seminar I	The students generate two specific products: a) Presentation of the statistical analysis plan of their thesis project; b) Presentation of and open discussion on the statistical aspects of the thesis Project (population, variables, exploratory analysis, and models).
	BE58. Thesis Seminar II	Presentation of thesis progress and results of the review of scientific articles.
	BE76. Selected biostatistical topics	Critical report of articles and review of ethical guidelines of statistical societies, active class participation, and delivery of reports.

D.17.2.8 Assessment of specific competencies for the Master of Science in Health Economics.

Competencies	Course	Specific assessment opportunity
1. Identify priority public health problems based on relevant scientific evidence and the analytical basis provided by health economics	ES59. Research methodology	Final assignment: the students deliver a classroom presentation on the systematic review of the literature related to the research topic selected in their thesis protocol.
	ES57. Thesis Seminar I	Thesis protocol: the students conclude their research proposal and begin drafting their master's dissertation.
	ES54. Health economics	Class participation and partial examinations: the students give proof of their knowledge of the economic theory applied to public and individual health issues.
2. Propose innovative, feasible and relevant research questions in public health, based on a health economics theoretical framework.	ES59. Research methodology	End of course assignment: thesis protocol. In-class presentation of the students' progress: topic title; description of the feasibility of the study; novel, relevant, and ethical aspects of the selected research topic.
	ES55. Economic analysis of health systems and interventions	Monitoring of readings and answers to relevant questions regarding the recommended readings according to the methodologies studied in class; this activity is performed as part of topic IX: Analysis of decisions in economic assessment.
	ES57. Thesis Seminar I	The students conclude their research proposal and begin to draft their master's dissertation.
3. Use theoretical and methodological tools proper to microeconomics, econometrics, health economics and intervention and health program evaluations for the analysis of public health problems.	ES59. Research methodology	End of course assignment, thesis protocol: throughout the course, the students make progress in the methodology of the selected research topic: databases, variables, empirical estimation.
	ES60. Program impact assessment	In-class workshops for applying the methodological tools learned in class through exercises solved by the students using STATA and under the professor's guidance.
4. Propose informed and useful solutions for the design of public health policy addressed to solve social and public health policy problems.	ES59. Research methodology	Delivery of a final assignment: research protocol containing a description of the relevance of the selected topic in terms of public policies.
	ES55. Economic analysis of health systems and interventions	Case studies: the students develop evidence-based proposals using standardized methodologies to generate information for decision making.
	ES60. Program impact assessment	Research article: the students present an article related to each impact assessment topic; the assessment results lead to recommendations of public policies which the students must highlight in their presentation.

4) Identify required coursework and other experiences that address the variety of public health research methods employed in the context of a population health framework to foster discovery and translation of public health knowledge and a brief narrative that explains how the instruction and assessment is equivalent to that typically associated with a three-semester-credit course.

All the Master of Science students are taught, in the first and second semesters, the following courses: Research methodology or Research protocol, in which the students are provided with theoretical and practical elements in order to be capable of stating a health research issue and designing a research protocol, as well as identifying the necessary elements for the development of a research according to the scientific method. These subjects are part of the integration and evaluation curricular axis of the syllabus. Each course requires a total of 40 hours with the group in class, equivalent to the instruction and to the evaluation time generally associated with a course worth 3 credits.

At the same time, the students of all the Master of Science programs are required to address the full range of public health research methods through the various courses proposed in the syllabus. The courses listed below are focused on research methods used within the framework of population health in order to promote discovery and the translation of public health knowledge into actions.

Table D17.4. Courses focused on the coverage of public health research methods in the Master of Science Programs

MSc in PH	Courses	
Master of Science in Epidemiology	BE11 Intermediate biostatistical methods BE74 Sampling EP51 Thesis seminar I EP52 Thesis seminar II	EP83 Thesis protocol I EP84 Thesis protocol II EP85 Basic epidemiology EP86 Intermediate epidemiology
Master of Science in Environmental Health	BE11 Intermediate biostatistical methods SA45 Ecosystemic approach and human health SA48 Methodology for impact assessment and environmental risk management SA52 Thesis seminar I	SA53 Thesis seminar II SA69 Seminar on environmental health protocol SA72 Research methodology SA73 Environmental epidemiology
Master of Science in Population Nutrition	BE11 Intermediate biostatistical methods EP85 Basic epidemiology NS10 Nutritional epidemiology NS31 Biochemical and physiological foundations of nutrition in public health CS43 Qualitative research methods	NS34 Seminar on critical review of literature NS35 Research protocol NS36 Thesis seminar I NS37 Thesis seminar II NS44 Evaluation of the nutritional status in populations
Master of Science in Infectious Diseases	EP47 Foundations of public health EI47 Biology and control of parasite-borne diseases in public health EI49 Infectious diseases research residency I EI52 Research protocol	EI50 Infectious diseases research residency II EI51 Infectious diseases epidemiology EI53 Thesis seminar I EI54 Thesis seminar II
Master of Science in Health Systems and Policies	BE11 Intermediate biostatistical methods CS02 Social sciences in public health SP26 Health policies SP54 Health systems I SP55 Health systems II SP58 Health systems research methodology SP60 Research protocol	CS43 Qualitative research methods SP56 Comparative analysis of health systems SP57 Systems management and health services SP83 Research seminar I SP84 Research seminar II SP89 Assessment of policies, programs and interventions

Master of Science in Vector-borne Diseases	EV31 Research protocol EV33 Thesis seminar II EV52 Insect ethology EV53 Insect ecology EV54 Microbiology of VBDs EV55 Residency: Planning and operation of vector control: from the ecosystemic perspective	EV56 Thesis seminar I EV57 Biochemistry and cell biology EV58 Epidemiology of VBDs
Master of Science in Biostatistics	BE47 Regression models BE48 Bayesian statistics BE50 Categorical data BE51 Multivariate analysis BE52 Non-parametric analysis BE55 Research methodology BE56 Research protocol	BE57 Thesis seminar I BE74 Sampling BE58 Thesis seminar II BE75 Longitudinal data BE76 Selected biostatistical topics EP85 Foundational epidemiology
Master of Science in Health Economics	EP47 Foundations of public health ES04 Mathematics for economists I ES13 Mathematics for economists II ES53 Microeconomy II ES54 Health economics ES55 Economic analysis of health systems and interventions.	ES56 Advanced topics of Health Economics ES57 Thesis seminar I ES58 Thesis seminar II ES59 Methodology of research ES60 Programs impact assessment

5) Briefly summarize policies and procedures relating to production and assessment of the final research project or paper.

All the students enrolled in the Master of Sciences in the various concentration areas can graduate, at the end of their studies, with either one of two modalities: a thesis or a publishable article (original or review).

The procedures that the students must follow in order to obtain the academic degree are described below:

1. Registration of the thesis protocol, i.e. the document that describes clearly and precisely the complete research process involved in thesis work.
2. Thesis protocol submittal to the following committees, for their pronouncement:
   a. Committee on Biosafety
   b. Ethics Committee
   C. Research Committee
3. When they have completed the document, the students present their proposal to their examination jury, along with their thesis director and the academic coordinator of the program, who submits it to the corresponding faculty college for approval.
4. Finally, the students take their comprehensive examination once they have met the following requirements: a) having covered all the credits, and b) having an authorized thesis.

6) Provide links to handbooks or webpages that contain the full list of policies and procedures governing production and assessment of the final research project or paper for each degree school.

Attached are the General Regulations on Graduate Studies, which contain the complete list of policies and procedures that rule over the production and assessment of the final research project.

7) Include completed, graded samples of deliverables associated with the major paper or project. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

Attached are Master of Science theses by concentration area.

8) Briefly explain how the school ensures that the instruction and assessment in basic public health knowledge is generally equivalent to the instruction and assessment typically associated with a three-semester-credit course.

All the Master of Science students study the course *Foundations of public health* during the first semester. This course provides the opportunity to analyze and assess the fundamental concepts of public health, as well as have an overview of the functions and areas of public health, allowing them to acquire the competencies of integral analysis and theoretical-methodological development in the research of related topics.

The course is divided into three major topics: 1. Introduction to public health, 2. Areas of public health, and 3. Public health issues and research. The purpose of each topic is to discuss, debate, and generate opinions in order to achieve a profound analysis of the presented components. In addition, each major topic includes the presentation of relevant topics, as well as assessment of the students' foundational knowledge of public health. The syllabus covers 40 hours with a professor and 40 hours of independent study; this amounts to 5 Mexican credits (equivalent to 3.75 US credits).

9) Include the most recent syllabus for any course listed in the documentation requests above, or written guidelines for any required elements that do not have a syllabus.

Included are the syllabi of the courses taught in the Master of Science program.

10) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The Master of Science graduate programs currently have 8 concentration areas, which result in different professional profiles that facilitate the understanding and integration of the contributions of each discipline into the theory and practice of public health. The students are trained in a competency-based educational approach that enables them to analyze, design, and lead research projects that will respond to the health needs of the population. To this end, all the students study the course *Foundations of public health*, which provides them with a foundational knowledge of public health, at an appropriate level of complexity. They also complete other courses of the curriculum which substantially address the scientific and analytic approaches for acquiring knowledge and translating it into public health actions, within the framework of population health.

D18. Academic Public Health Doctoral Degrees

These students also complete coursework and other experiences, outside of the major paper or project, that substantively address scientific and analytic approaches to discovery and translation of public health knowledge in the context of a population health framework.

These students complete doctoral-level, advanced coursework and other experiences that distinguish the school of study from a master's degree in the same field.

The school defines appropriate policies for advancement to candidacy, within the context of the institution.

Finally, students complete coursework that provides instruction in the foundational public health knowledge at an appropriate level of complexity. This instruction may be delivered through online, in-person or blended methodologies, but it must meet the following requirements while covering the defined content areas.

The school identifies at least one required assessment activity for each of the foundational public health learning objectives.

The school validates academic doctoral students' foundational public health knowledge through appropriate methods.

1) List the curricular requirements for each non-DrPH doctoral degree in the unit of accreditation, EXCLUDING requirements associated with the final research project. The list must indicate (using shading) each required curricular element that a) is designed expressly for doctoral, rather than master's, students or b) would not typically be associated with completion of a master's degree in the same area of study.

   The school may present accompanying narrative to provide context and information that aids reviewers' understanding of the ways in which doctoral study is distinguished from master's-level study. This narrative is especially important for institutions that do not formally distinguish master's-level courses from doctoral-level courses.

   The school will present a separate list for each degree program and concentration as appropriate.

The INSP offers 5 Doctorates in Science. PhD in science and its three concentration areas (Epidemiology, Health Systems and Infectious Diseases), PhD in Science in Population Nutrition and PhD Science in Environmental Health which are the product of a consultation process and work with the academic community of the National Institute of Public Health (INSP).

The Doctorate of Science programs are different from the Master of Science programs in that the depth level of the curricular content facilitates the training of human resources to become leaders in the generation of knowledge in the field of public health, relevant to current national and international needs.

The 5 Doctorate of Science programs have a duration of four years and share the following curricular requirements:

- Students must complete three units of a core curriculum.
- Within the first year, the students must complete three mandatory seminars in the corresponding concentration area, and integrate their dissertation advisory committee.
- In the second year, they must attend the seminars indicated on the curriculum.

- Once these requirements are covered, the students may submit the qualifying exam for the area; in addition to obtaining the candidacy, they must also defend and approve their thesis protocol. This period is defined by the committees on curriculum design of each concentration area established in the curriculum maps.
- During the third or fourth year, they must take electives to complete their formal instruction, present their doctoral thesis defense, and obtain the corresponding grade.

In addition to the above requirements, the Doctorate in Science students must complete the following activities before obtaining the grade:

- Studying and passing a course in research ethics on human subjects; the most frequent example used is the so-called CITI (Collaborative Institutional Training Initiative), a modular, self-managed course based on case studies, with very specific questions by topic, with immediate feedback.
- Attending institutional seminars. Each school year includes 8 seminars on different topics, each with a duration of 2 hours, leading to an attendance certificate.
- Teaching 40 hours at the INSP.
- Demonstrating fluency in English at an intermediate-advanced level.

The curricular procedures for each PhD in Science programs are listed in the Regulation Governing the Doctoral and Postdoctoral Programs that is included as an Electronic Resource File. Additionally, the following attached hyperlinks detail the structure and curricular requirements of each program.

Doctorate of Science in Epidemiology
http://www.espm.mx/oferta-academica/doctorados/ciencias/dc-epidemiologia

Doctorate of Science in Health Systems
http://www.espm.mx/oferta-academica/doctorados/ciencias/dc-sistemas-salud

Doctorate of Science in Infectious Diseases
http://www.espm.mx/oferta-academica/doctorados/ciencias/dc-enfermedades-infecciosas

Doctorate of Science in nutrition of the Population
http://www.espm.mx/oferta-academica/doctorados/dc-nutricion-poblacional

Doctorate of Science in Environmental Health
http://www.espm.mx/oferta-academica/doctorados/dc-salud-ambiental

Difference between the Master of Science programs and the Doctorate of Science programs

The Doctorate of Science programs differ from a Master of Science program in that their goal is to train professionals who will apply theoretical, methodological and instrumental elements to transdisciplinary and original research in public health –which is useful for the development of public policies in health–, as well as participate in human resources training in the areas of population health, health systems, infectious diseases, environmental health, or population nutrition.

The training of professionals and researchers of excellence is a priority task needed to fill gaps in all levels of the Health Sector. Doctors of Science in Public Health are trained in the identification, description, analysis and evaluation of health requirements, as well as to design strategies and generate knowledge and information for the design of health policies and programs, for both communicable and non-communicable diseases, as well as for as for the improvement of health conditions in the Mexican population.

2) Provide a matrix, in the format of Template D18-1, that indicates the required assessment opportunities for each of the defined foundational public health learning objectives (1-12). Typically, the school will present a separate matrix for each degree program, but matrices may be combined if requirements are identical.

All Doctoral students prove their mastery of the fundamental objectives of public health studies through the "*Priorities in public health seminar*", which comprises four major topics:

I. Public health: guiding axis of population welfare
II. Public Health Situations/Challenges
III. Factors that determine the health and the well-being of the population
IV. Organized social response

This seminar belongs to the core curriculum of the five doctoral programs. In addition, the students attend other courses in each concentration area that correspond to these fundamental objectives. Table D18.1 reports in a combined matrix the courses in which all the students from the Doctorate of Science programs cover the foundational public health learning objectives.

Table D18.1. Content Coverage for academic doctoral degree in a public health field.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain public health history, philosophy and values	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the student identifies relevant articles on the subject of Foundational Concepts of Public Health, as well as audiovisual material that is reviewed prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and for clearing their doubts.
	CET04. Research Ethics in Public Health	Oral examination: at the end of the term, the teacher asks students about the historical background that originated the research ethics and their interpretation of the national regulations and international treaties governing ethics in scientific research in public health.
2. Identify the core functions of public health and the 10 Essential Services*	CDEP24. Priorities in public health Seminar	Review of bibliographic material: the students identify relevant articles on the subject of essential public health functions (EPHF) and audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the student identifies relevant articles on the subject: Priority setting for research in public health, as well as audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.

	CDSS27. Application of quantitative and qualitative methods of research in health systems	Final Work: Students write two types of assay, a short one of a maximum of 500 words that includes their comments and criticism based on the revised articles; and another final one of a maximum 1000 words that they develop on the last class day, in the classroom. For the brief essay (500 words), a critical synthesis of one of the articles chosen for each week is prepared, and students respond to the following questions as if they were themselves the judge evaluating the document: What is the research question of the revised article? What is the methodological approach? Is the research question relevant? Why? What are the limitations of the study? What are the strengths of the study? For the final essay (1000 words), they are given criteria for its development.
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	CDEP24. Priorities in public health Seminar	Review of bibliographic material: the student identifies relevant articles on the subject: Public health situations/challenges, as well as audiovisual material to review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the students identify relevant articles on the subject of Organized Social Response, as well as audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
	CDSS28. Evidence for the public health policies	Keynote presentations and group discussions: the students are introduced to the functions of health systems and their challenges for integrating social response to the health needs of the population.
6. Explain the critical importance of evidence in advancing public health knowledge	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the student identifies relevant articles on the subject of Organized Social Response, as well as audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
	CDNU23. Social and cultural determinants of nutrition	Policy Brief: the students identify and work with the foundational elements in the design of a guide for the recommendation and implementation of policies (Policy Brief).
	CDSS28. Evidence for the public health policies	Discussion in small groups: the students are required to analyze in a comprehensive manner the social, political and organizational context of health systems, the trends in social determining factors and the most relevant problems faced by different health systems at the global level, with a systemic, interdisciplinary and inter-sectoral approach. This task is evaluated through the solving of practical exercises.

7. Explain effects of environmental factors on a population's health	CDEP24. Priorities in public health Seminar	Review of bibliographic material: the students identify relevant articles on the subject of the Factors that Determine the Health and Well-being of the Population, as well as audiovisuals material for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
	CDEI22. Eco-social-biological fundamentals of public health seminar	Group discussion: Through discussion in work teams, the students analyze the health-disease process of the environmental factors that affect physical health of individuals in a population, mediated by biological mechanisms.
8. Explain biological and genetic factors that affect a population's health.	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the students identify relevant articles on the topics: Infectious and vector-borne diseases, chronic degenerative diseases, nutrition, obesity, and diabetes, as well as audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
9. Explain behavioral and psychological factors that affect a population's health	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the students identify relevant articles on the subject of Population Aging and Mental Health and audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the students identify relevant articles on the subject of Factors that Determine the Health and Well-being of the Population and audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.
	CDNU23. Social and cultural determinants of nutrition	Measurement Workshop: the students apply principles of health inequality measurement as expressions of social inequities and for the selection of information sources to build indicators of inequity in health.
	CDEI22. Eco-social-biological Foundations of Public Health seminar	Group discussion: Students conduct a prior review and discussion of the readings under the guide of the teacher on the following topics: Intermediate determinants of health, structural determinants of inequity in health, inter-sectoral and social participation, and the WHO's recommendations on strategies and policies.
	CDSS28. Evidence for the public health policies	Case study: students are required to analyze cases containing social determining factors and the most relevant problems faced by different health systems.
11. Explain how globalization affects global burdens of disease	CDEP24. Priorities in Public Health Seminar	Topic 1.6 Burden of disease. Practical exercise: analysis of the cause of an illness and of a region (student's choice) and description of both.

12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	CDEP24. Priorities in Public Health Seminar	Review of bibliographic material: the student identifies relevant articles on the subject of Environmental Health as a Determinant of Health, as well as audiovisual materials for review prior to each session. Analysis Exercises: the students perform analysis exercises within a given allotted time. Presentation: a space is organized for discussion and interaction with an expert on the topic to be addressed; this space serves for inquiring about the knowledge acquired by the students and clearing their doubts.

3) Provide a matrix, in the format of Template D18-2 that lists competencies for each relevant degree and concentration. The matrix indicates at least one assessment activity for each of the listed competencies. Typically, the school will present a separate matrix for each concentration. Note: these competencies are defined by the school and are distinct from the introductory public health learning objectives defined in this criterion.

The mapping of specific competences by area of concentration and its assessment opportunities is available in Tables D18.2.1 to D18.2.5.

Table D18.2.1. Assessment of Competencies for the Doctorate of Science in Epidemiology.

Competency	Course	Specific assessment opportunity
1. Developing critical thinking, from the epidemiological perspective, allowing to evaluate health problems of the population in order to prioritize interventions and specific programs required to maintain the population's well-being.	CDEP27. Advanced Epidemiology Seminar I	Analysis of scientific literature: the students consider epidemiological designs and the validity, statistical power and limitations of the studies, in order to identify potential Environmental Health issues and suggest strategies for improvement for future studies. Practical exercises: Applying knowledge about epidemiological design and its variants, internal validity, external validity and statistical power in the development of exercises such as proposals and a scientific report.
	CDEP24. Priorities in Public Health Seminar	Seminars: the students develop critical thinking, from a public health perspective, to assess population health issues in order to prioritize interventions and specific programs required to maintain the well-being of the population.
2. Applying state of the art epidemiological methods with a multidisciplinary approach to generate high quality scientific evidence for supporting decision-making in public health.	CDEP29. Epidemiological Methods Seminar	Journal Club Modality: students are actively involved in reviewing recent literature about recent advances in epidemiology applied to studies and/or previous data analysis. In addition, they conduct a critical analysis of scientific literature with the purpose of learning and subsequently applying these methodologies to potential problems that occur in the development of their thesis projects and in other epidemiologic studies in which they are involved.
	CDEP32. Thesis Seminar II	Scientific Article: on the basis of theoretical, methodological, conceptual and practical elements, students produce the report of an epidemiological research project in the form of a scientific article.
3. Leading innovative and comprehensive epidemiological research by applying the ethical principles of autonomy, justice, charity, beneficence and not maleficence.	CET04. Research ethics	Case Method: through the use of real examples, different experiences and the search for individual information, students do a full and structured review of the theoretical principles and practical methodology of ethics in scientific research.
4. Performing systematic reviews using the meta-analysis method in response to controversy in public health	CDEP36. Thematic Seminar	Thesis presentations: the students discuss and defend epidemiological and methodological support of their thesis topic before the members of the Chapter of doctors in epidemiology.

	CDEP38. A systematic literature review and meta-analysis	Practical exercises and readings: the students analyze and perform meta-analysis networking with regression models.
5. Interpreting the scientific evidence generated in epidemiological studies to infer causality, with the purpose of developing intervention proposals and to propose policies aimed at improving the well-being of populations.	CDEP26. Protocol development seminar I	Development of the thesis protocol: the students identify and raise a research problem in the development of their thesis, which must include a scientific justification, a hypothesis, questions and research objectives for the development of this project, and which they must defend before their thesis committee in subsequent semesters. The students delivers in written form the partial progress of their thesis protocol for evaluation.
	CDEP28. Protocol Development Seminar II	Development of the thesis protocol: the students pose the theoretical framework, the methodology, the constraints and the ethical aspects of the research problem they intend to solve with the development of their thesis. The Protocol is submitted to the Research Ethics Committee of the Institute, in order to continue with the process of developing their thesis. They then prepare the presentation for the defense of their Protocol before their thesis committee in subsequent semesters. The students deliver in written form the partial progress of their thesis protocol for evaluation.
	CDEP34. Seminar on the Integration of Scientific Manuscripts II	Article: the students review useful documents that serve as support for the writing of paragraphs of a scientific article: introduction, material and methods, statistical analysis, results and discussion. In a parallel manner the students write scientific articles.

Table D18.2.2. Assessment of competences of the Doctorate in Science in Health Systems.

Competency	Course	Specific assessment opportunity
1. Comprehensively analyzing the social, political, and organizational context of health systems, the trends in social determining factors and the most relevant problems faced by different health systems at the global level, with a systemic, interdisciplinary and intersectoral approach.	CDEP24. Priorities in Public Health Seminar	Problem-based learning: the students develop critical thinking, from a public health perspective, to assess population health issues in order to prioritize interventions and specific programs required to maintain the well-being of the population through the application of analysis.
	CDSS23. Conceptual foundations of health systems research	Case study: the students analyze the social determinants and identify of health and identify the health indicators for the definition of priorities in the Health System, through case studies. For their evaluation, the students analyze the production of health services at community level by comparing them with different conceptual models.
	CDSS28. Evidence for the public health policies	Policy analysis: through the analysis of public health policies, the participation of social actors and the role of research. For evaluation purposes, the students engage in an exercise analyzing public policies in Mexico.
2. Using conceptual frameworks of the health system in a critical manner for the analysis of health policies, performance, quality of services and their impact on individual and population health, as well as on health inequities.	CDSS23. Conceptual foundations of health systems research	Case studies: the students analyze the instrumental goals of the health system and the different perspectives from which they arise, in order to review relevant issues related to competition, such as: equity, efficiency, quality, and citizens' demands.
3. Explaining the role of health systems and their challenges in order to integrate the social response to the population's health needs.	CDSS28. Evidence for public health policies	Project: through the development of the policy agenda and the role of evidence, the students discuss, in small groups, how to use evidence for the development of public policies on health issues.
	CDSS23. Seminar on the conceptual foundations of health systems research	Group discussion and project: through the discussion of key documents, group discussions between students on the role of the health system in the face of the population health needs are encouraged.
4. Critically integrating the information in order to establish the quality of data in Health Systems.	CDSS27. Application of quantitative and qualitative research methods in health systems.	Seminar: The Seminar modality is that of a Journal Club: through participatory dynamics, the students become leaders of the sessions and are responsible for guiding the discussion based on questions from the readings previously made.
5. Generating scientific evidence for the design, implementation and evaluation of health policies through the development of independent research in health systems with conceptual and methodological rigor.	CDSS26. Protocol Seminar II	Presentations: in the presentation sessions of their projects' progress and final papers by the students, the thesis director and advisers are invited to discuss and analyze the conceptual and methodological learning of each student.
	CDSS16.Thesis Seminar I	Presentation: the students develop the research protocol for the doctoral thesis. Working together with the thesis committees. Presentation to the group of periodic progress in the development of the protocol
	CDSS30. Thesis Seminar II	Article: the students develop a draft article of the thesis.

6. Interacting with decision makers and policy makers, civil society organizations and the community to plan, conduct, and translate research into health policies.	CDSS28. Evidence for the public health policies	Case Method: through the presentation of a case of interaction research for decision-making, the students are asked to evaluate to what extent it responds to the needs of population health.
7. Participating in the training of human resources for health systems research.	DSP28. Teaching skills workshop	Development of a didactic planning: the students develop learning situations based on meaningful learning to foster the development of competencies.

D18.2.3. Evaluation of competencies for a PhD in Science in Infectious Diseases.

Competency	Course	Specific assessment opportunity
1. Designing and conducting original research projects in biomedicine disciplines related to infectious diseases of relevance to public health.	CDEI24. Development of protocol	Research Protocol: the students identify determinants of research topics and build their research protocol through the following stages: Based on their thesis topic, they formulate questions. Students develop a theoretical framework through a comprehensive review of the updated knowledge and premises in the literature related to their thesis problem. They identify theoretical and technical components that make up the paradigm explaining the phenomenon or problem that they will develop in their thesis. They build a conceptual map containing the determinants of the problem that they will develop in their thesis. They develop a working hypothesis and lay down general, specific and methodological objectives.
	CDEI26. Laboratory methodology for biomedical research in infectious diseases	Discussion of methodological strategies and experimental techniques for the development of research projects: the students analyze scientific publications (chosen by themselves) that relate, on one hand, with the theoretical components of their thesis topic, and on the other, with their protocols' methodology. Students identify in them key elements of the research topics, as well as the elements and procedures required to respond to the questions raised in their thesis work.
2. Analyzing and interpreting epidemiological, clinical and biological information in the field of research in infectious diseases and public health.	CDEI22. Eco-social-biological foundations of public health seminar	Instructional group discussion techniques: the students are given a prior review and discussion of the readings, guided by the teacher. They analyze the epidemiological and biological mechanisms involved in the health-disease process determined by the fundamental properties of living beings and by various forms of interaction between these and the different factors that constitute their environment.
	CDEI23. Epidemiological research and surveillance systems in infectious diseases	Discussion of scientific articles: the students read and analyze literature on the study of infectious diseases through biological and epidemiological techniques in the context of globalization. The in-person session starts with a brainstorm of ideas generated by the students. Each student presents a critical analysis and interpretation of the concepts and ideas, with a comprehensive conclusion and any questions or concerns are resolved. This activity is evaluated through a reading control and questionnaire.
3. Contributing to the development of planning, implementation and evaluation of strategies for the surveillance and control of infectious diseases.	CDEI23. Epidemiological research and surveillance systems in infectious diseases	Review of the literature on the conceptual framework of surveillance in Public Health: National Epidemiological Surveillance System. Definition, classification, structure, regulations. Processes, methods, and tools in epidemiological surveillance. Case Study, surveys, screening, watchdog surveillance, etc. Notifiable diseases. Weekly notification system of new cases of diseases subject to epidemiological surveillance (SUIVE). Dissemination of information: Newsletters, yearbooks, etc. Later on, there is a discussion of scientific articles during a round-table discussion: The moderator introduces the topic; directs each student's turn to speak in the discussion of the most important aspects of the revised material; moderates discussions between students; generates a comprehensive conclusion on the subject, and finally answers any questions or attends to any concerns.
4. Generating foundational biomedical knowledge for the detection, prevention and control of infectious diseases of relevance to public health.	CDEI26. Laboratory methodology for biomedical research in infectious diseases	Research project for a thesis: students analyze the results of their own research on infectious diseases and public health, as well as those of other researchers and those reported in literature. Communicating research results through reports and other means of dissemination.

D18.2.4. Assessment of competences for the Doctorate in Science in Population Nutrition.

Competency	Course	Specific assessment opportunity
1. Analyze the main population problems of global nutrition, with emphasis on Latin America (magnitude, distribution, biological, cultural, social and economic determining factors), as well as their relation to health and social development.	CDNU23. Social and cultural determining factors of nutrition	Group Discussion: prior to the session, students review basic reading materials on the evolution of global health and the impact of globalization on population health and equity. During the session the teacher leads a guided discussion that requires the participation of the students, who analyze and discuss the revised information.
2. Assessing the validity of indicators for research in population nutrition.	CDNU28. Diet, physical activity and chronic diseases	Workshop on validation and measurement error: the students are provided with a scenario addressing a specific problem to solve for the evaluation of diet and physical activity at the population level and its impact on the causal interpretation of its association with the risk of chronic diseases. The students deliver in writing the resolution of the workshop, applying the knowledge, methods and skills acquired on the subject. The students are given the specifications for its development as part of the work instructions.
3. Developing competitive proposals for research in population nutrition for funding.	CDSS21. Resource management workshop	Research proposal for funding: throughout the course, the students prepare a proposal intended for the management procedure of funding resources, i.e.: a) identification of agencies offering financial support or "grants", b) approach and knowledge of these agencies, c) compliance with the requirements, d) communication with the management, e) planning of resources, f) presentation of the proposal, g) fulfilment of the commitments once the proposal has been approved, and h) the development plan of the proposal.
4. Designing and conducting original and transdisciplinary research projects in the field of population nutrition by applying the principles of research ethics and social and gender equity.	CET04. Ethics in public health research	Presentations: at the end of the curse, the students are evaluated based on a team presentation on theoretical and practical aspects of scientific research ethics, which will help them to understand its importance and practical application in various types of scientific studies with a culture of high adherence to the ethical aspects of research.
5. Designing programs and policies aimed at the prevention and control of malnutrition and at the promotion of good nutrition, considering the organized social response and containing ethical and biosecurity foundations.	CDNU26. Designing, monitoring and evaluating programs and policies in public nutrition	Final Project: students develop a proposal for a program for the prevention or control of a public nutrition problem with its respective evaluation. Practical workshops: Students work with databases of real programs, applying the knowledge gained in the theoretical sessions, which contribute to build the final project.
6. Monitoring the development of programs and policies aimed at improving the nutritional status of the population, and evaluating the impact of the same in order to guide decision-making in the matter.	CDNU26. Designing, monitoring and evaluating programs and policies in public nutrition	Problem-based learning: using a scenario that poses a real problem of public nutrition –"Implementation of the use of evidence for the design of a policy: the case of sugary drinks in Mexico"–, this course encourages students to analyze and discuss the issues and the established policies (panel discussion) in order to propose possible alternative *ad hoc* solutions for the target population and, based on the context, prevent and/or control public nutrition problems.
7. Generating strategic knowledge that will contribute to the improvement of population nutrition and health.	CDNU29. Thesis Seminar I CDNU30 Thesis Seminar II	Thesis development: Students work on the development of their thesis' articles as set forth with their thesis committee, with the aim of achieving progress towards the completion of their doctoral thesis.

D18.2.5. Assessment of competences for the Doctorate in Environmental Health Sciences.

Competency	Course	Specific assessment opportunity
1. Using the best epidemiologic methods and risk assessment to develop research projects with a transdisciplinary and multi-level vision in the area of environmental health.	CDSA22. Selected topics of environmental epidemiology	Group discussion and practical exercises: the students review the theory and discuss the application of the main methodological elements that define the quality of a selection of epidemiological articles; the participation of the students is encouraged in order to expand and update knowledge about the importance of different environmental pollutants at the population level.
	CDEP27. Advanced epidemiology Seminar I	Analysis of scientific literature: students consider epidemiological designs and the validity, statistical power and limitations of the studies, in order to identify potential Environmental Health issues and suggest strategies for improvement for future studies. Applying knowledge about epidemiological design and its variants, internal validity, external validity, and statistical power in the development of exercises such as proposals and a scientific report.
2. Generating and disseminating knowledge on environmental conditions and their social determining factors that affect health problems at the population level from a transdisciplinary perspective.	CDSA19. Thesis Seminar I	Scientific Article: the students begin by developing their first scientific article in relation to the topic of their thesis –a product which must show an emphasis in the correct wording in the introduction and the materials and methods, as well as in the preliminary results section.
	CDSA20. Thesis Seminar II	Scientific Article: In the previous seminar, the students developed the materials and methods section of the first article of their thesis. In this seminar, the students update these sections with the suggestions made by the members of the Chapter of doctors and complete the manuscript with the introduction and discussion sections. The students attain graduation by writing and defending two scientific articles, which, having been regarded by their doctoral committee as "publishable", will eventually be submitted for publication. The individual work of each student is assessed both by the doctoral committee of the student, and by the members of the Chapter of doctors in Environmental Health.
3. Translating the knowledge generated into the design and evaluation of environmental health policies and programs.	CDSA23. Designing, monitoring and evaluating policies in environmental health	Final work: the students complete the readings proposed by the teachers and hold a group discussion on their application in the analysis and evaluation of public policies; these readings are also a support for the development of the final work, which consists in the analysis and evaluation of public policies in an environmental health case proposed by the student.
4. Training human resources and research groups at graduate level in the field of environmental health so that they may respond effectively and efficiently to the priority Environmental Health issues.	CDSA21. Environmental Risk Assessment	Practical exercises and Final Work: the students review the theory and discuss potentially dangerous agents to which the population is exposed in the day-to-day, in addition to the presentation of exercises for solving issues related to hazardous agents and to potential risks. All of this gradually provides the tools for planning and carrying out risk assessments so as to focus on preventing, reducing or eliminating risks, in coordination with the actors involved and the decision making, and within the context of local reality.
	CDEP27. Advanced epidemiology Seminar I	Analysis of scientific literature: students consider epidemiological designs and the validity, statistical power and limitations of the studies, in order to identify potential Environmental Health issues and suggest strategies for improvement for future studies. Applying knowledge about epidemiological design and its variants, internal validity, external validity and statistical power in the development of exercises such as proposals and a scientific report.

5. Innovating in the field of environmental health by opening new lines of research and academic programs integrating the perspectives of social and gender equity.	CDSA28. Ecosystems and Human Health	Group Discussion, oral themes presentation and development of a final work: the students complete the readings proposed by teachers and discuss the different approaches and social determinants of health issues at the population level, based on the pillars of an ecosystem approach (equity/genre), trans-disciplinarity and social participation. At the end the students present an environmental health case study in which they propose specific lines or programs for solving the issue being analyzed.
	CDSA24. Social and economic determinants of Environmental Health	Final work: the students deliver and present the analysis and approach of the social and economic determinants on the impact on an environmental health case, as well as proposals for solution.

4) Identify required coursework and other experiences that address the variety of public health research methods employed in the context of a population health framework to foster discovery and translation of public health knowledge and a brief narrative that explains how the instruction and assessment is equivalent to that typically associated with a three-semester-credit course.

Seminars that address research methods in public health

The curriculum map has been defined on the basis of the competencies of the Doctorate in Science, as well as of the exploration of the social and educational needs of the nowadays labor world. It covers eight semesters, with a duration of four years, and consists of mandatory and optional units which include hours of theory and of independent work. A specific deadline has been scheduled for the development of the Research Project to obtain the degree.

The curriculum map is organized in three axes that are shared by all programs:

- Conceptual axis.
- Methodological-instrumental axis.
- Integration and evaluation axis. It consists of certain courses that complete the curriculum; its content is of extraordinary importance, because it confers a degree of security in practice, versatility and application possibilities, including research projects that contribute to the generation of knowledge.

For all Doctorate in Science programs, a sequential process for monitoring the courses associated with the development of research methodologies has been established to aid the completion of the student's research project. These courses address the variety of public health research methods employed in the framework of population health, which are applied in the different concentration areas and at the same time guide the thesis work of each student:

- *Development of the thesis protocol*: during the first year the students must attend a seminar for the development of the research protocol.
- *Thesis Seminar I*: in this course they have to apply techniques, procedures, and methodological strategies, and develop fieldwork, laboratory tasks, and database management, as applicable. It is taken during the fourth semester, and is worth 40 ths and 60 ihs, equal to 6 credits.
- *Thesis Seminar II*: develops information processing. It is taken in the fifth semester and is worth 40 ths and 60 ihs, equal to 6 credits.
- *Analysis and interpretation of thesis results*: they perform the interpretation and presentation of results. It is taken in the sixth semester and is worth 20 ths* and 50 his**, equal to 4 credits.
- *Integration of thesis Workshop*: they perform the integration of the thesis and the drafting of a scientific article. It is taken in the seventh semester and is worth 10 ths and 20 ihs, equal to 2 credits

- *Thesis defense Seminar:* They prepare the defense of their thesis. It is taken in the eighth semester and is worth 10 ths and 20 ihs, equal to 2 credits

The 5 curricular courses described above, whose objective is the training of the student in research methodologies, amount to a total 120 teaching hours **(*th:** Teaching Hours under the guide of an academic, in the institution's internal spaces, such as classrooms, centers, workshops or laboratories, or in external spaces), 210 Independent Hours (****ih:** Independent Hours, in either internal or external spaces, outside of established class schedules and as part of autonomous processes linked to the course), and a total of 20 Mexican credits (equivalent to 26.7 US credits).

5) Briefly summarize policies and procedures relating to production and assessment of the final research project or paper.

Production and evaluation of the research project

From the moment of their enrollment, students of Doctorate in Science programs must comply with the academic activities previously established in the curriculum map. These activities generate the process indicators that ensure the quality of the program. The process indicators related to the thesis defense and graduation are as follows:

1. Registration of topic and thesis committee.
2. Submittal of thesis protocol (already approved by the Thesis Director) to the following committees for their decision:
   - Research Committee
   - Ethics Committee
   - Biosafety Committee
3. Presentation of the qualifying examination, which evaluates the competences established in the Program.
4. Defense of protocol. For the defense of the protocol, the students request ratifying votes from the members of their Thesis Committee.
5. Development of the doctoral thesis in accordance with an established timetable. The verification means are developed through the progress report and the proceedings of the semester, signed by the program coordinator and endorsed by the thesis directors.
6. Preparing, submitting and sending two publishable papers in indexed, arbitrated journals of national and international circulation, with an editorial board, where the originality and relevance of their work is appreciated.
7. The academic coordinator of the corresponding concentration area, jointly with the thesis director and the individual students, present the proposal for a thesis defense jury before the corresponding chapter of Doctors.
8. The thesis must obtain the ratifying votes from the thesis committee, stating that the thesis meets the requirements to be presented and defended in the corresponding examination.
9. Finally, schedules the students take the doctor's degree examination before the Jury appointed for the thesis examination, which consists of an oral replica of their thesis work.

Students are accompanied throughout this process by their academic coordinator, the chapters of doctors and their thesis committee, who provide guidance, oversee the correct implementation of activities that are included in their courses and bring feedback to the research project. Also, the students' progress is directly monitored by the Doctorate Committee.

6) Provide links to handbooks or webpages that contain the full list of policies and procedures governing production and assessment of the final research project or paper for each degree school.

The INSP has regulations and guidelines for the academic processes of curricula. The regulations that describe the guidelines for Doctoral Programs in Science, including the integration, evaluation and defense of the final project process, are the following:

- The *General Regulation Governing PostGraduate Studies*, which aim to regulate the academic organization; the enrollment, continuity and re enrollment in academic programs; exams; curricula; deregistration, reinstatement and change of programs; recognition and validation of course credits; certificates, diplomas, degrees and honors; as well as issues related to the graduate studies academic staff at the National Institute of Public Health [https://www.insp.mx/images/stories/INSP/Docs/normateca/170807_Reglamento_General_Estudios_Posgrado.pdf].

- The *Regulation Governing the Doctoral and Post-doctoral programs*, which aim to regulate the organization and the academic processes of the Doctoral programs offered by the National Institute of Public Health. This regulation is included as an electronic resource file.

7) Include completed, graded samples of deliverables associated with the advanced research project. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

Attached as electronic resource files are examples of doctoral theses of students who have graduated in the last three years.

8) Briefly explain how the school ensures that the instruction and assessment in introductory public health knowledge is generally equivalent to the instruction and assessment typically associated with a three semester-credit course.

The INSP provides a teaching-learning process and evaluation of the foundational knowledge in public health through the **Seminar of public health priorities**, which includes a total of 40 hours of classroom teaching and 40 hours of independent study, equal to 5 Mexican credits (equivalent to 3.75 US credits). This seminar is a space for reflection and discussion with experts on the diverse public health agenda in order to define priorities to generate the required scientific evidence for national and international public policies.

This course provides the opportunity to analyze and assess the fundamental concepts of public health, as well as have an overview of the functions and areas of public health, allowing them to acquire the competencies of integral analysis and theoretical-methodological development in the research of related topics.

Furthermore, the definition of research priorities in public health for the generation of useful scientific evidence is a strategic process that allows implementing relevant public policies and generating health services and programs to meet the needs, demands and expectations of the population, through a relevant, appropriate and effective social response. Identifying priorities in public health requires the use of a series of indicators, such as the burden of disease, the avoidable mortality, the feasibility and effectiveness of interventions and the historical behavior of the policies and actions that institutions have been applying over time. Among the political criteria considered for the definition of priorities are the political commitments concerning topics or sectors; the social involvement of organized groups having the capacity to exert pressure and achieve a place in the public agenda for issues that affect them as collective bodies; the political tendency of the government, and the international commitments in the area of health.

The Seminar of public health priorities establishes a work methodology that includes sessions for discussion and interaction with experts on the issue, a space to clarify doubts about the topic, workshops to build the final activity, consisting of a proposal for a research agenda at the national level, through the analysis of different topics, and a prioritization exercise regarding the population needs, which is presented to the group and to the faculty. The acquisition of foundational knowledge in public health is assessed for all Doctorate in Science students, who can thus obtain credits from these activities.

9) Include the most recent syllabus for any course listed in the documentation requests above, or written guidelines for any required elements that do not have a syllabus.

Attached are the curricula of the courses contained in the doctorate programs.

10) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The educational quality of the Doctorate in Science Program is assured by a multidisciplinary team that oversees it: the doctoral committee, the academic coordinating bodies, the faculty, the academic consultants, and the experts in educational technology. The fact that the faculty –a group of leading researchers– are active in their area of *expertise* enables the students to complete the final research project or thesis. The curricular structure defines and establishes in a very clear manner each of the stages in the development of the doctorate's academic research projects. In addition, the doctoral in science programs have a process of educational planning, supported and supervised by academic advisors, that helps in the selection of the best teaching-learning strategies for the achievement of the basic goals of learning public health. Educational platforms are used to support the development of the courses and seminars.

Certain aspects for improving the quality of the program have been identified. The Doctoral Committee recognizes the difficulty that exists in regard to the coordination between tutors, thesis directors and doctoral chapters to provide an adequate academic follow-up of the students. Therefore, the concentration of tutoring and thesis direction functions is being implemented in a single academic figure, to facilitate updating of the information related to the student and sharing it with the academic coordinating bodies and corresponding chapters of doctors, thus generating a wide academic network aiming to provide students with suitable monitoring of their academic development.

D19. All Remaining Degrees

Students enrolled in any of the SPH's degree programs that are not addressed in Criteria D2, D3, D9, D17 or D18 complete coursework that provides instruction in the foundational public health knowledge at a level of complexity appropriate to the level of the student's degree program.

The instruction and assessment of students' foundational public health knowledge are equivalent in depth to the instruction and assessment that would typically be associated with a three-semester-credit class, regardless of the number of credits awarded for the experience or the mode of delivery.

The school identifies at least one required assessment activity for each of the foundational public health learning objectives.

1) Provide a matrix, in the format of Template D19-1, that indicates the required assessment opportunities for each of the defined foundational public health learning objectives (1-12). Typically, the school will present a separate matrix for each degree program, but matrices may be combined if requirements are identical.

The students of the Specialty in Comprehensive Assessment of Social Development Programs and Policies, Specialty in Preventive Medicine, Master of Clinical Nutrition, and Master of Healthcare Quality Management show their knowledge of the foundational goals of public health learning through the *"Introduction to Public Health"* course, which promotes the analysis of the concept of public health, the core functions of public health, disease burden and the organization of the national health system as a social response to the health needs and demands of the population. The course consists of the following modules:

1. Situation of Public Health in Mexico and Latin America
    - 1.1 Introduction
        - 1.1.1 Public Health
        - 1.1.2 Importance of PH
    - 1.2. Main Public Health Problems in Mexico and Latin America.
    - 1.3. Definition of PH problems. Foundations of Public Health.
        - 1.3.1 Public Health activities
        - 1.3.2 EFPH
    - 1.4. Conceptual models of Public Health
2. Public health components for the analysis of health risk and damage
    - 2.1 Epidemiology and Biostatistics
    - 2.2 Environmental health
    - 2.3 Social Determinants of Health
    - 2.4 Health administration
3. Organized social response
    - 3.1 Health systems, services and programs.
    - 3.2 Challenges for the Improvement of Public Health Practice

Students of the Doctorate in Health Systems Quality show mastery of the fundamental objectives of public health learning with the *"Seminar on public health priorities"*, which is composed of four great topics:

I. Public health: guiding axis of population welfare
II. Public Health situations/challenges
III. Factors that determine population health and welfare
IV. Organized Social Response

Additionally, students in these programs undertake other courses of their respective program that respond to the fundamental objectives of public health learning, as shown in tables D.19.1-5.

D.19.1.1. Content coverage for the Specialty in Comprehensive Assessment of Social Development Programs and Policies.

Content	Course number(s) and name(s)	Specific assessment opportunity
1. Explain the history of public health, its philosophy and its values.	CPOP05. Introduction to Public Health	The course comprises a series of research material (articles, videos, etc.) to understand the subjects at hand. Students have several readings at their disposal that provide the elements to solve exercises and answer self-assessment questionnaires, in order to use them later in their academic activities. At the end, students must do an exam to pass the course.
2. Identify the foundational functions of public health and its 10 essential services*		
3. Explain the quantitative and qualitative role of the methods and sciences in the description and assessment of population health.	IME03. Process evaluation	Matrix of quantitative and qualitative tools: Students go through methodological tools to do a process evaluation from a qualitative and quantitative point of view, as well as through coverage and targeting aspects to verify the reach of the objectives of the evaluated project. This activity is assessed according to what is established in the guidelines for the final project.
	IME04. Results, efficacy and efficiency	Case studies: Students use statistical tools for the assessment, through the selection of a case. With the data provided for each case they perform: a) a descriptive analysis, b) a comparison of means and/or proportions through hypothesis testing, c) a regression analysis, and d) a brief interpretation of the impact of the program, based on the results. Afterwards, they prepare a PowerPoint, where they present the requested analysis and interpretation.
4. List the main causes and tendencies of morbidity and mortality in the United States or in another relevant community for the school or program.	CPOP05. Introduction to Public Health	The course comprises a series of research material (articles, videos, etc.) to understand the subjects at hand. Students have several readings at their disposal that provide the elements to solve exercises and answer self-assessment questionnaires, in order to use them later in their academic activities. At the end, students must do an exam to pass the course and to assess acquired knowledge.
5. Discuss the progress of science in primary, secondary and tertiary prevention of population health issues, included in health promotion, screening, etc.		
6. Explain the critical importance of evidence in the progress of knowledge in public health		
7. Explain the effects of environmental factors on the population's health.		
8. Explain the biological and genetic factors that have an impact on the population's health.		
9. Explain the psychological and behavioral factors that affect the population's health.		
10. Explain the social, political and economic determinants of health and how they contribute to generate inequities in the population's health.		
11. Explain how globalization affects the global disease burden.		

12. Explain, from the ecological perspective, the connections between human health, animal health, and the health of the ecosystem (e.g. One Health).		

D.19.1.2. Content coverage for the Specialty in Preventive Medicine.

Content	Number(s) and name(s) of the course(s)	Specific assessment opportunity
1. Explain the history of public health, its philosophy and its values.	CPOP05. Introduction to Public Health	The course comprises a series of research material (articles, videos, etc.) to facilitate the understanding of the subjects at hand. The students have several readings at their disposal that provide them with the elements to solve exercises and answer self-assessment questionnaires, for later use in their academic activities. At the end, the students must take an exam to pass the course.
2. Identify the foundational functions of public health and its 10 essential services*	ESP35. Foundations of Preventive Medicine and Public Health	Timeline: Students go through reading materials and develop, in a collaborative manner, the topics at hand with the presentation of mental and conceptual maps. Later, as a group, they integrate a timeline, where they present best-response attention models to the core functions of public health and the objectives of preventive medicine. A cross-checklist is used to assess the activity.
	ESP05.Mexican Health System	Critical review of literature: the students perform a critical review as to how it is possible to respond to the 10 core functions of public health in the structure of a segmented and fragmented health system. Assessment is carried out through individual participation.
3. Explain the quantitative and qualitative role of the methods and sciences in the description and assessment of population health.	ESP39. Preventive medicine and public health based on evidence	Critical review of literature: Students locate and understand the research methodology employed in the studies published in various biomedical journals. Additionally, they interpret the effects and limitations of the results of said studies. This allows them to select the best possible available scientific evidence for decision-making when solving public health problems. Assessment is carried out through a systematic search for information derived from a given topic of interest selected by the student.
4. List the main causes and tendencies of morbidity and mortality in the United States or in another relevant community for the school or program.	ESP37. Evaluation methods for the situation of health	Practical exercises: using open-use databases, the students discuss health indicators and national and international health information systems that are able to analyze and interpret health issues in a contextual manner. Assessment is carried out through the analysis of an epidemiological alert case, yielded from literature research.
	ESP41. Seminar on public health cases	Case studies: Students review cases from the perspective of the population on different topics, considering the analysis of those involved and the legislative, administrative, political and economic implications and consequences. This is done in order to give an adequate response to the problems that require technical/ethical argumentation, so human rights are observed. In addition, they try to adequately respond to the objectives of national health goals.
5. Discuss the progress of science in primary, secondary and tertiary prevention of population health issues, included in health promotion, screening, etc.	ESP40. Seminar on good practices in public health	Workshops on case reviews: Students analyze the perspective of good practices in medical practice, as well as the achievements of preventive programs in different topics that require critical analysis of scientific evidence, and correct extrapolation to population contexts and to the structure of the health systems.
6. Explain the critical importance of evidence in the progress of knowledge in public health.	ESP39. Preventive medicine and public health based on evidence	Critical review of literature: Students locate and understand the research methodology employed in the studies published in various biomedical journals. Additionally, they interpret the effects and limitations of the results of the said studies. This allows them to select the best-possible available scientific evidence for decision-making when solving public health problems. Assessment is carried out through a systematic search for information derived from a given topic of interest selected by the student.
7. Explain the effects of environmental factors on the population's health.	ESP41. Seminar on public health cases	Case studies: the students review cases in different topics from the perspective of the population, considering the analysis of those involved and the legislative, administrative, political and economic implications and consequences. This is done in order to give an adequate response to the problems that require technical/ethical argumentation, so human rights are observed. In addition, they try to adequately respond to the objectives of national health goals.

8. Explain the biological and genetic factors that have an impact on the population's health.	ESP35. Foundations of Preventive Medicine and Public Health	Mental and conceptual maps: the students go through study materials and, together, they develop graphic organizers on concrete examples of problems that affect the health of the population. Each work team carries out the presentation of developed products. The assessment of the presentations will be linked to the following points: 1. Quality and sequence of the presentation. 2. Research on the topic. 3. Argumentation of the answers given to questions during the presentation. 4. Identification of factors that affect the health of the population.
9. Explain the psychological and behavioral factors that affect the population's health.	ESP35. Foundations of Preventive Medicine and Public Health	Presentation: the students use Prezi to make a presentation on healthcare models that respond to the core functions of public health and the objectives of preventive medicine. They also identify and provide concrete examples of problems of national and local priority regarding the care of the population. The assessment of the presentations will be based on the following points: 1. Quality and sequence of the presentation. 2. Research on the topic. 3. Argumentation of the answers given to questions during the presentation. 4. Recommendations for the population and health workers regarding primary and secondary prevention.
10. Explain the social, political and economic determinants of health and how they contribute to generate inequities in the population's health.	ESP37. Evaluation methods for the health status	Database analysis: using open-use databases, the students discuss health indicators and national and international health information systems that are able to analyze and interpret health issues in a contextual manner.
11. Explain how globalization affects the global disease burden.	Institutional Seminars	Lecture: "Infectious diseases in the global public health setting". This institutional seminar has a formative and updating nature. Assessment is carried out in certain subjects of the program where acquired knowledge is applied. It enables students to exercise their reasoning ability.
12. Explain, from the ecological perspective, the connections between human health, animal health, and the health of the ecosystem (e.g. One Health).	EP87. Epidemiological surveillance and intelligence	Practical evidence: the students analyze the foundations and development of epidemiological surveillance and intelligence, in order to understand the correct structure and the functioning of surveillance systems in an integral manner. Evidence 1: Mental map of the International Health Regulations that answer the indicated questions. Evidence 2: Debate, on Moodle, about the key points of the previous activity and their relationship to the discussion in the video conference: Security in Health: strategic convergence of Public Health and National Security. Evidence 3: A matrix where examples of one or several problems of interest (risk factor, event or disease) are described, and that can be monitored through the three types of surveillance methods (passive, active or sentinel). Evidence 4: Individual exercise of impact measures on HPV and cervical cancer.

D.19.1.3. Content coverage for the Master of Healthcare Quality Management.

Content	Number(s) and name(s) of the course(s)	Specific assessment opportunity
1. Explain the history of public health, its philosophy and its values.	CPOP05. Introduction to Public Health	The course comprises a series of research materials (articles, videos, etc.) that enable the students to understand the subjects at hand. The students have at their disposal several readings that provide the elements to solve exercises and answer self-assessment questionnaires for later use in their academic activities. At the end, students must take an exam in order to pass the course.
2. Identify the foundational functions of public health and its 10 essential services*		
3. Explain the quantitative and qualitative role of the methods and sciences in the description and assessment of population health.	SP73. Healthcare quality analysis	Practicum guide 2: the students perform an analysis of the opportunity for improvement using a cause and effect diagram or a flowchart. At the end of the activity, they submit the corresponding practicum report and perform a self-assessment of the course.
4. List the main causes and tendencies of morbidity and mortality in the United States or in another relevant community for the school or program.	CPOP05. Introduction to Public Health	The course comprises a series of research materials (articles, videos, etc.) that enable the students to understand the subjects at hand. The students have at their disposal several readings that provide the elements to solve exercises and answer self-assessment questionnaires, for later use in their academic activities. At the end, the students must take an exam in order to pass the course.
5. Discuss the progress of science in primary, secondary and tertiary prevention of population health issues, included in health promotion, screening, etc.		
6. Explain the critical importance of evidence in the progress of knowledge in public health.	SP73. Healthcare quality analysis	Practicum guide 3: the students build criteria for quality assessment, as well as an analysis of validation. At the end of the activity they submit the corresponding practicum report and perform a self-assessment of the course.
7. Explain the effects of environmental factors on the population's health.	CPOP05. Introduction to Public Health	The course comprises a series of research materials (articles, videos, etc.) that enable the students to understand the subjects at hand. The students have at their disposal several readings that provide the elements to solve exercises and answer self-assessment questionnaires, for later use in their academic activities. At the end, students must take an exam in order to pass the course.
8. Explain the biological and genetic factors that have an impact on the population's health.		
9. Explain the psychological and behavioral factors that affect the population's health.		
10. Explain the social, political and economic determinants of health and how they contribute to generate inequities in the population's health.		
11. Explain how globalization affects the global disease burden.		
12. Explain, from the ecological perspective, the connections between human health, animal health, and the health of the ecosystem (e.g. One Health).		

D19.1.4. Content coverage for the Master of Clinical Nutrition.

Content	Number(s) and name(s) of the course(s)	Specific assessment opportunity
1. Explain the history of public health, its philosophy and its values. 2. Identify the foundational functions of public health and its 10 essential services*	CPOP05. Introduction to Public Health	The course comprises a series of research materials (articles, videos, etc.) that enable the students to understand the subjects at hand. The students have at their disposal several readings that provide the elements to solve exercises and answer self-assessment questionnaires, for later use in their academic activities. At the end, students must take an exam in order to pass the course.
3. Explain the quantitative and qualitative role of the methods and sciences in the description and assessment of population health.	EP60. Epidemiology and biostatistics	Survey studies: the students are required to resolve a case study on a topic related to tobacco, with the objective of applying cross-sectional studies and statistical modeling.
4. List the main causes and tendencies of morbidity and mortality in the United States or in another relevant community for the school or program.	CPOP05. Introduction to Public Health	The course comprises a series of research materials (articles, videos, etc.) that enable the students to understand the subjects at hand. The students have at their disposal several readings that provide the elements to solve exercises and answer self-assessment questionnaires, for later use in their academic activities. At the end, students must take an exam in order to pass the course.
5. Discuss the progress of science in primary, secondary and tertiary prevention of population health issues, included in health promotion, screening, etc.	NS15. Clinical Nutrition I	Case studies: the students analyze current evidence for the prevention and the intensive individual nutritional management of individuals with chronic degenerative diseases (obesity, diabetes, metabolic syndrome, cancer, cardiovascular diseases and kidney disease). Nutrition and lifestyle recommendations are analyzed in order to promote the health of the population. The students must take an exam to verify their understanding of the contents.
	NS16. Clinical Nutrition II	Report of clinical cases: the students select and apply the most recent evidence for the prevention and nutritional management of acute critical, gastrointestinal, pulmonary and cardiovascular pathologies and sepsis. They also learn to make ethical decisions regarding nutrition medical therapy in complicated conditions. Assessment is based on a portfolio of evidence with critical readings.
6. Explain the critical importance of evidence in the progress of knowledge in public health.	NS51. Medicine based on evidence	Critical review of literature: the students perform the search and analysis of information based on evidence for clinical decision-making that includes a scientific basis. They draw upon their clinical epidemiological knowledge in order to interpret and apply research results to the field of health. The students are assessed through the presentation of a thematic summary of the analyzed research.
7. Explain the effects of environmental factors on the population's health.	ED48. Healthy behaviors, environments and policies	Analysis of articles: the students analyze information sources regarding the conceptual framework of health promotion. Healthy environments: municipalities, healthy cities and public policies. Grouped in teams, the students explain the public policies they identified in relation to healthy environments, presenting successful experiences of healthy environments and taking environmental factors into account. The teachers assess the participation of each student. Afterwards, final comments are given, and thus the topic is concluded.
8. Explain the biological and genetic factors that have an impact on the population's health.	NS48. Assessment of nutritional status	Analysis of articles: the students review the most important indicators for the assessment of the nutritional status of an individual, by studying the anthropometric indicators, the body-composition, biochemical and clinical indicators, and the diet and lifestyle. This study contemplates both communities and individuals in different life stages and in health or sickness. The students are required to solve exercises and discuss reading materials in order to assess their knowledge.
9. Explain the psychological and behavioral factors that affect the population's health.	ED48. Healthy behaviors, environments and policies	Presentation in pairs: Students make a presentation where they assess the approach of social sciences to public health problems from a behavioral perspective. They identify the basic concepts of the following models: reasoned action, beliefs in health, social cognitive and behavior modification, for their implementation through action.

10. Explain the social, political and economic determinants of health and how they contribute to generate inequities in the population's health.	CS29. Social determinants, ethics and human rights	Double-Entry Journal: the students are required to view the following video: "Science, technology and innovation with gender perspective", along with reading material. With the reviewed information, each student keeps a double-entry journal on the analysis of the video and reading material. Then, they gather in teams and they agree upon (or improve) a single version of the double-entry journal. A cross- checklist is used for its development. They make a presentation using the information of the journal. The objective of the activity is to apply the gender perspective to public health problems with a focus on ethics, equity and human rights.
11. Explain how globalization affects the global disease burden. 12. Explain, from the ecological perspective, the connections between human health, animal health, and the health of the ecosystem (e.g. One Health).	CPOP05. Introduction to Public Health	The course comprises a series of research materials (articles, videos, etc.) that enable the students to understand the subjects at hand. The students have at their disposal several readings that provide the elements to solve exercises and answer self-assessment questionnaires, for later use in their academic activities. At the end, students must take an exam in order to pass the course.

D.19.1.5. Content coverage for the Doctorate in Health Systems Quality.

Content	Number(s) and name(s) of the course(s)	Specific assessment opportunity
1. Explain the history of public health, its philosophy and its values.	CDEP24. Seminar on priorities in public health	Review of bibliographic material: the students identify relevant articles on the topic of "Key Concepts in Public Health". They review audiovisual material prior to each meeting. Analysis exercises: The students solve analysis exercises within a given allotted time. Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.
2. Identify the foundational functions of public health and its 10 essential services*	DCSS02. Selected topics in quality management	Group discussion: the students identify the conceptual evolution in the aspects of quality put forth by different authors and agencies; in particular, they identify possible changes in the following subjects: patient safety, person-centered care and accessibility. They participate in the discussion board "Development of a concept of quality for health systems", which is assessed by developing the following points of a cross checklist: Do they describe evolution in the aspects of quality? Do they share a concept of health systems quality that, from their point of view, includes the contributions of the reading materials? Do they comment on the contributions of their classmates and of the faculty?
3. Explain the quantitative and qualitative role of the methods and sciences in the description and assessment of population health.	DCSS04. Research methods and techniques applied to quality management	Group discussion: the students review the materials listed on the platform. They read research articles and afterwards perform and submit an analysis of the studies taking the following into account: Objectives and problem statement, Research question, intervention or interventions taken into account, comparison groups, context, efficiency measures, randomization, masking, intention of treatment and limitations. Afterwards, they participate in the discussion forum "Research designs", where they perform observations with relation to the differences between evidence-based medicine (EBM), results in terms of health, improvement and implementation of strategies and the aspects to consider for the design and evaluation of complex interventions in health systems. Once they finish, they are assessed by means of a presentation, which takes into account the key points of every research design. In the synchronous meeting, a group workshop on the use of mixed methods research, case studies and qualitative research is carried out.
	DCSS07. Basic statistics for quality research DCSS10. Statistics applied to quality management DCSS15. Intermediate statistics for quality research DCSS18. Advanced statistics for quality research	These courses aid the development of the students' ability to carry out quantitative analyses. They are aimed specifically at quality management, although their contents can also be applied to the analysis of population health. The main assessment of these courses is focused on proving that the students understand and apply acquired knowledge. Continuous formative assessment mechanisms are established, both for theoretical content and practical requirements. Assessment of theoretical knowledge is carried out in synchronous meetings and in asynchronous discussion spaces (forums), with prior review of the selected resources for each course. Practical assessment is based on various guided activities throughout each course (conceptual, mental and semantic maps, essays, summaries, reports, exercise solving).

4. List the main causes and tendencies of morbidity and mortality in the United States or in another relevant community for the school or program.	DCSS01. Seminar on priorities in public health	Essay: Through this product, students reflect on and identify the main causes and tendencies of morbidity and mortality in Mexico. The essay is based on reviewed documents on population aging. The base question with which this activity is assessed is the following: Which are the rubrics that a national health program for the elderly should consider? Justify your selection.
5. Discuss the progress of science in primary, secondary and tertiary prevention of population health issues, included in health promotion, screening, etc.	DCSS01. Seminar on priorities in public health	Workshop: the students go through material selected by the faculty (texts and audiovisual aids, including a recorded lecture). They develop a workshop on Equity and Health in All Policies, which is sent to the tutor for its assessment, review and feedback.
6. Explain the critical importance of evidence in the progress of knowledge in public health.	DCSS09. Review of literature I DCSS14.Review of literature II	In these two courses, the students acquire elements for the search, analysis and assessment of scientific evidence in the field of health, public health and, particularly, healthcare quality. The main assessment consists in proving that the students understand and apply acquired knowledge. In order to accomplish this, continuous formative assessment mechanisms are established, both for theoretical content and practicum requirements. Assessment of theoretical knowledge is carried out in synchronous meetings and in asynchronous discussion spaces (forums), with prior review of the selected resources for each course, and the search and review of information. Practicum assessment is based on various guided activities throughout each course (conceptual, mental and semantic maps, essays, summaries, reports, exercise solving).
7. Explain the effects of environmental factors on the population's health.	CDEP24. Seminar on priorities in public health	Review of bibliographic material: Students identify relevant articles on the topic "Factors that determine the health and well-being of the population". They review audiovisual material prior to each meeting. Analysis exercises: The students solve analysis exercises within a given allotted time. Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.
8. Explain the biological and genetic factors that have an impact on the population's health.	CDEP24. Seminar on priorities in public health	Review of bibliographic material: Students identify relevant articles on the topics "Infectious and vector transmitted diseases" and "Chronic degenerative diseases: nutrition, obesity and diabetes". They review audiovisual material prior to each meeting. Analysis exercises: the students solve analysis exercises within a given allotted time. Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.
9. Explain the psychological and behavioral factors that affect the population's health.	CDEP24. Seminar on priorities in public health	Review of bibliographic material: the students identify relevant articles on the topic of "Population Aging and Mental Health". They review audiovisual material prior to each meeting. Analysis exercises: the students solve analysis exercises within a given allotted time. Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.
10. Explain the social, political and economic determinants of health and how they contribute to generate inequities in the population's health.	CDEP24. Seminar on priorities in public health	Review of bibliographic material: Students identify relevant articles on the topic "Factors that determine the health and well-being of the population". They review audiovisual material prior to each meeting. Analysis exercises: the students solve analysis exercises within a given allotted time. Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.

	DCSS05. Analysis of health systems	In this course, students analyze topics related to the study of environmental factors and their connection to the problem of equity as one of the aspects of healthcare quality. Their theoretical knowledge is assessed in synchronous meetings and in asynchronous discussion spaces (forums), with prior review of the selected resources for each course, and the search and review of information. Practicum assessment is based on various guided activities throughout each course (conceptual, mental and semantic maps, essays, summaries, reports, exercise solving).
11. Explain how globalization affects the global disease burden.	CDEP24. Seminar on priorities in public health	Review of bibliographic material: the students identify relevant articles on the topic of "Disease burden". They review audiovisual material prior to each meeting. Practical exercise: Analysis and description of a cause of disease and a region (chosen by the student). Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.
12. Explain, from the ecological perspective, the connections between human health, animal health, and the health of the ecosystem (e.g. One Health).	CDEP24. Seminar on priorities in public health	Review of bibliographic material: the students identify relevant articles on the topic of "Environmental Health as a Determinant of Health". They review audiovisual material prior to each meeting. Analysis exercises: the students solve analysis exercises within a given allotted time. Presentation: A space is set for the discussion and interaction with the expert on the topic at hand; this space is used to inquire into the knowledge acquired by the students and to answer their questions.

2) Briefly explain how the school ensures that the instruction and assessment in introductory public health knowledge is generally equivalent to the instruction and assessment typically associated with a three-semester-credit course.

CPOP05. Course: Introduction to Public Health

The course *Introduction to Public Health* is offered to new students for their first approach to introductory topics in Public Health. The course has a duration equivalent to 3 US credits (4 Mexican credits), and its objective is to offer the students an initial and global view of the key aspects of Public Health, which will become the basis for their incorporation to their academic program, as well as their social responsibility during the course of their career. The students are expected to assimilate behaviors that favor health promotion and prevention of diseases and illnesses, through interdisciplinary work for the defense and guarantee of the human right to health. The course promotes the analysis of the concepts of health, public health, core functions of public health, disease burden, and organization of the national system of health as a social response to the health needs and demands of the population. Likewise, that the right to health is recognized in each life stage of different population groups, emphasizing primary healthcare, the implementation of its components and the relationship between the members of health and public health teams, as well as their intervention in health programs and services locally, nationwide and statewide.

It is given in an online format with the support of Moodle. It is completely asynchronous; an expert answers any academic questions that might come up, and an operative coordinator monitors the progress of the students and promotes participation. The students review the content of each subject, and, when finished, they can self-assess as often as they need to, by means of automated exercises, identifying their correct and wrong answers. When review of all three topics is completed, and when they deem they have achieved mastery of the content, students take a final exam, which determines their final grade for the course.

CDEP24. Seminar on priorities in public health

This course is in online format, and it is the first that the students of the Doctorate in Health Systems Quality program take as a requirement, worth a total of 3.75 US credits (5 Mexican credits). It constitutes a space for reflection and discussion with experts on the diverse public health agenda of in order to define priorities for the production of scientific evidence necessary for public policies across the country and the world. The seminar offers the tools that enable the students to analyze the different approaches, schools of thought and models of Public Health and identify the ones that integrate health priorities, population needs and organized social response; analyze the current topics of the public health agenda in order to focalize their pertinence in research, and incorporate the priorities in public health to the production of knowledge with the objective of having an impact on decision-making.
Both theoretical content and applied research methods are learned in reference to the student's context, under the personalized supervision of their tutor. Learning is based on real situations and problems, which are identified by the students within their work environment. For this reason, the predominant teaching methodology in the course is based on the direct implementation on real problems in the work environment, selected by the student, which is why they are asked to work at health institutions. The online format makes the establishment of this requirement easier.

3) Include the most recent syllabus for any course listed in the documentation requests above, or written guidelines for any required elements that do not have a syllabus.

The courses of each program are attached as electronic resource files. In addition, curriculums can be consulted in the following websites:

- Specialty in Comprehensive Assessment of Social Development Programs and Policies (online format)
  http://www.espm.mx/oferta-academica/especialidades/esp-ppds.html
- Specialty in Preventive Medicine (in-person format)
  http://www.espm.mx/oferta-academica/especialidades/esp-medicina-preventiva.html
- Master of Clinical Nutrition (in-person format)
  http://www.espm.mx/oferta-academica/maestrias/nutricion-clinica.html
- Master of Healthcare Quality Management (online format)
  http://www.espm.mx/oferta-academica/maestrias/mc-gestion-calidad-servicios-salud.html
- Doctorate in Health Systems Quality (online format)
  http://www.espm.mx/oferta-academica/doctorados/calidad-sistemas-salud.html

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

All the programs that are not exclusively oriented to public health include courses with a minimum of 3 US credits that fulfill the objective of having students acquire foundational knowledge of public health. Academic activities and/or appropriate products for the corresponding grade are included in every course, which allow the professors to assess the fulfillment of the objective of having the students acquire the foundational knowledge of public health.
The purpose is to form a group of professor-researchers from the different research centers in the INSP with the objective of strengthening the thematic contents of the courses: Introduction to Public Health and Seminar on Priorities in Public Health. This is done to enhance students' learning experiences regarding the foundational knowledge of public health; the update of both programs will be reflected on the 2019-2020 school year.

D20. Distance Education

The university provides needed support for the school, including administrative, communication, information technology and student services.

There is an ongoing effort to evaluate the academic effectiveness of the format, to assess learning methods and to systematically use this information to stimulate school improvements. Evaluation of student outcomes and of the learning model are especially important in institutions that offer distance learning but do not offer a comparable in-residence school.

1) Identify all public health distance education degree programs and/or concentrations that offer a curriculum or course of study that can be obtained via distance education. Template Intro-1 may be referenced for this purpose.

In order to accomplish its mission, INSP offers its Master of Public Health (as a generalist degree) and the Master of Public Health with concentration in Biostatistics and in Information Systems program in online format, responding to the need to train leaders in public health to meet the health services requirements as well as comply with Mexico's health system reforms (see Table Intro- 1 in the Introduction).

2) Describe the public health distance education programs, including

    a) an explanation of the model or methods used,

Applied to virtual format programs, the INSP pedagogical model seeks to design teaching and learning activities that may be fitted to students' particular needs and characteristics by means of information technologies, including both synchronic (using the Telmex platform) and non-synchronic activities (such as the promotion of self-study, and carrying out learning activities during times allotted for their education). Asynchronous activities allow this model to incorporate student participation using different schedules and rhythms, with clearly marked periods for review and delivery of learning activities, in order to ensure continuing learning.

On the other hand, our model also enables each student to make a virtual synchronous connection with their group and their instructor on a weekly basis, and also to gain access to the teachings of expert professors and researchers from the public health field, clearing up their doubts and feeling connected to their group and to their institution. The units of the course program are available to the students through the Moodle platform (including descriptions of competencies, subjects, learning activities, evaluations and bibliographic materials).

All proposals for organizing activities are generally derived from real-life problems. Hence, an interdisciplinary approach is best suited for studying possible solutions, linking theory and practice and using teaching methodologies that promote debating, problem-solving, critical thinking, etc. In this system, the students solve concrete problems, working in small groups to study, discuss and share ideas.

In virtual format programs, academic support is offered by lecturers, professors and tutors who guide the teaching processes, promoting and evaluating individual student progress, as well as other staff who provide technical support and counseling for administrative requirements.

    b) the school's rationale for offering these programs,

An increasing demand for the growth of human resources in this area, added to the INSP's efforts to train active professionals, as well as a number of possibilities opened up by present technological development, have led the INSP to offer graduate programs in a virtual format, so that Health Service providers and Public Health decision-makers may become professionally trained using effective technological tools, without having to leave their hometowns or their jobs. Additionally, this sort of programs provide an immediate link between theory and practice, an important advantage for integrating knowledge and furthering a better professional development.

c) the manner in which it provides necessary administrative, information technology and student support services,

Virtual format programs also offer support services for administrative tasks and information technologies in order to provide the students with counseling and meet their needs.

The students' formation processes are monitored through expanding the reach for academic and operational coordinators, as well as through tutors, the Library, faculty and technical support staff members, and the Student Services Department of the Office of Academic Affairs, employing virtual and telephone tools. For example, there is a free phone number offering technological and academic assistance to any student residing in Mexico who may need to clear up doubts and discuss technological difficulties. There is also an email address managed by the technical support team to channel questions to those capable of providing an answer, namely tutors, associate professors or academic coordinators. Another email account is devoted exclusively to administrative affairs, aiming at greater efficiency and solving a variety of potential difficulties.

Finally, all academic activities in the INSP's headquarters in Cuernavaca are transmitted through real time videoconferences over a synchronous platform, allowing mutual collaboration among the students, faculty members and tutors, in order to promote feelings of institutional belonging. Students are informed about such events via email as well as through the INSP and ESPM web sites.

d) the manner in which it monitors the academic rigor of the programs and their equivalence (or comparability) to other degree programs offered by the university, and

In order to meet the challenge in monitoring students' progress as well as supervising the accomplishment of academic tasks as laid-down in the curricular structure, faculty members are assigned to review the program's academic quality, applying the same level of strictness that is used for in-person formats.

In the implementation of virtual formats, the same MPH curricular structure as for in-person formats is applied, although the fact that students' professional activities do not allow for full-time studying will require an additional semester, bringing up the program's total duration to two-and-a-half years. The curricular map is organized in four educational contexts:

1. Core curriculum courses. These are designed to promote various professional competencies and to cover indispensable curricular contents that all public health workers need to master regardless of their concentration area.
2. Introductory courses to professional practice in public health. Here students learn how to carry out protocols, comprehensive health assessments, and prioritization for certain public health issues, and also to design an intervention, execute it and evaluate ensuing short-term outcomes. These activities are combined with community practicums at hospitals, public health jurisdictions, etc., applying the training and the analyses obtained from virtual classroom experiences. These courses will provide the students with orientation and material elements they may use to build their Final Professional Project (PTP) for their master's degree.

3. The courses corresponding to the Master of Public Health core curriculum are taken at the beginning. Those students enrolled in the Biostatistics and Health Information Systems concentration area will receive the courses of this area during their second year.
4. Extra-curricular courses. Fourth-semester students will complement their academic learning in some specific public health area through extra-curricular spaces.

The program asks for an average 10-hour study week from each student. Additionally, a weekly session in real-time, i.e. synchronous, will be conducted so that all students have the opportunity to make contact with the associate professor of each course, who shall state the subject's fundamental ideas, guiding the students through their learning activities and clearing up doubts. These meetings may also be used by students to present data, task development, conclusions, selections from their projects, etc.

The organization of the curriculum allows students to develop the established competencies in a period of two and a half years. Just as in MPH in-person formats, the students are required to perform community practicums as integrating experiences, with the support of a *regional tutor* (described below), in the course of which they must generate five learning products: a comprehensive health assessment, a report prioritizing health-related needs, a specific intervention project, an execution-of-intervention report, and a comprehensive evaluation model for the intervention.

The faculty in charge of supervising operation and academic quality for both programs consists of a wide multi-disciplinarian team with the following specific functions:

- The *academic coordinator* is responsible for all academic activities carried out during the selection process, program design and the related curricular map, including all those activities contributing to student excellence. The academic coordinator is part of the specific program's general committee, reporting monthly activities and various other matters, as required.
- *Head professors* and *assistant professors* for each course. The position of *professor-researcher* will be assigned by the corresponding faculty college.
- *Tutors* (*facilitators for each course*). These are professionals of various disciplines, qualified to manage learning systems in terms of the contents of each program. Their profile is interdisciplinary, and they will monitor groups no larger than 15 students.
- *Virtual development teams* include professional teaching designers, platform managers and programmers.
- *Regional* or s*tate tutors* comprise one of the specific roles for this program, in charge of counseling students in the areas of protocols and outcomes of health diagnoses, prioritization, design and effects of public health intervention. They are appointed according to the students' sites of residence. Counseling takes place using in-person formats every 15 or 20 days for the duration of the program, and it consists of conceptual and instrumental-methodological (theoretical and practical) aspects. This means carrying out research on public health issues within a specific geographical area, involving the participation of residents and available health services, as well as taking in account the social, cultural and economic contexts; it also allows for the instrumentation of those strategies which will create the desired effects on detected problems.
- *The Operational Coordinator* is in charge of monitoring the students' progress and solving their technical concerns.

e) the manner in which it evaluates the educational outcomes, as well as the format and methods.

Learning activities are evaluated in strict adherence to the established criteria for each course in every program. Appropriate strategies include essays, case studies, examinations, automated exercises, projects, collaborations and, therefore, exercises in self- and co-evaluation, practical tasks, real-time sessions, etc.

The INSP monitors academic rigor in the online format through several strategies:

- *Candidates' selection process*: candidate selection is as rigorous as in in-person programs. The final decision for accepting any candidate depends on compliance with a series of requirements and exams, as well as on the outcome of an evaluation and analysis conducted by academic coordinators in each program with members of the professor-researcher teams in committees, intercollegiate groups or doctoral chapters.
- *Faculty selection*: Faculty Colleges select the professor responsible for each course in the same way as they do for the classroom-oriented format.
- *Course design*: Once a teacher designs a course, it is reviewed by the academic coordinator and the pedagogic team that designs the learning environments in order to ensure the consistency of the pedagogical characteristics used in the online format. This review is assessed with the teacher and the assistant professor. It is uploaded for students only after it has been validated by all areas.
- *Course monitoring*: The academic coordinator constantly monitors such factors as attendance, the professor's performance and responsiveness in answering questions, and any academic problems students may have during the course.
- *Course evaluation*: The guidelines and requirements for student evaluation for each course are determined at the beginning of the activities and available for review via the internet platform. Using this platform, at any time students can review their performance during the course in order to receive feedback from the professor and academic coordinator. At the end of every course, the students evaluate both the course and the teacher. These evaluations are sent to teachers and discussed in meetings with the academic coordinator in order to guide improvements in the following year.

In addition, progress on the Final Professional Project (PTP) is evaluated every semester by a jury consisting of a professor-researcher of the INSP, a professional with a Master of Public Health degree from the regional health services, and the regional or state tutor. Once the program has been completed, the students are required to defend their PTP at the INSP facilities before another jury, as established for in-person programs.

Every 6 months, the academic coordinator meets with the students and regional advisors to review PTP progress, academic activities and student counseling. These meetings are organized at the regional venues where the students perform their community practicums and meet with their counselors. In these meetings, the students present the progress they have made on their PTP and receive feedback from their counselor, the academic coordinator and a representative of a regional health sector. The internet platform allows course assessment to take place continuously. For example, the online platform issues a student attendance roll and the number of times the students have participated in the course session. The sessions are recorded in order to verify the students' and professors' participation and are made available online so that students, teachers and the academic coordinator may review the session. All courses, including question and answer forums, chat rooms and activities carried out during the course are recorded and stored for future evaluation by collegiate bodies. This has been especially useful when analyzing students' requests for grades revisions.

3) Describe the processes that the university uses to verify that the student who registers in a distance education course (as part of a distance-based degree) or a fully distance-based degree is the same student who participates in and completes the course or degree and receives the academic credit.

Once a student has been accepted in a virtual format program, he/she will be assigned a registry number, which is then linked to an electronic mail address under his/her family and given names. Using this information, the team managing the Moodle platform proceeds to create a proper user with a password, related to each student's profile in the platform, whose activities in this space may then be monitored.

As an LMS, Moodle identifies each student while keeping a record of how many times and for what activities the platform has been accessed, saving progress data in terms of participation and evaluations, among other criteria. The information is used to confirm that the students' activities have been completed, in which case they have earned the right to obtain their degree.

Real-time synchronous activities with instructors and tutors will confirm that the same student has personally participated in all sessions since the program started. Whenever more counseling is required, additional personalized sessions with tutors may be generated, keeping in mind that each tutor can tend to a maximum of 15 students. Such tutorial activities facilitate constant individual monitoring of the students' progress and prove that the same person has complied with every academic task throughout their work in the program. In some of the programs, such as the MPH in virtual format, work sessions with academic coordinators and regional tutors may be scheduled in person or through videoconferences, thus facilitating direct contact with the students as well as validating their progress.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

A continuous supervisory effort carried out by a multidisciplinary team including academic and operational coordinators, faculty members, academic counselors and educational technology experts supports the academic quality of the virtual format courses. Virtual format platforms are cutting edge innovative tools allowing for sustained regular interaction between students and faculty members. The teaching model provides learning experiences that have been planned and evaluated according to the online students' characteristics and their educational needs. Faculty teams, supported by the INSP's collegiate bodies, provide additional strength to the program, since they include outstanding researchers who are active and undergoing constant updating in their expertise area as well as in other academic aspects.

Virtual programs afford the students little contact with the headquarters, and this fact may present a challenge in terms of belonging and certain difficulties in implementing formative experiences. As of today, these programs are not included in student scholarships through institutions such as CONACyT, and for this reason the students must cover the program's cost with their own funds, unless an agreement is reached with some state department enabling the students to receive financing from the institutions where they are employed.

E1. Faculty Alignment with Degrees Offered

Faculty teach and supervise students in areas of knowledge with which they are thoroughly familiar and qualified by the totality of their education and experience.

Faculty education and experience is appropriate for the degree level (bachelor's, master's, doctoral) and the nature of the degree (research, professional practice, etc.) with which they are associated.

1) Provide a table showing the school's primary instructional faculty in the format of Template E1-1. The template presents data effective at the beginning of the academic year in which the final self-study is submitted to CEPH and must be updated at the beginning of the site visit if any changes have occurred since final self-study submission. The identification of instructional areas must correspond to the data presented in Template C2-1.

Included is Table E1-1, containing the teachers with the primary instructional degrees offered.

Table E1.1. Alignment of the primary instructional faculty with the degrees offered.

No.	Name*	Diploma/Academic degree	Status or classification of the tenure^	Degrees earned	Institution(s) where the degrees were obtained	Discipline in which the degrees were obtained	Affiliated concentration in template C2-1
1	Aaron Salinas Rodriguez	Professor	ICM D	Master in Health Sciences with concentration in Biostatistics	National Institute of Public Health	Biostatistics	Biostatistics
2	Abel Armando Arredondo López	Professor	ICM F	PhD in Health Sciences with concentration in Health Systems/Master of Science in Health Systems Organization and Management	National Institute of Public Health	Health Systems	Quality in Health
3	Adolfo Pedroza Saavedra	Professor	ICM C	PhD in Biochemical Sciences/Master of Science in Molecular Biology	National Polytechnic Institute/Center for Research and Advanced Studies of the IPN	Science/Molecular Biology	Infectious Diseases
4	Adriana Leticia Ramírez Sánchez	Associate Professor	Not evaluated	PhD in Public Health/Masters in Public Health	University of Santiago de Compostela. Spain	Biostatistics/Public Health	Biostatistics/Public Health
5	Ahidée Guadalupe Leyva López	Professor	ICM C	Master's degree in Health Sciences with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
6	Airaín Alejandra Montoya Rodríguez	Associate Professor	Not evaluated	Master in Health Sciences with concentration in Biostatistics	National Institute of Public Health	Biostatistics	Biostatistics
7	Albino Barraza Villarreal	Professor	ICM E	PhD in Health Sciences with concentration in Epidemiology/Master in Health Sciences with concentration in Environmental Health	National Institute of Public Health	Epidemiology and Environmental Health	Environmental Health

8	Alejandra de Jesús Cantoral Preciado	Associate Professor	Not evaluated	PhD in Health Sciences with concentration in Epidemiology/Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Epidemiology/Nutrition	Nutrition
9	Alejandra Jáuregui de la Mota	Professor	ICM C	PhD in Science in Population Nutrition/Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
10	Alejandra Jiménez Aguilar	Associate Professor	ICM B	Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Public Health
11	Alejandro Alvarado Delgado	Professor	ICM C	PhD in Biomedical Sciences/Master of Science with concentration area in Infectious Diseases	National Autonomous University of Mexico/National Institute of Public Health	Biomedical Sciences/Infectious Disease	Infectious Diseases
12	Alfonso Carreón Rodríguez	Professor	ICM C	PhD in Biochemistry/Master of Science	National Autonomous University of Mexico	Life Sciences	Nutrition
13	Alfredo Lagunas Martinez	Professor	ICM C	PhD in Biomedical Sciences/Master of Science	National Autonomous University of Mexico/Center for Research and Advanced Studies of the IPN	Biomedical Sciences	Infectious Diseases
14	Alma Lucila Sauceda Valenzuela	Associate Professor	Not evaluated	Master in Health Sciences with concentration in Health Systems	National Institute of Public Health	Health Systems	Health Systems
15	Amado David Quezada Sánchez	Associate Professor	ICM C	Master in Applied Statistics	Monterrey Institute of Technology and Higher Education	Biostatistics	Biostatistics
16	Américo David Rodríguez Ramírez	Professor	ICM E	PhD in Science/Master of Science in Medical Entomology	University of Wales/National Autonomous University of Mexico	Science/Medical Entomology	Vector-borne diseases
17	Ana Carolina Ariza Gutierrez	Associate Professor	Not evaluated	PhD in Biomedical Sciences	National Autonomous University of Mexico	Biomedical Sciences	Nutrition
18	Ana Isabel Burguete García	Professor	ICM E	PhD in Health Sciences with concentration in Epidemiology/International Master in Parasitic Diseases	National Institute of Public Health/University of Valencia	Epidemiology/Parasitic Diseases	Epidemiology
19	Ana Lilia Lozada Tequeanes	Associate Professor	Not evaluated	PhD in Health Sciences with concentration in Epidemiology/Master's Degree in Health Sciences with concentration in Nutrition	National Institute of Public Health	Epidemiology/Nutrition	Nutrition
20	Anabelle Yudith Bonvecchio Arenas	Professor	ICM D	PhD in Health Sciences with concentration area in Health Systems/Masters in Public Health	National Institute of Public Health/Emory University	Health systems/Public Health	Nutrition

21	Anahi Cristina Dreser Mansilla	Professor	ICM C	PhD in Public Health and Health Policies/Master of Science in Infectious Diseases Control	London School of Hygiene and Tropical Medicine/University of London	Public Health and Health Policies	Health Systems
22	Angel Francisco Betanzos Reyes	Associate Professor	Not evaluated	PhD in Health Sciences with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Public Health
23	Angélica Rocío Ángeles Llerenas	Professor	ICM D	PhD in Public Health/Master's Degree in Health Sciences with concentration in Epidemiology	National Institute of Public Health	Public Health/Epidemiology	Public Health
24	Antonio Trejo Acevedo	Professor	ICM C	PhD in Environmental Science/Master of Science degree in Natural Resources and Rural Development	Universidad Autonoma de San Luis Potosi/Colegio de la Frontera Norte	Environmental Science/Rural Development	Vector-borne diseases
25	Aremis Litae Villalobos Hernández	Professor	ICM D	PhD in Population Studies/Specialist in Applied Statistics	Colegio de México/UNAM	Population Studies/Statistics	Specialty in Preventive Medicine
26	Astrid Schilmann Halbinger	Professor	ICM C	PhD in Health Sciences with concentration in Epidemiology/Master in Health Sciences with concentration in Environmental Health	National Institute of Public Health	Epidemiology and Environmental Health	Environmental Health
27	Aurelio Cruz Valdez	Professor	ICM D	PhD in Science/Master of Public Health	National Institute of Public Health	Epidemiology	Epidemiology/Public Health
28	Belkis Mercedes Aracena Genao	Professor	ICM B	Master in Health Sciences with concentration in Health Systems	National Institute of Public Health	Health Systems	Health Systems
29	Bertha Verónica Valverde Garduño	Associate Professor	Not evaluated	PhD in Biochemistry/Master in Biotechnology	Oxford University/National Autonomous University of Mexico	Biochemistry/Biotechnology	Infectious Diseases/PhD in infectious diseases
30	Betania Allen Leigh	Professor	ICM D	PhD in Anthropological Sciences/Masterin Anthropological Sciences	Autonomous Metropolitan University/	Anthropological Sciences	Public Health
31	Betty Soledad Manrique Espinoza	Professor	ICM D	PhD in Health Sciences with concentration in Epidemiology/Master in Population	National Institute of Public Health/Latin American School of Social Sciences	Epidemiology/Population	Biostatistics
32	Blanca Estela Pelcastre Villafuerte	Professor	ICM E	PhD in Critical Social Psychology/Master in Social Psychology	Autonomous University of Barcelona	Social Psychology	Health Systems
33	Carla Olbia Contreras Ochoa	Associate Professor	ICM B	PhD in Public Health Sciences with concentration in Infectious Diseases/Master of Science	National Institute of Public Health/National Autonomous University of Mexico	Infectious Diseases/Life Sciences	Infectious Diseases

34	Carlos Alfonso Hernández Girón	Professor	ICM D	PhD in Science/Master of Science in Social Medicine	National Institute of Public Health/National Autonomous University of Mexico	Life Sciences	Nutrition
35	Carlos Felix Marina Fernandez	Professor	ICM D	PhD in Ecology and Sustainable Development/Master of Science in Natural Resources and Rural Development	Colegio de la Frontera Sur	Sustainable development/Rural Development	Infectious Diseases
36	Carolina Batis Ruvalcaba	Associate Professor	Not evaluated	Doctor of Philosophy in Nutrition	University of North Carolina at Chapel Hill	Nutrition	Nutrition
51	Carolina Perez Ferrer	Professor	Not evaluated	Master of Public Health in Health Promotion/ PhD in Epidemiology and Public Health	London School of Hygiene and Tropical Medicine/ University College London	Epidemiology	Epidemiology
37	Celia Mercedes Alpuche Aranda	Professor	ICM E	PhD in Medical Sciences/Master in Medical Sciences	National Autonomous University of Mexico	Medical Sciences	Infectious Diseases
38	Celso Ramos García	Professor	ICM E	PhD in Immunology	The National Polytechnic Institute	Immunology	Infectious Diseases
39	Cesar Infante Xibille	Professor	ICM D	PhD in Science/Master of Health Sciences with concentration area in Health Systems	University of London/National Institute of Public Health	Health Systems	Health Systems
40	Clara Juárez Ramírez	Professor	ICM D	PhD in Social and Cultural Anthropology/Master in Social Anthropology	Rovira i Virgili University/Center for Research and Higher Studies in Social Anthropology	Social Anthropology	Social and Behavioral Science
41	Claudia Ivonne Ramirez Silva	Professor	ICM C	PhD in Population Nutrition/Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
42	Cuauhtémoc Juan Humberto Lanz Mendoza	Professor	ICM F	PhD in Immunology/Master of Science with a specialty in Immunology	The National Polytechnic Institute	Immunology	Infectious Diseases
43	Cuauhtémoc Villareal Treviño	Associate Professor	ICM A	PhD in Science with specialty in Medical Entomology/Master of Science in Plant Health	National Autonomous University of Mexico/Monterrey Institute of Technology and Higher Education	Medical Entomology/Plant Health	Vector-borne diseases
44	David Contreras Loya	Associate Professor	Not evaluated	Master in Health Sciences with concentration in Health Economics	National Institute of Public Health	Health Economics	Health Economics
45	David Hernández Bonilla	Associate Professor	ICM A	Master of Public Health with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Environmental Health/Social and Behavioral Sciences/Public Health
46	Dolores Gonzalez Hernandez	Associate Professor	ICM B	Master in Rural Development	Autonomous Metropolitan University/-Xochimilco	Rural Development	Epidemiology

47	Doris Verónica Ortega Altamirano	Associate Professor	ICM C	PhD in Education/Master in Health Sciences with concentration in Reproductive Health	Autonomous University of Morelos State/National Institute of Public Health	Education/Reproductive Health	Health Systems
48	Edgar Leonel González González	Associate Professor	ICM C	PhD in Social Science with a specialization in Sociology/Master in Regional Development	Colegio de México/El Colegio de la Frontera Norte	Sociology/Regional Development	Biostatistics
49	Edith Elizabeth Ferreira Guerrero	Professor	ICM D	Specialization in Public Health	National Council of Public Health	Public Health	Infectious Diseases/Specialty in Preventive Medicine
50	Edna Judith Arillo Santillán	Professor	ICM D	Master in Health Sciences with concentration in Reproductive Health	National Institute of Public Health	Reproductive Health	Social and Behavioral Science
52	Eduardo César Lazcano Ponce	Professor	ICM F	PhD in Health Sciences with concentration in Epidemiology/Master of Science in Social Medicine	National Institute of Public Health/National Autonomous University of Mexico	Epidemiology/Social Medicine	Epidemiology
53	Eduardo Rangel Baltazar	Associate Professor	Not evaluated	Master's degree in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
54	Eduardo Salazar Martínez	Professor	ICM D	PhD in Health Sciences with concentration in Epidemiology/Master of Science with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
55	Elga Filipa Amorin Claro de Castro	Professor	ICM D	PhD in Psychology	University of Essex	Psychology	Public Health
56	Elisa Del Carmen Hidalgo Solorzano	Professor	ICM C	Master in Health Sciences with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology/Health Systems
57	Elsa María Tamayo Legorreta	Professor	ICM D	PhD in Science/Master in Biotechnology	The National Polytechnic Institute	Life Sciences/Biotechnology	Infectious Diseases
58	Elsa María Yunes Díaz	Professor	ICM C	Master's degree in Health Sciences with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
59	Elvia de la Vara Salazar	Associate Professor	ICM A	Master's degree in Population Studies and Regional Development	National Autonomous University of Mexico	Population Studies and Regional Development	Epidemiology
60	Emanuel Orozco Núñez	Professor	ICM D	Master in Social Anthropology	Universidad Iberoamericana	Anthropology	Health systems/Specialty in Comprehensive Assessment of Programs and Policies for Social Development
61	Eric Alejandro Monterrubio Flores	Associate Professor	ICM C	PhD in Health Sciences with concentration in Epidemiology/Master in Health Sciences with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Nutrition

62	Erika Marlen Hurtado Salgado	Associate Professor	Not evaluated	Master's degree in Health Sciences with a concentration in Clinical Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
63	Estephania Moreno Zegne	Associate Professor	ICM B	Master of Science in Health Systems	National Institute of Public Health	Health Systems	Health systems/Quality in Health
64	Fabiola Mejía Rodriguez	Professor	ICM D	Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
65	Francisco Armando García Guerra	Professor	ICM C	Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
66	Francisco Javier Garrido Latorre	Professor	ICM D	PhD in Health Sciences with concentration in Epidemiology/Master of Science degree in Epidemiology	National Institute of Public Health	Epidemiology	Public Health
67	Gabriela Torres Mejía	Professor	ICM F	PhD in Science/Master of Science with concentration in Epidemiology	London School of Hygiene and Tropical Medicine/National Institute of Public Health	Epidemiology	Epidemiology
68	German Galileo Guerra Y Guerra	Associate Professor	ICM B	Master in Demography	El Colegio de México	Demographics	Public Health
69	Germán Rubén Aguilar Gutiérrez	Associate Professor	Not evaluated	PhD in Biotechnology/Master in Basic Biomedical Research	National Autonomous University of Mexico	Biotechnology	Infectious Diseases
70	Gilberto Sanchez Gonzalez	Associate Professor	Not evaluated	PhD in Science/Master of Science in Physics	Autonomous University of Morelos State/University of Guadalajara	Physical Science	Infectious Diseases
71	Gloria María Belem Trejo Valdivia	Professor	ICM D	PhD in Mathematics/Master in Statistics and Operations Research	Imperial School of London/UNAM	Mathematics	Biostatistics
72	Grea Litai Moreno Banda	Associate Professor	ICM A	PhD in Health Sciences with concentration in Epidemiology/Master of Science in Social Medicine with emphasis on Environmental Health	National Institute of Public Health	Epidemiology and Environmental Health	Environmental Health
73	Guadalupe Ayala Aguilar	Professor	ICM E	PhD in Biomedical Sciences/Master in Biomedical Sciences	National Autonomous University of Mexico	Biomedical Sciences	Infectious Diseases
74	Guadalupe Delgado Sánchez	Professor	ICM D	PhD in Science in Public Health with concentration in Epidemiology/Master of Public Health with a concentration in Social and Behavioral Sciences	National Institute of Public Health	Epidemiology/Behavioral Sciences	Specialty in Preventive Medicine
75	Guillermo Perales Ortiz	Associate Professor	Not evaluated	PhD in Biomedical Sciences/Master in Biotechnology	National Autonomous University of Mexico	Biomedical Sciences/Biotechnology	Infectious Diseases

76	Héctor Gómez Dantés	Professor	ICM E	Master in Community Health	University of London	Epidemiology	Epidemiology
77	Héctor Lamadrid Figueroa	Professor	ICM D	PhD in Health Sciences with concentration in Epidemiology/Master in Health Sciences with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Biostatistics
78	Horacio Riojas Rodríguez	Professor	ICM E	PhD in Health Sciences with concentration in Epidemiology/Master of Science in Social Medicine with emphasis on Environmental Health	National Institute of Public Health	Epidemiology and Environmental Health	Environmental Health
79	Hortensia Reyes Morales	Professor	ICM F	PhD in Public Health Sciences with concentration in Health Systems/Master in Medical Sciences	National Institute of Public Health/National Autonomous University of Mexico	Health Systems/Medical Sciences	Health Systems
80	Hugo López-Gatell Ramírez	Professor	ICM D	Doctor of Philosophy/Master of Science	Johns Hopkins University/UNAM	Life Sciences	Infectious Diseases/Specialty in Preventive Medicine
81	Ileana Beatriz Heredia Pi	Professor	ICM D	PhD in Health Sciences with concentration in Health Systems/Master in Health Sciences with concentration in Health Economics	National Institute of Public Health	Health Systems	Health Systems
82	Inti Barrientos Gutiérrez	Associate Professor	ICM B	PhD in Social Sciences, Area of Economics and Management of Innovation/Master in Marketing and International Business	Autonomous Metropolitan University/University of the Americas, Puebla	International business	Social and Behavioral Science
83	Irene Margarita Parada del Toro	Associate Professor	Not evaluated	PhD Program in Political and Social Science/Master in Health Sciences with concentration in Health Systems	Center for Research and Teaching in the Humanities of Morelos State/National Institute of Public Health	Political Science/Health Systems/	Health Systems
84	Irma Gabriela Echániz Avilés	Professor	ICM E	PhD in Biological Sciences/Master in Biotechnology	National Autonomous University of Mexico	Biological Sciences/Biotechnology	Infectious Diseases
85	Ismael Ricardo Campos Nonato	Professor	ICM D	PhD in Health Sciences with concentration in Epidemiology/Master in Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
86	Jacqueline Elizabeth Alcalde Rabanal	Professor	ICM C	PhD in Health Sciences with concentration in Health Systems/Master in Public Health	National Institute of Public Health/Universidad Peruana Cayetano Heredia	Health systems/Public Health	Health systems/Specialty in Comprehensive Assessment of Programs and Policies for Social Development

87	Janet Real Ramírez	Associate Professor	Not evaluated	Master in Public Health/Specialty in Public Health and Preventive Medicine	National Institute of Public Health	Epidemiology	Epidemiology/Specialty in Preventive Medicine
88	Janine Madeleine Ramsey Willoquet	Professor	ICM F	PhD in Biology	Georgetown University	Biology	Vector-borne diseases
89	Jesús Martínez Barnetche	Professor	ICM E	PhD in Science	National Autonomous University of Mexico	Life Sciences	Infectious Diseases
90	Jesús Silva Sánchez	Professor	ICM F	PhD in Molecular Biology/Master of Science in Molecular Biology	National Polytechnic Institute/Center for Research and Advanced Studies of the IPN	Molecular Biology	Infectious Diseases
91	Jesús Ulises Garza Ramos Martínez	Professor	ICM D	PhD in Biochemical Sciences/Master of Science	National Autonomous University of Mexico	Biochemical Sciences	Infectious Diseases
92	Jimena Fritz Hernández	Associate Professor	Not evaluated	PhD in Health Sciences with concentration in Epidemiology/Master of Science with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
93	Jorge Aurelio Torres Monzon	Associate Professor	ICM B	PhD in Experimental Pathology/Master of Science in Experimental Pathology	Center for Research and Advanced Studies of the IPN	Experimental Pathology	Vector-borne diseases
94	Jorge Eduardo Ortiz Panozo	Associate Professor	Not evaluated	Master in Health Sciences with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Biostatistics
95	Jorge Montes Alvarado	Associate Professor	Not evaluated	Master of Public Health	National Institute of Public Health	Public Health	Health Systems
96	José de Jesús Vértiz Ramírez	Associate Professor	ICM B	Master in Health Services Research	National School of Professional Studies Iztacala	Health Services	Quality in Health
97	José Genaro Ordóñez González	Associate Professor	ICM B	Master of Science in Medical Entomology	Autonomous University of Nuevo León	Medical Entomology	Vector-borne diseases
98	José Luis Alcántara Zamora	Professor	Not evaluated	Master in Health Sciences with concentration in Health Economics	National Institute of Public Health	Health Economics	Health Economics
99	José Luis Díaz Ortega	Professor	ICM C	Specialization in Epidemiology	National Autonomous University of Mexico	Epidemiology	Infectious Diseases
100	José Luis Texcalac Sangrador	Professor	ICM C	PhD in Geography/Master in Health Sciences with concentration in Environmental Health	National Autonomous University of Mexico/National Institute of Public Health	Geography/Environmental Health	Environmental Health
101	José Luis Torres Estrada	Professor	ICM D	PhD in Science with a specialization in Entomology/Master of Science in Medical Entomology	Graduate College/Autonomous University of Nuevo León	Entomology	Vector-borne diseases
102	José Ramos Castañeda	Professor	ICM E	PhD in Science (Biology)/Master of Science degree in Biology	National Autonomous University of Mexico	Cell Biology	Infectious Diseases

103	Juan Ángel Rivera Dommarco	Professor	ICM F	PhD in International Nutrition/Master of Science	Cornell University	Nutrition	Nutrition
104	Juan Eugenio Hernández Ávila	Professor	ICM E	PhD in Science with concentration in Epidemiology/Master of Science	National Institute of Public Health/Johns Hopkins University	Epidemiology	Biostatistics
105	Juan Francisco Molina Rodríguez	Associate Professor	ICM B	Master in Social Medicine	Autonomous Metropolitan University/	Social Medicine	Health Systems
106	Juan Guillermo Bond Compean	Professor	ICM E	PhD in Ecology and Sustainable Development/Master of Science in Medical Entomology	Colegio de la Frontera Sur/Autonomous University of Nuevo Léon	Medical Entomology	Vector-borne diseases
107	Julia Blanco Muñoz	Professor	ICM D	Master of Public Health	National Institute of Public Health	Public Health	Environmental Health
108	Julio César Montañez Hernández	Associate Professor	ICM B	Master in Economics	Center for Economic Research and Teaching	Economy	Biostatistics
109	Kirvis Janneth Torres Poveda	Associate Professor	Not evaluated	PhD of Science with concentration in Infectious Diseases/ Master in Microbiology	National Institute of Public Health/Pontificia Universidad Javeriana	Microbiology	Infectious Diseases
110	Laura Rosario Mendoza Alvarado	Associate Professor	ICM B	Master of Science with concentration in Epidemiology Social Medicine	National Autonomous University of Mexico	Epidemiology	Epidemiology
111	Lea Aurora Cupul Uicab	Professor	ICM D	PhD of Health Sciences with concentration in Epidemiology/Master of Science with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
112	Leonor Rivera Rivera	Professor	ICM D	PhD in Psychology/Master of Health Sciences with concentration in Reproductive Health	National Autonomous University of Mexico/National Institute of Public Health	Psychology/Reproductive Health	Epidemiology
113	Leticia del Socorro Ávila Burgos	Professor	ICM E	PhD in Economics/Master of Science in Health Systems	Graduate College in Economics/National Institute of Public Health	Economy/Health Systems	Health Systems
114	Leticia Dolores Ferreyra Reyes	Professor	ICM C	Master of Public Health with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Infectious Diseases
115	Leticia Hernández Cadena	Professor	ICM D	PhD of Health Sciences with concentration in Epidemiology/Master of Science in Social Medicine with concentration in Environmental Health	National Institute of Public Health	Epidemiology and Environmental Health	Environmental Health/Specialty in Preventive Medicine
116	Leticia Suárez López	Professor	ICM C	PhD Program in Political and Social Science/Master in Demography	Center for Research and Teaching in the Humanities of the State of Morelos/El Colegio de Mexico	Political Science/Demographics	Epidemiology

117	Lilia Chihu Amparán	Professor	ICM D	PhD in Experimental Biology/ Master in Biotechnology	Autonomous Metropolitan University/National Autonomous University of Mexico	Experimental Biology/Biotechnology	Infectious Diseases
118	Lilia González Cerón	Professor	ICM E	PhD of Science in Experimental Pathology/Master of Science in Medical Parasitology	National Polytechnic Institute/University of London	Experimental Pathology/Medical Parasitology	Vector-borne diseases
119	Lina Sofia Palacio Mejia	Professor	ICM D	PhD in Population Studies/Master in Demography	Colegio de México/El Colegio de la Frontera Norte	Population Studies/Demographics	Biostatistics
120	Lizbeth Teresita López Carrillo	Professor	ICM F	PhD in Public Health/Master of Science in Epidemiology	Yale University	Public Health/Epidemiology	Environmental Health
121	Lorena Elizabeth Castillo Castillo	Professor	ICM C	PhD Program in Political and Social Science/Master of Public Health with concentration in Social and Behavioral Sciences	Center for Research and Teaching in the Humanities of Morelos State/National Institute of Public Health	Social and Political Science/Social Science	Epidemiology
122	Lucero Cahuana Hurtado	Professor	ICM C	PhD in Health Sciences with concentration in Health Systems/Master in Health Economics	National Institute of Public Health/Center for Economic Research and Teaching	Health systems/Health Economics	Health Systems
123	Lucia Cuevas Nasu	Professor	ICM D	Master in Nutrition	Benito Juárez Autonomous University of Oaxaca	Nutrition	Nutrition
124	Lucia Hernández Barrera	Associate Professor	ICM C	Master of Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
125	Luisa Elvira Torres Sánchez	Professor	ICM F	PhD in Health Sciences with concentration in Epidemiology/Master of Science in Reproductive Health	National Institute of Public Health	Epidemiology	Epidemiology
126	Luisa María Sánchez Zamorano	Professor	ICM D	PhD in Health Sciences with concentration in Epidemiology/Master of Science with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
127	Luz Angélica de la Sierra de la Vega	Associate Professor	Not evaluated	Master in Health Sciences with concentration in Health Systems	National Institute of Public Health	Health Systems	Health systems/Public Health
128	Luz Dinorah Gonzalez Castell	Professor	ICM C	Master of Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
129	Luz María Lara López	Professor	Not evaluated	Master of Public Health with concentration in Social and Behavioral Sciences	National Institute of Public Health	Social Sciences	Public Health

130	Luz Miriam Reynales Shigematsu	Professor	ICM E	PhD of Health Sciences with concentration in Epidemiology/Master of Science with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
131	Ma. de Lourdes Eugenia Campero Cuenca	Professor	ICM E	PhD in Education/Master of Education	Autonomous University of Morelos State/University of Toronto	Education	Epidemiology
132	Ma. de Lourdes Guadalupe Flores Luna	Professor	ICM D	PhD of Health Sciences with concentration in Epidemiology/Master of Health Sciences with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Specialty in Preventive Medicine
133	Ma. Isidra Hernández Serrato	Professor	ICM C	Master of Science in Social Medicine	National Autonomous University of Mexico	Social Medicine Sciences	Specialty in Preventive Medicine
134	Magali Hurtado Diaz	Professor	ICM C	PhD of Science in Environmental Health/Master of Health Sciences with concentration in Environmental Health	National Institute of Public Health	Environmental Health	Environmental Health
135	Manuel Palacios Martínez	Associate Professor	Not evaluated	Master of Health Sciences with concentration in Epidemiology	Autonomous Metropolitan University/-Xochimilco	Epidemiology	Epidemiology/Specialty in Preventive Medicine
136	Marcela Agudelo Botero	Associate Professor	Not evaluated	PhD in Population Studies	National Autonomous University of Mexico	Population Studies	Biostatistics
137	Marcela Sánchez Estrada	Associate Professor	Not evaluated	PhD in Psychology/Master in Psychology	National Autonomous University of Mexico	Psychology	Social and Behavioral Science
138	Marcela Tamayo Ortíz	Associate Professor	Not evaluated	PhD of Environmental Health Sciences with concentration in Occupational Epidemiology	Harvard University	Nutrition	Nutrition
139	Marcia Verónica Galvan Portillo	Professor	ICM D	PhD of Health Sciences with concentration area in Epidemiology/Master of Science degree in Reproductive Health	National Institute of Public Health	Epidemiology	Epidemiology
140	Margarita Márquez Serrano	Professor	ICM C	Master in Social Medicine	Autonomous Metropolitan University/-Xochimilco	Social Medicine	Social and Behavioral Science/Public Health
141	Margarita Sánchez Arias	Associate Professor	Not evaluated	Master of Science	National Autonomous University of Mexico	Environmental Health	Environmental Health
142	María Angeles Villanueva Borbolla	Professor	ICM C	Master of Science with concentration in Health Promotion Sciences	University of London	Health Promotion	Nutrition

143	María Cecilia González Robledo	Associate Professor	ICM C	PhD of Health Sciences with concentration in Health Systems/Master of Development with an emphasis in Management for Development	National Institute of Public Health/Universidad Pontificia Bolivariana	Health Systems	Public Health
144	Maria Consuelo Escamilla Nunez	Professor	ICM D	Master of Health Sciences with concentration in Biostatistics	National Institute of Public Health	Biostatistics	Epidemiology
145	María de la Luz Arenas Monreal	Professor	ICM D	PhD in Anthropology/Master of Public Health	National Autonomous University of Mexico/National Institute of Public Health	Anthropology/Public Health	Social and Behavioral Science
146	Maria De Lourdes Aleman Escobar	Associate Professor	Not evaluated	PhD in Science in Nursing/Master in Teaching	Center for Research and Teaching in the Humanities of the State of Morelos	Nursing/Education	Social and Behavioral Science
147	María de Lourdes García García	Professor	ICM F	PhD in Medical Sciences/Master in Medical Sciences	National Autonomous University of Mexico	Medical Sciences	Infectious Diseases/Specialty in Preventive Medicine
148	María de Lourdes Gutiérrez Xicoténcatl	Professor	ICM E	PhD in Biology	Brunel University	Cell Biology	Infectious Diseases
149	María del Carmen Rodríguez Gutiérrez	Professor	ICM D	PhD in Medical Parasitology	Imperial School of London	Medical Parasitology	Infectious Diseases
150	Maria Del Pilar Hernandez Nevarez	Professor	ICM C	Master of Public Health with concentration in Health Administration	National Institute of Public Health	Health Administration	Social and Behavioral Science
151	Maria Del Pilar Torres Pereda	Professor	ICM C	Master of Medical Anthropology	University of Sussex, United Kingdom	Anthropology	Specialty in Comprehensive Assessment of Development Policies and Programs, Social/Health Systems
152	María del Rosario Valdez Santiago	Professor	ICM D	PhD of Health Sciences with concentration in Health Systems/Master of Anthropology	National Institute of Public Health/Center for Research and Teaching in the Humanities of the State of Morelos	Health systems/Anthropology	Health Systems
153	María del Socorro Parra Cabrera	Professor	ICM E	PhD in Health Sciences with concentration area in Epidemiology/Master of Public Health	The National Institute of Public Health/University of Michigan	Epidemiology/Public Health	Epidemiology
154	María Dolores Ramírez Villalobos	Professor	ICM C	Master of Health Sciences with concentration in Reproductive Health	National Institute of Public Health	Reproductive Health	Epidemiology
155	Maria Elena Velazquez Meza	Professor	ICM D	PhD in Experimental Biology/Master of Science in Biology	Autonomous Metropolitan University/National Autonomous University of Mexico	Biology	Infectious Diseases

156	María Guadalupe Rodríguez Oliveros	Professor	ICM C	PhD in International Nutrition	Cornell University	Nutrition	Nutrition
157	Maria Guadalupe Ruelas González	Professor	ICM C	PhD of Public Health Sciences with concentration in Health Systems/Master of Health Services Research	National Institute of Public Health/National Autonomous University of Mexico	Health systems/Health Services	Health Systems
158	María Lizbeth Tolentino Mayo	Associate Professor	Not evaluated	Master of Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
159	María Maricela Piña Pozas	Professor	ICM C	PhD in Library and Information Studies/Master in Library Science	National Autonomous University of Mexico/El Colegio de México	Library Science	Specialty in Preventive Medicine
160	María Rosalba Rojas Martínez	Professor	ICM F	PhD in Epidemiology/Specialty in Applied Statistics	University of North Carolina/UNAM	Epidemiology/Statistics	Epidemiology
161	Mario Efraín Flores Aldana	Professor	ICM D	PhD in Political Nutrition and Applied Nutrition/Master of Science in Social Medicine (Epidemiology)	Tufts University/UNAM	Nutrition/Epidemiology	Nutrition
162	Mario Henry Rodríguez López	Professor	ICM F	PhD in Medical Parasitology/Master of Science in Medical Parasitology	University of London	Medical Parasitology	Infectious Diseases
163	Mario Salvador Sánchez Domínguez	Associate Professor	ICM B	PhD in Science in Health Systems/Master of Health Sciences with concentration in Health Systems	National Institute of Public Health	Health Systems	Quality in Health
164	Marlene Cortez Lugo	Professor	ICM D	PhD of Science in Environmental Health/Master of Science degree in Social Medicine with an emphasis in Epidemiology	National Institute of Public Health/National Autonomous University of Mexico	Environmental Health	Environmental Health
165	Marta Elena Rivera Pasquel	Associate Professor	ICM B	Master of Health Sciences with concentration area in Nutrition	National Institute of Public Health	Nutrition	Nutrition
166	Martha María Téllez Rojo Solís	Professor	ICM F	PhD in Health Sciences with concentration area in Epidemiology/Master of Statistics and Operations Research	National Institute of Public Health/UNAM	Epidemiology/Statistics	Biostatistics
167	Martin Lajous Loaeza	Professor		Doctor of Science in Epidemiology/Master of Science in Epidemiology	Harvard University	Epidemiology	Epidemiology
168	Martín Romero Martínez	Professor	ICM D	PhD in Statistics/Master of Statistics and Operations Research	University of Chicago/UNA	Statistics	Health Economics /Biostatistics
169	Mary Carmen Baltazar Reyes	Associate Professor	Not evaluated	Master of Public Health with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology

170	Mauricio Casas Martínez	Professor	ICM C	PhD in Ecology and Sustainable Development/Master of Science Degree in Medical Entomology	Colegio de la Frontera Sur/Autonomous University of Nuevo León	Sustainable Development/Medical Entomology	Vector-borne diseases
171	Miguel Ángel Sánchez Alemán	Professor	ICM D	PhD of Health Sciences with concentration area in Epidemiology/Master of Science with concentration in Infectious Diseases	National Institute of Public Health	Epidemiology/ Infectious Diseases	Infectious Diseases
172	Mishel Unar Munguía	Associate Professor	ICM B	PhD of Science in Population Nutrition/Master of Health Sciences with concentration in Health Economics	National Institute of Public Health	Nutrition/Health Economics	Nutrition
173	Monica Arantxa Colchero Aragonés	Professor	ICM D	PhD in International Health/Master of Health Sciences with concentration in Health Economics	Johns Hopkins University/National Institute of Public Health	Health Economics	Health Economics
174	Nayeli Macias Morales	Professor	ICM C	Master of Science	Research Center for Food and Development	Nutrition	Nutrition
175	Nelson Zacarías Alejandro Torres	Associate Professor	Not evaluated	Master of Arts with specialty in Education	Autonomous University of Nuevo León	Education	Social and Behavioral Science
176	Noé Guarneros Soto	Associate Professor	Not evaluated	Master of Public Health with concentration in Social and Behavioral Sciences	National Institute of Public Health	Behavioral Sciences	Social and Behavioral Science
177	Norma Edith Rivero Pérez	Associate Professor	ICM C	PhD in Environmental Sciences.	Autonomous University of San Luis Potosí	Environmental Sciences	Vector-borne diseases
178	Octavio Gómez Dantes	Professor	ICM E	Master of Health Policy and Management	Harvard School of Public Health	Public Health	Health Systems
179	Ofelia Poblano Verástegui	Associate Professor	ICM C	PhD of Health Sciences with concentration in Health Systems/Master of Health Sciences with concentration in Health Systems	National Institute of Public Health	Health Systems	Quality in Health
180	Olamendi Portugal Ma Leonidez	Associate Professor	ICM B	Master of Science degree in Animal Parasitology	Autonomous University of Morelos State	Animal Parasitology	Infectious Diseases
181	Oscar Peralta Zaragoza	Professor	ICM D	PhD in Biomedical Sciences/Master of Biomedical Sciences	National Autonomous University of Mexico	Biomedical Sciences	Infectious Diseases
182	Paulina Farías Serra	Associate Professor	ICM C	PhD of Health Sciences with concentration in Epidemiology/Master of Health Sciences with concentration in Environmental Health	National Institute of Public Health	Epidemiology and Environmental Health	Environmental Health
183	Pedro Jesus Saturno Hernandez	Professor	ICM F	PhD in Public Health/Master of Public Health	University of Murcia/Harvard University	Master's degree in Public Health	Quality in Health

184	Raquel García Feregrino	Associate Professor	ICM B	Master in Nutrition	Benito Juárez Autonomous University of Oaxaca	Nutrition	Nutrition
185	René Leyva Flores	Professor	ICM E	PhD in Social Sciences/Master of Social Medicine	University of Barcelona/Autonomous Metropolitan University/	Social Sciences/Social Medicine	Health systems/Public Health
186	René Santos Luna	Professor	ICM C	UNIGIS Professional Master in Management of Geographic Information Systems	University of Girona, Spain	Computer Science	Biostatistics
187	Ricardo Enrique Pérez Cuevas	Associate Professor	Not evaluated	PhD of Public Health Sciences with concentration area in Health Systems/Master of Health Science	National Institute of Public Health/The Johns Hopkins University	Health Systems	Health Systems
188	Rocio Rodriguez Valentin	Professor	ICM C	PhD in Science	National Autonomous University of Mexico	Life Sciences	Nutrition
189	Rogelio Danis Lozano	Professor	ICM D	PhD of Health Sciences with concentration in Epidemiology/Master of Social Medicine with an emphasis in Epidemiology	National Institute of Public Health/National Autonomous University of Mexico	Epidemiology	Vector-borne diseases
190	Rosa Patricia Penilla Navarro	Professor	ICM D	PhD in Science/Master of Science with a specialization in Morphology	University of Wales/Autonomous University of Nuevo León	Life Sciences	Vector-borne diseases
191	Rosa Victoria Pando Robles	Professor	ICM D	PhD in Biochemistry/Master of Science with an emphasis in Biochemistry	National Autonomous University of Mexico/Universidad Peruana Cayetano Heredia	Biochemistry	Infectious Diseases
192	Rosalinda Domínguez Esponda	Associate Professor	Not evaluated	Master of Clinical Psychology	National Autonomous University of Mexico	Clinical Psychology	Biostatistics
193	Rosaura Atrisco Olivos	Associate Professor	Not evaluated	Master of Public Health	National Institute of Public Health	Public Health	Public Health
194	Rosibel de los Angeles Rodríguez Bolaños	Professor	ICM C	Master in Health Services Administration	National Institute of Public Health	Health Services	Social and Behavioral Science
195	Rubén Chávez Ayala	Professor	ICM A	Master in Social Psychology	National Autonomous University of Mexico	Social Psychology	Health Systems
196	Ruy López Ridaura	Professor	ICM E	PhD in Science/Master of Science	Harvard University/UNAM	Epidemiology/Life Sciences	Epidemiology/Nutrition
197	Salvador Francisco Villalpando Hernández	Professor	ICM F	PhD in Medical Sciences/Specialty in Endocrinology and Nutrition	National Autonomous University of Mexico	Medical Science/Nutrition	Nutrition
198	Salvador Hernandez Martinez	Professor	ICM D	PhD in Experimental Pathology/Master of Science degree in Experimental Pathology	Center for Research and Advanced Studies of the IPN	Experimental Pathology	Infectious Diseases

199	Sandra Gabriela Sosa Rubí	Professor	ICM E	PhD in Economics/Master in Health Economics	University of York, UK/Center for Economic Research and Teaching	Health Economics	Health Economics
200	Sandra Guadalupe Treviño Siller	Associate Professor	ICM B	PhD in Anthropology/Master in Metropolitan Planning	National Autonomous University of Mexico/Autonomous Metropolitan University	Anthropology/Planning	Social and Behavioral Science
201	Sandra Leticia Rodríguez Dozal	Associate Professor	ICM B	Master of Health Sciences with concentration in Environmental Health	National Institute of Public Health	Environmental Health	Environmental Health
202	Saúl Lara Diaz	Associate Professor	Not evaluated	Master's Degree in Electronic Communications	Technological Institute of San Miguel de Allende	Statistics	Biostatistics
203	Sergio Antonio Bautista Arredondo	Professor	ICM D	Master of Health Sciences with concentration area in Health Economics	Center for Economic Research and Teaching (CIDE)	Health Economics	Health Economics
204	Sergio Flores Hernandez	Professor	ICM D	PhD of Public Health Sciences with concentration in Epidemiology/Master in Medical Sciences	National Institute of Public Health	Epidemiology/Health Systems	Quality in Health
205	Sergio Raul Orozco Rivadeneyra	Associate Professor	Not evaluated	Master of Molecular Biology of Tuberculosis	National Autonomous University of Mexico	Molecular Biology	Infectious Diseases
206	Silvia Magali Cuadra Hernández	Professor	ICM C	PhD Program in Political and Social Science/Master of Health Sciences with concentration in Health Systems	National Autonomous University of Mexico/National Institute of Public Health	Political and Social Sciences/Health Systems	Health systems/Public Health
207	Simón Barquera Cervera	Professor	ICM F	PhD in Science/Master of Science	Tufts University	Life Sciences	Nutrition
208	Sonia Concepcion Rodriguez Ramirez	Professor	ICM D	PhD of Health Sciences with concentration in Epidemiology/Master of Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
209	Sonia Lizeth Hernández Cordero	Professor	ICM D	Doctor of Philosophy in Nutrition/Master of Health Sciences with concentration in Nutrition	Cornell University/National Institute of Public Health	Nutrition	Nutrition
210	Stephen Joel Rothenberg Lorenz	Professor	ICM F	PhD in Experimental Psychology	University of Washington	Experimental Psychology	Environmental Health
211	Teresa López Ordóñez	Associate Professor	ICM A	PhD of Science with specialty in Experimental Pathology/Master of Science with specialty in Experimental Pathology	National Polytechnic Institute/Center for Research and Advanced Studies of the IPN	Experimental Pathology	Vector-borne diseases
212	Teresa Shamah Levy	Professor	ICM F	PhD of Public Health/Master of Health Sciences with concentration in Epidemiology	National Institute of Public Health	Public Health/Epidemiology	Nutrition

213	Theodore Rowlerson Florence Lise	Professor	ICM C	PhD in Sociology/Master of Sociology	University of Strasbourg	Sociology	Nutrition
214	Tonatiuh Barrientos Gutiérrez	Professor	ICM E	PhD in Epidemiology/Master of Science in Health at Work	University of Texas at Houston/Autonomous Metropolitan University/	Social Science and Health/Health at Work	Epidemiology
215	Tonatiuh Tomás González Vázquez	Professor	ICM C	PhD in Political Science/Master of Political and Social Sciences	Center for Research and Teaching in the Humanities of the State of Morelos	Political and Social Sciences	Health Systems
216	Urinda Alamo Hernandez	Associate Professor	ICM B	Master of Public Health with concentration in Epidemiology	National Institute of Public Health	Epidemiology	Environmental Health/Public Health
217	Vanessa Vianey De La Cruz Góngora	Professor	ICM D	Master of Health Sciences with concentration in Nutrition	National Institute of Public Health	Nutrition	Nutrition
218	Velia Nelly Salgado Diez	Professor	ICM F	PhD in Social Welfare	University of California, Los Angeles	Social Welfare	Nutrition
219	Verónica Mundo Rosas	Professor	ICM D	Master of Nutrition	Benito Juárez Autonomous University of Oaxaca	Nutrition	Nutrition
220	Vicente Madrid Marina	Professor	ICM F	PhD in Biomedical Sciences	National Autonomous University of Mexico	Biomedical Sciences	Infectious Diseases
221	Victor Hugo Bermudez Morales	Professor	ICM D	PhD in Medical Sciences/Master of Science in Immunobiology	National Autonomous University of Mexico/Autonomous University of Nuevo León	Medical Sciences/Immunobiology	Infectious Diseases
222	Victor Manuel Becerril Montekio	Associate Professor	ICM D	Master of Sociology of Culture	University of Paris VIII - Saint Denis	Sociology	Public Health
223	Waldo Iván Vieyra Romero	Associate Professor	ICM B	Master of Health Sciences with concentration in Health Economics	National Institute of Public Health	Public Health	Quality in Health

2) Provide summary data on the qualifications of any other faculty with significant involvement in the school's public health instruction in the format of Template E1-2. Schools define "significant" in their own contexts but, at a minimum, include any individuals who regularly provide instruction or supervision for required courses and other experiences listed in the criterion on Curriculum. Reporting on individuals who supervise individual students' practice experience (preceptors, etc.) is not required. The identification of instructional areas must correspond to the data presented in Template C2-1.

Included is Table E1-2, containing the non-primary instructional faculty members regularly involved in the public health programs of the institution.

Table E1.2. Non-primary instructional teachers regularly involved with the institution.

No.	Name*	Academic rank^	Degree and current employment	Full-time job or % of time allocated	Degrees earned	Institution(s) where the degrees were obtained	Discipline in which the degrees were obtained	Affiliated concentration in template C2-1
1	Jorge Salmeron Castro	Assistant professor	Head of Academic Unit in Epidemiological Research at the National Autonomous University of Mexico	0,25	PhD in Science/Master of Science in Social Medicine	National Institute of Public Health	Social Medicine Sciences	Epidemiology
2	José Luis Viramontes Madrid	Assistant professor	Director of Remote Site Management and Monitoring PPD Latin America	0,25	Master's Degree in Medical Sciences/Graduate Degree in Clinical Epidemiology	National Autonomous University of Mexico/Mc Master University, Canada	Medical Sciences/Epidemiology	Epidemiology
3	Linda Aurora Morales Juárez	Assistant professor	Doctoral Student of Science in Epidemiology, National Institute of Public Health	0,25	Master of Science in Epidemiology	National Institute of Public Health	Epidemiology	Epidemiology
4	Diana Molina Vélez	Assistant professor	External consultant of the Master's Program in Public Health with concentration in Biostatistics and Information Systems. INSP	0,5	Master's degree in Public Health with concentration area in Biostatistics and Information Systems	National Institute of Public Health	Biostatistics	Biostatistics
5	Concepción García Morales	Assistant professor	External consultant of the Master's Program in Public Health with concentration area in Biostatistics and Information Systems. INSP	0,25	Master's degree in Public Health with concentration area in Biostatistics and Information Systems	National Institute of Public Health	Biostatistics	Biostatistics
6	Copytzy Cruz Cruz	Assistant professor	Collaborator of the Ubisalud-PRODEP Network	0,5	PhD in Science in Public Health with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Biostatistics
7	Eduardo Arturo Gutiérrez Peña	Assistant professor	"B" level Senior Researcher at the Department of Probability and Statistics, Institute for Research in Applied Mathematics and Systems at the National Autonomous University of Mexico	0,5	Master's degree in Statistics/ PhD in Statistics	Imperial College London/Institute for Research in Applied Mathematics and Systems/National Autonomous University of Mexico	Statistics	Biostatistics
8	Javier Francisco Valle Mora	Assistant professor	"C" level Technical Support at the College of the Southern Border (Colegio de la Frontera Sur)	0,25	Master's degree in Statistics	Center for Research in Mathematics AC (CIMAT)	Statistics	MSc-Vector-borne Diseases

9	Armando Ulloa García	Assistant professor	Director of the Faculty of Chemical Sciences. Autonomous University of Chiapas	0,25	PhD in Biological Sciences/Master of Science	Autonomous University of Nuevo León	Biological Sciences	MSc-Vector-borne Diseases
10	Gladys Faba Beaumont	Assistant professor	Consultant for the eSAC project of the International Development Research Center (IDRC), the University of Toronto and the Pan American Health Organization	0,25	PhD in Sociology/Masters in Sociology	National Autonomous University of Mexico/Latin American Faculty of Social Sciences	Sociology	PhD Sc-Health Systems
11	Itza Tlaloc Quetzalcóatl López	Assistant professor	Intern Professor of the Center for Research and Advanced Studies of the National Polytechnic Institute	0,5	PhD in Mathematics/Master's Degree in Economics	Center for Research and Advanced Studies of National Polytechnic Institute/Center for Economic Research and Teaching	Mathematics/Economics	Health Economics
12	Marcela Laura Angelina Mancilla Arenas	Assistant professor	Coordinator of medical programs at the Coordination of Health at Work, Mexican Social Security Institute (IMSS)	0,25	Master's degree in Health Sciences with an emphasis in Epidemiology	National Autonomous University of Mexico	Epidemiology	Environmental Health
13	Leticia Alejandra Rafael Vázquez	Assistant professor	University of Sciences and Administration UCAD. Tenured Professor	0,5	PhD in Toxicology/Master's Degree in Toxicology	Center for Research and Advanced Studies of the National Polytechnic Institute	Toxicology	Environmental Health
14	Larisa de Orbe González	Assistant professor	Consultant for the project: Development of the Mexican Official Standard RESPIRA for Air Quality Index and Health Risk. National Institute of Ecology and National Institute of Public Health, Mexico.	0,5	Master's degree in Public Health with concentration area in Environmental Health	National Institute of Public Health	Environmental Health	Environmental Health
15	Carmen Estela Loreto Gómez	Assistant professor	B level Chemist at the Executive Directorate of International Operation of COFEPRIS (Federal Commission for Protection against Sanitary Risks).	0,5	PhD in Science in Environmental Health/Master's Degree in Health Sciences with concentration area in Environmental Health	National Institute of Public Health	Environmental Health	Environmental Health
16	Benito Manuel Flores Pastor	Assistant professor	Health Services in Murcia, Spain, Morales Meseguer University Hospital	0,5	MD, MS HPM, ScD	University of Valencia, University of Murcia	Medicine and Surgery	Quality management in Health Services
17	Benjamin Villalva Villalva	Assistant professor	Medical Advisor to the General Management. Mother and Child Care Institute of the State of Mexico.	0,5	Master's degree in Quality Management in Health Services	University of Murcia Spain	Medical/Health Services Quality	Quality management in Health Services

18	Enrique Magaña Jáuregui	Assistant professor	Teacher and Independent Consultant Project Manager, Universidad del Valle de Mexico, Zapopan campus. Phoenix Consulting Co. Lomas Providencia Hospital.	0,5	Master's Degree, Quality Management in Health Services.	University of Murcia Spain	Quality of Health Services	Quality management in Health Services
19	Ismael Martínez Nicolás	Assistant professor	External tutor of the Master's Program in Quality Management in Health Services (Spain)	0,5	PhD in Quality Management in Health Services /Master in Quality Management in Health Services	University of Murcia Spain	Quality of Health Services	Quality management in Health Services
20	José Antonio Martínez González	Assistant professor	Teacher and Senior Consultant in Health Services. Teacher at the UVM Queretaro Campus GCI Bienestar Consultora	0,5	Master's degree, Quality Management in Health Services/Specialty in Teaching	University of Murcia Spain/Autonomous University of Morelos State	Quality of Health Services	Quality management in Health Services
21	Julio José López-Picazo Ferrer	Assistant professor	Coordinator of the Care Quality Unit. Murcia Health Service. Morales Meseguer University Hospital. General Surgery and Digestive Service	0,5	Master's degree in Quality Management in Health Services	University of Murcia, Spain	Medical/Health Services Quality	Quality management in Health Services
22	Miguel Ángel Martínez Andrade	Assistant professor	Director of the Unit of Medical Specialties in Oncology. State Health Department. Baja California.	0,5	Master in Quality Management of Health Services.	University of Murcia, Spain	Quality of Health Services	Quality management in Health Services
23	Pedro Parra Hidalgo	Assistant professor	Assistant Director of Planning, Quality and Research. Health and Social Policy Department in the Murcia region.	0,5	Doctor of Medicine and Surgery.	University of Murcia, Spain	Medicine and Surgery	Quality management in Health Services
24	Victoriano Soria Aledo	Assistant professor	Area Specialist Physician in General Surgery and Digestive Service, J.M. Morales Meseguer General University Hospital, Murcia Health Service.	0,5	Master in Quality Management of Health Services.	University of Murcia, Spain	Quality of Health Services	Quality management in Health Services
25	Zenewton André da Silva Gama	Assistant professor	Professor, Course Coordinator. Departamento de Saúde Coletiva, Universidade Federal do Rio Grande do Norte (Brazil)	0,5	PhD, Physiotherapy.	University of Murcia, Spain	Physiotherapy	PhD in Quality /Quality Management in Health Services
26	Dulce María Armendáriz Zamudio	Assistant professor	Quality Coordinator. Zitacuaro General Hospital, Michoacán State. State Health Department	0,5	Master in Quality Management of Health Services.	University of Murcia, Spain	Quality of Health Services	Quality management in Health Services

27	Marycarmen Catalina Delgado Trujillo	Assistant professor	Head of Division of Quality Care. Mexican Institute of Social Security, High Specialty.Medical Unit Cardiology Hospital No. 34	0,5	Master's degree in Quality Management in Health Services/ Master in Integral Quality Management	University of Murcia, Spain. University of Monterrey	Quality of Health Services/Quality Management	Quality management in Health Services
28	Maria Susana Navarrete Navarro	Assistant professor	Epidemiological Surveillance Program Coordinator at Mexican Institute of Social Security	0,5	Master's Degree, Quality Management in Health Services/Master of Business Administration for Health Agencies.	University of Murcia, Spain/Universidad La Salle, Mexico	Quality of Health Services/Health Agencies Management.	Quality management in Health Services
29	Guadalupe Ramírez Jiménez	Assistant professor	Independent consultant at Kaisen Consultants.	0,5	Master in Quality Management of Health Services.	University of Murcia, Spain	Quality of Health Services	Quality management in Health Services
30	Ameyalli Mariana Rodríguez Cano	Assistant professor	Researcher in Medical Sciences INPER	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
31	Ana Guadalupe Vega Castillo	Assistant professor	Support Clinical Nutritionist INPER	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
32	Angélica León Téllez Girón	Assistant professor	Head of the Nutritiion Department of the Gea González General Hospital	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
33	Carla Patricia González Ley va	Assistant professor	Research Assistant INPER	0,25	Master's degree in Health Sciences	Polytechnical National Institute	Health Sciences	Nutrition
34	Cinthya Guadalupe Muñoz Manrique	Assistant professor	Researcher in Medical Sciences INPER	0,25	Master's degree in Health Sciences	National Autonomous University of Mexico	Health Sciences	Nutrition
35	Claudia Mimiaga Hernández	Assistant professor	Medical Coordinator of the Nutritional Support Unit National Institute of Neurology and Neuroscience	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
36	Gabriel Alvarado	Assistant professor	Clinical Nutritionist National Institute of Neurology and Neuroscience	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
37	Gloria Marcela Ruiz Cervantes	Assistant professor	Educator on diabetes. CAIPADI Salvador Zubirán National Institute of Nutrition and Medical Sciences	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
38	Iván Armando Osuna Padilla	Assistant professor	Clinical Nutritionist CIENI. National Institute of Respiratory Diseases	0,25	Master's degree in Clinical Nutrition	National Institute of Public Health	Clinical Nutrition	Nutrition
39	Jennifer Legorreta Le gorreta	Assistant professor	Researcher in Medical Sciences INPER	0,25	Master's degree in Counseling Psychology	Universidad Iberoamericana	Psychology	Nutrition
40	Jennifer Mier Cabrera	Assistant professor	Researcher in Medical Sciences INPER	0,25	Master's degree in Chemical-Biological Science /PhD in Chemical-Biological Science	Polytechnical National Institute	Chemical-Biological Sciences	Nutrition

41	Martha Guevara Cruz	Assistant professor	Researcher in Medical Science Salvador Zubirán National Institute of Nutrition and Medical Science	0,25	PhD in Medical Science/Master's Degree in Clinical Nutrition	National Autonomous University of Mexico/Universidad Autonomous University of the State of Hidalgo	Medical Science/Nutrition	Nutrition
42	Mayra Luz Martínez González	Assistant professor	Coordinator of Timely Clinics Mexico City Health Department	0,25	Master's degree in Public Health	National Institute of Public Health	Public Health	Nutrition
43	Otilia Perichart Perera	Assistant professor	Head of the Department of Nutrition and Bioprogramming INPER	0,5	PhD in Medical Sciences/Master's degree in Health Promotion and Nutrition	National Autonomous University of Mexico/Simmons College	Medical Science/Nutrition	Nutrition
44	Salvador Espino Y Sosa	Assistant professor	Deputy Director of Research INPER	0,25	PhD in Medical Science/Master's Degree in Maternal and Fetal Medicine	National Autonomous University of Mexico	Medical Science/Nutrition	Nutrition
45	Daniel Ángel García	Assistant professor	Independent Consultant	0,5	PhD Candidate in Quality Management in Health Services/ Master's degree in the neurological approach of the child and adult/ Master's degree in intervention and research on physical exercise, health and dependency.	University of Murcia, Spain	Quality of Health Services	PhD in Quality
46	Benito Manuel Flores Pastor	Assistant professor	Area Specialist Physician. Murcia Health Service. Morales Meseguer University Hospital. General Surgery and Digestive Service	0,5	Master's degree in Quality Management in Health Services	University of Murcia, Spain	Medical/Health Services Quality	PhD in Quality
47	Julio José López-Picazo Ferrer	Assistant professor	Coordinator of the Care Quality Unit. Murcia Health Service. Morales Meseguer University Hospital. General Surgery and Digestive Service	0,5	Master's degree in Quality Management in Health Services	University of Murcia, Spain	Medical/Health Services Quality	PhD in Quality
48	Francesc Medina I Mirapeix	Assistant professor	Coordinator of the Master's and Doctoral degrees in Quality Management in Health Services	0,5	PhD in Quality Management in Health Services.	University of Murcia, Spain	Quality of Health Services	PhD in Quality
49	Pedro Parra Hidalgo	Assistant professor	Assistant Director of Planning, Quality and Research. Department of Health and Social Policy of the Murcia Region	0,5	Doctor in Medicine and Surgery	University of Murcia, Spain	Quality of Health Services	PhD in Quality
50	Victoriano Soria Aledo	Assistant professor	Area Specialist Physician. General Surgery and Digestive Service. J.M. Morales Meseguer General University Hospital, Murcia Health Service.	0,5	Master's degree in Quality Management in Health Services	University of Murcia, Spain	Medical/Health Services Quality	PhD in Quality

51	Zenewton André da Silva Gama	Assistant professor	Professor, Course Coordinator. Departamento de Saúde Coletiva, Universidade Federal do Rio Grande do Norte (Brazil)	0,5	PhD, Physiotherapy.	University of Murcia, Spain	Physiotherapy	PhD in Quality
52	Carmen Beatriz Delgadillo Jaime	Assistant professor	Physician at the Health Department of the State of Jalisco.	0,5	Master's degree in Public Health	National Institute of Public Health	Public Health	Master's degree in Public Health
53	Baltazar León Gómez	Assistant professor	Technical Support for the Planning Unit and Advisor to the Management at the Dr. Rodolfo Nieto Padrón High Specialty Hospital of the Child in Villahermosa	0,5	Master's degree in Public Health	National Institute of Public Health	Health Services Management	Master's degree in Public Health
54	Elizabeth Alvarado Rodríguez	Assistant professor	Deputy Director of Ambulatory Medical Care at the Institute of Health Services in South Baja California	0,5	Master's degree in Public Health	National Institute of Public Health	Health Services Management	Master's degree in Public Health
55	María Guadalupe Contreras García	Full-time professor	"A" level Tenure Professor in the Area of Medical Clinics of the Surgeon Physician major and Community Development for the Aging major at the Zaragoza FES, UNAM. Associate Professor in the Research Unit on Gerontology at the Zaragoza FES, UNAM.	0,5	Master's degree in Public Health with a concentration area in Aging/ Specialty in Gerontology	National Institute of Public Health/National Autonomous University of Mexico	Aging	Master's degree in Public Health
56	Mayra Luz Martínez González	Assistant professor	Public Health Services of the Federal District. Position: Coordinator of Health Units for Timely Detection	0,5	Master in Public Health with concentration area in Aging/ Specialty in Gerontology	National Institute of Public Health/National Autonomous University of Mexico	Aging	Master's degree in Public Health
57	Oscar Alfonso Rojas Calixto	Assistant professor	"B" level Medical Specialist at the Iztacalco Sanitary Jurisdiction of Public Health Services of the Federal District; and professor at UNITEC	0,5	Master's degree in Public Health with concentration area in Epidemiology/ Masters in Health Organizations Management	National Institute of Public Health	Epidemiology/ Health Organizations	Master's degree in Public Health
58	José Esteban Fernández Gárate	Assistant professor	Program Coordinator at the Coordination of Epidemiological Surveillance of the Mexican Institute of Social Security	0,5	Master's degree in Public Health with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Master's degree in Public Health

59	Alejandro Náfate Martínez	Assistant professor	General physician "A", jurisdiction responsible for the Drug resistance component, Health Services of Morelos.	0,25	Master of Science in Health Systems	National Institute of Public Health	Health Systems	Master's degree in Public Health
60	Airel Guillermina López Melgoza	Assistant professor	State responsible Program Coordinator in the Second Level State Department of Health Care at the Health Ministry of Michoacán.	0,25	Master's degree in Public Health with concentration area in Epidemiology, PhD in Public Health	National Institute of Public Health	Public Health	Master's degree in Public Health
61	Sandoval Paris Jorge	Assistant professor	Tenure professor at El Bosque University, Colombia	0,25	Master's degree in Education	Pontificia Universidad Javeriana	Education	PhD in Public Health
62	Carlos Castillo-Salgado	Assistant professor	Professor of General Epidemiology and Methodology. Johns Hopkins Bloomberg School of Public Health	0,25	DrPH/MPH/MD	Johns Hopkins Bloomberg School of Public Health/ National Autonomous University of Mexico	Public Health	PhD in Public Health
63	Héctor Eduardo Velasco Mondragón	Assistant professor	Associate Dean of Preclinical Education/Touro University California	0,5	PhD, Epidemiology, Infectious Diseases Track/ M. Sc. in Health Policy & Management.	Johns Hopkins University Bloomberg School of Public Health/National Institute of Public Health (INSP)	Epidemiology/Health Policy & Management.	PhD in Public Health
64	Mauricio Hernández Ávila	Assistant professor	Former Director of the National Institute of Public Health	0,25	Master's degree/PhD in Epidemiology with a specialization in Statistics	School of Public Health of Harvard University/ Institute for Research in Applied Mathematics and Systems/ National Autonomous University of Mexico	Epidemiology/Statistics	PhD in Public Health
65	Laura Magaña Valladares	Assistant professor	President and CEO of the Association of Schools and Programs of Public Health (ASPPH) of the United States	0,25	Doctor of Philosophy Special Education Administration/ Master of Science Educational Technology	Gallaudet University	Education	PhD in Public Health
66	Carolina Pérez Ferrer	Assistant professor	Tenure Professor CONACyT	0,5	PhD in Epidemiology and Public Health/ Master of Science in Public Health	University College London (UCL), London, United Kingdom/ London School of Hygiene and Tropical Medicine, London, United Kingdom	Epidemiology and Public Health	Master's degree in Public Health
67	Antonia Indahita Rodríguez Martínez	Assistant professor	Adviser on the implementation of continuous improvement in health care with experience in public and private sector. Teacher of Care Quality UNAM	0,25	Master's degree in Hospital Administration/ Master in Care Quality	National Autonomous University of Mexico/Autonomous University of Barcelona	Management of Hospitals	Specialty in Preventive Medicine

68	Dulce Alejandra Balandrán Duarte	Assistant professor	Director of Structure and Resources DGPLADES. General Directorate of Planning and Development in Health	0,25	Master's degree in Public Health with a concentration area in Health Administration/ Specialty in Public Health and Preventive Medicine	National Institute of Public Health	Health Management/Public Health	Specialty in Preventive Medicine
69	María Eloísa Dickinson Bannack	Assistant professor	Professor of the Research Coordination at the Faculty of Medicine Postgraduate Studies at UNAM	0,25	Specialty in Public Health	National Council of Public Health	Public Health	Specialty in Preventive Medicine
70	José Angel Isaac Ruiz Mata	Assistant professor	Responsible for Transparency policies at the Health Ministry in Mexico.	0,5	Master's degree in Public Health with a concentration area in Health Administration	National Institute of Public Health	Health Administration	Specialty in Preventive Medicine
71	Mónica Ramírez Vargas	Assistant professor	Deputy Director of Social Participation in Health of Health Ministry in Mexico	0,25	Master's degree in Public Health with a concentration area in Health Administration	National Institute of Public Health	Health Administration	Specialty in Preventive Medicine
72	Roxana Trejo González	Assistant professor	Corporate Manager of Epidemiology and Infection Control at The American British Cowdray Medical Center, I.A.P.	0,5	Master's degree in Public Health with concentration area in Epidemiology	National Institute of Public Health	Epidemiology	Specialty in Preventive Medicine

3) Include CVs for all individuals listed in the templates above.

Included in the electronic resources are the résumés of the persons listed in the above tables.

4) If applicable, provide a narrative explanation that supplements reviewers' understanding of data in the templates.

All professors listed in Table E1-1 are involved in teaching and research activities, as mentioned in criteria A1 and C2. In order to recruit, assess and grant promotions to primary instructional or full-time professors, the INSP must follow the policies of the General Coordination of National Institutes of Health, which establish the appointment of each teacher as a Researcher in Medical Science (ICM). This type of position allows them to carry out research, teaching and service activities and enables them to be part of the Institutional System of Researchers in Medical Sciences. The recruitment, evaluation and promotion of full-time faculty (ICM) is determined by the program coordinated by the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE), which every year opens calls for the evaluation of all the ICM in the country.

Non-primary instructional faculty members listed in Table E1-2 do not have an appointment at the INSP. This category includes teachers who work in public health agencies or teachers who belong to other universities' faculty. The former contribute to the curriculum of the INSP their knowledge on public health, in order to prepare students for practice in that field; the latter participate in courses together with teachers from the INSP, in order to contribute their expertise in specific areas.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has a highly qualified faculty, as shown in Table E1-1. The Institute has very clear rules and guidelines, as well as objective criteria, to define the academic rank of teachers/researchers according to the six levels established for their appointment by the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE). Their responsibilities are also clearly set out. The academic degrees, teaching and research experience, and the scientific production of professors should correspond at least to the level of the last degree in which they teach class.

The majority of primary instructional professors have a direct experience in public health practice. Some have been trained in this discipline, while others are involved in the design and/or evaluation of public health policies and programs or interact closely with other external researchers to design and carry out research on health systems. The faculty at the INSP also collaborate with agencies to assess programs, conduct surveys and provide them with support information. In addition, the faculty has extensive experience in the full range of fields of study in public health covered by all academic programs of the INSP.

Because of the mobility and constant updating of the teachers involved in the different graduate studies, it is necessary to establish and maintain a system of direct and continuous follow-up with teachers, in such a way that will allow the institution to have access to all the teachers' updated academic information in a timely manner.

E2. Integration of Faculty with Practice Experience

To assure a broad public health perspective, the school employs faculty who have professional experience in settings outside of academia and have demonstrated competence in public health practice. Schools encourage faculty to maintain ongoing practice links with public health agencies, especially at state and local levels.

To assure the relevance of curricula and individual learning experiences to current and future practice needs and opportunities, schools regularly involve public health practitioners and other individuals involved in public health work through arrangements that may include adjunct and part-time faculty appointments, guest lectures, involvement in committee work, mentoring students, etc.

1) Describe the manner in which the public health faculty complement integrates perspectives from the field of practice, including information on appointment tracks for practitioners, if applicable. Faculty with significant practice experience outside of that which is typically associated with an academic career should also be identified.

As an institute belonging to the Ministry of Health, the INSP is responsible for supporting and improving the practice of public health in Mexico. This includes the training of health personnel at local, state and federal bodies, as well as conducting studies to improve the design, supply and valuation of the programs related to public health, and the provision of the necessary resources to assess, strengthen, or improve the programs implemented by both public and private agencies responsible for public health.

The faculty has extensive professional experience in the various fields of study of public health, and they include professional activities in their academic practice in order to strengthen the academic programs of the Institute. Some of the professional tasks they perform as part of their activities as teachers and full-time researchers of the INSP include their participation in the design and evaluation of public policies and public health programs focused on surveillance, prevention and control, and they interact closely with researchers in other areas and units of the state and national health systems to carry out research for the benefit of public policies, surveillance, prevention and control of damage to health, and therefore contribute to the Health System in Mexico.

Therefore it is possible to identify professors with significant practical experience, who get involved, oversee and advise academic activities and maintain ties with public health agencies. These are some examples:

- Dr. Mario-Henry Rodríguez directed the Center for Research on Malaria in Tapachula, Chiapas, southern Mexico from 1987 to 1995 and he joined the Research Center Infectious diseases of the National Institute of Public Health (CISEI, INSP) as its director from 1995 to 2007, he was Director of INSP from 2007 to 2012. Has was visiting research associate at the Research Institute of medicine Naval of the Department of Defense of the United States of America (1990-1991); Member of the Panel of experts in biology and Control of vectors of the World Health Organization (WHO) (1991-2005), Member of the Steering Committee for Field Research in malaria (FIELDMAL) WHO (1990-1993), Member of the Mexican Committee for Research in Health. (1990-1993), Member of Steering Committee of the Malaria Elimination Agenda (2008-2010), Member of the Malaria Elimination Group, UCSF Global Health Group (2009 -), Member of the Scientific and Technical Advisory Committee (STAC) of TDR, WHO (2009-2010) and its chair from 2011 to 2014. He presides over the Panel's research initiative: Population vulnerability in diseases transmitted by vector TDR/WHO/International Development Research Center of Canada (2012-2018). He was the founder of the master Coordinator and doctorate in Sciences with emphasis on infectious diseases of the INSP and coordinator of the doctoral program in public health sciences (2007-2012) and Chairman of the Committee on Research of the INSP (1995-2007). He is the leader of the research on diseases transmitted vectors of the INSP since 2006 and since 1997 teaches seminars on research for the master and doctorate of Science (infectious diseases). He was an adjunct professor of the Center for Research and Advanced Studies of the National Polytechnic Institute (1986-1990) and associate professor in the school of medicine F. Edward Hebert of the Uniformed Services University, United States (1989-1995). He was a member of the Bioethics College (2011-2013). He was a member of the Board of Government of the Hospital of High Specialty of the Yucatan Peninsula and Board Directors of the University Polytechnic of the State of Morelos. He has received the Price for medical research "Dr. Jorge Rosenkranz" (Institute Syntex) on five occasions (1994, 2000, 2002, 2008 and 2009), for clinical research Dr. Eduardo Liceaga (1996) and the von Behring - Kitasato (2007) both by the National Academy of Medicine (Mexico). His works have been awarded by the Coordination of the National Institutes of Health (1998, 1999, 2001 and 2011). He was recognized as a champion against Malaria in the Americas by the Pan American Health Organization (2009) and was recognized for outstanding service of the International Association of Institutes of Public Health in 2012.

  He leaded the Initiative on Leadership and Development of the Field of Ecohealth and Vector-borne Diseases in Latin America and the Caribbean (2011-2015). He is currently engaged in investigating the immune response of triatomine bugs vectors of Chagas Disease, the ontogeny and participation of hemocytes in the immune responses of Aedes aegypti, the genetic variation of dengue, chikungunya and Zika viruses in Mexico and the evaluation of Ecohealth strategies to control dengue with the active participation of municipalities.

Dr. Pedro Saturno-Hernandez. Physician (Murcia, Spain), MPH and DrPH (Harvard University, Boston, USA). Currently, AXA Professor in Healthcare Quality at the Instituto Nacional de Salud Pública of Mexico, and Visitor Scientist and member of the Global Health Group at the Harvard School of Public Health. Developer of an on-line Master on Quality Management in Health Services, currently in its 17th Edition at the University of Murcia (Spain) and 4th in the INSP (Mexico) and 6th in the University of Rio Grande do Norte (Brazil). Developer and coordination of a doctoral program in Quality in Health Systems currently in its second year at the INSP, Mexico) and several Executive courses on the same subject. Served previously as Deputy Director-General of Health Planning and Education in the Spanish Ministry of health, and professor of Public Health at the University of Murcia School of Medicine. Extensive experience as a researcher and consultant on quality management in health services for agencies such as the World Health Organization, UNICEF, ADB and USAID. Participated in several working groups and national and international committees in relation with quality management, and human resources planning and education over the past 30 years. Helped the implementation of quality improvement programs in several organizations in Mexico, Spain, and other countries. Prizes and awards include, among others, the Charles Wilinsky Award for Academic Excellence from the Harvard School of Public Health and the National Quality Award from the Spanish Ministry of Health for outstanding contribution to the quality of health services.

Dra. María de la Luz Arenas Monreal. Apart from her academic trajectory, Dr. Arenas has the sensitivity for community work, facilitating the establishment of affective and collaborative bonds with the communities, showing an academic and life commitment to the vulnerable populations. She acknowledges the differences between her collaborators and promotes teamwork and a spirit of service which the dynamics of community work demands. Dr. Arenas has succeeded in establishing a bond between community work and Public Health. Among the projects that reflect these characteristics are population health assessments with an ecosystemic approach, which are typically carried out with the participation of the population and are documented in the works published by Dr. Arenas.

Dr. Ofelia Poblano Verástegui obtained her Master and a Doctorate of Science in Health Systems at the School of Public Health of Mexico (National Institute of Public Health of Mexico). She has taught at the faculties of psychology of the University of Veracruz and the Autonomous University of Querétaro. She has also participated in diploma courses, continuing education courses and master degree courses taught at the INSP, at the ITAM and at the Meritorious University of Puebla (BUAP), at the Autonomous University of Guanajuato and at the Institute of Public Administration of the State of Mexico (IPAEM). She has served in various leadership positions in the public and private sectors, always in relation to the improvement of health organizations and systems. She currently works at the CIEE of the INSP, in its headquarters in Cuernavaca.She has developed projects for the Mexican Ministry of Health SSa, CNPSS, and PAHO, among others, as well as private organizations focused on health. She is an ICMC researcher and a member of the SNII. Her primary research interest is equity, quality assessment and technical indicators of quality, performance assessment, and women's health with a gender-based approach to health. She is currently involved in 5 research projects on these topics. She has written book chapters and has published articles in scientific journals of Mexico, the United States, Spain and Colombia. She has been responsible for publishing books focused on presenting, developing and discussing quality improvement strategies: Certification and Accreditation of Health Services; Citizens' Participation in Quality Improvement, and Quality Management in Neonatal Care. Analysis of processes and assessment at hospitals that provide service to the Social Health Protection System of Mexico.

Dr. Jesús Martinez Barnetche, PhD was a guest researcher at the Yale Univesity/HHMI (1996-1997) and is a Doctor in Biomedical Sciences. He researches the immune response at a genomic, structural and functional level in vertebrates and vector insects; his main interest is the biology of B lymphocytes, particularly the heterogeneity of their response, their capacity to protect against certain pathogens but not against others, and how this knowledge can lead us to develop better vaccines and immunotherapies. For this purpose, his research group has developed strategies based on molecular biology, genetic engineering, NGS of antibody repertoires (Rep-Seq), transcriptomics (RNA-seq) and bioinformatics analysis. He has published 42 articles in international journals and five book chapters. He has directed 6 graduate dissertations and 5 undergraduate theses. He is a Level II National Researcher and, since 2014, a member of the Mexican Academy of Sciences, as well as a member of the advisory group on foundational science and technology of the Malaria Erradication Research Agenda (malERA) and former secretary/Treasurer of the Mexican Society of Immunology (2012-2014). His research work has earned him the Dr. Jorge Rosenkranz National Award for Research (2001), as well as the National Awards of the GSK Foundation, in 2010 and 2015, and of CANIFARMA, in 2013, and the Recognition to the State Merit for Research by the State of Morelos in 2015.

Other examples are available in the Electronic Resource File.

Apart from the practice experiences, teacher training is another way in which the INSP promotes the incorporation of its faculty into a practical approach to their teaching strategies. Since 2018, the "Workshop on course planning: upgrading of learning situations" was implemented; this workshop is based on the constructivist theory and the competence-based approach that characterizes the educational Model of the INSP.

These state that the didactic strategies designed based on actual public health issues allow articulation between all the components of a course. From the moment when the course is planned, the issues or situations whose solution is relevant to a profession, those within the responsibility scope of the subject of the course are selected. These issues contribute to define and inform the content through sequenced situations and activities that require material resources, procedures, and techniques to facilitate meaningful learning. Through the same sequencing process, it is possible to assess the development of the knowledge, skills, attitudes, and values, which are also not separate, as they become evident when the students solve situations that are real or similar to those that they face as professionals.

Besides, the INSP's Master of Public Health programs include practicum experiences as described in Criterion D5, which provide the students with the opportunity to apply concepts, strategies and tools learned in different units of their academic program.

The INSP also takes practice to the classroom through non-primary instructional faculty members who are experts in the area of public health, or high-level officials of the health sector, or experts in prevention and control actions in the field, they are invited as guest lecturers or to teach certain courses. These partners provide graduate programs students with a practical vision in their classes; in addition, they give access to sites for the implementation of practicums and also serve as advisers or juries in graduation projects. For example:

- Dr. Andrés Hernández, epidemiologist of the National Institute of Respiratory Diseases, where practicums and final professional projects have been carried out, and who was formerly responsible for the information system at Mexico's National System of Epidemiologic Surveillance.

- Dr. Jorge Méndez Galván, health expert on the subject of vectors, national and international adviser (OPD/WHO). He was the Director of the National Program for the Vector Control in Mexico.

- Dr. Carlos Castillo Salgado has developed advanced training programs that set a standard for epidemiological care across the world. He has taught thousands of public health professionals, international health advisors and academic and health leaders in Latin America and the Caribbean, including the ministers of Health and the Chilean President Michelle Bachelet. While he was in the Pan American Health Organization, he developed one of the most important strategies for malaria control in the Americas, responding to specific local risk factors instead of adopting a single approach for all. This strategy has been successfully implemented in all endemic countries of Latin America, largely due to the practical training of thousands of health professionals and community leaders in the region.

- Ms. Monica Ramirez Vargas has extensive experience working in development committees and validation committees of the Official Health Standards of Mexico. Her experience is based on the design, implementation and monitoring of health prevention and promotion programs. She has designed and produced training materials and guides for various health programs, and trained instructors for health programs and health promotion projects for jurisdictional and municipal State personnel. Her areas of knowledge and interests include public health, health promotion, public policies, development of competencies in health, grassroots involvement for community action, health and gender, and design, implementation and monitoring of sectoral interventions for providing integral healthcare to indigenous peoples.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP brings practice to the classroom through many of its non-primary instructional faculty members who are public health professionals, senior officials of the health sector or faculty from other institutions of higher education. These partners provide the students with a practical vision in their classes. Thanks to their connections with agencies in which professors and teachers collaborate, the faculty of the INSP, vastly experienced in public health research at the national and international levels, allow the inclusion of the students, who thereby become part of research and care projects in public health with an impact on national and international public policies. This strategy not only strengthens the professional training of the student but also provides, in many cases, a source of employment once the students conclude their program.

E3. Faculty Instructional Effectiveness

The school ensures that systems, policies and procedures are in place to document that all faculty (full-time and part-time) are current in their areas of instructional responsibility and in pedagogical methods.

The school establishes and consistently applies procedures for evaluating faculty competence and performance in instruction.

The school supports professional development and advancement in instructional effectiveness.

1) Describe the means through which the school ensures that faculty are informed and maintain currency in their areas of instructional responsibility. The description must address both primary instructional and non-primary instructional faculty and should provide examples as relevant.

Below is a description of the means utilized by the INSP to ensure the updating of its faculty in relation to the themes of their area of teaching.

1) **Training Program in Public Health and Epidemiology (PASPE).** As explained in criterion F4, this program takes place during the summer period and offers courses, workshops and certification programs via in-person format. The program is aimed for faculty update in the field of public health and epidemiology. The professor-researchers of the INSP receive a 50% discount off the price of each course; besides, they are given facilities to pay for it as they request, in installments retained from their salary. PASPE is one of the most important strategies for the School faculty update, 23 professor-researchers participated in 2016, 46 in 2017, and 21 in 2018.

2) **Training programs designed for each Research Center**. Each Research Center identifies and develops specific programs to meet the update needs of its area of specialty. These are two examples:

a) **Course on intermediate epidemiology for the faculty of the Center of Research on Population Health (CISP)**. This course taught by Dr. F. Javier Nieto had the objective to update Faculty of the Population Health Research Center on the fundamental concepts of the research methodology in population or clinical epidemiology to support them in their research and teaching work. The course syllabus included methods for the calculation of risk measures (incidence, prevalence, odds), as well as risk comparison measures (relative risk, attributable risk); study design in epidemiological or clinical research (clinical trials, studies of cohort, case-control studies, nested studies); problems of causal inference (bias, confusion, and interaction); main methods of analysis (stratification and adjustment); methods for the evaluation of diagnostic and screening techniques; causal inference and methods for the communication of epidemiological results. The course included theoretical sessions and exercises to develop at home and discuss in class.

The course was very useful because it allowed Faculty to provide the basic knowledge necessary for: 1) the application of epidemiological methods in clinical research or population health; and 2) the understanding of the fundamental basis for the interpretation of epidemiological evidence. At the end of the course, the participants were able to identify the different types of epidemiological data analysis applicable to different types of designs, as well as to critically evaluate the results of a study and the type of inferences derived from it.

b) **Scientific writing retreats of the Center for Research on Infectious Diseases (CISEI)**. The retreats have taken place in the years 2014, 2015, 2016 and 2019. They have been coordinated by Dr. Mario Henry Rodríguez, PhD, professor emeritus of the CISEI, with support by the most experienced researchers of the Center. The faculty and students of the Doctorate programs ascribed to the CISEI. The dynamics consists of alternating plenary sessions in which the characteristics of scientific writing in the field of public health, with individual sessions where junior researchers receive counseling by more experienced researchers, and the students of the doctoral program are accompanied by their thesis directors. The expected result of these retreats is an article ready for publishing. The efficacy of this research training strategy is measured by the number of articles submitted and published vs. the participating articles. In short, in the last three Writing Retreats, out of 23 participating articles 17 were submitted to journals, and 12 of these were published. Students participated in the writing of all these 12 articles.

c) **The one-to-one mentoring system described in criterion E4**. It is oriented to support the mentored Faculty in: a) publications, b) funding of research projects, c) training of human resources: teaching and counseling and/or thesis direction of graduate students. This customized follow-up strengthens the upgrading of the teaching activities.

2) Describe the school's procedures for evaluating faculty instructional effectiveness. Include a description of the processes used for student course evaluations and peer evaluations, if applicable.

The INSP operates the teachers' performance assessment program. Each course taught within the academic programs is evaluated. Students are notified electronically to access their profile on the Automated Academic Management Information System (SIGAA) in order to perform the corresponding assessment for both tenured and adjunct professors, through the application of a virtual questionnaire requested from them. This questionnaire is intended to collect the perceptions and opinions of the students concerning the teacher's practice, thus providing information that is essential for renewing the teaching practices, the training and the updating processes, and for promoting a better environment in the various academic activities related to the training of health professionals.

The assessment instrument is structured in 6 sections that the students must answer:

Framework: the students evaluate the teacher's performance, at the beginning of the course, with regard to the presentation of purposes, the competencies that are to be developed, the responsibilities to be assumed by the members of the group, and the evaluation strategies and evidences of the learning process required in order to obtain credits for the course.

Learning facilitation: the teachers are evaluated in regard to their performance as facilitators of the learning process; therefore, the students provide their opinion on the mastery of and updating by the teachers in regard to the contents, strategies and resources used by them to facilitate the application of knowledge to real situations, as well as their ability to promote active and collaborative participation among students and the development of competencies during the course.

Communication, ethics and values: The students evaluate the teacher's performance in generating interactions with respect, tolerance, inclusion, honesty, commitment, as well as availability with students to clarify doubts during the learning process.

Assessment and feedback: this refers to the evaluation performed by the teachers on the compliance of the assessment criteria with outcomes consistent with the competencies, as well as their ability and willingness to provide feedback on the students' activities in a timely manner.

Coordination of the teaching team: an assessment of the communication established between the head professor and the assistant professor for the development of the sessions and the articulation with the topics of guest lecturers.

Open Comments: an assessment of certain aspects of the teaching performance that the students consider were not included in other sections or that they would like to enlarge.

The Electronic Resource File contains examples of the course evaluations.

3) Describe available university and programmatic support for continuous improvement in faculty's instructional roles. Provide three to five examples of school involvement in or use of these resources. The description must address both primary instructional faculty and non-primary instructional faculty.

The teaching update has been established as a priority since 2006, due to the change of pedagogical model in educational programs. As a result, it has been necessary to train all teachers (PIF and Non-PIF) in new teaching strategies, in order to develop consistent teaching based on the competencies model, under the following schemes:

a) **Diploma in Training and Teaching Update**, it has been taught since 2012 in virtual mode; this is a flexible educational proposal, accessible in time and space for primary and not primary instructional faculty members. In the modules that teachers study, they develop different teaching methodologies consistent with a skills-based approach, which enable them to engage in team work and receive feedback from the advisor of the course. The modules that have been incorporated into the teachers' training include topics such as competence-based education; strategies for meaningful learning and competence-based evaluation.

b) **Workshops for teachers,** as a complement to the training strategy and teacher training, the sub directorate of academic quality, through the Assessment and Training and Curriculum Development departments identify the teachers' areas of opportunity, in order to offer workshops that can contribute elements to guide their educational work and promote necessary skill development in students for their performance in the field of public health. These workshops are taught in an in-person format; they each have a duration of three to five hours, and are taught on the INSP campus. Their purpose is to enrich the teaching intervention through the use of didactic methodological tools that will ensure better learning by the students, as well as open a space for reflection and training, from the reality of the Institute's classrooms and the needs of the educational actors.

Starting in the December 2018 and throughout the entire 2019 school year, the workshop "*Planning of courses: renewal of learning situations" is being conducted.* It aims to develop didactic planning based on learning situations that stimulate the construction of meaningful learning to foster the development of competencies in students. Its duration is 10 hours (4 hours conceptual revision and 6 hours practice). The thematic content covered in this workshop consists of: a) The Educational Model of the INSP; b) The syllabus; c) The problems for which a solution is sought through the students' training; d) Competencies and graduation profiles; e) Analysis and review of various conceptions linked to the teaching work; e) Components of the course planning, and f) Review and analysis of the courses. This workshop is characterized by being the first phase of a training process that includes accompaniment and advice. It is offered to groups of 15 to 20 participants in an in-person format
[http://www.espm.mx/noticias/general/669-taller-planeacion-didactica.html;
http://www.espm.mx/noticias/general/692-taller-planeacion-unidades-didacticas-19.html;
http://www.espm.mx/noticias/general/684-taller-planeacion-unidades-didacticas.html;
http://www.espm.mx/noticias/general/691-platica-introductoria-enfoque-modelo-insp.html]

In addition, and due to the fact that the curricula are subjected to constant review in order to ensure their quality and relevance, the teachers are actively involved in this process; for this reason, workshops are created on the topics of curriculum design or redesign, with the purpose of reflecting on the importance of the competence-based model (so as to have more elements available for developing skills related to the content of each course). One of the topics has to do with the essential elements that should be considered when planning the educational intervention, as well as with the importance of mapping the competencies to be developed by the course and the relevance of its thematic content.

c) **Accompaniment of the teaching practice,** one of the strategies of the Office of Academic Affairs (SAC) for supporting and strengthening the work of the teachers is accompaniment, which has two primary purposes:
   - Providing feedback to the teachers on the planning and implementation of the courses.
   - Providing teachers with the necessary tools to carry out an ongoing self-assessment process of their class (reflection on practice).

The pedagogical accompaniment of teachers is understood as an advice process based on the professional interaction between the educational consultant and the teacher and on the resolution of problems related to teaching and learning. The pedagogical advisors are experts in the field of education who are attached to the Directorate of Academic Quality. The advice must be framed in the institutional vision, the particular features of the context in which the pedagogical practices are undertaken, as well as in each teacher's own experiences and skills.

Therefore, the accompaniment aims to collaborate with teachers so that they can improve their teaching practice and that this translates into more and better learning by the students.

Specifically, the accompaniment to the teaching practice involves some of the following activities:
- making records of classroom observations that may serve as feedback for the teachers;
- offering support on knowledge and understanding of the competency-based approach;
- supporting the development of learning situations to address a topic of their course and reflecting with them on the outcome of its implementation;
- assisting in the design and selection of strategies and teaching methodologies;
- suggesting different ways to evaluate the performance of graduate students;
- giving access to teaching materials to support their teaching;
- giving access to the educational use of information and communication technologies for dealing with the curriculum contents;
- identifying strategies that will allow a greater approach and knowledge of the learning needs of the students.

4) Describe the role of evaluations of instructional effectiveness in decisions about faculty advancement.

According to the Office of Academic Affairs, faculty assessment has been a fundamental activity for ensuring the quality of the graduate programs offered by the INSP. There is extensive experience in the monitoring of the faculty's work, notably the implementation of assessments applied in an automated system which used to be isolated from other administrative processes but was finally incorporated to the SIGAA, in 2012. These changes in the system also have brought about changes in the instruments and in the monitoring of the results. To the present day, we have instruments that assess both the teaching performance and the students' satisfaction with regard to the development of the course.

The assessment instruments currently in use by the SIGAA have two major aspects –quantitative and qualitative–, constituted by similar sections, but which differ in terms of the evaluated activities depending on the format. The sections are described as follows:

- Quantitative section: framework; facilitation of learning; communication, ethics and values; assessment and feedback and coordination of the teaching team.
- Qualitative: section of open comments by the students about the course and the teaching team.

It is worth noting that there are variations of these instruments in accordance with the modality in which each course is imparted, thus giving way to small singularities for the virtual, in-person or blended formats.

Currently, the objective of the teacher's assessment is to contribute to improve teacher performance and to enhance the quality of graduate programs through feedback and an effective and timely follow-up among the student community, teachers, collegiate bodies and INSP centers.

The evaluation results are constantly under supervision, which allows to identify opportunities for improvement in the quality of education for each of the items evaluated, for each teacher and each course. The results of the evaluation are sent to the schools and Chapters of professors in charge the analysis, discussion and agreement regarding actions for improving the quality of the teaching processes.

Starting in 2019, the names of those teachers who have obtained the highest scores from the students have been publicized. Three prizes are awarded annually to teachers, and the requirements for contending for them include the obtained scores. These awards are given at the students' graduation ceremony, which renders the relevance of quality in teaching visible to the entire academic community and shows the importance of the students' perception in teaching.

5) Select at least three indicators, with one from each of the listed categories that are meaningful to the school and relate to instructional quality. Describe the school's approach and progress over the last three years for each of the chosen indicators. In addition to at least three from the lists in the criteria, the school may add indicators that are significant to its own mission and context.

Table E4-1. Indicators of instructional quality

Indicator	Target[a]	2016	2017	2018
Percent of programs that maintain or increase their level at CONACYT PNPC* (External reviews of proposed or existing courses or curricula, outside of normal university processes)	78%	78%	78%	78%
Student satisfaction with instructional quality **	90%	89.2%	92.7%	91.7%
Faculty trained on teaching methodologies and strategies***	130	110	130	56

* As described under Criterion B5, the National Council for Science and Technology (CONACYT) and the Ministry of Public Education (SEP), through the Mexican Postgraduate Quality Program (PNPC), have the goal of reviewing and periodically assessing the quality and relevance of the study curricula and programs taught at the INSP. The model for the PNPC evaluation is of a qualitative-quantitative nature and is based on a flexible approach focusing mainly on the results and the impact of the programs and having a prospective vision. The review and evaluation process is carried out by a committee of peers, based on generic criteria and standards at the national level to account for the relevance and the quality level of programs and good practices identified for the evaluation procedures. There are four consecutive levels at PNPC: recently created, under development, consolidated, and international level. In 2016 all the programs maintain their level, in 2017 thirteen of the programs maintain their level and nine increased their level, and in 2018 twenty one maintain their level and one of the increase their level.
** Percent of courses with an average equal to or above 2.8. After the end of each course provided in the curricula, both the head and assistant professors are evaluated through the application of a questionnaire that is required from students through the teaching assessment module of the SIGAA. The system ensures the anonymity of those who evaluate in order to promote freedom of expression in the teaching assessment. The results of the evaluation are flagged according to a traffic-light scale, which allows to identify improvement opportunities in the quality of education for each of the items evaluated (described in subparagraph 2) for each teacher, course and curriculum. This color code classifies the faculty's performance into categories, according to the following averages obtained in the original scale from 1 (lowest quality) to 4 (highest value of quality): green (3.6-4), yellow (2.8-3.5), red (1-2.7).
*** Courses taught in 2016 were: Diploma in Training and Teaching Update, Course: Measurement and evaluation of learning, Course: Didactic sequences by competencies. Courses taught in 2017 :Diploma in Training and Teaching Update, Course: Measurement and evaluation of learning, Course: Didactic sequences by competencies, Diploma in ICTs in Education, Course: Applying medication and evaluation, Course: Innovation in learning environments, Course: Teaching strategies. Courses taught in 2018: Seminar on educational quality in graduate studies, Course Planning Workshop: renewal of learning situations.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has undertaken various actions for the evaluation of the teaching effectiveness and quality of all its programs. All full-time programs have succeeded in obtaining external accreditation by CONACyT, which ensures external review of the existing courses and curricula acknowledging quality at the national and international levels. In addition, the use of ICTs in teaching has been one of the main features in all of the INSP programs' support, with a group of experts in educational technology constantly training the faculty in the use of ICTs and generating educational innovation actions to improve the quality of the programs.

The improvement plans for the evaluation of instructional effectiveness include plans to implement the revision of all courses in pairs for all programs. In 2019, the Center for Research in Population Health has already initiated a pilot for the revision of courses, the results of which will reinforce the use of this strategy across the INSP.

In recent years, the use of educational technology resources had required temporary staff for management, training and follow-up. As a result of the reorganization and simplification of processes and the adoption of best practices in the administration of platforms and instructional design, the use of educational technology will become less expensive in terms of human and financial resources. The Sub-directorates of Academic Quality and Academic Development and Outreach of the Office of Academic Affairs were primarily involved in this task in 2018.

In addition, in 2018 external suppliers were no longer hired for teacher training, and the framework of reference was developed, along with the software and materials, to carry out workshops for the renewal of learning situations offered in the in-person format. The latter will facilitate dialog with the faculty, as well as bottom-to-top feedback on the educational model at work at the INSP.

E4. Faculty Scholarship

The school has policies and practices in place to support faculty involvement in scholarly activities. As many faculty as possible are involved in research and scholarly activity in some form, whether funded or unfunded. Ongoing participation in research and scholarly activity ensures that faculty are relevant and current in their field of expertise, that their work is peer reviewed and that they are content experts.

The types and extent of faculty research align with university and school missions and relate to the types of degrees offered.

Faculty integrate research and scholarship with their instructional activities. Research allows faculty to bring real-world examples into the classroom to update and inspire teaching and provides opportunities for students to engage in research activities, if desired or appropriate for the degree program.

1) Describe the school's definition of and expectations regarding faculty research and scholarly activity.

Two essential elements of the mission of the National Institute of Public Health (INSP) are to conduct relevant research and to train quality human resources that will make it possible to help raise the health levels of the population through the production, dissemination and use of scientific knowledge on health conditions and the organized social response, as well as to contribute to the solution of health issues based on the mastery of disciplines and methods that make up public health.

In this regard, the Organic Statute of the INSP (2018) reports the following research objectives:

- To conduct epidemiological, experimental, technological, developmental and basic studies and clinical research work, in the biomedical and social medical fields of its specialties, for the understanding, prevention, diagnosis and treatment of diseases, and the rehabilitation of affected subjects, as well as to promote health measures.
- To publish the results of the studies and tasks to be performed, as well as to disseminate technical and scientific information on the advances recorded in the field of health.
- To promote and conduct meetings for scientific exchange, at the national and international level, and to conclude conventions on coordination, exchange or cooperation with related institutions.
- To advise the specialized research, teaching, or medical care centers of the federal entities and, in general, any public health institutions.
- To promote actions for the protection of health, with regard to the conditions relating to its specialties.
- To assist with the Ministry of Health in the update of data on the country's general health situation, regarding the relevant medical specialties.
- To study and design methods and techniques of scientific research related to health.
- To develop surveys in the areas of public health.
- To contribute to epidemiological surveillance of infectious diseases and other health issues in the country, and of any other disease that might be introduced into the national territory.
- To contribute to the development of a diagnostic technology appropriate to national needs in relation to communicable diseases.
- To serve as a reference center for the diagnosis of infectious diseases.

In order to make the research activities of the INSP relevant for the health sector in Mexico, the following commitments have been established:

a) such activities must contribute to health actions and policies;
b) they must be oriented toward the production of scientific knowledge which will help reduce inequity in health, and
c) they must contribute to the establishment of strategies to support the health sector's efforts to achieve universal care coverage.

Currently, 84% of the professors in the INSP programs undertake research activities, ensuring that the researchers' experience will enrich the teaching activities and contribute appropriately to train high quality human resources.

2) Describe available university and school support for research and scholarly activities.

The INSP currently has a one-to-one mentoring system, where established researchers support the development of young researchers. The Mentoring Program began in 2017 with a situational assessment and an implementation proposal, according to the Director General's program, in order to generate an institutional system that would support the consolidation of the professional career of INSP researchers in the medical sciences. After the mentoring group was proposed, all the Centers began implementing of their mentoring program, which was developed during 2018, according to each center's modality, needs and operation. The mentoring programs by center are oriented to support the mentored researchers in: a) publications, b) funding of research projects, c) training of human resources: teaching and counseling and/or thesis direction of graduate students.

In particular, the system endorses INSP researchers' access to and progress in the National Researchers System (SNI), a funding system provided by the National Council for Science and Technology, whose purpose is to promote full dedication by researchers to research activities.

In addition, for the fulfillment of the institutional objectives in relation to research, the INSP has committees that support research activities and an electronic system (SIID) that manages and administers the information obtained from the teachers' scientific output.

The INSP comprises three committees that support the regulation and development of research activities:

The Research Committee: is responsible for the evaluation of protocols, partial or final reports and publications; issuing opinions on their quality and monitoring them; it evaluates the performance of professor-researchers and presents the relevant reports to the Director General. It also participates in the evaluation of research and teaching products and by-products, in congresses, seminars, researchers training, consultancy, participating in and/or promoting academic exchange, as well as in academic committees of evaluation and other activities in support of research, according to the existing evaluation format.

Committee on Research Ethics. It protects the rights, welfare, and safety of those involved in scientific research conducted by INSP staff in collaboration with other institutions, ensuring that the methods employed do not expose them to unnecessary risks. These functions are laid down in the Committee's regulatory documents.

Biosafety Committee. It issues technical opinions on biosafety aspects of the research projects proposed by the Research Committee through the revision of the facilities, materials and methods involved, in order to ensure the preservation of physical and biological integrity of the occupationally exposed personnel, as well as of the research's subjects, the community and the environment.

With the purpose of expediting the registration and data updating procedures on research activities that are carried out at the INSP, an Electronic Information System for Research and Teaching (SIID) is in place; it is regularly reviewed and updated and is a tool that:

- Facilitates the registration, review and protocol decision processes made by the Research, Ethics in research and Biosecurity committees;
- Allows the preparation of periodic reports on research activities requested by the authorities.
- Helps to internally disseminate to the community information about the productivity of INSP researchers.
- Provides timely information to support stimuli and reward programs for the professor-researchers. The Incentive to the Performance of Researchers in Medical Sciences program of the Ministry of Health is a program recognizing the professor-researchers who have had outstanding scientific productivity during the year prior to the call.
- It allows to generate reports based on official indicators.

The INSP is responsible for certain national health surveys (e.g. National Health Surveys, Survey on Addictions, etc). As a result of these and other projects carried out at the INSP, we currently have a reservoir of electronic databases, biobanks and specialized laboratory equipment that allows the determination of specific biomarkers. This information can be used by Master's and PhD students for the development of their thesis.

3) Describe and provide three to five examples of faculty research activities and how faculty integrate research and scholarly activities and experience into their instruction of students.

At the INSP, academic regulations establish the figure of professor-researcher, and as explained above, the full-time faculty are evaluated as researchers in the medical sciences and, therefore, research activities that influence the teaching work. These are five examples of how the experience of teachers in research activities are linked to the educational activities for the training of students.

1. Community Practicum in the Master of Public Health programs: These practicums are carried out with the aim of establishing health diagnostics for specific communities, selected because they have a particular health-related need felt or perceived by the community, or at the request of the state health systems. During these practical experiences, the students are accompanied by a group of teachers with experience in community research, who guide the students on observation and data collection methods. Once the priority problems are identified, and depending on the area of interest, the students select one of them and propose to carry out an intervention to mitigate the identified problem.
2. The databases generated during the research projects are used by teachers as input for the Bio-statistics classes, so students can analyze and interpret information generated by the researcher or his group of collaborators.
3. A modality for the conferral of the degree within the Master of Science programs is the writing of scientific articles. In order to achieve this goal, the students, under the supervision of their thesis committee, must complete all the research stages (collection of information, analysis and description of outcomes); the tutor's and advisers' research experience is fundamental to obtaining a document with the required scientific quality to be publishable.

Every two years, the INSP convenes the International Congress on Research in Public Health (CONGISP). This is an academic activity that allows our students to interact with national and international researchers and practitioners who attend these regular meetings, and also allows them to present the results of their thesis and to receive feedback. 167 students attended in 2017, and 162, in 2019.

5. The INSP annually conducts a Summer Training Program (PASPE), with the participation of the INSP professors-researchers and guest professors teaching courses on specialized topics related to advances in research, many of whom are not included in the general curriculum maps. The students can register in the courses of their choice, benefiting from a full scholarship for a first course and half a scholarship for a second course, which will be counted as elective credits to supplement their curriculum.

4) Describe and provide three to five examples of student opportunities for involvement in faculty research and scholarly activities.

The students come in contact with the research projects from the time of their enrollment in the academic and career guidance programs. In order for the students to have knowledge of all the topics under development in which they can participate, a presentation is delivered, during the first semester of their program, about all the research lines of each mission and the various projects that constitute them.

The incorporation of students in specific projects derived from the Research Lines by Mission (LIM), allows them to develop the academic product whereby they opt to earn their degree (thesis, scientific article or final professional project (PTP). Depending on the duration of the program and the student's topic of interest, the thesis can be generated from two different participation modes.

1. In the first, the students are incorporated as part of the research team and participate actively in all the phases of the project, starting, for instance, with the field activities.
2. In another option, the students analyze and write their thesis on the basis of information generated at any stage of the developing project or of previous projects, using secondary databases from other researchers. The Final Professional Projects (PTP) stem from the community practicums and involve researchers whose research coincides with the topic identified in the student's practicum.
3. In the particular case of Master program students who show interest in continuing their academic development, there is the opportunity to become directly involved in projects that are ready to start, and to continue their involvement with the research project into the Doctorate, while being an active part of the research team.

The students' projects are first reviewed by the area of concentration coordinator and are submitted to the Faculty College in order for the latter to assign a Thesis Committee and Director or a PTP; and before developing their projects, the students must have the approval of the Ethics, Research and Biosecurity Committees. Examples of the projects will be available for the site visit team.

5) Describe the role of research and scholarly activity in decisions about faculty advancement.

For their permanence or promotion within the Institute, as well as in order to form part of the Faculty Colleges, professor-researchers are subject to a regular evaluation according to their current category by the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission. This external evaluation system has six levels, ranging from the A Researcher in Medical Sciences (ICM-A) up to the highest level, which is that of an F Researcher in Medical Sciences (ICM-F). Their scientific output and their involvement in research activities are essential elements of the evaluation criteria for the permanence and promotion of INSP faculty members. Researchers categorized as ICM-A to ICM-C are evaluated every 3 years, while ICM-D to ICM-F researchers undergo evaluation every 5 years.

Furthermore, the progress of the professor-researchers' on the ICM scale is monitored through the evaluation carried out by the National System of Researchers, a prestigious and exclusive system created by the Federal Government, in which all scientific disciplines practiced in the country are present. Their work consists in awarding recognition –through peer assessment– to those researchers who prove to have a relevant and continuous scientific output, in addition to other rigorous academic indicators, as national researchers with several classification levels that rate the quality of their scientific and technological research. In both evaluation systems, in addition to scientific productivity, the training of human resources is one of the criteria for evaluation. The SNI membership and the level awarded within this system constitute a very important part of the evaluation criteria for the admission, promotion and permanence of professors rated ICM.

6) Select at least three of the measures that are meaningful to the school and demonstrate its success in research and scholarly activities. Provide a target for each measure and data from the last three years in the format of Template E4-1. In addition to at least three from the list in the criteria, the school may add measures that are significant to its own mission and context.

Table E4-1 reports five indicators of results of the participation by INSP faculty in research in the 2015-2018 period. There are two specific measures of the INSP: the percentage of full-time teachers participating in the SNI and the SII, since these are criteria of academic quality directly oriented to the professors' research activities that are key to the school and are specific to the INSP and to the Mexican context.

Table E4-1. Outcome Measures for Faculty Research and Scholarly Activities.

Outocome measure	Target[a]	2015	2016	2017	2018
Total Research funding*	7´896,685	8'856,737.96	10'054,906.87	9'687,266.67	8'915,826.93
Percent of faculty (total faculty) participating in research activities**	75%	73%	74%	75%	84%
Number of articles published in peer-reviewed journals***	330	328	324	326	392
Percent of faculty belonging to the SNI****	60%	56%	60%	69%	69%

Notes:

The National System of Researchers recognizes the work of individuals dedicated to produce scientific and technological knowledge. The award is granted through peer review and consists in an appointment as national researcher. This distinction is a symbol of the quality and prestige of scientific contributions. In order for its programs to remain within the Mexican Graduate Quality Program (PNPC), the INSP must have at least 60% of its faculty assessed by the SNI, i.e. a 10% above the number established by CONACyT.

a. This refers to the target set for 2018.

** Only those funds contributed by physical or moral, public or private, national or foreign entities, to finance research projects are considered; these funds may or may not have been obtained, or their access may have been promoted by researchers. In 2017 and 2018 there has been a reduction due to budgetary restrictions for government agencies. The figures are presented in US dollars, considering the exchange rate of May 10, 2019.*

*** All personnel of the Ministry of Health that remains active in Research tasks and holding a researcher or director position in the areas of research or medical care, having been assessed and approved by an External Commission of Health Research and appointed (A,B,C,D, E, F or Emeritus) Researcher in the Medical Sciences.*

****The total production of articles published in group II to VII journals is displayed here, in accordance with the Impact Factor established by the Journal Citation Reports Science and Social Sciences (JCR), published by the Institute for Scientific Information. Qualitative classification of the CCINSHAE periodical scientific journals: Impact Factor (Journal Citation Report 2017 Edition). This indicator includes those articles in which the public health professionals of INSP participate as authors.*

***** The minimum value expected by CONACyT is having at least 60% of the faculty of the basic academic core of programs evaluated by the National System of Researchers.*

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP comprises seven research centers that bring together researchers with training and experience in various disciplines. This, along with the development of research lines by mission, represents the main strength of the research being carried out at the INSP and has an impact on the quality of teaching that is taught t this institution. Interdisciplinarity involves groups of researchers, students and teachers who participate in the search for a common purpose and facilitates addressing a health issue of national importance –e.g. cancer, adolescent pregnancy or global warming– through the critical approach of specialists in different areas of science, thus encouraging collaboration between disciplines.

As in other developing countries, timely access to state-of-the-art infrastructure may be limited; this constitutes one of the main weaknesses, which, in many cases, is remedied through national or international collaborations in which the possibility of academic exchange allows the students to acquire experience in the management of these infrastructures. Examples of this are the academic stays at international universities by students of the Doctorate in Nutrition.

E5. Faculty Extramural Service

The school defines expectations regarding faculty extramural service activity. Participation in internal university committees is not within the definition of this section. Service as described here refers to contributions of professional expertise to the community, including professional practice. It is an explicit activity undertaken for the benefit of the greater society, over and beyond what is accomplished through instruction and research.

As many faculty as possible are actively engaged with the community through communication, collaboration, consultation, provision of technical assistance and other means of sharing the school's professional knowledge and skills. While these activities may generate revenue, the value of faculty service is not measured in financial terms.

1) Describe the school's definition and expectations regarding faculty extramural service activity. Explain how these relate/compare to university definitions and expectations.

Service is one of the substantive functions of the INSP, along with research and the training of human resources. It is based on the Law of the National Institutes of Health and the Organic Statute that governs the INSP. Therefore, the teachers are expected to participate as requested by the Center Directors, depending on the projects required by the Federal Government, state governments or social organizations, in service projects aligned with the strategic planning of the Director General and the directors of the Research Centers.

In order to guide the various extramural services that the INSP can provide, the Organic Statute of the INSP establishes, in its 3rd article, that the objectives of the institution include the following:

> VII. To provide counseling and to address opinions to the Office as required;
> VIII. Acting as a technical and regulatory counseling body of the agencies and entities of the federal public administration in its specialization areas, as well as providing private paid consultancies;
> IX. Advising the specialized centers of research, teaching, or medical attention of federal entities and, in general, to any of their public institutions;
> X. Promoting actions for the protection of health, with regard to the ailments within the scope of their specialties;
> XI. Assisting the Ministry of Health in the updating of the data on the overall health situation of the country, in regard to the corresponding medical specialties;
> XIV. Developing surveys in the areas of public health;
> XV. Contributing to the epidemiological surveillance of infectious diseases and other health problems in the country and those which may be introduced into the national territory;
> XVI. Contributing to the development of adequate diagnostic technology for the nationwide needs in regard to communicable diseases;
> XVII. Serving as a reference center for the diagnosis of infectious diseases.

In addition, the Organic Statute of the INSP stipulates in its article 24 that it shall be the responsibility of the Directors of Research Centers and Academic Secretary to perform the following functions with respect to the implementation of services:

> I. Advising and participating with health sector institutions and other public and private agencies, national and international, within its area of competence;
> II. Collaborating with the Ministry of Health by participating in the committees or commissions as appointed by the Director-General.

2) Describe available university and school support for extramural service activities.

The INSP has considered extramural service activities, from a regulatory and functional point of view. The administrative and academic structure of the INSP provides support and institutional status to the services offered.

The support of the INSP varies according to the nature of the service, the contracting institution and the contractual terms and conditions based on which the service is provided. The main supports for the provision of services are the following:

a) Administrative support for the achievement of collaborative projects aimed at the provision of services.
b) Support of research assistants and logistical support for the implementation of the activities.
c) Full access to the institutional infrastructure for the provision of the services (e.g. use of laboratories)

The Organic Statute of the INSP establishes, in article 24bis, that it shall be the responsibility of the area Directors of Research Centers to provide the following management support for furthering service activities:

> I. To manage the involvement of the area staff under their charge in binding activities with various public and private agencies that will enable the dissemination and promotion of services and advice in their area of expertise;
> II. To establish effective channels of communication with potential customers to disseminate the services offered by the area under their charge;
> III. To oversee the development and monitoring of deliverables to customers, guaranteeing the quality of the service offered;

The INSP has infrastructure for the development of research activities, service and training of human resources, such as molecular biology laboratories and animal facilities for the development of research work.

Furthermore, channels of communication such as the journal Salud Pública de México (*Public Health of Mexico*), Gaceta INSP (the *INSP Gazette*), the institutional web page and the INSP's social networks are available to enable the outcome of the services performed and the results of the research associated to them to reach decision-makers, health professionals at all levels, and the population concerned.

Salud Pública de México is an interdisciplinary journal that promotes the implementation of the biological sciences, social, clinical, and behavioral sciences for the understanding and solution of population health issues; it promotes the dissemination of scientific progress for decision-making. For its part, Gaceta INSP, aims to transform research results into practical, accessible information to support and encourage better-informed health-related decisions on a personal, social and government level, as well as to train society to become more interested and participatory in the administration of its health and well-being.

In addition, there are video conferencing services and institutional seminars in an in-person and/or virtual format, which allow us to communicate relevant results derived from the services offered by the INSP.

3) Describe and provide three to five examples of faculty extramural service activities and how faculty integrate service experiences into their instruction of students.

In every case, professors who participate in the projects and services also participate in student training activities and convey experience, or require the students to participate in certain activities. Most of the services are articulated to the research projects developed at the INSP. Below are several examples of extramural service activities performed by the faculty.

Taxes on the consumption of tobacco, sugar-sweetened beverages and food labelling.

In order to cope with the damage that tobacco consumption and second-hand smoke cause on health, our country has implemented a series of laws and public policies, including the increase of tobacco taxes, health warnings with pictographs on tobacco products, and the implementation of 100% smoke-free environments in nine states of the Republic. Many of these measures have been based on the scientific evidence generated by researchers of the Department of Tobacco Research, led by Dr. Luz Myriam Reynales, of the Center for Research in Population Health (CISP) of the INSP. Between 2009 and 2011, the specific tax to tobacco (IEPS) increased by 7 MXN per pack of 20 cigarettes, increasing the total taxes to 69% of the retail price. Tobacco sales dropped by 30%, and government revenue from tobacco taxes increased by 38%.

Participation of faculty members in inter-institutional commissions

The changes in the notion of environmental health from the 1970s onwards have been accompanied by an institutional restructuring. In Mexico, the first Sub-directorate of Environmental Improvement was created in 1972, within the framework of the Ministry of Health and Welfare. Today, the INSP plays (along with other institutions with different normative, regulatory, operational functions) a role in the research or training in the field of environmental health, through the Directorate for Environmental Health, on priority themes such as: risks due to exposure to air pollutants, health effects of pesticides, heavy metals, unsafe water, climate change, and control and prevention of dengue, among others.

In relation to obesity, overweight and diabetes, the INSP is notably part of the National Strategy for the Prevention and Control of Overweight, Obesity and, Diabetes, and, with the support of UNESCO, seeks to encourage the formulation of physical education policies and practices. A Technical Group of Quality Physical Activity was formed, under coordination of the Center for Research in Nutrition and Health, National Institute of Public Health (INSP), and representatives of UNESCO, the Pan American Health Organization (PAHO), and the Secretaries of Health and Public Education, as well as civil organizations, universities and academic institutions with expertise in the various aspects involved in the provision of quality physical education. This group is responsible for reviewing current practices and updating the quality physical education policy, in keeping with the recommendations of UNESCO and according to the eight principles on this matter: physical literacy, inclusion, security and safeguarding of children, faculty development, community partnerships, curricular flexibility, facilities, resources and equipment, and monitoring and quality assurance. The consolidation of policies and practices will also have a positive impact on health and on the academic performance of basic level students across the country. Quality physical education at school and at all other educational institutions is the most effective means to provide all children and young people with competencies, skills, attitudes, values, knowledge and understanding for their involvement in society throughout their lives.

Collaboration in National Surveys

The INSP collaborated with UNESCO in the National Survey of Children, Girls and Women (2015 ENIM), which is the implementation of UNESCO's MICS (Multiple Indicators Cluster Survey) survey. The 2015 ENIM provides valuable information about the situation of Mexican children and women and responds to the need for information to monitor progress toward the goals and targets emanating from international agreements, in particular the new sustainable development goals. It was an opportunity to generate up-to-date data in those areas on which little information is available, such as the need for specific information focusing in childhood was central in the decision to carry it out. This brought additional benefits to Mexico.

The results account for considerable progress in the implementation of the rights of children and adolescents, and allow identifying opportunities for improvement for the achievement of the full exercise of the rights of every child and adolescent living in Mexico. At the same time, they bring out significant inequalities between different groups of the population, especially in indigenous households or households with greater socio-economic disadvantage and allow generating evidence for the development of strategies designed to reduce these disparities in order to ensure compliance with the rights of children and adolescents.

Projects on tuberculosis

The INSP contributes to engage in tuberculosis (TB) control since the year 1995. The line of research: The program for the "Prevention and Control of Tuberculosis" is composed of researchers recognized for their work in favor of innovation in the surveillance, prevention, diagnosis and control of tuberculosis in Mexico and at the global level.

The experience of the INSP research has been conducted in collaboration with national institutions, international and health services. Today, projects on different dimensions of tuberculosis are being implemented. For example, diagnosis and treatment; and knowledge, attitudes, perceptions and practices on type 2 diabetes and pulmonary tuberculosis in patients with both diseases. The frequency, clinical consequences and prognosis of pulmonary tuberculosis in older adult are being studied. So are the care of respiratory diseases and TB; epidemiology of tuberculosis and resistance to drugs. As a result, the INSP generates evidence that is disseminated through scientific publications, and shares the research experience in the Mexican consortium against Tuberculosis, where the epidemiological aspects are lead and national and international partnerships are available. The INSP was a pioneer in showing the association between tuberculosis and diabetes. The research results have been promoted as evidence in support of decision making of national health services, and have been referred to in the Modification of the Official Mexican Standard for the Prevention and Control of Tuberculosis (2013).

Quality Assessments of health projects

The INSP works in the assessment of the quality of health services in Mexico and abroad. An example of this is the research project conducted in Peru, whose Ministry of Health created the Health Reform Program (PARSALUD), funded by the Public Treasury, the Inter-American Development Bank (IDB) and the World Bank (WB), to address the issue of maternal and child health in that country.

The objectives of this program are to: increase utilization of maternal and child health services and reduce infant morbidity of children under 3 years among the families of the rural area of the 9 poorest regions of Peru. In addition, the overall objective of the evaluation is to assess the second phase of the Health Reform Program PARSALUD II and the following specific objectives: 1) to determine the pertinence, relevance and adequacy of the design of the program in relation to the achievement of the objectives; 2) to determine the degree of fulfillment of the goals laid down in relation to the activities and program components; 3) to assess the level of implementation of the results and objectives at the level of results and assess their tendency by contrasting these with those of the baseline and the intermediate evaluation, and 4) to identify the main constraints and success factors and lessons learned from the program and make recommendations for better fulfillment of its objectives.

Research and training programs for cancer prevention

The INSP promotes actions through research and training programs for cancer prevention, e.g. the project entitled "Development of genetic susceptibility tests for secondary prevention of cervical cancer". This program will develop and validate genomic testing of genetic susceptibility to cervical cancer (CC) for anticipated detection in women with persistent infection by human papillomavirus (HPV), which may be included in the screening program for secondary prevention of cervical cancer at the population level in Mexico, with the aim of reducing morbidity and mortality rates from his type of cancer.

4) Describe and provide three to five examples of student opportunities for involvement in faculty extramural service.

The National Health and Nutrition Examination Survey (Ensanut) is a project of the INSP involving dozens of researchers from various disciplines related to public health; many of the researchers who participate in the Ensanut teach at the INSP programs. The involvement of INSP professors-researchers in the Ensanut consists in proposing tools for collecting data regarding a public health issue, providing training on the use of this tool to the staff who are responsible for collecting the information in the field work, validating the quality of the information gathered, and analyzing and disseminating the main results obtained. Furthermore, the information collected in the Ensanut is disseminated among the students in order to promote their use in the background section, theoretical framework or problem statement of their final professional projects in addition to promoting the analysis of information as subjects of a final project.

The coordination of the MPH in Nutrition invites INSP professor-researchers to promote the development of research topics among program students. For this purpose, thesis fairs where the students are exposed to research ideas to be developed (including those that emerge from the data in the Ensanut) are organized as part of their final professional or thesis projects. The students develop final professional projects or theses based on the analysis of data from the Ensanut.

b) Another activity that is performed as part of the training of students is the realization of practicums that will allow the students to face the day-to-day challenges of formal work, research, interventions or other spaces. At the stages of training on data collection instruments and information cleansing and analysis, MPH students are invited to participate as part of their practicum.

The fresh perspective and enthusiasm of the students bring new ideas to the strategies for training and for analyzing the information obtained from the Ensanut; also, new lines of research emerge from the students' ideas.

c) The faculty of the INSP is responsible for a good number of research-service projects that will accommodate the inclusion of students of the INSP and international students on mobility stays. The research topics of the projects stand out. These are a few examples:

- "Prevalence of smoking during pregnancy in Mexico City, 2016"; research project developed between the years 2015 and 2017 and led by Dr. Maricela Piña Pozas, researcher at the Center for Research in Population Health, with the participation of students of the Specialty Programs in Preventive Medicine: Carlos Segura Sánchez, Diana Palami Antúnez, and Luis Miguel Hernández Flores. Two students were later allowed to join the research as part of their Master's thesis work. After the project was completed, the results of the survey were presented. Based on those results, an analysis of the data was performed in order to write an article to be published along with the survey.

- The project titled "Missed Opportunities for vaccination in 2 sanitary jurisdictions of the state of Oaxaca" was developed in the year 2018. The project was led by Dr. Jose Luis Díaz Ortega, a researcher at the Center for Research in Health and Infectious Diseases, who joined two students of the Master of Public Health degree with concentration in Infectious Diseases: Daniela Robles Torres and César Omar Zúñiga Ocampo. Dr. Díaz Ortega also led another project called "Study of outbreaks of acute diarrheal disease at an institution of higher education in Mexico"; this project included the participation of the abovementioned plus one, Miguel Ángel Florán Batista, also of the MPH program with concentration in Infectious Diseases. The students participated in the analysis of information from the survey of missed opportunities for vaccination, and one of the students graduated with this work. Study participation was voluntary and allowed the involvement of members of the INSP's leadership, such as Dr. Celia Alpuche Aranda and Dr. Aurelio Cruz. This study included the participation of epidemiological staff from the State Health Services of Morelos and the General Directorate of Epidemiology, and of the National Institute of Diagnosis and Reference (INDRE).

- "2013-2016 Strategic Plan for the Global Eradication of poliomyelitis" of the World Health Organization (WHO). In 2016, it was Dr. Jose Luis Díaz Ortega, a member of the Regional Commission for the certification of the Global Eradication of Polio in its Final Phase (Endgame), in collaboration with the Pan American Health Organization, and the Center for Research in Health and Infectious Diseases (CISEI) of the INSP, who promoted the involvement of students in the regional activities of the Strategic Plan within the framework of the PAHO. Three students of the School of Public Health in Mexico collaborated with the National Directorate of Immunizations of Ecuador during three weeks in which they took part in the activities related to the switch from the oral Sabin poliovirus vaccine (tOPV) to the bivalent vaccine (bOPV), scheduled to take place across the world in the month of April. The students participated in the training of staff, planning and monitoring of the change of the oral polio vaccine, also known as "Switch". The replacement was due to the fact that the wild poliovirus type 2 had been eradicated, and therefore the immunogen tOPV, which provided protection against this variant, had become unnecessary; furthermore, it prevented the emergence of polio cases produced by the circulating vaccine-derived poliovirus (cVDPV). For the success of the action plan, the three agreed that the support of the staff of the Ministry of Health of Ecuador and PAHO facilitated the development of their activities, but, above all, the training obtained in their courses at the ESPM-INSP was key to the performance of each of these tasks in order to comply with the switch. Prior to this activity, the three students carried out practical experiences related to vaccine-preventable diseases, especially polio, at the General Directorate of Epidemiology and the National Center for Child and Adolescent Health of the Ministry of Health of Mexico at the federal level.

5) Select at least three of the indicators that are meaningful to the school and relate to service. Describe the school's approach and progress over the last three years for each of the chosen indicators. In addition to at least three from the list in the criteria, the school may add indicators that are significant to its own mission and context.

Below we present the percentage of professors who participate in service projects started since 2016. It is worth mentioning that those service projects that have a research component and have been evaluated by the Research Committee of the INSP are not considered in this percentage. Neither are the special projects for continuing education coordinated from the Office of Academic Affairs.

Table E5.5.1. Faculty participating in extramural service activities

	Target	2016	2017	2018
Percent of faculty participating in extramural service activities*	10%	11%	6%	13%

*Percentage of professors who have started service projects in each of the three years that are reported herein.

Number of community-based service projects

The following is a table with the community-based service projects that have received funding and have been started between 2016 and 2018.

Table E5.5.2. Number of community-based service projects

	Target	2016	2017	2018
Number of community-based service projects*	10	11	9	10

*Only the projects started in each year are reported; the project that were started in previous years and are were still valid in the reported year were included.

Public/private or cross-sector partnerships for engagement and service

Below is a listing of agencies that have funded service projects started between 2016 and 2018.

- The International Agency for Research on Cancer
- Support for the Strengthening and Development of Science and Technology Infrastructure, CONACyT
- National Center for the Prevention and Control of HIV and AIDS (CENSIDA)
- Ministry of Health
- National Institutes of Health
- Ministry of Health/Department of Health Promotion and Prevention
- National Cancer Institute
- State Commission for the Assessment of Social Development
- CONACyT Institutional Fund (FOINS)
- PROSPERA. Social Inclusion Program
- Ministry of Social Development
- National Institute of Ecology and Climate Change
- United Nations Program for the Environment
- National Commission for Social Protection in Health
- State Commission for the Assessment of Social Development
- Health Services of Morelos
- National Cancer Institute
- Support for the Strengthening and Development of Science and Technology Infrastructure, CONACyT
- Ministry of Health/Department of Health Promotion and Prevention
- PROSPERA. Social Inclusion Program
- General Directorate of Performance Evaluation of the Ministry of Health
- University of Washington
- Institute of Planning, Statistics and Geography of the State of Guanajuato
- National Coordination of the Human Development Program Oportunidades
- General Directorate of Performance Evaluation of the Ministry of Health
- UNICEF

- National Cancer Institute
- IMSS Program – PROSPERA
- Consortium of Universities for Global Health

6) Describe the role of service in decisions about faculty advancement.

The INSP belongs to the Coordinating Commission of National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission (CCINSHAE), which, among other things, evaluates the productivity of its professor-researchers. The evaluation metrics (http://www.ccinshae.salud.gob.mx/2012/acercade.html) include scientific publications and the development of research projects, as well as service-oriented research. CCINSHAE leads and evaluates the Institutional System of Researchers in Medical Sciences and the External Commission of Health Research in order to promote, where appropriate, the adaptations deemed relevant. The involvement of professors-researchers in service projects is an integral part of their assessment.

The inclusion of researchers in extramural services of the institution promotes their professional development ensuring their progress on the scale of the National Researchers System and allowing them to gain experience in the training of human resources and to capture this in their teaching practice. The results of scientific research also allow improvements in the quality and care of the health services, as well as in their infrastructure. Service projects are considered to be highly relevant as a qualitative criterion for the advancement of researchers in the National Researchers System, as, in addition to their publications, established researchers are expected to make substantive contributions to the development of the country, which usually are verified through the service projects.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The trajectory and the recognition of the INSP among the federal and state institutions favors the reception of many requests for technical support, ranging from simple requests for counseling to the realization of large-scope, highly complex projects.

The INSP should further develop its research profile in areas that are important for service, such as the implementation sciences. This would allow many of service projects to benefit from the publication of local experiences, particularly those that aim at testing a specific intervention for a particular health issue. This would add value to the service projects and facilitate the dissemination of their results.

Strengthening of the collaboration with institutions with a history in implementation sciences is sought. A memorandum of understanding with the Yale University is currently in process to facilitate specialization stays on this topic for researchers and students of the INSP programs.

F1. Community Involvement in School Evaluation and Assessment

The school engages constituents, including community stakeholders, alumni, employers and other relevant community partners. Stakeholders may include professionals in sectors other than health (eg, attorneys, architects, parks and recreation personnel).

Specifically, the school ensures that constituents provide regular feedback on its student outcomes, curriculum and overall planning processes, including the self-study process.

1) Describe any formal structures for constituent input (eg, community advisory board, alumni association, etc.). List members and/or officers as applicable, with their credentials and professional affiliations.

INSP Governing Board

As described in Criterion B5, the Governing Board is the governing body of the INSP and integrates external community members who analyze, evaluate and recommend actions for the improvement of the institution's teaching, research and service activities. This governing body holds two regular sessions per year; in these meetings, the Director General of the INSP presents a self-evaluation report which includes information on the development of the programmed activities and results achieved both annually and semi-annually.

The Governing Board is composed of the Minister of Health, who presides over it; the Coordinator of the National Institutes of Health; a representative of the Ministry of Finance; a representative of the Board of Trustees of the Institute, and a representative appointed by a research-related institution of the Education Sector, by invitation of the Chairman of the Board, as well. Four additional members are appointed by the Minister of Health, who shall be external to the Institute and of recognized moral quality, merit, prestige and expertise in the field of public health. The latter serve for four years and can be ratified only once. These external professionals in the Governing Board, participate, evaluate and provide feedback to the INSP on behalf of the professional community in the field of public health and of institutions with a similar profile and/or mission to those of the school.

The Governing Board has a Secretary and a Deputy Secretary. The Chair of the Governing Board is substituted during his/her absences by the holder of the Coordinating Commission of the National Institutes of Health. The other members of the Governing Board appoint their respective alternates, who must be duly accredited by the same.

The members of the Governing Board in 2019 are:

Dr. Jorge Carlos Alcocer Varela, PhD
Minister of Health
President

Dr. Alejandro Mohar Betancourt, PhD
Chair of the National Institutes of Health and High Specialty Regional Hospitals Coordinating Commission
Alternate Chairperson (Permanent Member)

Dr. Simón Kawa Karasik, PhD
Director General of the Coordination of the National Institutes of Health
Secretary of the Governing Board

Dr. Adolfo Martínez Palomo, PhD
Emeritus Researcher at the Center for Research and Advanced Studies of
the National Polytechnic Institute
Chairman

Dr. Samuel Ponce de León Rosales, MS
Coordinator of the University Program for Health Research UNAM
Chairman

Dr. Roberto Constantino Tapia Conyer, PhD
Director General of the Carlos Slim Foundation.
Chairman

Dr. Silvia Elena Giorguli Saucedo, PhD
President of the College of Mexico
Chairman

Omar Antonio Nicolás Tovar Ornelas, BS
Director General of Programming and Budget "A"
Legal Representative of the Mnistry of Finance

Dr. Arturo Ruiz Ruisánchez, MS
Adviser in the Coordination of Advisers of the Rector of the UNAM
Alternate Representative of the Education Sector

Dr. Julio Ernesto Portales Galindo
President of Grupo BCI, S.A. DE C.V.
Chairman of the Board of Trustees of the INSP

Mtra. Paola Patricia Cerda Sauvage, MS
Official Public Trustee of the National Institute of Public Health
Ministry of Public Administration

Carlos Ruiz de Esparza Cervera,
Alternate Public Trustee of the National Institute of Public Health
Ministry of Public Administration

Mario Magdaleno Ruiz de León, CPA
Director General of Programming and Budget of the Ministry of Health
Guest

Mónica Zendejas Ángeles, BS
Coordinating Director of the Directorate General of Coordination
Of the National Institutes of Health
Guest

Dr. José Armando Vieyra Ávila, PhD
Deputy Director of the Information for Public Health
Decisions Research Center
Assistant Secretary

Dr. Juan Ángel Rivera Dommarco, PhD
Director General of the National Institute of Public Health
Guest

External Advisory Committee (CAE)

The primary objective of the External Advisory Committee of the INSP is the review of the quality and relevance of research, teaching and service of the INSP by leaders in the field of public health, research and teaching. These are people who, due to their trajectory, contribute a fresh, external, qualified perspective, based on which they make recommendations to the INSP. The working sessions are chaired by the Director General, with the participation of the Board of Directors of the INSP; in the course of these, the current status of the INSP, its challenges, its opportunities and its achievements are presented. On the agenda, a time is scheduled for the external Advisory Committee to deliberate on the feedback that it will provide to the INSP.

Its members are:

Dr. Julio Frenk Mora, PhD, President of the University of Miami.
Dr. Jaime Sepúlveda, PhD, Director of the Institute for Global Health Sciences at the University of San Francisco.
Dr. Enrique Cabrero, PhD, Head Professor-Researcher, Center for Economic Research and Teaching
Dr. Ana Diez Roux, PhD, Dean and Professor of Epidemiology at the Drexel University School of Public Health.
Dr. Ferdinando Regalia, PhD, Head of the Social Protection and Health Division of the Inter-American Development Bank.
Dr. Amanda Glassman, Director of Operations of the Center for Global Development.
Dr. Gerry Eijkemans, Head of the Unit for the Promotion of Health at the Pan American Health Organization.

2) Describe how the school engages external constituents in regular assessment of the content and currency of public health curricula and their relevance to current practice and future directions.

Feedback through the recommendations of the Governing Board

Based on the recommendations of the Governing Board mechanisms have been established to monitor the impact on the the validity of the syllabi and curricula, and ongoing improvement. Direct contact with the Secretary of Health, other educational institutions, and representatives of other sectors of health and education through their participation in the Governing Board makes it possible to provide feedback on the relevance and need for new lines of research to be developed at the INSP, depending on the epidemiological assessment of public health in Mexico.

Feedback through the results of the National Surveys of Health and Nutrition

A great source of information for decision making are the results generated by the National Health and Nutrition Surveys of the INSP, which indicate the priorities for training human resources, research and services that should be addressed, through the application of the survey to the population and the national public policies derived from these exercises. Likewise, the agenda of services of the INSP is designed based on previous assessments and on the direct demands of the group of organizations and associations with which the INSP has agreements.

Feedback of the External Advisory Committee (CAE)

In its first session in March 2019 the members of the CAE provides relevant feedback to academic programs. CAE issued priority and secondary recommendations to the redesigning of the School of Public Health's academic offer.

3) Describe how the school's external partners contribute to the ongoing operations of the school. At a minimum, this discussion should include community engagement in the following:

    a) Development of the vision, mission, values, goals and evaluation measures

The mission, vision, values, objective and evaluation measures are reviewed and updated every five years, in a process that involves different sectors of the INSP and the external community. Along with the goals and objectives, the collegiate bodies assess the relevance of the mission and will incorporate adjustments for final approval by the Governing Board.

Subsequently, at meetings of the Governing Board, the Director General presents a self-evaluation report that includes qualitative and quantitative information about teaching, scientific productivity and service activities, as well as the budget. Based on this report, the Governing Board assesses the progress made in regard to the mission and objectives of the institution. In the weeks following the evaluation session, the Director-General reports the results of the evaluation to the community of the institute. The exposure of these reports allows the socialization of the progress of the programmed institutional activities, the exchange of proposals to adapt certain actions, emphasizing the work on any of the topics presented, or evaluating the fulfillment of the work plan, as well as explaining the reason for the progress or delays in the same.

    b) Development of the self-study document

Within the 2017 annual work program 2017 and the 2017-2022 medium-term work program, the Director General of the INSP proposed strengthening the training of public health researchers and professionals. One of the aims of these proposals is to maintain the accreditation by the Education Council for Public Health (CEPH). For this purpose, he presented a report of activities on progress in the development of the 2018-2019 self-study for re-accreditation to the Governing Board. The function of the Governing Board is to oversee that the actions planned and carried out are consistent with the work plan of the INSP in the medium term.

A strategy of presentation and analysis of the CEPH to the Governing Board and the Academic and Teaching Commission (CAD) was generated for the realization of the self-study. Both these collegiate bodies include representatives of the INSP, such as the Director General of the INSP, the Directors of the Research Centers, and the Head of the Office of Academic Affairs, the presidents of the Faculty Colleges, the Program Committees, the Chapters of Professors, and the Intercollegiate Chapters, as well as student representatives. Subsequently, sessions were held for the discussion of the criteria, grouped by themes, involving directors of the Research Centers, program coordinators, staff in charge of academic and administrative processes related to teaching, research and services tasks, in order to perform a preliminary self-assessment of the INSP and collect information from both internal and external constituents for their reply. This task was coordinated by the Office of Academic Affairs. Once completed, the preliminary self-study will be review with a formal request, by members of the Governing Board, which includes external representatives, and members of two universities, one national and one international in order to put it to the consideration of the general and external community in a search for open feedback.

    c) Assessment of changing practice and research needs

The research and practice agenda is developed each 5 years within the process of Institutional Strategic Planning, it is also updated with the publication of the National Development Program (which is published every 6 years after the Presidential electoral process) and the National Health Strategic Plan that it is expected to be published this year by the Ministry of Health.

Besides, the development of research by the INSP, and the national health surveys have enabled INSP to identify the epidemiological scenario of the main public health issues in Mexico which guide the assessment of new research needs. On the other hand, the close collaboration of the INSP with the Ministry of Health and the work in coordination with the other National Institutes of Health, allow the assessment of the real status of the national public health. The INSP also constantly receives requests for the design and assessment of health programs, which are a fundamental axis of the school. In addition, the INSP serves the requests of various government institutions requesting studies, advice and other services through various calls by the CONACyT or service contracts to carry out studies for private companies; therefore, there is a close bond with those constituents who support the design and periodical updating of the research agenda.

d) Assessment of school graduates' ability to perform competencies in an employment setting

This evaluation will be carried out by designing and applying surveys and in depth interviews to key employers. Information will be available in the Self-Study Final Version, and the onsite visit.

4) Provide documentation (eg, minutes, notes, committee reports, etc.) of external contribution in at least two of the areas noted in documentation request 3.

The institutional reports of the Governing Board of the INSP identifying the topics discussed with the constituents for the evaluation of the school can be accessed at the following link: **https://www.insp.mx/planeacion-estrategica/informes-institucionales.html**

Reports issued by the External Advisory Committee in March 2019 are included in the Electronic Resource File.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The Governing Board is the foremost administrative body of the INSP and includes the most representative constituents of the Federal Government and the Education Sector, who provide constant feedback through the development of the school. As an integral part of the Ministry of Health, the INSP is evaluated biannually by the Governing Board to ensure that it perform its mission and strengthens public health in Mexico. It also ensures that the teaching programs, research projects and faculty adhere to national standards and that the Institute fulfills its responsibilities in a highly qualified manner. One of these evaluations is the accreditation of the INSP by the CEPH.

The strategies should be expanded to ensure periodic feedback from the employers of INSP programs graduates as a contribution to the improvement of instruction-related decisions.

F2. Student Involvement in Community and Professional Service

Community and professional service opportunities, in addition to those used to satisfy Criterion D4, are available to all students. Experiences should help students to gain an understanding of the contexts in which public health work is performed outside of an academic setting and the importance of learning and contributing to professional advancement in the field.

1) Describe how students are introduced to service, community engagement and professional development activities and how they are encouraged to participate.

The National Institute of Public Health (INSP) incorporates its students in service activities that strengthen their education during the academic program; this is one of the main interaction bridges between the research activities of the faculty and the students. The available opportunities include the following:

Institutional Projects
The students of academic programs can participate in the design and application of surveys or in the analysis of the resulting databases, as part of their postgraduate thesis or in the development of research projects. Likewise, the students of the professional programs in the process of obtaining a degree can participate in the evaluation or monitoring of the development of a pre-existing public health program, of a service, or of the performance of a place of business, institution or local health system, as well as focus on the design of a health program or initiative that responds to a specific public health problem, in order to develop their final professional projects based on the results.

Professional Practices
Another form of participation is through fieldwork in the professional practice, whose purpose is to contribute to the integration of the theory and the practice in the public health training, while evidencing the development of the competencies. The areas where they are invited to perform Professional Practices are:

- In the community studied in the Comprehensive Population Health Diagnosis (DISP) or any community, according to the interest of the student.
- In health service institutions at a local, municipal, regional, state or national level.
- In institutions of other sectors, which develop actions that are directly health-related (Education, Social Development, Integral Development of the Family, Environment and Natural Resources, etc.)
- In health-related civil society organizations.
- In health-related private sector organizations.
- In other instances (delegations and municipalities, schools, factories, etc.).
- In institutions where academic mobility stays take place.

Student Association
As described in criterion A3, the Students' Association of the School of Public Health of Mexico (AEESPM), is the student group representative of the different INSP programs. Each year, the AEESPM performs academic, cultural and sports projects for the community, in order to provide various opportunities for the professional and personal development of the students. Such projects take place with the economic and administrative support of the INSP, in addition to the funds collected through social and recreational activities organized by the AEESPM. The students participate in community and training services, which allow them to practice their communication competencies and professional skills. Likewise, they establish close relationships with different civil or non-governmental organizations to accomplish together information dissemination activities regarding public health subjects.

EcoINSP Program

This is an institutional program formed by representatives of all the essential areas of the INSP (Scholars, Administrative Personnel, Union and Students) in order to render the INSP an environmentally responsible institution and which, through the control of the environmental impacts generated by its activities and services, and in line with its environmental policy and objectives outlined in the law, coordinate the necessary resources and actions to preserve and care for the environment. The purpose of the EcoINSP is to help the INSP be a national leader institution in its commitment to the environment. The EcoINSP implements the Environmental Administration Program through four implementation areas: water, energy, waste, and environmental education. It has a 2017 – 2022 multiannual implementation plan and an institutional committee, COMIGA (Institutional Committee for Environmental Management), where all the members of the community are represented and in whose center the actions to be implemented within the INSP are decided.

The Student´s General Committee is part of the COMIGA; students collaborate and take action in various activities and strategies. Likewise, community activities are carried out in the various social groups in which the General Committee of Students' Association participates.

2) Provide examples of professional and community service opportunities in which public health students have participated in the last three years.

Below are examples of the various activities of the professional and community services in which the INSP students have participated during the last three years.

Community and Professional Services Activities

Academic Mobility

Student mobility is an activity through which the students perform practices and undertake short courses and academic residency programs outside of the INSP, at public health institutions or universities where they perform professional activities for free (participation in health programs, research groups, health services, training activities, etc.). If the stay takes place in a foreign country, it constitutes an important instrument for the integral education of the professional future. Mobility strengthens the education of the human capital and its employability and at the same time increases the capacity to acquire new knowledge and skills, as well as to develop creativity and innovation. Learning periods abroad have been proven to be very valuable for the professional development of the students.

Community Services for the External Community

After the earthquake on September 19th, 2017 which epicenter was in Morelos where the Cuernavaca campus is located, The Students' Association of the School of Public Health of Mexico (AEESPM) worked as a communication network and an information center that concentrated, in real time, data regarding the needs and conditions of the various municipalities and communities affected by the earthquake in order to disseminate this information among the brigades and support that were to arrive from various parts of the country to the state of Morelos, with a large amount of damaged communities. In addition, it organized brigades of INSP students and scholars who supported the affected communities.

These actions were possible because, as part of the education of the Public Health Master´s program, the students perform the Comprehensive Population Health Diagnosis (DISP), with the counseling of the INSP researchers, during the first year of the program. This work, performed in various communities, and which had concluded only a few months before the earthquake, allowed the students, to have, from the start, a broader picture of the conditions of various communities in Morelos affected by the earthquake, as well as to form a communication network with the key stakeholders in them, in order to build a database with the priority needs in each locality. This network began to grow once the students arrived at the affected areas and made direct contact with those in charge of coordinating the support, which made it possible to update in real time the information regarding the needs and conditions of the damaged localities.

Some of the main activities carried out directly in the communities were transportation, separation and distribution of supplies sent from various parts of the country, creation of posters on basic sanitation, dissemination of telephone numbers for psychological support, support to remove debris, medical and paramedical care, and the drafting of a daily report for a quick diagnosis of the needs. Simultaneously, other students took care of compiling and organizing the information sent by their peers in the field and the preparation and dissemination of a database of needs, which was updated constantly, and they worked in coordination with other groups, brigades and associations —e.g. with students of the Autonomous University of the State of Morelos (UAEM)— to direct the support that was to arrive in the entity.

Service to the Internal Community

Through EcoINSP in 2017, students of the Public Health Master´s program carried out the following activities:

- Environmental education campaigns, with the institutional community, to discourage the use of Styrofoam.
- A training course for the correct management of hazardous and biological/infectious waste, taught by the INSP's housekeeping staff.
- Construction of a logical framework matrix for the EcoINSP.
- Design of an intervention plan for small and medium-sized industries located around the INSP (Cuernavaca headquarters) to reduce the production of solid urban waste (RSU) and improve its correct handling.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has established itself as one of the most important public health institutions in the country, and the students are essential actors in the fulfillment of this mission. The students participate in community and professional service activities through institutional projects linked with governmental institutions, organizations from the public sector, the private sector and the service sector impacting the community, particularly thanks to the participation of the students in communities across the country as part of the process to obtain their degree in the Master of Public Health program.

The students can participate in voluntary activities organized by the Students' Association of the School of Public Health of Mexico (AEESPM) or by the EcoINSP program, which allows them to develop and implement the competencies acquired in their study programs. As for professional service, both the professional practice and the academic mobility allow the students to provide professional services at governmental and academic institutions.

F3. Assessment of the Community's Professional Development Needs

The school periodically assesses the professional development needs of individuals currently serving public health functions in its self-defined priority community or communities.

1) Define the school's professional community or communities of interest and the rationale for this choice.

The Continuing Education Program seeks to contribute to the training and skill development of human resources to help address the public health issues at the community, state, national, and, in some cases, global levels. Within these various contexts, it aims to attend to three public health professional groups: public health institutions and organizations, and the general population, based on the results generated by the National Surveys of Public Health.

Public health professionals: Contact is directly established with health professionals, to request that they choose topics of interest in which they need to acquire knowledge or develop skills and attitudes for immediate application in their work environment. The involvement of health professionals in the assessment of training needs is critical because it allows them to identify, from their experience, the issues that need to be addressed in order to improve their professional practice, according to the environment in which it takes place. This makes it possible to design meaningful, participant-based learning strategies.

Institutions and Public Health Organizations: The aim is to evaluate the professional training needs directly within the institutions and organizations under the charge of healthcare personnel, which contributes to the improvement of professional practices for the different profiles, from decision-makers to the staff who establish the first contact with the population and provide it with direct health care. This level allows for educational interventions with well-defined objectives, which facilitates the training of human resources with a specific profile for the provision of care regarding various public health issues. This group includes the federal Ministry of Health, the state Health Departments, the Mexican Social Security Institute (IMSS), the Institute of Security and Social Services for State Workers (ISSSTE) and other governmental, non-governmental, and private organizations.

General population: The results of the National Health and Nutrition Survey (ENSANUT) identify priorities in public health, based on which continuing education strategies such as the training of trainers, or cascade training, are designed to expand the coverage and to reach the various sectors of the population. The results of the National Health and Nutrition Survey (ENSANUT) and also the Health National Program are key inputs to identify priorities in public health, based on which continuing education strategies such as the training of trainers, or cascade training, are designed in order to expand the coverage and reach the various sectors of the population. Furthermore, the needs of the general population are determined by the epidemiological emergencies and by the requests of the Federal Government, or of state governments, social organizations and private sector.

2) Describe how the school periodically assesses the professional development needs of its priority community or communities, and provide summary results of these assessments. Describe how often assessment occurs

First of all, it is important to say, that because its position as a National Institute, part of the health sector in the Federal Government, INSP is constantly involved in advising and decision making processes. Therefore, INSP is invited by institutions and organizations that have already identified their needs, to deliver any continuing education program they already have in their open offer or, to design a customized proposal to meet their needs. The experience gained in this type of interventions developed for institutions and organizations allows the generation of educational interventions with well-defined objectives, which favors the training of human resources with a specific profile to address a variety of public health issues, with the potential to scale the proposals to other institutional levels or population sectors.

In order to identify and address the demand for education and training in the field of public health, every three years a survey of needs is carried out by the Continuing Education Committee. The survey is directed to the staff at the operational, logistical and strategic levels of health services, and includes as well the participation of the heads of the State Health Departments and of the directors of health services.

The Continuing Education Program is offered each year, to maintain permanent contact with health care professionals for a series of training needs assessments for identifying, from their experience, the issues that need to be addressed in order to improve their professional practice, in line with the work context in which they operate. This same follow-up of the participants' activities allows identifying the knowledge, skills and attitudes to be applied immediately in their work environment. The satisfaction surveys applied at the end of each course yield useful information for the redesigning of learning strategies, the updating of the content, and the development of participant-centered graphic and website navigation projects.
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The INSP contacts the directors of the State Health Services in the country, so as to know the training needs in health required by the federal entities they serve. In these interviews, concrete agreements are reached in order to establish the diagnosis and/or develop specialized courses for the purpose of contributing to address the priority issues with the support of the INSP.

The Continuing Education Program also takes into account the epidemiological context at the national and international levels through the analysis of public health policies, as well as data on health and up-to-date scientific evidence, notably the analysis of the nationwide Health Sector Program and of the results of the National Health and Nutrition Survey (ENSANUT). This analysis makes it possible to identify the priorities in public health and design training strategies to address them better, through the open offer generated by the INSP.

The following are examples of professional updating needs assessments:

- Continuing Education Program in Public Health and Epidemiology (PASPE)

In order to identify the needs of public health professionals for the PASPE, a survey is carried out which allows to measure the performance of professors who teach a refresher course, but which also provides information for designing the academic offer for the following year. Based on these findings, the Deputy Director of the Center for Population Health (CISP) and the Director General of the INSP, as well as a Review Committee composed of the Faculty College on the proposed topic (epidemiology, education, health systems, among others) select the academic offer for the following year. It is a fundamental condition that the course to be taught address exclusively current issues.

- Access to professional development opportunities for managers, researchers and teachers of the INSP

One of the various tasks of the INSP's leadership, researchers and faculty is the study of innovative, cutting-edge topics related to their particular areas of interest and expertise. On the other hand, it is usual for them to participate in outreach activities for the dissemination of project results, or to teach a course as part of the Continuing Education Program or as part of a team or advisory committee, among other tasks. The specialized knowledge and the continuous contact with key actors in the Health System promote awareness by the INSP's leadership and researchers of environmental situations that are conducive to develop research and service projects which will eventually feed the contents of the academic programs. One example of this is the publication of a handbook on the development of clinical pathways[2] (an instrument to improve the comprehensive care of patients with previously defined diagnoses in specific organizational contexts), which has given rise to various projects for developing clinical pathways to provide medical care to patients with diabetes mellitus or to pregnant women with obstetric and delivery risk, taking into account the conditions and the operation of service networks in Campeche, Chiapas, and the State of Mexico. This experience is being leveraged to include the topic in institutional academic events with the prospect of incorporating it into the contents of the Master and Doctorate of Public Health in Health Services and Quality Management programs.

Another example is the collaboration with the Institute for Prevention and Treatment of Addictions (IAPA) in Mexico City, where, based on the expression of training needs by their health personnel, community developers and technical staff, the INSP involves teams of researchers working on addiction issues, who enrich the IAPA's assessment with the results of national surveys, such as the 2016-2017 National Survey of Drug, Alcohol and Tobacco Use, in addition to providing the public health approach to the issue of addictions, which stresses issues of chronic non-communicable diseases and mental health (psychosocial disorders, violence, depression, etc.), with a gender perspective. These partnerships lead to the integration of a more relevant training offer that takes into account the research results obtained by the INSP.

Video Conferencing

Another example of the needs assessment is a survey carried out in mid-2018, which identified the topics of interest that the public health professionals suggest addressing in the INSP's video conference series. Three thousand, two hundred and eighteen persons responded to the survey. The topics for video conferencing most requested by the 2018 respondents were: infectious diseases, nutrition, mental health, vector-borne diseases, pregnancy, cancer, and diabetes, among others. After the application of the survey, the topics were defined in order to shape each annual cycle of video conferences. In 2019 the series will reach the 19th anniversary of its implementation, and this year's cycle has been devoted to the topic of "Public Health and primary care: the basis for effective access to the health of Mexicans".

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The mechanisms for assessing the training needs are diverse and allow obtaining feedback from health professionals, employers and members of the community in order to plan the annual Continuing Education offer. In addition, specific evaluations of each course support the process and ensure the quality of the educational offer.

It will be possible to optimize the opportunities for designing actions for professional updating as a result of the INSP's research lines and the knowledge generated through these, which in turn respond to national health priorities. Currently, the syllabi and curricula are under revision as the Institute plans an educational offer that will combine factual knowledge, knowing and know-how.

[2] Saturno-Hernández PJ. Cómo lograr la excelencia en la atención sanitaria: Construcción, implementación y evaluación de Vías Clínicas (How to achieve excellence in healthcare: Construction, implementation and evaluation of clinical pathways). Cuernavaca, Mexico: National Institute of Public Health, 2018.

F4. Delivery of Professional Development Opportunities for the Workforce

The school advances public health by addressing the professional development needs of the current public health workforce, broadly defined, based on assessment activities described in Criterion F3. Professional development offerings can be for-credit or not-for-credit and can be one-time or sustained offerings.

1) Describe the school's process for developing and implementing professional development activities for the workforce and ensuring that these activities align with needs identified in Criterion F3.

Opportunities for Public Health Professionals

a) **Academic Programs open to professionals**

These programs are the result of studies and research highlighting the need to train human resources that can deal with current, relevant and frequent public health issues. It is comprised by certification programs (diploma courses), curricular courses, and workshops in the main public health areas (such as: administration, social sciences, epidemiology, biostatistics, environmental health, and nutrition, among others).
This academic program allows us to respond to social public health challenges promptly and with efficiency, efficacy and quality, therefore contributing to social equity and bringing the right for health protection into full effect through the dissemination of knowledge. It is centered on six training areas related to INSP's research lines and groups:

· Non-transmissible chronic diseases
· Infectious diseases
· Health through the life cycles
· Determinants of health
· Health systems
· Evaluation and monitoring of health policies

The Continuing Education Program, open to the professionals, is offered in the following formats:

- ***Virtual continuing education program:*** Through a virtual platform, courses on public health topics are offered to the public, with the support of tutors who orient students for the application of knowledge in a professional context, as well as peer collaboration (teamwork) which enriches learning experiences. The platform allows for applicant registration, and after a screening process, groups are put together and participants receive personalized attention from both their tutors as well as administrative personnel who monitor their activities; thus, they complete the course they choose within the corresponding time-frame.

- ***Training Program in Public Health and Epidemiology (PASPE)***
  This program takes place during the summer period (months of July and August) and it offers courses, workshops and certification programs via in-person format at the three INSP campuses: Cuernavaca, Morelos; Tlalpan, Mexico City, and Tapachula, Chiapas. The program is aimed for researchers, graduate students and professionals in the field of public health and epidemiology, at national and Latin American levels, in order to contribute to their training and knowledge update so that they can better address the issues they encounter in their professional practice. *PASPE* started in 1996, and in 2018 it celebrated its 23rd edition. To date, 780 courses have taken place, along with 31 certification programs and 8 children's training programs on environmental health. *PASPE* addresses the following thematic lines through the courses it offers:

  - Public Health
  - Epidemiology
  - Environmental and occupational health
  - Health systems
  - Nutrition
  - Economy
  - Biostatistics
  - Infectious diseases
  - Evaluation
  - Vector-borne diseases

b) Cycle of interactive videolectures.

INSP offers health professionals an annual cycle of videolectures on public health research, in order to broaden the coverage of its popular science or outreach activities, as well as continuing education. The videolectures are delivered by the Institute's public health researchers, as well as by special guests from other health and scientific research institutions.

Opportunities for Academic offerings for institutions

Courses are designed or integrated, workshops or certification programs are available in the in-person, virtual or blended formats, during specific periods and under the conditions expressed in interinstitutional agreements according to the interests expressed by the institutions. Their main interest is human resource training in public health topics. Also, diagnoses are performed on their training needs for the design of new programs that are adequate to their professional and work profiles.

Opportunities for General population

Several virtual courses are offered through the *CLIMA* virtual platform, developed by INSP. These courses are self-applied (without a tutor) and are free for the public that is interested in cutting-edge public health themes. The contents are developed by experts in health and teaching areas, whereby their quality is ensured, and they are always up to date. The teaching methods allow for diversified learning experiences with different resources, so participants can take maximum advantage of what they have to offer.

The platform allows the applicant to register, access data are generated automatically and courses may be selected according to interest. The students can advance at their own individual pace, according to availability of time and a place for study. Courses contain self-evaluations which, when approved, will allow the participants to print and save the corresponding certificate. Since 2014 to date, INSP has developed courses in themes that are a priority, such as: early detection and comprehensive management of breast cancer, cholera, vector-borne diseases, respiratory infections, breast-feeding, adolescent pregnancy and social determinants of health; 250,000 people who are involved in healthcare have been trained.

1) Provide two to three examples of education/training activities offered by the school in the last three years in response to community-identified needs. For each activity, include the number of external participants served (ie, individuals who are not faculty or students at the institution that houses the school).

Training Program in Public Health and Epidemiology (*PASPE*)
From 1996 to date, the *PASPE* program has carried out 845 updating activities in Public Health and Epidemiology, and has responded to the demand for updating from 17,122 health professionals from all over the country and from different countries (n=1454), among them: Argentina, Germany, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Denmark, El Salvador, Spain, United States, Guatemala, Haiti, Holland, Honduras, India, Malaysia, Nicaragua, New Zealand, Panama, Paraguay, Peru, Portugal, Puerto Rico, Great Britain, Dominican Republic, Rumania, Rwanda, Trinidad and Tobago, South Africa, Uruguay, and Venezuela.

The makeup of the 17,122 participants in *PASPE* courses, in the 23 editions, includes students (n=4587, 26.8%) and INSP academic and administrative personnel (n=1829, 10.7%), external professionals (n=9552, 54%) and international participants (n=1454, 8.5%). In all 23 editions, 54% of international *PASPE* participants are external health professionals (staff members of state health services, public hospitals, armed forces, among others), which shows that the courses are well accepted among the community that is external to the institution.

***CLIMA*: Massive Open Online Courses**
As of 2009, the creation of the *CLIMA* platform (Massive Open Online Courses), was the result of the need to provide care for patients affected by the influenza pandemic in Mexico, one of the most important in recent times for public health. The first course on "Acute respiratory infections during the cold season", allowed us to train more than 60 thousand students that year. Later, the name of the course changed to "Management of acute respiratory infections and influenza-type disease, for first contact doctors", which to date has had more than 10 thousand enrolled students. The self-applied course provides tools to primary level healthcare professionals so they can more effectively deal with the A (H1N1) influenza virus.

In 2013, the federal Ministry of Health of Mexico notified the World Health Organization (WHO) about the existence of 4 more cases of *Vibrio cholerae O1 Ogawa* infection: two in the state of Hidalgo and two in Veracruz. These four cases were added to the 180 cases that had been reported on Mexican territory by September of that year. The Mexican health authorities reinforced investigations and surveillance throughout the country, besides guaranteeing availability and quality of care provided by the medical units. The WHO web site speaks of the Mexican government's actions: "… Health professionals at different levels of the healthcare system are being trained in prevention and treatment of the disease." (https://www.who.int/csr/don/2013_11_13/en/). The INSP Continuing Education Program collaborated with this training program through the course entitled "Control Measures and Correct Management of Cholera", which was created to take care of a specific need. More than 120 thousand people enrolled for the first course (2013 to 2015).

A comprehensive strategy that will contribute to training human resources with the knowledge and abilities required to face the challenges arising at diverse levels of responsibility within the health system is necessary, due to a combination of the following factors:

1. High costs of poor quality health care;
2. The need to invest in evaluation and improvement of health services to identify and solve quality-related problems and to optimize health production,
3. And to provide the system with the organizational ability to carry out these activities based on better scientific evidence.

In order to contribute to training for the improvement of quality in the health care provided by doctors who are starting their social service, as well as personnel providing health care, an automated 40 hr course was proposed. Training of last year medical students who are doing their social service is relevant, since they are the patient's first contact in the local health system, mainly at medical units in rural or marginal areas in the country. To date, 7,599 health professionals have enrolled in said course.

Another example of an automated course is "*AMBAR*: Evidence-Based Health Care for Women and Newborns". This course is for health personnel providing care for women in reproductive age; its objective is to make evidence-based medicine more sensitive and updated with respect to care for women during pregnancy, delivery and puerperium, as well as care for the newborn. The course is supported by gamification techniques, establishing game and learning situations. Thus, the content is presented in the great land of *Pachamama* (Earth Mother), where the participant faces the challenge of saving humanity: the mission of the student of this course is to gather knowledge found within small challenges and in diverse environments. Each challenge is presented as a situation that must be analyzed, selecting the most adequate response. The information is shown according to the students' decisions so as to strengthen their knowledge, abilities and attitudes. To date, 9,873 people have taken the course.

An automated course called "Environmental Health" was designed and implemented with the purpose of providing basic information on this subject matter for students to understand the basic relationship between health and environmental factors in order to take steps towards prevention and care of the environment. To date, there are 2,922 people enrolled in this course.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

INSP has a very important professional development program, with a varied continuing education offer, which helps health professionals obtain the necessary competencies required for correct performance. The training programs have different platforms: virtual, in-person and semi-in-person, which adapt to the needs of those who are interested in improving and updating their professional competencies. The INSP Continuing Education Program, through *PASPE*, already has a long tradition. Since 1966, it has contributed to the training and updating of researchers, graduate students and professionals in public health and in epidemiology. In time, this has become an attraction at the national and international levels, especially in Latin America – in recent years, *PASPE* has received delegations from Latin American countries, for example from Costa Rica or Colombia – for the training and updating of managers and researchers. Another advantage of *PASPE* is that it allows for permanent interaction between the National Institute of Public Health and health institutions, educational centers and research teams at the national and international levels. The Program has contributed to strengthening the health practice of approximately 17,122 professionals in Mexico, Latin America and the Caribbean since its first edition; updating is provided through a variety of courses, workshops and certification courses. The *CLIMA* platform allows for dissemination of knowledge in a free manner, among the population with learning needs.

The offered training has a variety of formats, including online, in-person and blended learning, so it can be taken by professionals where and when it is convenient to them and using the method best adapted to their learning needs. Much of the training is free or at a very low cost and includes options to audit or obtain a certificate.

One of the challenges posed by this program is the payment of licenses for the use of technological platforms that in the last years have represented considerable costs for the institution. Allocating resources to this type of payments is extremely important; however, the use of other free platforms has been explored, although these have poor connectivity, or none, in some areas of the country. In certain places, our country bandwidth does not have optimal conditions for receiving an adequate signal in the receiving equipment.

Another limiting factor in the use of free platforms is the number of participants in the virtual sessions, which in some cases does not allow more than 25 participants. Among the great challenges faced by the Continuing Education program at this time is the entry of the new federal administration, which has not yet defined a policy on the main public health challenges to be dealt with; for this reason we have not been able to set forth a training proposal that is aligned with the National Development Plan.

The INSP improvement plans include the systematization of activities for the design and implementation of online programs or components. Planning will be important in order to ensure the financial sustainability of the continuing education program that will also allow us to provide an agile response to the demands of governmental institutions, the private sector or civil society organizations.

G1. Diversity and Cultural Competence

Aspects of diversity may include age, country of birth, disability, ethnicity, gender, gender identity, language, national origin, race, historical under-representation, refugee status, religion, culture, sexual orientation, health status, community affiliation and socioeconomic status. This list is not intended to be exhaustive.

Cultural competence, in this criterion's context, refers to competencies for working with diverse individuals and communities in ways that are appropriate and responsive to relevant cultural factors. Requisite competencies include self-awareness, open-minded inquiry and assessment and the ability to recognize and adapt to cultural differences, especially as these differences may vary from the school's dominant culture. Reflecting on the public health context, recognizing that cultural differences affect all aspects of health and health systems, cultural competence refers to the competencies for recognizing and adapting to cultural differences and being conscious of these differences in the school's scholarship and/or community engagement.

1) List the school's self-defined, priority under-represented populations; explain why these groups are of particular interest and importance to the school; and describe the process used to define the priority population(s). These populations must include both faculty and students and may include staff, if appropriate. Populations may differ among these groups.

Promoting a diverse and multidisciplinary community is a priority for INSP, a community that enhances better understanding, care, and research of public health population problems, including as many professional and sociocultural viewpoints from its members as possible. In Mexico this is promoted by the Federal Act for the Prevention and Elimination of Discrimination, which includes policies for no discrimination on race, ethnicity, age, gender, religion, sexual orientation, physical or health condition in the access to educational and work opportunities. For this reason, INSP does not include preferential characteristics for students, faculty or staff in its applicant's profiles.

INSP has shown great interest in generating academic activities for filling vacancies of faculty, students or staff in population sectors identified as underrepresented in our community, and to give equal training and development opportunities to all, promoting diversity, and multicultural and professional enrichment to its members. Certain groups in the INSP community which, due to their characteristics, may be subjected to different conditions when performing academic, professional or social activities have been identified. These include the following:

- **National students foreign to the location of the INSP campuses**

In consistency with its character as a national institution, it is relevant for INSP to offer training and professional opportunities in the field of public health to applicants from different federal entities in the country. Its students come from different states, temporally changing their residence to the locations of the INSP campuses while studying; thus, they are foreign to the cities where they are studying. For this reason, INSP tries to give them support while they are in the process of adapting to these new surroundings.

- **Students, Faculty and Staff Who Have Different Professional Profiles**

Initially, the INSP community included mainly professionals with a profile associated to medicine and to the fields related to traditional health. The INSP has been interested in promoting a multidisciplinary professional participation in its community, including and favoring students, faculty and staff with a broad range of professional profiles, contributing in this way to better fulfill the INSP's mission.

- **Students Who Work and Study**

The INSP has been trying to offer graduate educational options for professionals who can't leave their work activities but want to obtain a degree in public health. Programs in virtual and executive formats have been implemented for them.

- **Women in High-Level Administrative and Leadership Positions**

In Mexico, there is a significant difference regarding gender with an unequal participation of women in high administrative and leadership positions within institutions. INSP has tried to offer and generate opportunities to show the accomplishments of women teachers and leaders in order to have an equal gender participation.

- **Students from Native Groups**

In order to fulfill the requirements for admission, applicants interested in becoming students at the INSP must write a letter explaining their reasons to study there, manifest their specific program of interest and indicating if they belong to a native group. Populations of native groups are those descending from Pre-Columbian cultures in the American continent, who have preserved their social and cultural characteristics and who often speak their native language. The coordinators of each public health program at INSP have promoted the acceptance of applicants from native Mexican or Latin American groups in recent years. An example of this is the case of the State Council for Science and Technology of the State of Guerrero (CECyTEG), interested in improving the quality of life for native groups in the region, grants young women scholarships to study at high-level national academic institutions. We have had some of these students who, besides receiving financial support to study in our campuses, also receive economic support for international academic stays and for studying English in Canada.

There are specific examples of graduate students who belong to native groups of the states of Yucatán, Chiapas, Oaxaca, and Guerrero; the last three are the states with the highest poverty indicators in our country, and there is special interest in collaborating in the socioeconomic and cultural development of these groups. INSP graduates include students belonging to native groups such as the Maya, Tzetzal, Triqui, and Mixtec. In 2016, a Triqui student from Oaxaca, one of the most vulnerable regions in the country, obtained his degree at the INSP.

Also, in 2017, the Public Health graduate program with concentration in Behavioral Social Sciences accepted a student who belongs to a native Colombian group from the northwestern region of his country, the Sinus. This student will graduate in 2019; he will be the first of his ethnical group to graduate from INSP.

- **Foreign Students and Faculty**

As part of the vision of being a benchmark center for training human resources in Latin America, internationalization has been for INSP a dimension of its academic quality since its origins, and academic programs are promoted at an international level. The international community at INSP comes from Guatemala, Peru, Argentina, Uruguay, Costa Rica, Colombia, Ecuador, Cuba, Nicaragua, Haiti, Dominican Republic, Japan, Spain, United States, among others. Foreign students moving away from social conflicts or violence in their countries —for example, Guatemala and Peru— have been accepted in the educational programs at INSP.

- **Students in Mobility Programs**

INSP has a lot of experience in these programs and is a reference center for doing academic stays for research or study. Mobility programs include short stays for faculty and students, tailored to meet their needs, and postdoctoral stays for foreign researchers.

- **Groups Promoting Sexual Diversity**

INSP respects the sexual diversity existing in its faculty and student's community. Although students are not questioned regarding their sexual orientation or gender identity when they apply to our graduate programs, we know there is gender diversity among those admitted. Leadership and staff are respectful of this diversity at INSP.

2) List the school's specific goals for increasing the representation and supporting the persistence (if applicable) and ongoing success of the specific populations defined in documentation request 1.

Table G1.2. INSP goals to increase specific group representation promoting diversity in the community.

Community Group	2019 Goals
National students foreign to the locations of the INSP campuses	To maintain the representability of graduate students from all the 32 states of the Mexican Republic to and carry out specific promoting actions in those states from which we have less than five students: Aguascalientes, Baja California Sur, Coahuila, Colima, Michoacán, Nayarit, Quintana Roo, Tabasco, Tamaulipas and Zacatecas.
Diversity of professional profiles for the students, faculty and staff	To maintain professional diversity in the communities of students, faculty and staff at INSP and acknowledge their contributions to academic and administrative tasks.
Students who work and study	To increase continuous educational offerings of blended format, in order to allow people who work and study to participate in our campuses.
Women in high-level positions of management and leadership	To maintain 50% of high-level positions of management and leadership occupied by women at INSP.
Students from native groups	To develop the faculty component of the INSP Institutional Health Program for Indigenous Peoples. How does developing the faculty component help achieve goals for students from native groups? Should this be two different goals?
Foreign students and faculty	To present to the INSP's Governing Body a proposal for reducing the registration fees to foreign students by 10% and for offering, during the selection process, ten 50% scholarships to Latin American students, based on their academic merit.
Students in mobility programs	To develop customized programs for those students and faculty members who do short stays at the INSP. To offer economic support to INSP students doing stays at other universities in Mexico or abroad.
Groups promoting respect toward sexual diversity	To promote an environment of respect toward groups supporting LGBTI rights in the whole INSP community.

3) List the actions and strategies identified to advance the goals defined in documentation request 2, and describe the process used to define the actions and strategies. The process may include collection and/or analysis of school-specific data; convening stakeholder discussions and documenting their results; and other appropriate tools and strategies.

Institutional actions allowing the inclusion of minority groups in the community, favoring their sense of belonging and identity, and thus promoting cultural diversity have been developed. Also, opportunities and conditions for the participation of members of those groups to participate in the INSP community and improve their academic and/or professional performance have been promoted (Table G1.2).

Table G1.2. Actions taken by INSP to increase specific groups representation promoting diversity in the community.

Group in the Community	2019 Goals	Actions taken
National students foreign to the locations of the INSP campuses	To maintain the representativity of students from all 32 states of the Mexican Republic in the graduate programs, and to take specific actions to promote these programs in the states from which we have less than five students: Aguascalientes, Baja California Sur, Coahuila, Colima, Michoacán, Nayarit, Quintana Roo, Tabasco, Tamaulipas and Zacatecas.	To promote the academic program in the states of the Mexican Republic that are underrepresented in the graduate programs, by contacting the corresponding state health authorities and promoting collaborative agreements with the Health Schools of the Autonomous Universities of those states. Data underlying these actions have been collected from students registration and the agreements established by the Office of Legal Affairs.
Students, faculty and staff with diverse professional profiles	To maintain professional diversity among the students, faculty and staff communities of the INSP and to acknowledge their contributions to the teaching and management tasks.	When an award or some other incentive is given publicly to a teacher or staff member, their professional profile should be acknowledged, so diversity can be visible. Each year in the Graduation Ceremony performed every September awards are given for accomplishment in research and teaching; it is appropriate to acknowledge the corresponding professional profiles in such a relevant act. Incentives to staff members for their performance are awarded in a public ceremony presided by the Director General at the end of the year. This is an appropriate occasion to acknowledge the professional profiles of those who have performed well.
Students who work and study	To increase offers for continual education in the mix modality in order to enable those students who are working to participate at the Tlalpan campus.	In a recent meeting of INSP Board of Directors and the External Consulting Board, the latter recommended increasing the executive offer at the Tlalpan campus. For 2020 curricular and diploma courses in the blended format have been planned at this campus as well as at the Cuernavaca campus. The Tapachula campus offers ongoing continuing education courses to staff members of the Ministry of Health, and the goal is to maintain this collaboration.
Women in high-level positions of management and leadership	To maintain 50% representation of women in high-level positions of management and leadership at INSP.	The percentage of women in high-level positions of management and leadership reflects acknowledgement of gender equality and professional merit.
Students from native groups	To develop the faculty component for INSP Institutional Health Program for Indigenous Peoples	To develop a workforce in public health that will provide priority health care to the indigenous peoples in a comprehensive manner and, through an affirmative action policy, to incentivize the incorporation of indigenous professionals into the graduate and continuing educational programs.

Foreign faculty and students	To provide more incentives to foreign students in order to attract better candidates to the INSP. To promote, through liaison actions, foreign faculty stays for the purpose of teaching graduate and continuing education courses.	To present to the Governing Board of the INSP the proposal for reducing the registration fees to foreign students by 10% and for offering, during the selection process, ten 50% scholarships to Latin American students, based on their academic merit. To promote foreign faculty mobility for the purpose of teaching graduate and continuing education courses.
Students in mobility programs	To develop customized programs for students and faculty who do short stays at the INSP.	To develop, in partnership with the University of Copenhagen, a special course on Global Public Health for medical students.
	To offer economic support to INSP students doing stays at other universities in Mexico or abroad.	To obtain authorization by the Ministry of Finance (SAT) to give discounts in registration fees to students doing international stays.
Groups promoting respect to sexual diversity	To promote an environment of respect towards groups promoting LGBTI rights in the whole INSP community.	To promote research and continuing updating courses in relation to population services for the LGBTI population. To generate dissemination and awareness-raising activities at the INSP, such as the annual event on the National and International Day Against Homophobia and Transphobia.

4) List the actions and strategies identified that create and maintain a culturally competent environment and describe the process used to develop them. The description addresses curricular requirements; assurance that students are exposed to faculty, staff, preceptors, guest lecturers and community agencies reflective of the diversity in their communities; and faculty and student scholarship and/or community engagement activities.

What follows is a list of some activities to promote the development of cultural competencies:

INSPanamerican Festival

There are documents at the INSP asserting that in 1926 a group of Colombian physicians obtained their Master of Public Health degree at the School of Public Health of Mexico. The INSP has a long history of receiving international students in its classrooms. In the last five years, the INSP has received 274 students coming from all regions of the Americas.

The INSPanamerican Festival was born in 2011 as a form of offering non-academic activities to the national and international communities, at that time dispersed. The first festival helped bring the international community together, and subsequently also the national community. It provided the opportunity for each of these peoples to express pride in their identity, traditions and customs and show them to the rest of the community. It also allowed the creation of support networks for new national and international students.

A year later, in 2012, the Student Association also participated in the festival, bringing the national community of the INSP together, and in 2013 The Researchers and Teachers Association also joined in. In 2013 the INSP Staff Union participated too. Year after year the number of activities included had been increasing and they currently include academic and cultural activities, as well as sports. Students and faculty and staff members organize activities from their places of origin, thus sharing their cultural identity with the community.

Diploma Course in Global Health
The Program on Global Health at the INSP has the aim of developing high-level professionals capable of analyzing, guiding and responding to the public health challenges and needs, particularly those in the Americas and in the Mesoamerican sub-region, within the context of a more and more globalized and interconnected world. It includes four modules of 40 hours each, two in person and two virtual. Several institutions participate in its design and in the instruction; from Mexico: The Salvador Zubirán National Institute of Medical Sciences and Nutrition, (INCMNSZ), the National Cancer Institute (INCan), and from other countries: Emory University and Tulane University, from the USA; Toronto University, from Canada; the Autonomous University of Nicaragua; the Cayetano Heredia University, from Peru, and the UCL International Institute for Society and Health, from the UK.

Global Health Day
The Global Health Day is organized each year by the Center for Health Systems Research, it includes lectures by prominent experts in global health, as well as activities and workshops to strengthen intercultural competencies.

Course on Abilities and Tools for Interculturally Competent Care
Within the framework of the project: Skills and Tools for Interculturally Competent Care in Health Services, funded by the Arronte Foundation, in which researcher-professors from INSP participated, a workshop called "Skills and Tools for Interculturally Competent Care in Health Services" was developed for bicultural final year medical students, nurses and/or health agents. It consists of four modules with 15 hours each and was taught in Chiapas, Morelos, Chihuahua and Puebla**.**
Graduates of this workshop should:
1. Have developed knowledge and strengthen competencies for health care from the perspective of the patient's rights, and an intercultural and dignified way of treating the patient.
2. Be sensitive to the cultural differences and able to promote cultural adaptation in the health services offered by their healthcare units.
3. Have methodological tools to suggest changes or develop strategies improving the intercultural approach.
4. Have strengthened their management and organizational competencies for team work.
Given the methodological strength of this workshop, as well as its appropriateness and social relevance for the Mexican context, its contents will be adapted for the students of the INSP's graduate programs, to be taught in the in-person format starting in the 2019-2020 academic cycle. In the final document will be explained how it is integrated in course schedule.

Technical Meeting on Indigenous Peoples' Health at the 2019 CONGISP
At the International Congress on Public Health (CONGISP), organized by the INSP, a technical meeting named "Indigenous Peoples' Health on the Fourth Transformation in Mexico: Challenges and Perspectives" took place on March 27. Researcher-teachers of the INSP and leaders in the public and private sectors, as well as several civil social organizations addressed the participants.
This meeting resulted in certain agreements whereby the INSP, along with other institutions, will promote policies and programs to improve indigenous peoples' health. This session was open to all participants at the CONGISP, among whom INSP faculty members and students were included.

Indigenous Peoples Health: Agenda for Research, Teaching and Connections: An Institutional Program.
INSP together with the National Institute for Indigenous Peoples are designing the institutional program: *Indigenous Peoples' Health: Agenda for Research, Teaching and Connections*. The general goal of this program is to contribute to the development and well-being of indigenous peoples across the country by researching their main needs, training health personnel for their care, and innovating for developing culturally appropriate evidence-based policies. Advances of this Program will be available in the onsite visit.

The section on plans for improving this criterion highlights the contributions of this program to the training of human resources for health.

5) Provide quantitative and qualitative data that document the school's approaches, successes and/or challenges in increasing representation and supporting persistence and ongoing success of the priority population(s) defined in documentation request 1.

In terms of gender diversity, of the 512 students enrolled at the INSP as of March 1st, 2019, a higher percentage were female (59.6%, n=305) than male (40.4% n=207). This has been the tendency in the last few years (Table G.1.5.1.).

Table G.1.5.1. Gender of students at INSP (2014-2018).

	2014	**2015**	**2016**	**2017**	**2018**	**TOTAL**
Men	195	236	213	228	206	1078
Women	342	351	311	357	343	1704
Total						2782

National students foreign to the INSP campuses
Students at the INSP come from all federal entities of the Mexican Republic.

Table G.1.5.2. Places of origin of national INSP students.

Federal Entity	2014	2015	2016	2017	2018	2019
Aguascalientes	4	3	3	5	4	1
Baja California	2	12	11	8	11	12
Baja California Sur	5	5	1	3	3	2
Campeche	0	0	0	1	21	20
Chiapas	11	15	12	13	16	12
Chihuahua	8	10	9	10	7	7
Mexico City	124	143	131	141	139	128
Coahuila	5	6	6	4	1	3
Colima	1	2	2	1	1	2
Durango	1	5	5	4	3	6
Estado de México	44	55	48	58	44	43
Guanajuato	12	13	13	20	18	16
Guerrero	12	12	10	14	12	8
Hidalgo	5	32	21	10	13	10
Jalisco	9	13	12	16	10	15
Michoacán	15	14	13	16	7	3
Morelos	90	84	76	87	76	81
Nayarit	2	0	0	2	3	2
Nuevo León	11	12	12	17	15	12
Oaxaca	5	11	11	15	11	8
Puebla	20	21	19	14	18	15
Queretaro	7	11	7	7	5	7
Quintana Roo	2	0	0	3	4	2
San Luis Potosí	10	18	18	16	15	12
Sinaloa	3	6	4	5	5	8
Sonora	18	5	5	8	8	8
Tabasco	4	4	4	5	3	2
Tamaulipas	2	2	2	3	3	1
Tlaxcala	2	2	1	2	2	5
Veracruz	7	13	12	10	12	11
Yucatán	4	8	8	8	6	5
Zacatecas	1	0	0	1	3	3
*No data	51	3	3	5	3	0
Total	497	540	479	532	502	470

Students, faculty and staff with diverse professional profiles
The tenured faculty have an academic training in the following professional fields:

Table. G.1.5.3. Faculty professional profile at the INSP (2019).

Professional profile	%	n
Informatics	1.77%	4
Actuarial science	1.77%	4
Sociology	3.10%	7
Psychology	5.33%	12
Economics	5.33%	12
Chemistry	7.55%	17
Nutrition	10.66%	24
Biology	13.33%	30
Medicine	25.77%	58
Other	25.33%	57
Total	100%	225

Regarding age, there is a wide age range (26 to 89 years) among faculty members, being 26 to 89 years in men and 33 to 68 years in women; most teachers are in the range between 35 and 54 years of age (Table G.1.5.4.).

Table G.1.5.4. Age groups for teachers (PIF) at INSP.

Age group	Number of teachers
26 to 34	4
35 to 44	**64**
45 to 54	**70**
55 to 64	**73**
65 <	**14**
Total	**225**

Students who work and study

Executive and virtual programs group all the INSP students who are professionals working and studying. They represent 29.5% of the total student community (Table G.1.5.5.).

Table G.1.5.5. Students at the INSP programs who work and study.

Programs for students who work and study	Active students (March 2019)
Specialization in Comprehensive Evaluation of Social Development Programs and Policies	17
Master of Public Health	54
Master in Health Services Quality Management	42
Doctorate in Quality of Health Systems	9
Doctorate in Public Health	29
Total	151

Foreign Students

On March 31, 2019, there were 42 foreign students, from a total of 512 (8.2%), enrolled in graduate programs at the INSP; they come from 13 different countries, mainly of Latin America.

Table G.1.5.6. Foreign students enrolled in INSP programs (2014-2019).

Country of origin	2014	2015	2016	2017	2018	2019
Argentina	0	1	1	1	0	0
Bolivia	5	4	3	3	2	0
Chile	0	1	1	1	1	1
Colombia	20	25	25	26	21	21
Costa Rica	0	3	3	2	3	4
Cuba	1	0	0	1	2	1
Dominican Republic	1	0	0	0	0	0
Ecuador	1	0	0	3	4	2
Guatemala	4	2	1	2	3	2
Haiti	1	0	0	1	1	1
Honduras	1	2	2	2	0	0
Japan	1	0	0	0	0	0
Nicaragua	1	0	0	0	0	0
Panama	0	0	0	0	1	1
Paraguay	1	2	2	1	1	1
Peru	1	2	2	4	5	5
Portugal	0	1	1	1	1	0
Spain	0	0	0	1	1	1
United States	1	1	1	1	0	1
Uruguay	0	2	2	2	1	1
*No data	1	1	1	1	0	0
Total	40	47	45	53	47	42

Students in mobility programs

The number of students received from other institutions national or international has increased since 2014.

Table G.1.5.7. Number of nationals and international students received in academic stays at the INSP.

Year	National students	International students	Total
2014	16	16	32
2015	11	30	41
2016	16	20	36
2017	9	22	31
2018	16	31	47
TOTAL	68	119	187

Between 2014 and 2018, United States was the country that sent most students to the INSP for research stays:

Table G.1.5.8. Place of origin of international students received in an academic stay at the INSP (2014-2018).

Country of origin	Total
Argentina	1
Brazil	1
Canada	2
Colombia	14
Denmark	2
France	2
Germany	10
Japan	1
Peru	2
Spain	3
The Netherlands	2
United States	79
TOTAL	119

Every year, the Training Program in Public Health and Epidemiology (PASPE), offers in-person courses during the summer. From 2014 to 2018, it has received 199 students from different countries.

Table G.1.5.9. Place of origin of foreign students enrolled in PASPE-INSP (2014-2018).

Country of origin	2014	2015	2016	2017	2018
Argentina	0	0	1	0	0
Belize	0	0	0	1	0
Bolivia	4	0	0	1	0
Chile	4	4	1	1	0
Colombia	10	16	5	7	17
Costa Rica	1	4	5	1	11
Cuba	1	5	6	4	3
Dominican Republic	1	0	0	0	2
Ecuador	2	2	1	1	1
El Salvador	1	3	0	1	1
Germany	0	0	0	1	0
Guatemala	0	3	4	1	4
Haiti	1	0	0	0	0
Nicaragua	2	1	0	0	0
Panama	1	4	2	2	1
Paraguay	0	1	1	2	0
Peru	3	4	5	0	3
Puerto Rico	0	1	0	0	0
Spain	0	0	0	0	1
The Netherlands	0	0	0	1	0
United Kingdom	0	0	1	0	0
United States	1	3	1	11	2
Uruguay	0	0	0	0	2
TOTAL	32	51	33	35	48
TOTAL	199 foreign students				

During the 2014-2018 period, the INSP received 19 researchers for postdoctoral stays; 10 of these have been women.

Table G.1.5.10. Postdoctoral stays by gender.

Year (in which the stay began)	1er. Year		2do. Year		Total
	Women	Men	Women	Men	
2014	2	0	0	0	2
2015	2	3	0	1	6
2016	3	1	0	1	5
2017	0	1	2	1	4
2018	1	0	0	1	2
Total	8	5	2	4	19

INSP mainly come from national institutions located in different entities of the Mexican Republic, including: the Center for Research and Advanced Studies of the National Polytechnic Institute, the Morelos State Autonomous University, the University of Guanajuato, the National Autonomous University of Mexico, the Meritorious Autonomous University of Puebla, the College of Mexico, the Autonomous University of Nuevo León, and the University of North Carolina.

Women in High Level Administrative and Leadership Positions
The INSP staff is interested in maintaining a gender balance in leadership positions at its Research Centers. In the INSP's faculty, women representation is slightly higher (59.6%), including tenured faculty (both PIF and non-PIF) in all programs.

As for leadership positions, there is a slight majority of women occupying administrative high-level positions at the seven research centers of the INSP and the Office of Academic Affairs. Four of the centers are directed by women:

- Center for Research of Infectious Diseases (CISEI) headed by Dr. Celia Mercedes Alpuche Aranda, PhD;
- Center for Research in Evaluation and Surveys headed by Dr. Teresa Shamah Levy, PhD;
- Center for Information on Health Systems headed by Dr. Hortensia Reyes Morales, PhD;
- Office of Academic Affairs headed by Dr. María Eugenia Ocampo Granados, PhD.

6) Provide student and faculty (and staff, if applicable) perceptions of the school's climate regarding diversity and cultural competence.

The INSP abides by the non-discrimination policies historically promoted by the Government of Mexico, not considering age, gender, race, disabilities, religion or nationality as an element that might be regarded as a cause for exclusion from the institutional community, or as a student or faculty or staff member at the INSP. Providing equal opportunities to all the members of the community is an institutional commitment.

Gender opportunities at the INSP have been pointed out previously and four of the seven research centers at the INSP are directed by women, and most professors in the tenured faculty are women. The commitment to maintain equality in the leadership positions has been fulfilled by our Director General, Dr. Juan Rivera Dommarco, PhD. Likewise, we can see that the female component in the graduate programs enrollment is over 59.6%, in accordance with the increasing participation of women in higher education in Mexico and meeting the goal of strengthening gender equality in our country.

Students and professors have stated that they feel that they are in a diverse community. They point out that there is diversity in the classrooms, as well as room for the LGBTI community, by gender and by nationality. Although the School of Public Health of Mexico (ESPM) has had generations of very young students (25-26 years), in general, the students recognize diversity in this aspect too, as the range of the student population includes young adults and adults age 40-45 years or older; furthermore, the Doctorate Program in Public Health has students aged more than 55 years, like Enrique Bravo MS, a student of the 2018 generation.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

To have policies and strategies encouraging diversity among the students, faculty and staff is a priority at the INSP, aiming to promote enrichment in terms of age groups, and professional profiles; giving women access to educational spaces, research and high-level leadership positions, as well as guaranteeing enrollment by students from different places of origin (national or international) in educational programs.

One of the main challenges at the INSP in this regard is to increase opportunities for participation by foreign students in educational programs. Despite having students from practically all of the American continent, economic barriers for young adults coming from other regions —especially from Latin America— continue to be an obstacle for having a larger population, which would strengthen the INSP as a leading institution in the region.

Likewise, although admission of students belonging to native groups is favored, their numbers must be increased in order to enhance the development of the country at large and benefit the native communities.
The plans to increase participation by these groups include the proposal to reduce the programs fees for foreign students, which are currently higher than those for Mexican students, and to promote the economic support programs for graduate students of native groups offered annually by the Federal Government and by the state governments.

In addition, the Institutional Program "Health for Native Peoples: An Agenda for Research, Teaching and Liaison", which includes actions and strategies directed to: a) training professionals to provide health care to the native peoples, b) taking affirmative actions for incorporating aboriginal professionals in the Health System, and c) training health professionals with intercultural competencies, is under preparation.

H1. Academic Advising

The school provides an accessible and supportive academic advising system for students. Each student has access, from the time of enrollment, to advisors who are actively engaged and knowledgeable about the school's curricula and about specific courses and programs of study. Qualified faculty and/or staff serve as advisors in monitoring student progress and identifying and supporting those who may experience difficulty in progressing through courses or completing other degree requirements. Orientation, including written guidance, is provided to all entering students.

1) Describe the school's academic advising services. If services differ by degree and/or concentration, a description should be provided for each public health degree offering.

The INSP designs and implements specific student advising and orientation programs and activities. These programs and activities are offered to all students in order to foster academic success, knowledge about academic processes, and contact with academic and administrative staff who can provide support for carrying out activities that are necessary for training. The aforementioned advising and orientation services are offered under the following modalities:

a) Information Services: documents, strategies and activities that provide students with institutional information so they can successfully complete their academic program, from the time of enrollment to graduation:
Student Manual: information document for consultation, electronically available for students. It contains topics of interest to students, as well as necessary information regarding services, programs, procedures, and regulations governing their activities throughout their academic program.

Induction Course: held during the week prior to the beginning of each academic term. This course is taken in person by the INSP's new first-year students at the Cuernavaca and Tlalpan campuses and in a blended in-person/online format at the Tapachula campus. Activities are carried out by means of a conference and information forum format. This provides students with relevant information regarding the Institute, its strategic lines of work, its pedagogical model, public health themes, academic administrative information, meeting the Program's academic coordinators, student services and support programs aimed at students identifying the necessary processes for a successful trajectory. They also interact for the first time with faculty members who will serve as guidance counselors and advisors throughout the program (tutors, academic coordinators, etc.).

b) Institutional Tutorial Program. From the time of enrollment in the program, each INSP student is assigned a tutor. The tutor supervises and monitors the academic training process, as well as each student's progress in order to ensure their ongoing presence, good performance, and professional development. from the time of enrollment in the academic program until graduation, a tutor will orient students based on knowledge of their problems, academic needs, concerns, and professional aspirations. The tutor's basic function is to support the students in developing their capacity to identify and implement an appropriate study and work methodology regarding the demands of the program they are enrolled in. Tutors support the students' academic decision-making process throughout their participation in the program. It is anticipated that tutors will establish an empathy and trust-based bond with students that fosters the development of their capabilities in the academic programs.

Upon completing the semester, tutors write a report per each student, noting the performance level the student has attained in each criterion. This result is color-coded into three categories: red indicates that the student presents difficulties that might compromise their graduation in due time and proper form; yellow points to the fact that the student presents a situation that is affecting his/her academic performance; and green indicates a student's academic performance is good. This color-coded classification facilitates the identification of cases requiring specific support in order to ensure appropriate follow-up.
In the case of on-line programs, students have access to an expert in their area of knowledge who provides tutorial sessions, guiding and accompanying all the students' academic activities until they graduate.

c) Community Practicum in the MA in Public Health. Comprehensive Public Health Assessment (DISP). In order to comply with this practicum, there is a community practicum advisory team. This team, in consensus with the General and Operational Coordination and the Associate Professor of the DISP Unit, helps the student to solve the difficulties that emerge while carrying out the community diagnosis, as well as during the student's academic follow-up in the DISP.

d) The Office of Academic Affairs' Educational Orientation Department. This Department offers psychopedagogical orientation services through two psychology professionals, as well as a psychology and pedagogy professional. These professionals provide individual sessions to the students who request it.

2) Explain how advisors are selected and oriented to their roles and responsibilities.

The main faculty members providing students with academic advising are the tutor, the program coordinator, and in the case of students in the Master of Public Health programs, an advising team pertaining to the DISP also participates.

The tutor: The *General Graduate Studies Regulation* stipulates that once a student is accepted, the Faculty Association that governs the program assigns the student a professor who will serve as a tutor from the time of enrollment until the student's graduation. This work is carried out in association with the Faculty Association and the Teacher Training and Evaluation Department, thus generating an academic support network. During the school semester, the tutor writes periodic reports on the supervised student's performance, identifying situations requiring attention. The tutor uses a manual that describes the Institutional Tutorial Program (PIT), as well as the tutorial process and activities.

Academic Coordinator: Each academic program has two professor-researchers who assist enrolled students, a main coordinator, and an adjunct coordinator. Each program's concentration area follows this same structure. The main function of these faculty members is to coordinate the activities specific to the program's academic work, as well as to inform and respond to the questions and needs of the students engaged in the program. Coordinators participate in the Program Committees' periodic meetings in which they are oriented regarding the main processes they must monitor and are advised about specific cases. The coordinators are also supported and followed by the Faculty Associations and the Director of the Research Center they are associated with.

Advising Team at the DISP: The corresponding Faculty College is in charge of appointing the Community Practicum Advising Team in order to thus create a multidisciplinary advising team. Associate Professors who teach the DISP's subjects organize meetings and provide personal orientation to the corresponding advising teams.

The Office of Academic Affairs staff members who provide services through the Educational Orientation Department. These staff members have the credentials and experience to provide students with individualized attention and, if needed, refer them to mental health services, or to the corresponding academic authorities.

3) Provide a sample of advising materials and resources, such as student handbooks and plans of study, that provide additional guidance to students.

Samples of the manuals available for INSP students are in the electronic resource file (the student manual, the institutional tutorial program manual, and the DISP manual.

4) Provide data reflecting the level of student satisfaction with academic advising during each of the last three years. Include survey response rates, if applicable.

At the INSP, once students complete the program, an evaluation of the advising and orientation services offered at the Institute is included in the graduates' satisfaction survey in order to know student perception of these services. The results are shown in table H1.1.

Table H1.1. Student Perception of the INSP's Advising and Orientation Services.

Generation	Type of Evaluation	Evaluated Program	Comments
2014-2016	Graduate Satisfaction Survey	MPH & MSc	91% of students perceive the tutor's support regarding their academic development as satisfactory.
2015-2017	Graduate Satisfaction Survey	MPH & MSc	97% of students perceive the tutor's support regarding their academic development as satisfactory.
2016-2018	Graduate Satisfaction Survey	MPH & MSc	95 % of students perceive the tutor's support regarding their academic development as satisfactory.
2012-2016	Graduate Satisfaction Survey	DSc & DPH	82% of students perceive the tutor's support regarding their academic development as satisfactory.
2013-2017	Graduate Satisfaction Survey	DSc & DPH	79% of students perceive the tutor's support regarding their academic development as satisfactory.
2014-2018	Graduate Satisfaction Survey	DSc & DPH	88% of students perceive the tutor's support regarding their academic development as satisfactory.

In 2019, during the Public Health Research Congress, students were surveyed to determine their perceptions regarding how tutorials contributed to their academic development, among other themes. According to the information provided by the 77 surveyed students, among other comments collected, tutorials have contributed to:

- Providing ongoing orientation and advising.
- Solving questions, complaints, and/or conflicts expressed by students.
- Assisting and strengthening academic knowledge.
- Guiding the development of their thesis project, practicum, and academic stays.
- Facilitating student expression.
- Students feeling understood.
  Improving academic performance and/or efficiency, as well as guidance in decision-making.

5) Describe the orientation processes. If these differ by degree and/or concentration, provide a brief overview of each.

Student orientation processes may be comprised of various aspects, described below:

Orientation provided by the Academic Coordination: The academic coordinator is the faculty member in charge of academic management in the program's concentration area chosen by the student. The academic coordinator's function is to supervise that activities function as planned and orient students regarding the academic processes that have an influence on their training, as well as to serve as an intermediary with the rest of the academic staff and collegiate bodies if problems or necessary paperwork processing should emerge. Coordinators have the openness and willingness to orient and support students in solving questions they might have and/or facing difficulties when they arise.

The tutor: The faculty members serving as tutors hold semiannual meetings with the students from the time of their enrollment in the program until graduation. During these meetings, the tutors, together with the students, assess their progress and performance, identifying situations that require attention. If it is necessary to solve a student's problems, the tutor also puts the student in contact with other academic support staff. In online programs, meetings take place through the use of ICTs and at the virtual MPH, the tutor accompanies the student as his/her advisor in most academic processes.

Psychopedagogical Orientation: It is available for any student requiring personalized attention regarding psychological problems or other issues that may hinder learning. The most commonly addressed issues include orientation regarding study strategies, stress management, problems in adapting to both the institution and the pedagogical model, conflicts in interpersonal relationships, and mood-related issues. If it is not possible to solve an issue with individual orientation, students are channeled to qualified services in order to address the situation.

The Educational Orientation Department makes this service available to any student requesting it in order to thus provide them with attention and orientation regarding questions and/or issues that may emerge. In the case of the alternate campuses and virtual programs, attention may be provided electronically, which has been of great use to the student community.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

During the last three years, the INSP has sought to consolidate a comprehensive orientation and advising system for students, emphasizing the participation of all sectors involved in training processes, such as professor-researchers who serve as tutors, academic coordinators, community practicum advisors, and collegiate bodies. These actions have made it possible to provide students with accompaniment from the time they enroll in the Institute until they complete their studies, as well as to identify possible situations that could affect the students' optimal development throughout their studies at the INSP.

INSP students also have access to a team of professionals who provide psychopedagogical care, either in an individualized form or as a group, depending on the needs detected in the student community.

However, it is necessary to carry out evaluations oriented to students externalizing their perception periodically regarding the different tutorial interventions.

As was explained in criterion D18, the PhD Committee is implementing a regulatory, operational, and academic change aimed at concentrating tutorial and thesis guidance functions in one single academic staff member in order to ensure better coordination in monitoring the PhD students' trajectory and personalized advising.

H2. Career Advising

The school provides accessible and supportive career advising services for students. Each student, including those who may be currently employed, has access to qualified faculty and/or staff who are actively engaged, knowledgeable about the workforce and sensitive to his or her professional development needs and can provide appropriate career placement advice. Career advising services may take a variety of forms, including but not limited to individualized consultations, resume workshops, mock interviews, career fairs, professional panels, networking events, employer presentations and online job databases.

The school provides such resources for both currently enrolled students and alumni. The school may accomplish this through a variety of formal or informal mechanisms including connecting graduates with professional associations, making faculty and other alumni available for networking and advice, etc.

1) Describe the school's career advising and services. If services differ by degree and/or concentration, a brief description should be provided for each. Include an explanation of efforts to tailor services to meet students' specific needs.

The Alumni Academic Training Program (PROFAE): allows monitoring the alumni's academic and professional career and, through information and communication, contributes to generate professional networks. The PROFAE has also served as an employment agency for the alumni, since it receives requests from strategic partners of the INSP and graduates who are working in national and international settings and who require professionals in various areas of public health, to participate in programs.

2) Explain how individuals providing career advising are selected and oriented to their roles and responsibilities.

In the case of the workshops, these are taught by staff members with experience in the area of human resources and/or in organizational processes. The work to be carried out with the tutors is described as part of the changes for improvement included in section 5 of this criterion.

3) Provide three examples from the last three years of career advising services provided to students and one example of career advising provided to an alumnus/a. For each category, indicate the number of individuals participating.

The Alumni Academic Training Program, PROFAE, receives job offers from various institutions in order to fill job positions; it sends this information to the alumni of those programs that meet the profile, so that they can have access to the information, participate in the selection process, and thus, have the opportunity to profit from these job openings. An example of this was the request of the Autonomous University of the State of Morelos, which requested INSP-recommended public health professionals for the design and implementation of a new academic bachelor program, "Rural Medicine", and which, by means of the PROFAE program, was able to contact 5 alumni of the Master of Public Health program with experience in design and implementation of community health diagnostic; of these five alumni, two were appointed full-time professors at that university.

Other examples related to students career advising will be included in the Self Study Final Version and they are associated with the plan for improvement described in the 5th section of this criterion.

4) Provide data reflecting the level of student satisfaction with career advising during each of the last three years. Include survey response rates, if applicable.

During the summer will be carried out a focus group with students in order to collect data that would provide complementary inputs for the *Professional Orientation Activities Program.* Once the *Professional Orientation Activities Program* is implemented, information about the level of satisfaction of the various users of the *Professional Orientation Activities Program* will be collected.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

A strength of the INSP in regard to the career counseling provided to its students is the direct experience of its faculty in the Public Health study areas and the availability of faculty members to provide counseling services to students who require it.

Currently, the INSP carries out some activities indirectly related to the provision of career counseling to students. However, it has been observed that a systematization of such activities is required, therefore there have been planning and developing efforts to implement a *Professional Orientation Activities Program*, which will include the following components:

1) Program Evaluation: according to information provided by the students in relation to the tools obtained and the skills developed for application and development in a work setting after graduation, adjustments may be made to the academic programs with the aim of providing students with tools that are useful and that will contribute to their employability.
2) Spaces for training for the student: to provide students with tools to strengthen their ability to implement strategies that will contribute to their employability.
3) Training of tutors: the tutor is a key figure in the individual training process of the student; therefore, it is necessary to provide training and raise awareness regarding the importance of tutoring and the strategies that it can contribute to provide professional orientation to the students, integrating their academic training, personal interests and development so that their entry into the working environment will be successful.
4) Training of researchers: within the framework of the work undertaken by the Doctoral Committee to combine the thesis direction and tutoring functions, training will be developed for the thesis directors who will oversee the theses of the students of Master of Science and of the Doctorate in Sciences, in order to render them capable of developing generic skills and research in the students, so as to contribute to their successful entry into the work environment.

H3. Student Complaint Procedures

The school enforces a set of policies and procedures that govern formal student complaints/grievances. Such procedures are clearly articulated and communicated to students. Depending on the nature and level of each complaint, students are encouraged to voice their concerns to school officials or other appropriate personnel. Designated administrators are charged with reviewing and resolving formal complaints. All complaints are processed through appropriate channels.

1) Describe the procedures by which students may communicate any formal complaints and/or grievances to school officials, and about how these procedures are publicized.

As part of the Induction Course held when each new generation of students enters the Institute, there is a talk during which students are informed about their rights and obligations as INSP students, established in each graduate program's General and Specific Regulation.

The Office of Academic Affairs' Sub-Directorate of Academic Management is the area responsible for receiving complaints, reports or disagreements related to different academic activities, and provides students with the e-mail address and location where they can submit their corresponding complaint or report, either indirectly or personally.

Depending on the nature and level of each complaint, the exact procedure to be followed is explained to students. They are provided with electronic contacts, telephone numbers and physical location in order to find the person in charge of receiving their specific complaint. They are encouraged to express their concerns without fearing reprisals.

Depending on the problem being reported, the established procedures are as follows:

1. *Complaint or disagreement regarding the grade obtained by a student in a course*: Students who disagree with the grade they received must first approach the professor responsible for the course. If no solution is obtained, the complaint must be submitted to the program's academic coordinator for analysis. If it is not solved, the next level is to submit the student's request for analysis by the Faculty Association that regulates the program. If it is not possible to solve the situation at this level, it should be submitted to the Academic and Teaching Commission (CAD), which must provide a definitive solution.

2. *Reports regarding lack of academic ethics*. If unethical behavior by a student is involved, the coordination submits the report to the Faculty Association, which together with the Research Ethics Committee and the Office of Academic Affairs, come to a resolution regarding the case. All complaints are processed through the appropriate channels and there is an e-mail address in which questions can be answered or orientation regarding the process can be provided (comité.etica@insp.mx).

3. *Reports regarding harassment and attacks*. Students must submit their complaints in writing to the program's academic coordination and must notify the INSP's Office of Academic Affairs and the Ethics and Conflict of Interest Prevention Committee (CEPCI), who will evaluate the situation. The INSP's Ethics and Conflict of Interest Prevention Committee is constituted by institutional community members from all community sectors and the assigned administrators who are responsible for reviewing and solving complaints that are formally submitted. Contact information is available for the entire academic community. The request for complaint revision must be submitted using a format that is electronically available to the INSP community at the following link: http://transparencia.insp.mx/2018/cepci/14707_Formato_denuncias.pdf

2) Briefly summarize the steps for how a complaint or grievance filed through official university processes progresses. Include information on all levels of review/appeal.

The Graduate General Regulations stipulate in their Articles 173 and 174 the procedure for students to request that the professor review their grades when there is a mistake or a request for modification. If the request is not attended to, the program coordinator and/or the Faculty Association regulating it must also become involved.

If the complaint is linked to an act of abuse, discrimination, or the violation of individual rights, the student must report it to the Ethics and Conflict of Interest Prevention Committee (CEPCI), which will analyze the case and determine the resolution so that it is addressed.

The following processes must be followed in order to submit a complaint or report to the CEPCI:

1. Ensure that the community member submitting the report is proceeding with a maximum level of certainty.
2. Fill in the form to submit a complaint or report to the CEPCI.
3. Submit the complaint to the CEPCI, either in person through the CEPCI's Executive Secretary, or electronically.
4. Wait for the CEPCI's response and follow the instructions.

The INSP has the following channels to respond to any other grievance or complaint:

1. Complaints are received through the academic coordinator and the student's tutor. Students resort to these two academic staff members when their issue is directly linked to the program they are enrolled in and request intervention or that they be channeled to the appropriate service, either the Office of Academic Affairs or the collegiate bodies that address academic processes, depending on the nature of the grievance.
2. Communication through student representatives in the different collegiate bodies and the Students Association - These bodies facilitate notification of student complaints to the Office of Academic Affairs or existing commissions, which intervene to address and solve the grievance.
3. Reception of individual complaints submitted to the Under-Directorate of Academic Management.

3) List any formal complaints and/or student grievances submitted in the last three years. Briefly describe the general nature or content of each complaint and the current status or progress toward resolution.

The objective is that potential cases of conflict be mediated in a preventive manner or with advice from the coordination offices and/or the Under-Directorate of Academic Management so that formal complaints be resolved before they are submitted to the corresponding Committees:

In the last three years (2016-2018) two formal complaints cases were presented:

a) In March, 2017, a professor reported suspected plagiarism in the development of a final project.

The request was received by the Program Coordinator, who proceeded to evaluate the final project document through online *Ad Hoc* software in order to determine the percentage of similarity or coincidence. The final result regarding the similarity was less than 1%. Therefore, according to Article 190, fraction IV, section a, it was not considered plagiarism. Both the professor and the student involved were notified about the resolution.

b) In May, 2018, a student filed her disagreement regarding the grade she obtained in a course.

The student requested that both the Associate Professor of the course and the Coordination Office review the criteria established for the grade she received.

The professor agreed to review each of the exam responses, as well as the grades obtained in various workshops, resulting in the same grade that had been issued earlier. In the end, both the student and the Associate Professor agreed to ratify the grade that had been granted initially.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has clear procedures in place to receive, evaluate, and address student complaints. These processes are communicated to students from the time they are enrolled in a Program so that the community is informed about how to proceed. The INSP has academic staff members and specialized committees to objectively evaluate complaints. The INSP's general objective is to offer the necessary tools that allow any complaint or report to be solved in a fair and expedited manner. For this reason, all students or professors have different options to report any situation that they consider affects their rights. It should be noted that the INSP will always seek to solve any differences in such a way that the student affected by this feels heard and assisted by the different authorities, in a simple and timely manner.

H4. Student Recruitment and Admissions

The school implements student recruitment and admissions policies and procedures designed to locate and select qualified individuals capable of taking advantage of the school's various learning activities, which will enable each of them to develop competence for a career in public health.

1) Describe the school's recruitment activities. If these differ by degree (eg, bachelor's vs. graduate degrees), a description should be provided for each.

As part of the academic promotion or marketing plan, the planning, sensitization, and recruitment actions are carried out in a timely and relevant manner, as follows:

1. Planning:
    a. To design and integrate the Academic Program document that incorporates information regarding each program.
    b. To map health and academic institutions.
    c. To identify dissemination and promotion media (journals, university gazettes, radio, press, and electronic media).
    d. To update strategic contact databases in order to disseminate and promote what the INSP has to offer academically.
    e. To have meetings with program academic coordination offices.

2. Sensitization: A massive dissemination campaign regarding what the INSP has to offer academically at a national level (in both public and private sectors), and internationally (Latin America and Hispanic-American communities in the United States).

3. Recruitment:
    a. Follow-up of applicants that register electronically.
    b. Hold meetings with the programs' academic coordination offices.
    c. Ongoing communication with strategic contacts.
    d. Attendance to national and international academic promotion meetings.
    e. Orientation to interested candidates.

A promotion campaign has been designed and implemented. It is addressed to the Mexican, Latin American and Hispanic population at a global level through presence in academic and research events, such as exhibits, congresses, meetings and graduate fairs, as well as through the mass media —mainly electronic media—, and social networks (Facebook, Instagram, Twitter and Linkedin) which make it possible to draw national and international applicants. Promotion activities are also carried out through contact with the main healthcare system stakeholders and civil society organizations (CSOs), as well as public and private academic institutions in health-related disciplines.

The academic program is promoted with support from relevant printed and electronic promotional material through an institutional website [http://www.espm.mx/oferta-academica], providing the necessary information as well as the possibility of electronic enrollment, thus expediting applicant enrollment for participation in the selection process.

Applications are responded to through timely communication, providing personalized orientation throughout the selection/admission process.

2) Provide a statement of admissions policies and procedures. If these differ by degree (eg, bachelor's vs. graduate degrees), a description should be provided for each.

Applicant selection/admission process is clear, transparent and known by participants prior to enrollment since selection requirements and criteria are published in the promotional materials and, in greater detail, in the call for applications opening by the end of December for each school cycle.

Admission criteria are exclusively academic. All applications follow the institutional policy to provide applicants with the same opportunities. The admission process makes it possible to evaluate whether candidates know the program components and identify whether their professional and academic profile corresponds to the graduate program of their interest. In addition, it ensures a comprehensive evaluation that considers both quantitative and qualitative aspects.

The selection process consists of the following phases:

a) Registration for the selection process
b) CENEVAL and Mathematics exams, as well as a psychopedagogical evaluation
c) Specific exams (for certain programs only)
d) Preparatory course (for certain programs only)
e) Interviews
f) Collegiate selection

a) Registration for the selection process

In this phase, registration is carried out online [https://sigaa.insp.mx/registro/frmIniciarProceso.aspx]. The students choose the program of their interest and attach documentation in a digital format, such as their undergraduate degree certificate, official transcript of academic record (a minimum average grade of 8.0 or its equivalent must have been obtained) and résumé, and an institutional letter of proposal for the PhD in Public Health, the online PhD in Health System Quality, and the online Master of Public Health.

b) CENEVAL and Mathematics exams, as well as a psychopedagogical evaluation

The CENEVAL exam EXANI III is a standardized evaluation instrument for admission to graduate programs in Mexico. Mexican applicants are required to take the CENEVAL in order to be considered for admission in an INSP graduate program. It is taken in person at the INSP headquarters in Cuernavaca, in the month of May, or at other national campuses, in various cities in the Mexican Republic. In any case, the exam must be taken before the call for applications is closed. The minimally acceptable points for the CENEVAL EXANI III is 1000 points, or higher, should it thus be determined by the collegiate body corresponding to each program. This exam evaluates the following themes: mathematical thinking, analytical thinking, language structure, reading comprehension, project methodology, as well as reading comprehension and use of grammar in the English language.

International students must take the EXAN INSP exam, which is applied electronically. The minimally acceptable grade is 8.0 or higher, depending on what is determined by the collegiate body corresponding to each program. This exam covers the following areas: verbal reasoning, information and communication technologies, the English language, research methodology, and mathematical reasoning.

The mathematics exam is answered online. A minimal grade of 7.0 or higher is required in order for this exam to be approved, depending on what is determined by the corresponding collegiate body. The mathematics exam is comprised of the following themes: mathematical reasoning, logical reasoning, and solving fractions and proportions.

Several instruments have been used for the psychopedagogical evaluation. In 2018, the Cleaver and Terman-Merril standardized tests were applied, the results of which can be used to explore more deeply during the selection interviews, to further determine candidate aptitudes and their profiles. This information may also be used as input for degree advising for applicants accepted as INSP students.

c) Specific Exams

The application of specific exams for the selection process is determined for each school cycle by the corresponding collegiate body. In the 2017 and 2018 selection process, specific exams were applied for the following programs:

- For the MSc in Health Economics, part of the GRE test was applied.
- For the MSc in Epidemiology, applicants were requested to carry out a research exercise in which they were presented an abstract of a scientific paper with five open questions. This exam is aimed at identifying the following skills: problem resolution, data use, analysis, synthesis, and writing.
- For the MA of Public Health in Infectious Diseases, applicants were asked to submit an essay on a specific public health issue, which was graded by three faculty members assigned by the Faculty College.
- For the MSc in Infectious Diseases, applicants were sent a scientific paper based on which they had to prepare an oral presentation to deliver in front of the full Faculty College. Prior to the presentation, they were sent the evaluation criteria for the presentation: to identify the paper's main objective, clarity and conciseness, argument critique and sustained criticism, as well as appropriate responses to questions posed by the members of the Faculty College.
- For the PhD of Science in Infectious Diseases, a thesis draft had to be submitted and defended in front of the Faculty College.
- For the PhD of Science in Epidemiology, a research exercise was applied to evaluate basic knowledge of epidemiology, as well as the following skills: problem resolution, data use, analysis, synthesis, and writing.
- For the MSc in Nutrition, two specific evaluations were applied: a nutritional biochemistry exam evaluating basic knowledge about nutrition, as well as an exam of a scientific paper aimed at evaluating student familiarity with the English language and reading comprehension of scientific texts in English.
- For the PhD in Population Nutrition Science, three specific evaluations were applied: a nutritional biochemistry exam evaluating basic knowledge about nutrition, as well as an exam of a scientific paper aimed at assessing student familiarity with the English language and reading comprehension of scientific texts in English. Finally, the applicant had to develop a research proposal and defend it in front of the Nutrition Faculty College.
- For the Specialty in Preventive Medicine, the applicant had to take and approve the National Exam of Medical Residency (ENARM) applied by the Inter-Institutional Commission for the Education of Human Resources in the Health Sector (CIFRHS), which is compulsory for any doctor aspiring to gain admission and obtain a scholarship from the Health Department. Once the applicants have been approved by ENARM, hey can participate in the INSP's internal selection process.

d) Preparatory Courses

This requirement is part of the admission process for the following programs:

- For the MSc in Infectious Diseases, two on-line courses must be approved: Biochemistry and Molecular Biology with a minimum grade of 7.0 out of 10?.
- For the MSc in Health Economics, an academic leveling preparatory course must be approved. This course is comprised of two thematic areas: mathematics and microeconomics.

- For the PhD in Infectious Diseases, it is a prerequisite to have an MSc, which in principle ensures that the applicants have the necessary academic background. Nonetheless, the Academic Coordination Office analyzes the official transcript grade report to ensure that applicants have taken Biochemistry and Molecular Biology. If applicants have not taken these courses, they are obliged to pass all or any of the online courses in Biochemistry and Molecular Biology with a minimum grade of 7.0. In the case of students coming from other Master degrees, they are required to pass the two aforementioned on-line courses before the corresponding collegiate body can analyze the suitability of their academic profile.

e) Interviews

Applicants who have complied with the previous phases may participate in the interview stage. Interviews are carried out by INSP professor-researchers assigned by the corresponding collegiate body.

f) Collegiate Selection

Each application will be evaluated in depth regarding its different components. Student selection is carried out by the Faculty Colleges and is finally presented to the Graduate Commissions. Their decision is not subject to appeal, thus ensuring objectivity and transparency in the selection.

The opening of any graduate program is determined by the acceptance of a minimum of five students, or whatever number is determined by the Collegiate Body that the corresponding academic program is affiliated with.

The number of applications accepted is determined in relation to each program's capacity, which is regularly less than ten students per program.

Accepted candidates electronically receive the Faculty College's resolution by means of an official notification issued by the Office of Academic Affairs through the Student Services Department.

3) Select at least one of the measures that is meaningful to the school and demonstrates its success in enrolling a qualified student body. Provide a target and data from the last three years in the format of Template H4-1. In addition to at least one from the list, the school may add measures that are significant to its own mission and context.

Table H4.1. reports the outcome measures obtained in the INSP student recruitment and admission process in 2015-2018. This process is applied in August and January every year.

Table H4.1. Outcome Measures for Recruitment and Admissions (2015-2018).

Outcome Measure	Target	2015	2016	2017	2018
Percentage of enrolled students with previous health- or public health-related experience.	80%	83%	85%	84%	89%

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

The INSP has a clear, collegiate, and transparent student recruitment and selection process in all of its programs. The candidate evaluation process is carried out with support from the Faculty Colleges, which ensure an objective selection of applicants with outstanding academic merit. The Office of Academic Affairs coordinates the recruitment and selection process in collaboration with the program coordinators, thus ensuring that it is carried out efficiently in each school cycle.

H5. Publication of Educational Offerings

Catalogs and bulletins used by the school to describe its educational offerings must be publicly available and must accurately describe its academic calendar, admissions policies, grading policies, academic integrity standards and degree completion requirements. Advertising, promotional materials, recruitment literature and other supporting material, in whatever medium it is presented, must contain accurate information.

1) Provide direct links to information and descriptions of all degree schools and concentrations in the unit of accreditation. The information must describe all of the following: academic calendar, admissions policies, grading policies, academic integrity standards and degree completion requirements.

The graduate courses offered by the INSP are listed below, along with the direct links available to the public, with a detailed description of each of the curricula considering such rubrics as foundations, objective, competencies, professional field, costs, coordinators, curricular map, etc.

Specialties

Specialty in the Comprehensive Assessment of Programs and Policies or Social Development (Virtual format)
http://www.espm.mx/oferta-academica/especialidades/esp-ppds

Specialty in Public Health and Preventive Medicine
http://www.espm.mx/oferta-academica/especialidades/esp-medicina-preventiva.html

Master's Degrees

Master of Public Health

Master of Public Health - General Curriculum
http://www.espm.mx/oferta-academica/maestrias/salud-publica.html

Master of Public Health with concentration in Epidemiology
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-epidemiologia.html

Master of Public Health with concentration in Biostatistics and Information Systems
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-bsis.html

Master of Public Health with concentration in Environmental Health
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-sa.html

Master of Public Health with concentration in Health Administration
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-as.html

Master of Public Health with concentration in Social and Behavioral Sciences
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-ciencias-sociales-comportamiento.html

Master of Public Health with concentration in Nutrition
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-nutricion.html

Master of Public Health with concentration in Infectious Diseases
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-enfermedades-infecciosas.html

Master of Public Health (Virtual format)
http://www.espm.mx/oferta-academica/maestrias/salud-publica/msp-servicio.html

Master of Science

Master of Science – General Curriculum
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias.html

Master of Science in Epidemiology
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-epidemiologia.html

- **Emphasis in Clinical Research**

http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-epidemiologia-investigacion-clinica.html

- **Emphasis in Sexual and Reproductive Health**

http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-epidemiologia-salud-sexual-reproductiva.html

Master of Science in Biostatistics
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-bioestadistica.html

Master of Science in Health Systems and Policies
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-sistemas-salud.html

Master of Science in Environmental Health
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-salud-ambiental.html

Master of Science in Health Economics
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-economia-salud.html

Master of Science in Infectious Diseases
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-enfermedades-infecciosas.html

Master of Science in Vector-borne Diseases
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-etv.html

Master of Science in Population Nutrition
http://www.espm.mx/oferta-academica/maestrias/maestria-ciencias/mc-nutricion.html

Other Master's Programs

Master in Clinical Nutrition
http://www.espm.mx/oferta-academica/maestrias/nutricion-clinica.html

Master in Health Services Quality Management (Virtual format)
http://www.espm.mx/oferta-academica/maestrias/mc-gestion-calidad-servicios-salud.html

Doctorates

Doctorate in Public Health
http://www.espm.mx/oferta-academica/doctorados/salud-publica.html

Doctorate in Health Systems Quality (Virtual format)
http://www.espm.mx/oferta-academica/doctorados/calidad-sistemas-salud.html

Doctorate of Science – General Curriculum
http://www.espm.mx/oferta-academica/doctorados/ciencias.html

Doctorate of Science in Epidemiology
http://www.espm.mx/oferta-academica/doctorados/ciencias/dc-epidemiologia.html

Doctorate of Science in Health Systems
http://www.espm.mx/oferta-academica/doctorados/ciencias/dc-sistemas-salud.html

Doctorate of Science in Infectious Diseases
http://www.espm.mx/oferta-academica/doctorados/ciencias/dc-enfermedades-infecciosas.html

Doctorate of Science in Population Nutrition
http://www.espm.mx/oferta-academica/doctorados/dc-nutricion-poblacional.html

Doctorate of Science in Environmental Health
http://www.espm.mx/oferta-academica/doctorados/dc-salud-ambiental

Printed academic promotion materials such as curriculum books, posters, bookmarks, and flyers are distributed to the potential applicants at health conferences, academic events, and graduate degree fairs; promotional packages are sent to educational and health institutions and SCOs, and social media are utilized as a means for dissemination**.** These materials present the academic offer of the INSP; however, it is the curricular book that describes the information on the graduate courses and details the selection/admission process and the criteria for assessment, also described in the online call for application. Dissemination information on the Master of Public Health with concentration in Vector-borne diseases is not currently available because this program has been temporarily suspended due to lack of demand in the last few years; also, its curriculum is under revision.

The curriculum book has also been published online and is available to the public on the website of the ESPM, at the following link: http://www.espm.mx/oferta-academica/685-programa-academico-pdf and it is also available in the Electronic Resource File.