National Institute of Public Health/School of Public Health of Mexico: contributions to social equity and knowledge-based public policies

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Abstract

The School of Public Health of Mexico (ESPM, in Spanish), was founded on March 23, 1922, several years after the creation of the first schools of public health in the United States of America (USA), such as Johns Hopkins in 1916 and those of Harvard, Yale, and Columbia, among others. The Escuela de Salubridad, as the ESPM was initially called, was the first of its kind in Latin America and the fifth in the world; thus, it was responsible for providing the first public health degrees in Mexico to medical health officers and other higher education diplomas in the fields of hygiene and public health. Several years after its own founding, in 1987, the ESPM co-founded the National Institute of Public Health (INSP, in Spanish) which to date continues to be the organization in which the ESPM is housed. Since the ESPM merged with the INSP, research and human resources training have been considered necessary processes for initiating and strengthening structural change in the field of health at the national and regional levels. As part of its centennial, the ESPM is committed to the continued expansion of its future perspective through the restructuring of its academic programs; this is a process in which the instilling of values, a unified curriculum based on public health, a flexible educational model and social commitment are fundamental.

Keywords: Public health; School of Public Health of Mexico; social equity and education

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Resumen

La Escuela de Salud Pública de México (ESPM) fue fundada el 23 de marzo de 1922, fecha posterior a la creación de las primeras escuelas de salud pública en Estados Unidos de América (EUA), como la de Johns Hopkins en 1916, y aquéllas instituidas en Harvard, Yale y Columbia, entre otras. La Escuela de Salubridad, como se denominó inicialmente la ESPM, fue la primera de su tipo en América Latina y la quinta en el ámbito mundial, y así se encargó de brindar el primer título de salud pública en México como oficial médico de salubridad y el diploma de estudios superiores en higiene y salubridad pública. Varios años después de su nacimiento, la ESPM fue cofundadora, en 1987, del Instituto Nacional de Salud Pública (INSP), que a la fecha continúa siendo el organismo que la alberga. A partir de la fusión de la ESPM con el INSP, se consideró que la investigación y la formación de recursos humanos eran procesos necesarios para iniciar y fortalecer el cambio estructural de salud en el ámbito nacional y regional. En el marco de su centenario, la ESPM tiene el compromiso de continuar ampliando su perspectiva a futuro mediante la reestructuración de sus programas académicos, proceso en el que la inculcación de valores, un currículo unificado basado en la salud pública, un modelo educativo flexible y el compromiso social resultan fundamentales.

Palabras clave: Salud pública; Escuela de Salud Pública de México; equidad social y educación

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On January 27, 1987, by a decree published in the official gazette of the Mexican government on the previous day, the National Institute of Public Health (INSP, in Spanish) was created from the merger of three entities housed under the Ministry of Health of the Mexican government: the Center for Public Health Research, the Center for Infectious Diseases Research and the School of Public Health of Mexico (ESPM, in Spanish).¹ Thus, the INSP was established as a decentralized body of the Mexican Ministry of Health and as the guiding institution for the activities performed by these three academic entities. In addition to conducting research activities and the dissemination of its scientific production, the mission of the INSP in the area of education was to plan, organize and carry out, in accordance with the needs of the National Health System, programs for the training and development of human resources at the technical, higher education and postgraduate levels in the field of public health.

Prior to the ESPM being housed within the INSP, higher education programs in Mexico provided very limited education and training in the field of public health. In fact, in higher education institutions, at the end of the 1980s, there were no public health doctoral level postgraduate programs offered in the field of public health.

One of the first steps taken by the ESPM under the INSP's stewardship—to give rise to a new leadership position based on the school's well-established tradition and new administrative structure-was to carry out the necessary process before the Mexican Ministry of Public Education (SEP, in Spanish); this step was necessary so that both the school and the institute could jointly grant academic degrees (specialty, master's and doctorate). The objective of specialty degrees was professional practice, while that of master's and doctoral degrees was training for the practices of teaching and conducting research in public health. The INSP was born at a time when Mexican public policies on higher education prioritized quality, increased student enrollment coverage² and emphasized social relevance as a strategic axis; the adopted institutional identity was based on knowledge development. The academic year of 1978 saw the highest number of ESPM graduates in a calendar year (884), as a result of a government plan-stemming from the 1970s-aimed at expanding the university curriculum in response to the social and political demands of the middle classes and promoting the strengthening of autonomous universities. Prior to 1987, ESPM enrollment had been showing a progressive

decrease. Enrollment was down to as few as 133 graduates at the time of ESPM's integration into the INSP. It then entered a plateau that lasted for 20 years; in 2005, the number of graduates was 134 and in 2022 there were 177. Thus, over 100 years the INSP has awarded 18 000 diplomas and during the last 35 years, the institute has awarded more than 4 000 postgraduate degrees.

Generation of scientific evidence as a "quality seal" for organizational strategy

Since the creation of the INSP in Mexico, a new institutional perspective in the training of human resources has been assumed. That is, at its foundation, the institute took on, in terms of teaching, the identity that has accompanied it for the last 35 years; it is an institution of higher education that, in accordance with its attributes, favors the training of researchers and decision-makers who take scientific evidence into account. Even in the present, this identity has marked the institute's mission, vision, legal framework, institutional culture, and scientific production, as well as the academic products that have accumulated since its inception, and will undoubtedly continue to do so in the future.

In other words, since the ESPM merged with the INSP, research and human resource training have been considered necessary for structural change in health, not only in Mexico but also in the region. However, higher education academic programs were characterized by the traditional educational model up until then; this constituted an enormous challenge in creating postgraduate programs in line not only with local health needs but also with forming and developing a new institutional culture of innovation in the practice of teaching and research.

Evolution of academic programs: teaching and academic management models

The INSP began a generational change at the beginning of the 1990s; it renewed its management staff with graduates not only from its own academic programs but also from graduates of different postgraduate programs that had been completed abroad in various public health disciplines. Thirty years later, in 2022, the institute has a staff of approximately 247 research professors; 214 of them are accredited by the General Directorate of Health Research Policies of the Mexican Ministry of Health; 71% (n=152) have a doctoral degree; 25.7% (n=55) have a master's degree; 0.9% (n=2) have a medical specialty, and 2.3% (n=5) have a bachelor's degree. The institute also has a staff of 22 postdoctoral researchers, 15 of whom are from a program called "Researchers for Mexico"; the staff also includes researchers hired for research projects.

The traditional pedagogical strategy

When the INSP was created, the organizational structure of the ESPM shared the academic management activities of the research groups in training. The first innovative semidistance programs created were for the master's degree in public health. In the early 1990s, the ESPM had a rather traditional pedagogical model in which the student was a passive recipient of information and the professor—an expert in the subject—was the center of the classroom. This strategy has prevailed for many decades due to its ease of application and the possibility of standardizing knowledge in a large number of students.

Progressive increase of graduate science programs

Since its creation, the INSP has quickly sought its own academic identity and fostered an exponential increase in its science academic programs, in collaboration with international agencies and through collaborative interinstitutional programs; that is, during this period, doctoral programs in public health sciences have been initiated, and new areas of specialization within the master's degree in science program have been created, such as reproductive health, which originally had the support of the World Health Organization. Likewise, programs on occupational hygiene and health economics have been implemented.

Formative-behavioral pedagogical strategy

Starting in 1995, the ESPM began to move itself away from its administrative structure, thereby permeating each of the research centers across the board. This was a process of institutional integration, whereby the name of the ESPM was temporarily modified (1995-2021) and the INSP's Academic Secretariat was created.³ The role of this new area was to incorporate a school administration mechanism and to guarantee the quality of INSP's academic programs. Over a period of eight years, the Malaria Research Center (later the Regional Center for Public Health Research) within the new institutional headquarters in Tapachula, Chiapas, and the National Center for Health Information and Documentation (later the Information Center for Public Health Decisions) were incorporated into the INSP; furthermore, the Center for Health Systems Research and the Center for Research in Nutrition and Health were created, as well as the Mexico City INSP office. All of the above contributed to expanding and diversifying the institute's educational offerings (figure 1).

In 1997, the INSP joined Mexico's National Association of Universities and Higher Education Institutions (Asociación Nacional de Universidades e Instituciones de Educación Superior, in Spanish), with the aim of continuously promoting the overall improvement of its academic programs.

The new reform impulse in regard to teaching and research at the INSP quickly made way for an educational model with a behaviorist perspective, in which the professor's role was focused on verifying the fulfillment of the objectives set for postgraduate programs. These instructional guidelines placed professors in the role of evaluators, quality controllers and administrators of knowledge and teaching, as well as promoters of learning in practice. That is, during this educational transition, individual evaluation processes became an essential part of inductive teaching.

Creation of professors' colleges

As the number of researchers within the institution grew and as their academic profiles became more heterogeneous, professors' colleges were created according to the pedagogical and teaching needs of each moment. These collegiate bodies were defined as academic bodies made up of researchers and grouped by academic interests; their specific task was, at first, to promote the proper functioning of postgraduate programs. Later, regulations, norms and provisions of general application were created to govern their activities.

The assumptions related to the creation of the professors' colleges were such that, in the sessions of these collegiate bodies, professors, together with their academic peers, could participate—on equal terms and in a free and respectful manner—by arguing their opinions and engage in decision-making within the scope of competence of each academic college. By 2022, 11 professors' colleges and 10 chapters (6 doctoral, 2 faculty and 2 intercollegiate) had already been established (figure 2).

In the mid-1990s, INSP professors reflected on the meaning of learning, which was dominated by the use of instructional materials. Emphasis was placed on practice under the premise that students "learned by doing". Repetition and frequency became important to retaining technical and practical learning.

The constructivist pedagogical model and the beginning of an educational restructuring stage

In 2005, the process of reformulating the educational model was initiated. The premise was established that



FIGURE I. ORGANIZATIONAL STRUCTURE OF THE NATIONAL INSTITUTE OF PUBLIC HEALTH OF MEXICO

the student is the builder of his or her own learning, stemming from cognitive processes based on the student's previous experiences and teaching help mediated by the professor. This educational perspective, which has its theoretical foundations in constructivism, was incorporated into academic programs; on the strength of this approach, the interaction and knowledge exchanges established between professors and students were such that the educational relationship could be enhanced and, consequently, significant learning could be accomplished (figure 3).

Accreditations of INSP/ESPM academic programs in Mexico

Between 2006 and 2010, all of the INSP's academic programs were gradually incorporated into the Mexican National Council of Science and Technology (Conacyt by its acronym in Spanish) (figure 4); in 2006, for the first time, these programs were accredited by the US agency known as the Council on Education for Public Health (CEPH). Thus, the INSP became the first institution outside the United States of America to gain this certification; and currently the INSP/ESPM, obtained its third re-accreditation with the maximum recognized period of seven years, from 2020-2026. Along the same lines, in 2008, the INSP was accredited by the Network of European Institutions of Higher Education in International Health (TROPED); in 2010, it became a member of the Association of Schools of Public Health in the European Region (ASPHER). These certifications and memberships not only ensured the international recognition of the INSP's academic program but also the possibility of academic exchange, which is so important in an increasingly globalized world.

Implementation of a competency-based educational model

Throughout this period, national and international accreditations were based on a learning model that prioritized the competencies to be acquired by students over the course of time they spent in class. That is, students were to be evaluated according to the mastery they had



FIGURE 2. ACADEMIC COLLEGES FOR EDUCATION AND RESEARCH, INSP

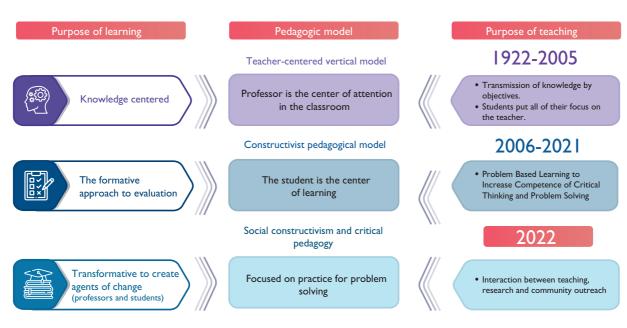


FIGURE 3. INSP/ESPM EDUCATIONAL MODEL, 1922-2022

over certain skills and/or according to the learning outcomes they obtained. For the competency model to work optimally, it was necessary to design learning experiences for students that were rooted in either the environment or reality. During this period, the need was identified to clarify graduation profiles, as well as to offer ongoing faculty training to instill the main areas of competencies, namely, knowing, knowing how to be and knowing how to do. The internal discussion on the transversal competencies to be acquired by students became a common denominator within the academic community; the discussion and programmatic characterization of heterogeneous academic profiles, with diverse perspectives and transversal skills, such as the following, became commonplace:

- Abstract thinking, analysis and synthesis;
- Applying knowledge in practice;
- Time management and planning skills;
- Using information and communication technologies;
- Using the scientific method;
- Constantly learning and updating oneself;
- Taking action in new situations;
- Ability to identify, formulate and solve problems;
- Engaging in decision-making;
- Commitment to environmental conservation, ethics and quality; and
- Working both in groups and autonomously.

The student as a generator of his or her own learning

Problem-based learning is a student-centered method; through the resolution of such problems, active learning is possible in a milieu of teamwork and collaborative and self-managed work. However, when the model began to be applied at the INSP, the main challenge was the incorporation of effective strategies for students to build their own knowledge based on the same reflection process that would be used in their professional line of work. This led to the need to implement educational interventions to encourage professors to act as facilitatorguides so that students could acquire autonomy and responsibility in their learning process. In other words, in this educational model, the main premise is that the student should assume this responsibility, which should allow him or her to develop analysis and synthesis competencies, communication skills and group work skills.

The INSP/ESPM summer course (PASPE in Spanish)

INSP/ESPM's Mexican Public Health and Epidemiology Continuing Education Program (PASPE, in Spanish) was created in 1996 and has become a national and regional reference for continuing education courses and academic linkages (box I).

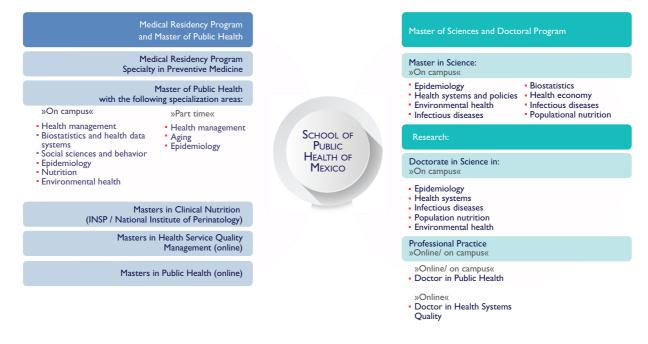


FIGURE 4. SCHOOL OF PUBLIC HEALTH OF MEXICO ACADEMIC PROGRAM. INSP

Box I SUMMER PROGRAM IN PUBLIC HEALTH AND EPIDEMIOLOGY (PASPE IN SPANISH), 1996-2022

Our Public Health and Epidemiology Continuing Education Program (PASPE in Spanish), known as the Summer Course, was created in 1996 as a joint initiative of the Populational Health Research Center and Johns Hopkins' Bloomberg School of Public Health, addressing the need to train health professionals in the Latin American region. PASPE would call for the participation of Spanish-speaking professors under three fundamental premises:

- Enhance academic offering for public health continuing education in the Latin American market.
- Ultimately satisfy the need for public health professionalization, with an in-person instructional design.
- Ensure that methodologic competencies for public health research are attained.

For 25 years it has contributed to more diverse academic offerings. In this way, 880 courses geared mainly toward developing ompetencies applying methodologic tools used in epidemiology. For specific topics, workshops and diploma couses have been created and implemented, such as smoking control and prevention, HIV and AIDS, environmental health, global health, diabetes mellitus, quality of care, genomic medicine, cancer control and prevention, and many more. PASPE has also been a linkage strategy to reach institutions and researchers based on common academic interests. In fact, there are professors and national schools that have identified new competencies and educational strategies to include in their area of influence and thus contribute to the quality of their public health programs. In the Latin American sphere, PASPE represents an academic offer of continuing education programs that are low-cost and easily accessible to professionals currently working in the field of public health.

Moreover, PASPE boasts the following features:

- Academic alliances for jointly developed workshops and diploma courses, on highly relevant public health topics.
- Fifteen years of budget sufficiency, i.e. it does not represent a financial burden to INSP.
- In Latin America it is the most accessible and attractive option for public health continuing education.
- It is a place to identify talents and reorient aspirations to postgraduate training in a field as fascinating as public health.
- It is the main alternative for elective credits at INSP and other postgraduate academic institutions.

PASPE in numbers Sudents' country of origin. PASPE, 1996-2022 INSP Students 10 113 INSP Researchers 1590 México* 5 831 Foreigners 1914 TOtal I 9 448 workse Mexico 1260* INSP 1296-2022* Mexico 1260* INSP 1296-2024 Mexico 1260* INSP 1996-2024 Mexico 1260* INSP 1

Distance learning environments in the context of the Covid-19 pandemic

Between 2020 and 2022, the Covid-19 epidemiological emergency collectively put us to the test both as a human species and as a society; at our institution, we had to develop resilience and adaptation. The early decision made by the INSP/ESPM to implement a distance learning strategy allowed us to safeguard the student community, the academic staff, and members of the INSP, as well as their families. Most of the faculty had to venture into a modality that was alien to them until recently; furthermore, creative and functional pedagogical methods had to be devised. First, a new work strategy had to be established, and the traditional face-to-face classroom learning environment had to be replaced by a technology-assisted environment, which impacted communication methods. A new interactive network had to be created to maintain the order and communication required in these distance learning environments. To this end, the diploma course titled "Pedagogical Skills in Virtual and Face-to-face Teaching Performance Practices" offered by the INSP was very useful. Thanks to this course, the skills of 225 professors and members of the institution were updated. Amid the onset of the Covid-19 pandemic, we prepared ourselves quickly, but we also had to learn and unlearn about different aspects of distance education to deal with unprecedented situations. We had to organize, distribute and delimit learning environments, allowing us to provide 150 distance education teaching units over a period of more than two years. A virtual campus was created where new positions, functions and tasks were established. Here, we must acknowledge INSP support units' role in facilitating the development of this process in the remote environment. Additionally, we must reinforce this strategy, which is here to stay, to ensure that the student adapts to the new environment, places himself or herself at the center of the classroom and learns to manage his or her own learning and jointly promote his or her autonomy. Dedicating more time to introductory activities, planning short classes and improving virtual connectivity are some of the actions that need to be implemented based on the many lessons learned during the last two years.

Even while dealing with many structural and organizational adversities, the INSP/ESPM began the process of accreditation of medical specialties by external health institutions, particularly the Mexican Social Security Institute; this process will allow us to have greater external influence, incorporate the public health perspective in medical specialties and undergraduate education, and export the competency-based educational model.

The INSP has become a leader in the field of population health,⁴ cancer epidemiology,⁵ environmental health,⁶ health systems,⁷ population surveys,⁸⁻¹⁰ nutrition,^{11,12} infectious diseases,¹³ quality of care,¹⁴ social sciences,¹⁵ and many other fields of study; as shown in figure 5,

	Chronic non-communicable diseases
2	Cancer: epidemiology, associated viruses, primary prevention, screening and environmental exposure
3	Infectious, parasite, and vector-borne diseases
4	The rational use of antibiotics medicine and bacterial resistance
5	Mother and child health and nutrition
6	Reproductive health
	Adult health and aging
8	Health equity and migration
9	Environmental health
	Violence and injury prevention
	Substance use: smoking, alcohol and other drugs
	Quality of care
	Health information systems and burden of disease
	Health systems and policies
	Health and nutrition surveys
	Health economy and policy and program assessment

FIGURE 5. STRATEGIC RESEARCH DIRECTIONS IN THE INSP MEXICO: WE RECOGNIZE PROBLEMS TO FIND SOLUTIONS

where the strategic research directions at INSP Mexico are described; establishing the academic vision towards the recognition of problems to find solutions.

At the end of 2021, the INSP reached its highest academic productivity level; at the same time, the graduation and terminal efficiency rates of the institute's postgraduate programs were also very high, as per Conacyt and CEPH standards (figure 6). Additionally, the INSP houses the best regarded scientific journal in Mexico, namely, *Salud Pública de México*, which in 2021 reached an impact factor of 2.259 (box II). Likewise, through the INSP, the Public Health Research Congress (Congisp by its acronym in Spanish) is implemented biennially, and will celebrate its 19th edition in March 2023. Congisp is an academic space for regional discussion of the new paradigms of research and teaching in public health linked to public policies in population health (box III).

The Centennial School of Public Health of Mexico (ESPM in Spanish)

The INSP recovered, as of 2021, the denomination ESPM to host all activities and institutional projects related to the formation of human resources in the public health field.

The name INSP/ESPM (figure 7) has a strategic value for the following reasons:

- Strengthens the INSP's teaching tradition and academic leadership.
- The ESPM designation provides a huge competitive advantage because it is one of the best regional options for training human resources in public health.
- The INSP/ESPM is one of the sites with the largest critical mass of public health experts in the Ibero-American region.

Restructuring academic programs

During its process of evolution, the ESPM, as it marks its centennial, continues to strengthen its outlook toward the future by restructuring its academic programs; values must be instilled within a context of diversity and pluralism.

Instilling values: an unpostponable priority

Institutionally, it is essential to protect and emphasize social values such as solidarity, equity and nondiscrimination, as well as to offer critical perspectives that uphold humanistic visions among both faculty and students.

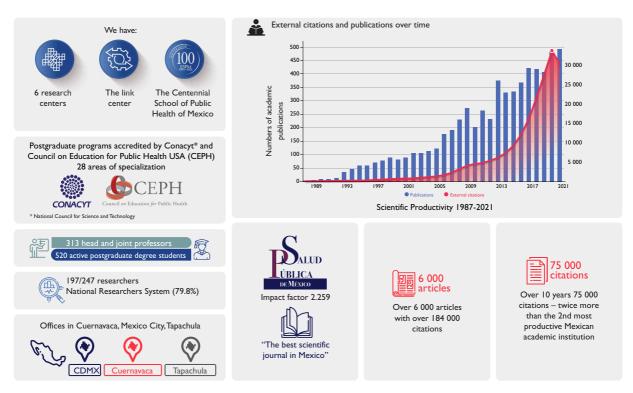


FIGURE 6. NATIONAL INSTITUTE OF PUBLIC HEALTH OF MEXICO: THE INSTITUTION WITH THE HIGHEST PRO-DUCTIVITY AND INFLUENCE IN THE FIELD OF PUBLIC HEALTH IN THE REGION

Box II JOURNAL SALUD PUBLICA DE MÉXICO



This scientific journal finds its origins in 1880, in the Boletín del Consejo Superior de Salubridad de la Ciudad de México (Bulletin of the Superior Health Council of Mexico City). This marked the beginning of a continuum of

official informative publications on Mexican health that continued up to 1949, the year in which Salubridad y Asistencia ceased to be published.

It was not until 1959 that the Ministry of Health resumed the publication of its official bulletin under the name of *Salud Püblica de México* (SPM), which was born as a reference journal for public health professionals to stay up to date, with the characteristics of an epidemiological surveillance bulletin and an informative organ on the activities of the then Ministry of Health and Assistance.

As time went by, SPM gradually abandoned its functions of dissemination for the sector, to evolve as a scientific publication. In 1985, its management was transferred to the School of Public Health of Mexico, and in 1987, with the creation of the National Institute of Public Health (INSP), SPM was taken over by the newly founded institution, which made some changes towardf a decidedly academic profile, with more rigorous editorial criteria and a greater proportion of original research, as well as systematic reviews on the disciplines that nourish public health. Editorial norms were also adopted under international standards, such as the Uniform Requirements for the Preparation of Manuscripts Submitted to Biomedical Journals, from which it developed its first Guidelines for the Publication of Manuscripts. The increase in the rejection rate of submitted papers and the increasingly plural and international composition of the Editorial Board consolidated SPM's academic and scientific commitment during those years.

Today, at 65 years of age and with an impact factor of 2.259, SPM is an international journal committed to the precepts of open access, making an important contribution to disseminating knowledge derived from research and to the contemporary debate on public health. It has also been an indispensable reference in the evolution of public health practice in Mexico, as is the case with the reform of the health system, where it has participated by generating evidence for policy design, as well as in the monitoring and evaluation of this transformation.

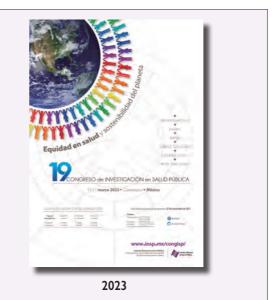
Fully engaged in the discussion on the epidemiological transition at the global level, and in its sometimes complex local particularities, *Salud Pública de México* is currently one of the most solid documentary sources for decisions that, based on scientific evidence, seek to improve population health conditions.

Box III PUBLIC HEALTH RESEARCH CONGRESS

One of the many academic activities of international relevance carried out by the National Institute of Public Health (INSP) is organizing the Public Health Research Congress (Congisp, in Spanish). For more than three decades, this meeting has brought together leading researchers in the field of public health and has promoted the exchange of experiences, results, and national, regional and international collaborations. This congress has its roots in the Academic Conferences.

The most recent edition of the Congisp brought together more than a thousand public health and health sciences professionals from 14 countries. This is one of the most important contributions made by the INSP to the community dedicated to holistic multidisciplinary public health research. It also serves as a platform to award the most outstanding exponents in this field: the "Miguel E. Bustamante" keynote lecture is the most prestigious award granted by the INSP to a health professional or researcher for his contributions to public health in Mexico (Dr. Bustamante was the first Mexican to obtain a doctorate in public health in June 1928 at John Hopkins University). The "José Luis Bobadilla" lecture is awarded for outstanding contributions to public health research (Dr. Bobadilla was an eminent epidemiologist, renowned researcher and pioneer in the study of the epidemiological transition, who participated in the founding of both the Centro de Investigación en Salud Pública in 1984 and the INSP in 1987), while the "Francisco J. Balmis" lecture recognizes innovation and outstanding contributions to the development of global health (Dr. Balmis was the main promoter in America of the smallpox vaccine in 1803).

In 2023, after a one-year pause due to the Covid-19 pandemic, Congisp will continue with this solid and enriching biennial activity, where it looks forward to repeat success in attendance and participa-



tion. This time it has a rich and diverse academic program that also includes artistic, cultural and sports activities. The 19th edition of Congisp will also include a new conference, called the Centenarian School of Public Health of Mexico, to reward international transcendence in public health education.



Integral unified public health-based curriculum

Academic programs should be reformed to implement a comprehensive unified curriculum with an inter- and multidisciplinary approach to public health, thereby integrating the different specialization areas. With this in mind, we aim to incorporate professional competencies and skills that constitute a comprehensive public health education; this approach will require regularly revising academic programs to meet the health needs of the population both at the



FIGURE 7. LOGO OF INSP/ESPM

national level and in the Latin American region. It is fundamental to guarantee the sequence and relevance of curricular content so that it is possible to take into account credits that have been previously obtained in master's degree programs and facilitate students' transition into the doctoral program.

A new flexible educational model with less time spent at school

The new vision is oriented toward a new, less schoolbased educational model, where there is a permanent link with professional practices, tutoring, and the early interaction of students with INSP research and teaching groups. The main goal should be learning-centered education. Professors' continued training is intended to enable them to design and apply more active teaching strategies and methods so that they are able to teach students how to think and reflect.

The new pedagogical model also has to do with flexibility; diverse educational modalities must be combined such that students can build their learning through face-to-face and nonface-to-face classes, along with the use of social networks for discussion forums. Effective tutoring and the integration of students in research groups are also key.

Academic Governance of Teaching and Research (GADI in Spanish)

In 2021, we began the administrative regulation process for the creation of Academic Governance of Teaching and Research (GADIs) in each INSP research center; this addition will address the need to follow up, verify and supervise the teaching and research activities carried out by the colleges of professors and academic staff, according to work plans and the availability of human resources and the infrastructure of each center. That is, the new organizational structure arose from the need for effective governance to manage the academic programs due to limited managerial participation and insufficient supervision mechanisms in each research center. The GADIs will implement mechanisms for monitoring and assessing the decisions made by professors' colleges and academic staff (figure 8).

- Creation of Academic Governance of Teaching and Research (GADIs)
- Research and Teaching Groups (GIDs) will be the functional organizational unit

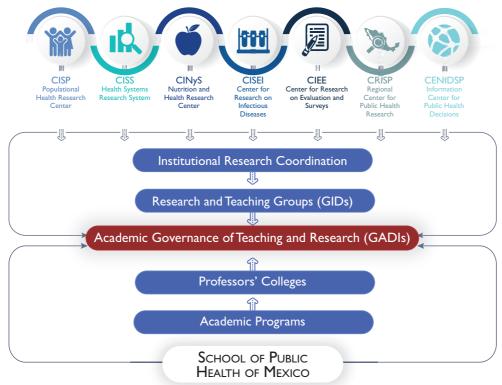


FIGURE 8. INTEGRATING RESEARCH AND TEACHING AT INSP MEXICO: INSTITUTIONAL REORGANIZATION

Social commitment as an INSP/ESPM policy

Finally, there is a need to raise the awareness of professional duty, not only in terms of improving population health but also, very importantly, in terms of social commitment. There is no efficient application of scientific knowledge without cultural understanding; methodological tools are of little use without a humanistic perspective.

Let us note as we commemorate the ESPM's centennial that for the institution to prevail as a leader in graduate public health education, both in Mexico and in the Latin American region, it is necessary to restructure the academic programs to offer teaching options based on the priority areas of specialty fields, as described in the following chapter.

Declaration of conflict of interests. Eduardo Lazcano was the director of ESPM during 2021 and the beginning of 2022 and is the current director-general of INSP.

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