

COMMENTARY

Institutional Development for Public Health: Learning the Lessons, Renewing the Commitment

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Few times in history has public health faced challenges and opportunities like those we face today. Growing global interdependence raises the visibility of public health threats. A new and central role in development and security agendas has brought unprecedented investments in global health. This new context provides extraordinary opportunities for institution building in public health. To move forward, we must assimilate lessons from successful experiences while devising innovative responses to current realities, both globally and locally. Truly, public health is entering a new era.

In “National Public Health Institutes: Contributing to the Public Good,” (1) Binder *et al.* describe the growth of vigorous national institutes and networks of agencies that address critical public health functions in developing countries. NPHIs can help develop a critical mass of researchers and analysts, and open links to decision making. Strategies to facilitate development of NPHIs are, however, still needed. How can prospective or existing NPHIs learn from each other to avoid pitfalls and attain their goals? How can they be rapidly established or consolidated, while maintaining the highest standards of scientific excellence and relevance?

We call for a vigorous global movement to establish, expand, and strengthen NPHIs in developing countries as key components of the institutional architecture for improving health system performance. We begin by analyzing the changing context in which NPHIs must operate, including global challenges and opportunities. We then use Mexico's 20-year experience with the National Institute of Public Health (INSP) to illustrate strategic capacity building approaches. We explore ways to leapfrog ahead, taking advantage of potential synergies in an interdependent world.

In a previous Commentary, the director-general of INSP has provided an excellent overview of its history and current functions (2). Here, we will focus on some major lessons that may help to take full advantage of today's renewed interest in public health. A new era of effective public health will be possible only if we develop strong institutions.

DIVERSITY, COMPLEXITY, AND CHANGE

Three main issues – diversity, complexity, and change – make policy making in the health sector increasingly intricate. Diversity exists between and within geographic areas in any given country. At all levels of development, one consistently finds an association between poverty, exclusion, and discrimination on the one hand, and low health status on the other. Policy making has not paid sufficient attention to these determinants. The WHO Commission on Social Determinants of Health is creating much needed awareness between political leaders and stakeholders, helping countries adopt comprehensive health and development policies (3). National public health institutes should be created and consolidated so they can help policy makers address this diversity and make equity a core component of their policies.

Complexity, particularly in the health needs of populations, emerges as another challenge. In contrast to developed countries, which have already experienced shifts in patterns of disease, developing nations face a triple burden of ill health: first, the unfinished agenda of infections, malnutrition, and reproductive health problems; second, the emerging challenges represented by noncommunicable disease and injuries, which already comprise most of the disease burden in low- and middle-income countries; third, the

health risks associated with globalization, including the threat of pandemics like AIDS and influenza, trade in harmful products like tobacco and other addictive drugs, the health consequences of climate change, and the dissemination of harmful lifestyles through processes such as migration.

Rapid dissemination of new biomedical and communications technologies, availability of managerial innovations to improve organization of service delivery, emergence of new financial formulas, growing adoption of an ethical framework that views access to health care as a fundamental human right, and the spread of democratic procedures to channel population pressures to realize such rights effectively, have all markedly increased the complexity of health systems. The renewed tendency to deliver new technologies through vertical programs that may fail to support the entire health system presents a particular challenge (4–7). National public health institutes can help strengthen the stewardship capacity of health authorities, so they may eschew standardized, pre-packaged, stereotyped interventions and move toward matching global solutions to suit local needs.

To adapt strategies and programs to changes in the environment, policy making in developing countries must be fluid and dynamic. Global and national pressures demand far greater accountability from policy makers, program managers, and service providers. Decentralization continues to give provincial authorities and local officials greater autonomy to innovate but also increased responsibility (8,9). Policy making in the health sector continues to shift from a technical and highly hierarchical approach toward one that recognizes new actors and processes set in a political and participatory environment. National public health institutes should be developed to accommodate to this changing context.

GLOBAL CHALLENGES AND OPPORTUNITIES

Globalization is changing public health perspectives on the origin and scale of risks, as well as on the role and importance of national and local capacities to respond effectively to them. National and local public health authorities are now being called on to rebuild their capacities to respond to many risks, ranging from natural disasters to pandemics and bioterrorism. Similarly, the scale of risks

varies from localized problems to rapidly spreading global threats. These challenges require capacity to coordinate health sector responses effectively, to shape interdisciplinary teams for various situations, and to respond at national and global levels and across government and civil society organizations (10).

Capacity to engage in a balanced international collaboration is lacking today in most developing countries. Institutions in the North lead most cross-national, comparative health systems analyses as revealed in a bibliometric analysis that found that 74% of all international publications were led by high-income country authors. Only seven countries concentrated 60% of the papers led by developing country institutions. Furthermore, authors from US and UK institutions contributed as many as 68% of the papers led by high-income country authors (11), revealing that technical capacity addressing global public health issues resides predominantly in the North and in a handful of developing countries.

NPHIs in developing countries must participate in and lead regional and global networking mechanisms. Institutional development should reflect the relative advantages of partners to lead research, training, surveillance, and health system development efforts. These advantages might be assessed by technical capacity as well as closeness to problems of national and global significance. This supposes a well-balanced and reciprocal collaboration among institutes in the North and South, notably a capacity to network across neighboring developing world countries and regions.

A process of institutional development that Mexico created during the past two decades may hold interesting lessons for other countries. As Mexico benefited from other nations' experiences, it contributed to a global dialogue needed for public health renewal. What were the key elements of Mexico's experience?

BALANCING EXCELLENCE AND RELEVANCE

As the IANPHI study suggests, Mexico's INSP is not unusual, positioned today close to the mean for staffing and budget among upper middle-income country institutes. Yet INSP is highly diversified in fields and functions – monitoring and evaluation, teaching, and research, covering most disciplines in public health. NPHIs need not be overly large to achieve success. INSP

demonstrates, furthermore, that a stepwise approach to capacity building and networking can enable even small agencies to achieve significant short-term impact on policy and practice, if built with cognizance of broader economic and political contexts.

INSP was founded in 1987 as a response to rapid economic and social changes in Mexico that reflected the demise of import substitution plus painful exposure to globalization. Mexico was integrating and decentralizing vertical disease control programs and medical care for the poor, and encouraging coordination among large and often conflicting government health care institutions. Academic institutions began considering health inequity, but lacked structures to ensure quality research. All this was happening in the midst of one of the worst economic crisis in Mexico's history (12).

The first step toward the establishment of INSP was the creation of the Center for Public Health Research (CISP) in 1984 to generate the evidence base for the structural reform proposed by a new national administration (13). CISP addressed the country's complex and challenging context in its strategic planning and development, requiring scientific excellence and relevance. Scientific excellence enhanced public health credibility in a world where clinical and basic research held privileged status. CISP put forward an innovative definition of public health research and teaching: the generation, reproduction, and transfer of knowledge at the population level on health conditions and social response (14). It became possible to attract a nucleus of young scientists and to create a critical mass in research, linking CISP to an educational tradition that had grown since 1922 in the School of Public Health of Mexico (ESPM).

To ensure trust, from the Ministry of Health and others who might perceive research by a public institution as a strategy to limit their autonomy, CISP emphasized relevance. In the short term, CISP demonstrated relevance through establishing a close tie to the Ministry of Health's epidemiological surveillance unit. Launching the first national health survey helped consolidate support, while capacity was strengthened to respond to HIV/AIDS. The two agencies mustered international support for joint initiatives, cementing a long-term relationship. In its first year, CISP responded to the 1985 Mexico City earthquakes through a careful study to help plan reconstruction of health care infrastructure. CISP thus earned wide, but by no means unanimous, trust.

Based on early successes, a 1987 presidential decree established INSP as an autonomous public entity, confederating ESPM, CISP, and a still nascent Center for Research on Infectious Diseases. At the same time, a private nonprofit agency to broker resources and provide stability in a complex environment came into being – the Mexican Health Foundation. National and international networking remained important at INSP. The stepwise and networking model had proved its value, helping consolidate INSP – an institution with growth potential – during an economic crisis.

INSP's international advisory committee brought together some of the world's best public health minds in annual meetings, enabling INSP to identify its mission and goals, to provide mentoring and role models to staff, and – thanks to their prestige – to support INSP against external threats. INSP also networked with prestigious clinical institutes in Mexico, helping it mobilize federal funds, as well as talent.

Initially INSP strengthened research, while continuing to train public health practitioners and managers. Today research capacity in several fields has been consolidated and INSP places increasing emphasis on strengthening professional teaching programs and on reaching users of its research and teaching. In close collaboration with state health authorities, INSP provides distance learning programs at all academic levels (2). INSP has consolidated its knowledge transfer capacity and put in place strategic planning methods that ensure balance between scientific excellence and relevance for policy and practice.

PILLARS OF PROGRESS

National public health institutes, with a clear focus on producing public goods, can be the way forward to stronger health research systems. Today's unparalleled international funding for vertical health programs in poor countries can, in turn, aid growth of NPHIs. It can enhance capacity building, providing technical support and evaluation through South–South collaboration, as in Mexico and Central America.

IANPHI has provided funds to INSP to assess the capacity of agencies in the region, to propose how to strengthen them, and to help form national or regional consortia. The strengthened

agencies should be able to absorb the available funding to target local problems and to cope with regional public health threats. These regional efforts extend the synergy between scientific excellence, relevance, and trust tested in Mexico over the past 20 years.

We summarize lessons from the Mexican experience using the four foundations of any field of inquiry and action: the conceptual, production, reproduction, and utilization bases (15). INSP created a *conceptual* base of principles and definitions for public health research, education, and practice and disseminated them widely. Trust was ensured in academic and in policy and practice communities. *Production* of knowledge was firmly institutionalized, through internal capacity strengthening, and through coordination with prestigious Mexican health research institutes, and networking with national and international academic institutions.

INSP has contributed to the *reproduction* of public health knowledge through education, publications, and professional organizations. Educational programs reached horizontally expanding areas of concentration for the traditional Masters in Public Health, and vertically in many educational programs through short courses to doctoral training. INSP also strengthened knowledge dissemination through *Salud Pública de México*, a leading Spanish language scientific journal and by association with major publishing houses to issue books, and through use of electronic media. In every 2 years, the INSP organizes Latin America's most important public health research congress. It recognizes, more generally, a responsibility to help foster national and international associations for the exchange of ideas and the aggregation of interests.

INSP has always devised ways to translate research findings to be used in decision making. INSP is expanding its *utilization* base as are many other public health research organizations in the world. Networking with the Ministry of Health has improved epidemiological surveillance and innovated in many public health fields. Mexico has a "revolving door" so individuals partake in policy making and research. While an "administrative brain drain" does exist, both communities are stronger because they share expertise and values. INSP may still tap additional ways to translate knowledge based on sound evidence for new organizational arrangements and decision making.

CONCLUSIONS

International efforts to establish solid health research systems are yielding positive results in many developing countries, where a rich array of institutions is already present and where networking is proving its value. Yet research systems cannot be conceived in isolation. They must reflect the growing importance of global health, the diversity of national and regional contexts, the increasing complexity of health systems, and the rapid pace of socioeconomic and political change. IANPHI and similar initiatives will surely contribute to shared learning across agencies and collaborations to respond to new global threats. Similar institution-building effort will be essential to achieve the ambitious health and development goals to which world leaders have committed.

Development requires patient institution building, the vehicle whereby human beings mobilize their talents, values, and interests to pursue shared goals. In our complex and changing world, few goals are more worthwhile than the promotion of health equity. National institutes, if they learn the lessons, respond to challenges, and anticipate opportunities, will be the key players in launching a new era of public health.

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