Health Systems Research for the 21st Century: The Power of Knowledge in an Interdependent World

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First Global Symposium on Health Systems Research “Science to Accelerate Universal Health Coverage” World Health Organization

Montreaux, Switzerland

November 16-19, 2010

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It is a pleasure to be part of this First Global Symposium on Health Systems Research. I would like to thank the conveners, especially Tim Evans, Ariel Pablos-Mendez, and Abdul Ghaffar, for the invitation to deliver this keynote address.

Montreux represents a unique meeting ground, bringing together those responsible for producing, reproducing, financing, translating, and utilizing scientific knowledge to achieve the cherished goal of universal coverage through better health systems.

The world has certainly changed since I had the honor of hosting many of you in Mexico City at the Ministerial Summit and Global Forum on Health Research which, like our symposium today, focused on health systems. The six years since then have witnessed dramatic transformations in global health. There are new actors, new debates, novel challenges. But there is also a broader consensus around
the importance of health for development, the central role of knowledge in the improvement of health, and the need to strengthen national health systems in order to meet the health challenges of the 21st century. This is, I believe, a moment of opportunity that must be seized.

The central message of my presentation today is that if we are to realize the opportunities offered by the conjunction of these unique circumstances, we need to mobilize the power of ideas in order to influence the ideas of power, that is to say, the ideas of those with the power to make decisions.

The concern for the way in which we confront threats, risks, and harms to our health is a central part of the human experience. Every society develops some form of response to disease. For most of history, this response had been limited to the household and carried out by the family nucleus. Alongside the persistent domestic production of
care, during the 20th century we have witnessed the explosive emergence of a differentiated set of institutions with the specialized function of looking after the health of individuals and communities. Modernization, in fact, has been accompanied by a gradual transfer of health responsibilities from family and religious institutions to the professions and the government.

Today the differentiated set of organizations we call the health system have become a dominant feature of the social fabric in all but the most marginalized corners of the planet. Together, health systems absorb 10% of the world economy, about 5.5 trillion U.S. dollars per year—and growing. Of course, there are huge differences in access to these resources. While the United States spends seven thousand dollars per person in health annually, Burundi barely spends three dollars.
When we speak of the health revolution of the 20th century, we typically refer to the spectacular decline in mortality and the dramatic shift in the dominant causes of ill health. But equally spectacular and equally dramatic has been the rise of health systems which now permeate all corners of economic activity, dominate political debate, generate cultural interpretations, spur technological innovation, create deep ethical dilemmas, and accompany human beings at the most crucial moments of their existence, from birth to death.

This is why it is so important to understand health systems. Yet, as has been said many times, there is no other industry of this size that spends so little in evaluating its own performance and learning from its best and worst practices.

Like so many other aspects of the global agenda, interest in health systems has gone through cycles of activity and
neglect, depending on the dominant winds in the complex process of agenda setting. Around World War II, debate in the developed countries centered around the expansion of social insurance, while the establishment of modern ministries of health and other essential institutions was paramount in developing countries, many of which were just achieving independence. Primary health care occupied center stage in the late 1970s and early 1980s. Health system reform was a topic of continuous debate all along the 1990s. Now, at the start of the 21st century, the amazing pluralism that has populated the global health scene with over 120 different entities, coupled with the accountability pressure represented by the Millennium Development Goals, has fueled a renewed concern for health systems and universal health coverage.

The increasing interest in health systems is very good news indeed. This interest is long overdue. It has now
become commonplace to use—not always with the proper attribution—the felicitous phrase of the legendary Professor Ramalingaswami of India: We need more money for health, but we must also deliver more health for the money. There is growing recognition that additional funding can only be effective if national and local health systems are strengthened. In a virtuous circle, better results will be crucial to maintain the momentum of increased funding for health.

How can we take advantage of this unique moment? How can we use this opportunity to further develop health systems research?

The key, I propose, is to develop a comprehensive strategy. After what are now many years of reflection and action in this field, I have come to the conclusion that a vibrant and vigorous research tradition requires four foundations: first, a conceptual base that clearly specifies the
object of study, and then a process to generate what I call the circle of knowledge, involving its production, its re-
production, and its translation. Let me elaborate briefly on these notions.

Building a solid conceptual base for health systems research has been hindered by the lack of rigorous understanding of its object of analysis, i.e., health systems. As I have written in a recent paper published in PLoS Medicine, three common misconceptions are particularly prevalent, which see the health system as a black box, as a black hole or as a laundry list.\textsuperscript{1}

The “black box” misconception is the belief that things are too complicated and we don’t know what works, so let’s simply get technologies and other inputs in place and then outputs will somehow work their way. Yet, we have built a sufficient body of knowledge to be able to open the black box and devise specific interventions to improve the
performance of the health system. There is a mounting body of evidence on what works and what doesn’t in different settings.

The “black hole” misconception is the common view that no amount of money will suffice to achieve the desired results. As with the dreaded astronomical bodies, health systems absorb enormous amount of energy, but no light comes out of them. Yet, we know that some systems are much more efficient in achieving better results with limited resources.

Finally, what I call the “laundry list” view is a sort of “inventory” approach, in which the health system is defined as a mere list of the different organizations or persons that participate in producing health services, without requiring that such components be coordinated or integrated.

In contrast, I would like to urge that we expand our view on health systems. Part of the problem with the health
systems debate is that too often it has adopted a reductionist perspective that ignores important aspects. So let me propose four directions for a more comprehensive view:

First, we should think of the health system not only in terms of its component elements or building blocks (like human resources, financing, hospitals, primary care centers, technologies, etc.) but, most importantly, in terms of their interrelations.

Second, we should include not only the institutional or supply side of the health system, but also the population. In a dynamic view, the population is not an external beneficiary of the system; it is an essential part of it. This is because, when it comes to health, persons play five different roles: i) certainly as patients, with specific needs requiring care, which is the most common role that we tend to analyze; ii) but also as consumers, with specific expectations about the way in which they will be treated; iii) as taxpayers and
therefore as the ultimate source of financing; iv) as citizens who may demand access to care as a right; and v) most importantly, as co-producers of health through care seeking, compliance with prescriptions, and behaviors that may promote or harm one’s own health or the health of others (like children).

A third expansion of our understanding of systems refers to its goals. Typically, we have limited the discussion to the goal of improving health. This is, indeed, the defining goal of a health system. However, we must look not only at the level of health, but also at its distribution, which gives equity a central place in assessing a health system. In addition, we must also include other goals that are intrinsically valued beyond the improvement of health. One of those goals is to enhance the responsiveness of the health system to the legitimate expectations of the population for care that respects the dignity of persons and promotes their
satisfaction. The other goal is fair financing, so that the burden of supporting the system is distributed in an equitable manner and families are protected from the financial consequences of disease.

Finally, we should expand our view with respect to the functions that a health system must perform. Most global initiatives have been concerned mainly or exclusively with one of those functions, namely, the direct provision or delivery of services, whether they are medical or public health services. This is, of course, an essential function but, for it to happen at all, health systems must perform other enabling functions, such as stewardship, financing, and resource generation, including key resources like facilities, technologies, information, and the most important of all, the health workforce.

What I have just summarized is a framework\textsuperscript{2} that, as most of you know, formed the basis for the *World Health*
Report 2000 on health system performance. This report was followed by several others focusing on different aspects of health systems and culminating now with the World Health Report 2010, a splendid way of marking a decade of sustained effort by WHO to draw attention to health systems and illuminate the growing interest in them.

Indeed, the original framework contains a simple logic that allows us to expand our understanding of health systems so that we may improve them. Specifying the goals allows us to assess the performance of a health system by measuring how well each of the goals is achieved, given the level of health expenditure and the social determinants of health, as measured by indicators like income per capita or educational level. In turn, analysis of the way the functions are carried out allows us to explain variations in performance.
And we do know that there are wide variations in performance by different health systems, even at the same level of income per capita and health expenditure. Why is this so? Answering this question would be like finding the Holy Grail for building a science of health systems.

This quest can only be successful if we strengthen the basis for the production of knowledge through research. This requires, more than anything else, the patient and persistent development of institutions where a critical mass of researchers can generate theoretical formulations, methodological standards, and a body of substantive discoveries. Institution building is always difficult, because it requires long-term commitments that can withstand short-term political pressures. And even when there is a supportive environment, the design of research institutions is a complex matter, since not all organizations carry out their mission with equal quality, nor do they encourage the
development of the same values. There is no science of science that can readily prescribe which organizational design that is better adapted to scientific activity. Understanding the reasons why some research organizations have been successful is itself a matter for research. Regardless of how this issue is solved, all centers dealing with health systems research must combine the values of \textit{excellence} and \textit{relevance}.³

As important as the production of knowledge is its reproduction, which assures the consolidation and continuity of the field of inquiry. This is achieved through three major means: first, publications to assure that the new knowledge reaches a wide audience and is subject to peer scrutiny; second, educational programmes to train the next generations of researchers; third, associations and regular meetings to foster the exchange of ideas and to forge a sense of community.⁴ This is what gives this symposium
such value, and I do hope that we will sustain the current momentum by holding similar gatherings in the future.

Finally, the circle of knowledge must also lead to its translation. Among other instruments, knowledge translation can be facilitated by evidence repositories, rigorous evaluations and, last but not least, communication strategies to reach the media and decision makers.

We cannot underestimate the power of knowledge translation. This is another area where institution building can play a crucial role. It is my observation that a key piece of the puzzle in successful reform experiences has been the presence of intermediary entities capable of translating research findings into policy-relevant evidence. Often, knowledge is produced as a global public good. The trick is not so much to adopt as to adapt such knowledge to local circumstances. When the ensuing innovations are evaluated,
they in turn feed back into the global pool of knowledge, feeding a process of shared learning among countries.

The health system reform that was recently implemented in my own country is a good example of such a virtuous cycle. The rigorous application of knowledge-related global public goods, coupled with excellent country-specific data, has helped to catalyze a structural transformation of the Mexican health system which is succeeding in the achievement of universal coverage through a new insurance scheme already covering more than 40 million people and driving an unprecedented expansion in public financing of health.

The reform was subject to an external evaluation using a randomized design. The first follow-up measurement showed a significant reduction in catastrophic expenditures, especially among poor households. This is an example of the possibility of applying the most rigorous research
designs to advance knowledge on large-scale social interventions. It also illustrates the way in which translation can close the circle of knowledge by leading to the production of new scientific evidence.

A hallmark of the Mexican experience has been a substantial investment in the development of institutions that have been able to undertake the necessary research and analysis to generate sound evidence for policy. The current reform has reaped the benefits of 20 years of sustained efforts to establish and nurture organizations such as the National Institute of Public Health and the Mexican Health Foundation. These centers of excellence have produced relevant research and policy analysis, trained researchers who have occupied key policy-making positions, carried out independent and credible evaluations, and greatly enriched the quality of information.
Let me conclude by reminding us that this year we are celebrating the 20th anniversary of the landmark report of the Commission on Health Research for Development, which was chaired by another legendary figure of global health, John Evans, with the able stewardship of a secretariat led by Lincoln Chen. This Commission coined the concept of essential national health research, based on the premise that every country, no matter how disadvantaged, should have at least some research capability, since this is the only way to partake of the global knowledge commons and to realize the potential benefits of research for development.6 The work of the commission was followed by the innovative report of an ad-hoc group on research priorities convened by Tore Godal. Out of these reports emerged new global institutions focused on research, like COHRED, the Global Forum, and the Alliance for Health Policy and Systems Research, all of which enriched the field pioneered by such enduring programs as TDR and HRP.
Such a record of achievement should inspire us to re-launch a movement around research as a crucial ingredient to fulfill the Millennium Development Goals and face the new challenges that will inevitably follow. I am sure that through the work of this symposium and the organizations that made it possible we will enrich the legacy we have received from all those who have come before us and use it to improve the health of the world population.

In this spirit, I would like to close by invoking the wise words of Louis Menand, the distinguished writer and educator, who in a book published just this year, stated the following:

“The pursuit, production, dissemination, application, and preservation of knowledge are the central activities of a civilization. Knowledge is social memory, a connection to the past; and it is social hope, an investment in the future.
The ability to create knowledge and put it to use is the adaptive characteristic of humans.”7

As we proceed with our specialized discussions, let us not lose sight of a fundamental fact that has emerged through the course of human history: Knowledge is the most powerful force for enlightened social transformation. In few other fields of human endeavor is this more evident than in health, where the benefits of knowledge can be measured in millions of lives saved and millions more made better thanks to the fruits of research. Let this legacy of achievement be the inspiration to carry forward the spirit of Montreux.
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