

**GLOBALIZATION AND HEALTH:**

***Global Public Goods for  
Local Decision Making***\*

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First of all, I would like to thank Minister Mary Harney, and the organizers of this important conference, specially Dr. Ruth Barrington, for the opportunity to visit this legendary city and address this distinguished audience.

Today I will discuss with you the impact of globalization on health, with emphasis in the development of global public goods for local decision-making, most notably health research.

Let me begin by stating the obvious: globalization is evolving at such speed and with such complexity that it challenges our ability to grasp it in its full extent. Obvious as it may be, this dynamism is a good reason to constantly renew the discussion around this phenomenon and its impact on everyday life.

The shift of human affairs from the restricted frame of the nation-state to the vast theatre of planet Earth is affecting not only trade, finance, science, the environment, crime, and terrorism; it is also influencing health.<sup>1</sup>

In 1997, an influential report by the U.S. Institute of Medicine stated: “Distinctions between domestic and international health problems are losing their usefulness and are often misleading.”<sup>2</sup> This is so because of what Eric Hobsbawm, the great European historian, has called the virtual annihilation of time and distance.<sup>3</sup>

I do not mean to say that intense international contacts are new. From time immemorial the forces of trade, migration, war, and conquest have bound

together persons from distant places. After all, the expression “citizen of the world” was coined by the Greek philosopher Diogenes in the fourth century B.C.

What *is* new is the pace, range, and depth of integration. Like never before, the consequences of actions that are taking place far away show up, literally, at our doorsteps.

The degree of proximity in our world can be illustrated by the fact that the number of international travelers has tripled since 1980, and it now reaches three million persons every day. In addition, two years ago the traffic on international telephone switchboards topped 100 billion for the first time in history.<sup>4</sup> The anti-globalization movement itself went global in 2001

when activists gathered in Porto Alegre, Brazil in the first meeting of the World Social Forum.

We cannot underestimate the implications of these changes for health. In addition to their own domestic problems, all countries must now deal with the international transfer of health risks and opportunities.<sup>5</sup>

The most obvious case of the blurring of health frontiers is the transmission of communicable diseases. To fully understand this question, we must first deal with two misconceptions that very often cloud the discussion on the role of infectious diseases in the global health agenda.

The first misconception is that infections represent a sort of lower stage in the progression of

disease patterns that has been characterized as the epidemiologic transition. This is a field of research where I was active in my previous academic incarnation. Its original formulation by Omran in the early 1970s viewed the epidemiologic transition as a linear movement from communicable to non-communicable diseases.<sup>6</sup> Therefore, it was just a matter of time until societies got rid of the scourge of infection.

We know better now. We understand that the health transition is not a simple, linear, and unidirectional state, but rather a complex, contradictory, and dynamic process, where several stages may overlap and where populations often experience veritable “counter-transitions” with the re-

emergence of previously controlled infections.<sup>7</sup> This negative outcome reflects complex interactions among disease agents, hosts, and environments that often lead to the appearance of drug resistance. In addition, the world has witnessed the emergence of new communicable diseases, the most prominent of which is, of course, AIDS.

Furthermore, the separation between communicable and non-communicable is not as clear-cut as it was once thought. To begin with, diseases originally classified as non-communicable have been found to have an infectious cause. On top of that, many of these diseases or their treatments weaken the immune system giving rise to associated

infections that are often the precipitating cause of death.

In sum, infectious diseases are not the exclusive domain of a primitive stage in the health transition, but rather a shifting component of every epidemiological pattern. This conclusion also serves to counter the second misconception, namely, that infectious diseases are mostly a problem of underdeveloped countries. As we have seen, even in societies where non-communicable diseases dominate the epidemiological picture, infection is a common companion of such diseases. Furthermore, the extent of integration in our world means that no country can be isolated from risks that emerge elsewhere.

Again, this is not a new phenomenon *per se*. The first documented case of a transnational epidemic was the Athenian plague of 430 B.C. Having probably originated in Africa, it spread in grain boats, through Persia, to the heart of ancient Greece.<sup>8</sup> The Black Death of 1347, which killed one third of the European population, was the direct result of international trade. In the 16<sup>th</sup> century, the conquest of the Aztec and Inca empires was an early example of involuntary microbiological warfare through the introduction of smallpox and measles to previously unexposed populations.

Another example in the uninterrupted history of the transnational transfer of infection is the 1829 cholera pandemic. More recently, the global spread of

influenza in the early 20th century accounted for far more casualties than World War I.

As we can see, infectious diseases have an old record of cosmopolitan presence. What is new, as I said before, is the scale of what has been called “microbial traffic.” The explosive increase of trade and world travel produces thousands of potentially infectious contacts daily, and jet planes have made even the longest intercontinental flights briefer than the incubation period of any human infectious disease. Thus, the Asian “tiger mosquito,” a potent vector for the dengue fever virus, was introduced into the United States in the 1980s in a shipment of used rubber tires imported from northern Asia.

Tuberculosis is another re-emerging problem. In 2003 close to 9 million persons worldwide became infected with TB and more than 2 million died from it. Several reasons explain this unexpected come-back; one is the fragility of the immuno-supressed. As you know, TB is often the first sign that a person harbors HIV. Other reasons include overcrowding, poor nutrition, and inadequate health care, common among the socially marginalized.

The latest additions to the list of global epidemics are severe acute respiratory syndrome or SARS and Asian avian flu. The latter is still a regional threat, but specialists believe that a full-scale influenza pandemic may be imminent.<sup>9</sup> In this regard we confront two major challenges. One has to do with the need to

design more effective drugs against viral diseases in general and, more specifically, against influenza. Oseltamivir can reduce symptoms and help prevent flu transmission, but the real extent of its benefits remains an open question. The other challenge is the need for new technologies to produce vaccines against pandemic influenza in a faster and cheaper way. This is a pressing need given the enormous demand for vaccines that such a pandemic will generate.<sup>10</sup>

The rise in the global spread of infectious diseases is related to radical changes in our environment and life styles, which have led Arno Karlen to speak of a new biocultural era.<sup>11</sup> Indeed, to make matters more complex, it is not only people and

plagues that travel from one country to another; it is also ideas and lifestyles.

Smoking and obesity are the exemplars of emerging health risks linked to globalization that are now placing a double burden on the health systems of developing countries, further compounding health inequities. Indeed, problems **only** of the poor, like malaria, are no longer the **only** problems of the poor. Tobacco-related deaths are increasingly concentrated in developing countries that lack the legal and regulatory muscle to counter the power of multinational corporations.

The way to counter such power is to couple effective national policies with global instruments, like the Framework Convention on Tobacco Control, the

first international public health treaty. I feel proud to say that Mexico was the first country in the region of the Americas to ratify this framework convention.

Furthermore, the globalization of health goes beyond diseases and risk factors to include also health products. To mention but one example, careful regulations on access to prescription drugs in one country may be subverted when its neighbor allows the unrestricted purchase of antibiotics, thereby stimulating the appearance of resistant microbes that show up in the first country.

Another development with potential implications for irrational prescription practices and the ensuing spread of antibiotic resistance is the commerce of drugs through the Internet. That this is no longer a

marginal phenomenon is reflected in recent efforts by the World Health Organization to curb it.<sup>12</sup>

All of these are contextual factors that constrain the final impact of health products, particularly drugs and vaccines, since, in the end, all technological innovations have to be delivered through real-life health care systems. As we have seen in the acrimonious debates surrounding access to anti-retrovirals, the development of life-saving drugs without generating the mechanisms to reach those in need can create very difficult ethical and political dilemmas.

Fortunately, this is an area where interdependence has opened up novel avenues for international collective action. Thus, initial efforts in

the 1990s to secure cheaper drugs for AIDS victims in poor countries yielded only modest results. A few years ago, however, strong international mobilization persuaded several major multinational drug companies to establish agreements with developing countries to sell AIDS drugs at heavily discounted prices. Mexico benefited from these agreements and thanks to them universal access to anti-retrovirals has become a reality in my country since 2003.

Forces related to globalization also prompted the organization in 2001 of the U.N. General Assembly Special Session on HIV/AIDS, which approved a historical Declaration of Commitment. This was the first time in U.N. history that a session of the General Assembly was devoted to a health topic, thus

underscoring the growing link between pandemics, economic development, and global security.

The growing complexity of health systems has made international comparisons more valuable than ever. Given the enormous economic and social impact of policy decisions, countries can benefit from a process of shared learning. This was the significance of the effort carried out in the year 2000 by WHO to assess the performance of all health systems of the world.<sup>13</sup> Comparative analysis is likely to promote the international dissemination of good practice.

This type of knowledge-related global public goods will be key to achieve further improvements in health.<sup>14</sup> In fact, we now know that most of the health

gains during the 20<sup>th</sup> century can be attributed to the advancement of knowledge, through three main mechanisms. First, knowledge gets translated into new technologies, such as vaccines and drugs. This is the best known mechanism through which it improves health. But knowledge is also internalized by individuals, who use it to structure their everyday behavior in key domains like personal hygiene, feeding habits, sexuality, and child-rearing practices. Finally, knowledge becomes translated into evidence that provides a scientific foundation both for health care and for policy formulation.

Each of these three mechanisms is limited by gaps that we need to bridge. In the use of knowledge for the generation of new solutions, our main challenge is

the so-called 10/90 gap, which means that only 10 percent of research resources are devoted to those problems that affect 90 percent of the world population.

Regarding the use of knowledge to promote healthy lifestyles, the challenge is to increase access to it, particularly by the poorest. The democratization of knowledge is essential to empower people in their struggle to confront old and emerging risks. The power derived from knowledge also allows individuals to become informed users of services and citizens conscious of their rights.

Finally, the third issue is the know-do gap, due to a poor translation of evidence into practice. The challenge here is to allow the *power of ideas* to guide

the *ideas of power*, that is, the ideas of those who have the power to design and implement health policies.

Recent developments in my country illustrate this last point. Thanks to the cooperation among several academic and international organizations, the analytical armamentarium for health policy has been enriched during the past years to include such robust tools as the measurement of burden of disease, cost-effectiveness analysis, national health accounts, and standardized surveys. The rigorous application of these knowledge-related global public goods, coupled with excellent country-specific data, helped to catalyze a structural reform of the Mexican health system.

This is probably a textbook case of evidence-based policy. Indeed, sound analysis made decision makers and the public aware of critical realities that required solution. Thus, the careful calculation of national health accounts revealed that more than half of total expenditure in Mexico was out-of-pocket. This proved to be a direct result of the fact that approximately half of the population lacked health insurance.

These findings were unexpected as it was generally believed that the Mexican health system was based on public funding. Instead, the analysis revealed an unacceptable paradox: we know that health is one of the most effective ways of fighting poverty, but medical care can itself become an

impoverishing factor for families when a country does not have the social mechanisms to assure fair financing that protects the entire population.

The realization that millions of households had been paying catastrophic out-of-pocket sums generated a different perspective on the operation of the health system. Policy makers extended their focus to include financial issues that proved to have a great impact on the provision of health care and on levels of poverty among Mexican households.

Another global public good that helped to make the local case for reform was the WHO framework mentioned before. This framework highlighted fairness of financing as one of the intrinsic goals of health systems.

As a direct result of its high levels of out-of-pocket spending, Mexico performed very poorly on the international comparative analysis of fair financing developed by WHO and presented in the *World Health Report 2000*. Instead of generating a defensive reaction, this poor result spurred detailed country-level analysis in 2001 that showed that impoverishing health expenditures were concentrated among poor and uninsured households. The analysis was undertaken jointly by the Ministry of Health of Mexico, WHO, and the Mexican Health Foundation, an example of how national governments, international organizations, and non-governmental institutions can join forces.

The country-level analysis was based on data from the National Income and Expenditure Surveys for Mexico, yet another global public good. These surveys are produced by many countries in the world and provide homogenous data sets that are key for cross-national comparisons.

The careful interplay between national and international analyses generated the advocacy tools to promote a major legislative reform establishing a system of social protection in health, which was approved by a large majority of the Congress in 2003.

This system is reorganizing and increasing public funding by a full percentage point of GDP over seven years in order to provide universal health insurance, including the 50 million Mexicans, most of them poor,

who had been excluded until now from formal social insurance schemes because they are self-employed, are out of the labor market or work in the informal sector of the economy.

A leading principle of this important reform has been the recognition that it is necessary, not only, to provide more money for health, but more health for the money. Again, through different sources of systematic information, we knew that the level of quality in health care was unevenly distributed throughout the country. The specificity of the assessments allowed us to launch in 2001 the major and most comprehensive national strategy for the quality of health care not only in Mexico but, perhaps, unparalleled in many other countries. This strategy

has included accreditation of health care facilities; the training of more than 50,000 health care workers on topics related with quality improvement; monitoring of quality indicators in more than 6,000 health care units; the implementation of continuing improvement cycles, and national awards for the best; citizen participation; an important investment to increase our infrastructure; and an important effort for human resources planning, and the increase of salaries for nurses.

Combined all these, along with the implementation of the social protection scheme, has allowed us to increase the satisfaction of the

population with health care by 20 percentage points in a period of five years.

A hallmark of the Mexican experience has been a substantial investment in research to design the reform, monitor progress towards its implementation, and evaluate its results. This is a clear example of the possibility of harmonizing two core values of research in health, **scientific excellence** and **relevance to decision-making**, topics that are central to this conference.

The value of sound research for enlightened decision-making is underscored by the worldwide search for better ways of strengthening health systems. Because of the gaps in our current knowledge, every reform initiative should be seen as

an experiment, the effects of which must be documented for the benefit of every other initiative, both present and future. Each innovation constitutes a learning opportunity. Not to take advantage of it condemns us to rediscover at great cost what is already known or to repeat past mistakes. To **reform** it is necessary to **inform**, or else one is likely to **deform**.

The Mexican case also shows that the dilemma between local and global research is a false one. As we have seen, the process of globalization can turn knowledge into an international public good that can then be brought to the center of the domestic policy agenda in order to address a local problem. Such application, in turn, feeds back into the global pool of

experience, thus generating a process of shared learning among countries.

Finally, the Mexican reform illustrates the way in which knowledge public goods can empower local decision makers to advance the health agenda amidst the competition for attention and public resources. Especially in their interaction with ministers of finance, health officials can make use of global evidence showing that, in addition to its intrinsic value, a well-performing health system contributes to the overall welfare of society by increasing educational abilities, developing human capital, generating employment, protecting savings and assets, enhancing competitiveness, and stimulating economic growth.

In turn, the spread of knowledge-related global public goods will depend on a renewal of international cooperation in health. In closing, let me suggest three key elements for such a renewal, three “e’s”: exchange, evidence, and empathy.

First, the communications revolution provides the opportunity to **exchange** experiences about the ways to deal with the common challenges being faced by health systems all over the world. This is what gives such great value to meetings like this one.

To be informative, such exchange should be based on sound **evidence** about alternatives, so that we may build a solid knowledge base of what really works and may be transferred across countries when it is culturally, politically, and financially reasonable.

The path is clear: scientifically derived evidence must be the guiding light for designing, implementing, and evaluating programs in national governments, bilateral aid agencies, and multilateral organizations.

But there is another value. The British philosopher Sir Isaiah Berlin has proposed the comparative study of other cultures as an antidote against intolerance, stereotypes, and the dangerous delusion by individuals, tribes, states, ideologies or religions of being the sole possessors of truth. And this leads us to the third element, **empathy**, that human characteristic which allows us to emotionally participate in a foreign reality, understand it, relate to it and, in the end, value the core elements that make us all members of the human race.

This conference is a good example of what global health requires today: global initiatives for the promotion of global public goods that will foster global understanding to help us address common global problems. These events are the harbinger of a more enlightened conception of global health that points to the value of knowledge to inform policy and action.

One last reflection. We must make sure that in a knowledge sharing processes there are no losers, but that we are all winners: the producers of knowledge, who are the researchers; the reproducers of this knowledge, like the editors of scientific journals and the educators; the financial entities, both public and private; those responsible for translating knowledge into goods and services; the users of knowledge,

particularly ministers of health, ministers of finance, and other policy makers; finally, and most important, citizens who must be empowered by knowledge to fully exercise their right to health care.

Fortunately, the topic that gathers us today—the value of health research— involves at its essence the possibility of sharing. It is a topic in which we can all participate and from which we can all benefit. It is a topic where the **self interest** of each country coincides with the **common interest** of all nations.

One of the thinkers who best captured the sharing character of knowledge was Thomas Jefferson, who almost two centuries ago stated:

“He who receives an idea from me, receives instruction himself without lessening mine; as he

who lights his taper at mine, receives light without darkening me.”

Today we are gathered for a celebration of the best of the human spirit. In the course of the deliberations that will follow many candles will be lit. With them we will all contribute to illuminate the road towards our common goal: more equitable development through better decision-making for health.

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