
EDITORIALS

Public Health in the New Millennium III: Global Health and the Economy



AP/WIDE WORLD PHOTOS

Perhaps the reason Albert Einstein was unable to develop a unified theory of the universe is because he was trying to find it in the field of physics. He should have been looking in public health.

When we view the globe as a fragile blue object suspended in space, so memorably captured in an Apollo photograph, the improbable theory of chaos becomes graspable: it suddenly makes sense that the flutter of butterfly wings in a Netherlands tulip field can tumble weather systems into a tsunami off the coast of Japan. Everything affects everything else, however directly or tangentially. We can imagine connections and interactions. We can hypothesize causes and proximate causes. We can envision the intricate web that is global public health.

Tracing the threads of that web with our fingers, we find woven there an interdependent system of health, economics, politics, and the environment. Connections become clear: that children stricken with malaria are too sick to go to school; that their disability or lack of skills limit their productivity; that their countries consequently remain impoverished and their governments unable to invest in eradicating malaria; that global warming fueled

by the developed world's consumption is causing malaria to spread. Like a Möbius strip, we return again and again to the beginning.

Fortunately, our past achievements prove that we are not powerless before these dynamics, whether they involve malaria or other threats to global public health. Research and investments in the 20th century brought improved health to an unprecedented number of people worldwide. In 1945, global average life expectancy was 46 years; today, it is 66. We know that the more developing countries invest in health, the more likely it is they will achieve continued economic growth. That goes for developed countries as well. One estimate, for example, holds that since 1977, the total \$32 billion that the US invested in the global eradication of smallpox is returned to the US every 26 days. The World Health Organization (WHO) projects that global polio eradication will save the world \$3 billion per year by 2015. That is money freed up for education, commerce, research, and civic infrastructure, money freed up for economic development—in short, money freed up for improving human living conditions worldwide.

The inextricable connections among global public health, the global economy, global politics, and the world's environment have the following ramifications: (a) that it is in our own self-interest to improve global public health, (b) that debt, poverty, and deadly health threats in developing countries keep those countries in a steadily declining state of economic devastation, and (c) that our prosperity is intimately—and inversely—linked with their poverty and illness. Both moral and economic grounds support changing these dynamics, and we can do so by giving developing countries what they need, not just what we want them to have, and by seeking global cooperation in the fight against disease, disability, and environmental degradation.

Implications for the US

Our overseas investments in foreign public health infrastructure come back to us in healthier lives for our own people, expanded markets, and our own economic growth. Making this a healthy world for all is not only a moral imperative; it is also in our self-interest.

Public health isolationism is obsolete. Where a hundred years ago it took weeks, even months, to cross oceans, today it takes just hours. Over two million people cross national borders every day. Goods and microbes whip around the globe at speeds and volumes unheard of when turbojet technology was first invented in the 1930s. They bring with them infectious diseases, contaminated foodstuffs, and threats of bioterrorism. These have already hit our shores: dengue hemorrhagic fever, hantaviruses, avian flu, cholera, hemolytic uremic syndrome, malaria, West Nile virus, African sleeping sickness, yellow fever, mad cow disease, multidrug-resistant tuberculosis, and health-threatening microbes and pesticides on imported crops such as strawberries and raspberries. The film *Outbreak* may have stretched plausibility, but we have already seen cross-species migration of diseases and air-borne viruses. These public health threats will grow to an unprecedented extent in the new millennium, here and abroad.

Global warming increasingly compounds the problem. The phenomenon is already incubating new, emerging, and reemerging infectious diseases. The climate change it causes brings birds adapted to warmer climates to regions they once avoided, spreading bird-borne diseases where they never existed. Coupled with new and intensified migration patterns of people, goods, and animals, global warming will bring more outbreaks of tropical diseases to places where it was once impossible for them to thrive.

Let's revisit the example of malaria. This potentially fatal infectious disease, which accounts for 25% of child mortality in Africa, is spread through human migration. It came to the New World with European colonists and

African slaves during the 16th century. The last major outbreak in the US, involving 600,000 cases, occurred in 1914, and in the 1950s, the CDC declared malaria eradicated in this country.

Since the 1980s, however, malaria has reemerged as a public health threat in the US. We have been calling it "airport malaria," but the global spread of this disease depends on more factors than the air transport of infected people and malaria-carrying mosquitoes alone. Global climate change creates more mosquito-breeding grounds, increasing the incidence of malaria worldwide. Abroad, crushing poverty renders malaria-eradication projects impossible in developing countries. In Africa alone, malaria has stolen \$100 billion in GDP over the past 30 years. The result? Both threats to world stability from increasing economic disparities and a growing potential for the resurgence of malaria in the US in the new millennium.

But malaria needn't become a serious US health threat. What if the developed nations undertook to eradicate malaria? What if we boldly established domestic and international policies and standards to slow global warming trends and stuck to them? What if within US borders, we ensured universal health care, so that infected immigrants can be treated sooner rather than later? The answer is clear: our people would be safe from the risk of malarial illness and would enjoy the economic growth brought by economies abroad alleviated of the malaria burden.

Whether it is malaria or some other infectious disease, we must acknowledge and act on the fact that threats to health and economic development abroad are threats to our own people. It is no exaggeration to say that global public health is a national security issue. Fortunately, it is one that, with wise investments and thoughtful policy, we can do something about.

Impact on Developing Countries

Everywhere in the developing world, death, disease, and disability is associated with poverty. The absence of an effective public health infrastructure reinforces global disparities in health and economic status between North (the developed world) and South (the developing world). The result is a whirlpool of instability and suffering, with the South forced relentlessly downward.

We must face our own role in this predicament. One very real reason that developing nations' attempts to invest effectively in public health have been hampered is that the South is saddled with debt. Third World debt has often been incurred by unelected, oppressive regimes, without their people's consent. Forgiving these debts would enable countries that are increasingly becoming democratic to put more resources toward public health and economic development.

A second reason is our reliance on curative medicine

and the for-profit pharmaceutical industry. In the new millennium, HIV/AIDS, left unchecked, will decimate entire economies. Initially, Africa will be worst hit. In the year 2000, HIV will kill nearly two and a half million Africans. At the start of 2001, there will be more than 40 million people living with AIDS worldwide, three quarters of them in Africa. Fifteen percent of the adult population in eight African countries are infected; a third of their 15-year-olds will die from the disease.

The toll of HIV-related death and disability will continue to devastate Africa's economies. As the trend toward illness and death among people of prime working age intensifies, so will the decline of business productivity and the rise of health costs. By 2010, the nation of South Africa alone will have lost \$22 billion dollars and will have seen its GDP fall by 17% because of AIDS. The current debate about pharmaceuticals, about how big a price reduction private nonprofit companies can be expected to extend to poor nations, is almost irrelevant. Countries whose entire per capita expenditures for health care are a fraction of the cost of even reduced-price HIV treatments cannot be expected to carry this burden of care. Even palliative measures are beyond African countries' economic capabilities. Without massive assistance from the US and other developed nations, it will be increasingly impossible for African countries to make the kind of public health investments necessary to curb HIV, much less to attend to their other serious issues of health, disease, and malnutrition, or to pull themselves out of poverty.

Impact of Trade

We import and consume goods from developing countries, which provides them with much-needed foreign capital, but means that our prosperity and health are linked to their poverty and illness. Global inequalities have created a trade situation in which we depend on the countries of the South to supply us with low-wage, labor-intensive goods, while we export high-wage, high-cost, capital-intensive goods to them. If we had to produce their goods ourselves, doing so would impede our own economic growth and lower our standard of living. The prosperity we enjoy, then, is in part made possible by trade with developing countries, whose workers fail to earn even a subsistence-level wage.

Child labor in the developing world may be the most heinous example of the human toll of this relationship. The International Labor Organization estimates that 200 million to 300 million children in developing countries ages 5 to 14 are laborers. About half of them work full-time, foregoing any chance of developing skills that would improve their life circumstances. Millions of them work under abusive and dangerous conditions for starvation-level wages or in indentured servitude.

In 1996, the plight of working children suddenly captured national attention when the media reported that the soccer balls used in the multimillion-dollar soccer industry, the same soccer balls that healthy, well-fed, well-educated US kids kick around on well-maintained suburban playing fields, are made by Pakistani children, some no older than 5, whose circumstances have forced them to forfeit their futures to labor for a pittance under horrific conditions. As the concept of comparative advantage suggests, soccer balls are heavily labor-intensive products exported exclusively from poor countries. Pakistan, where one-third of the population live in absolute poverty, produces 75% of the world's soccer balls (71% of US soccer balls come from there); the rest are made in China, India, and Indonesia. No soccer balls are produced in the US.

Despite the media attention, follow-up reports suggest that the soccer ball industry still employs child labor, with little indication that this is going to change. The conditions that these children endure mirror the conditions of a quarter of a billion children in the developing world. We are major consumers of their output.

Implications for Action

It is precisely because global health and economic issues are so densely intertwined and interdependent that they are so difficult to address. Well-meaning policies can have devastating consequences at worst, and merely maintain the status quo at best. Initiatives addressing the plight of Pakistani school-age soccer ball producers, for example, brought favorable publicity to Nike and other corporations, but did not meaningfully change the children's circumstances; children merely moved into other areas of manufacture, to factories making soccer balls in other villages, or to home-based labor. Pre-NAFTA efforts to industrialize the US/Mexico border area led to overpopulation, poverty, and pollution there, leading the American Medical Association to declare the area a breeding ground for infectious disease.

Nevertheless, the very complexity that makes global public health so difficult also tells us what we must do. We cannot expect to end child labor without providing poor families with alternative sources of income. We cannot support industrialization without supporting effective environmental protections. We cannot rely on medical care without improving education. We cannot expect improved health status without investing in public health infrastructure. And we cannot hope to improve wages in the developing countries if we are unwilling to pay fairer prices for their goods.

In the long term, we must work with the health/economy/environment equation, not against it. As the experiences in Pakistan and the Mexican border show, we

waste money and perhaps do more harm than good when we invest only in pet projects. That approach leads to waste, not real, sustainable change. We need a new approach, one of systemic change. When we make investments and champion policies that support developing countries in building capacity, including the establishment of an effective public health infrastructure, then we will see long-term, sustainable improvements that lead to economic advancement, better health, and improved global living conditions.

In the short term, we can fulfill our immediate responsibilities to our own people by improving our ability to inspect imported goods and food and insist that imports meet our own public health standards. As we did when we boycotted grapes and bought only union lettuce, we can each choose to spend a few extra cents to buy goods made by union labor or from companies that respect worker health and safety standards. We can insist that our government make massive grants to and investments in the WHO. We can insist that our government pay off as soon as possible its UN dues, which are nearly \$1 billion in arrears, according to the US (the UN believes we owe billions more). We can work toward finding common ground between the North and South on environmental issues so that we don't see another breakdown in negotiations like that in November's summit on global warming at The Hague. And we can curb our own appetite for polluting vehicles, chemicals that destroy environments, and drugs like cocaine whose production distorts rural economies.

We have a tradition in this country of rebuilding without malice. Had President Lincoln lived to fulfill the promise of his second inaugural address, "to bind up the nation's wounds," we might have had a less punitive Reconstruction period and might have avoided the corruption that followed it. When General George Marshall announced the Marshall Plan under the Truman Administration in 1947, he said, "Any government that is willing to assist in the task of recovery will find full cooperation...on the part of the United States." The same Europe that 50 years ago was on the verge of starvation was soon the site of stable democracies and flourishing economies. Many trace the emergence of the European Union back to the Marshall Plan, which emphasized free trade across borders and international cooperation even with the vanquished.

As we so generously assisted those we defeated in war, so let us assist our trade partners. Let us help them set standards for democratization of decision-making, for fair wages and improved working conditions, for cleaner environmental practices, for cross-border cooperation. Let us support them in investing in public health, education, economic development, and other activities that will lead to sustainable change and humane living conditions. The earliest Americans understood the wholeness of the universe, the relationship between people and the earth, the connection of all things. Without the technology of space travel, they had a clear view of our globe. We would do well to see the world through their eyes.

— Judith Kurland ■

A Few Words of Thanks

A little more than two years ago Tony Robbins, the departing editor of *Public Health Reports*, and Art Lawrence, of the Surgeon General's office, asked me if I would step in for a little while and serve as editor of the journal while a permanent editor was sought. I happily agreed. After all, six months of working with and on issues that mattered to me, in a different forum, with people who creatively approached public health issues and could write about them, seemed more a gift to me than from me. The six months turned into almost two years, and I have enjoyed them. I have enjoyed them because of the wonderful work I see being done around the country, because of the passionate concern I see from practitioners, academics, policy makers, and students, because of the wonderful colleagues with whom I have worked.

Had I known it was going to be two years, I would have staffed up, and thereby relieved Judy Kaplan, Scientific Editor, of the enormous additional burden she has shouldered in producing the journal. Judy has done more than any editor should have to in getting each issue out. It is no understatement to say that every issue of the past

two years is hers. In the absence of any other permanent staff, she and I were saved from failure and catastrophe by many colleagues who volunteered their time—including three volunteers who read manuscripts, brainstormed suggestions for articles, called friends and colleagues for contributions, suggested new ideas and approaches, and provided constant encouragement: Ken Brown of the Health Resources and Services Administration (HRSA), Mark Yessian of the DHHS Office of Inspector General, and Anne Fidler, academic liaison to the Boston University School of Public Health from the Centers for Disease Control and Prevention. They have been great support and great friends. Anne deserves special mention because week in and week out she was my partner in producing this journal, and deserved to be listed on the masthead as co-editor.

Janice Lesniak for the first year and Maureen Osolnik for the second provided essential administrative support and advice. This temporary federal employee is grateful for their knowledge, patience, and problem-solving skills. Mary Fisher has given us her time, good work, and unfa-