

Health: A Global Goal

Dr. Donald R. Hopkins

Associate Executive Director of The Carter Center

“The public interest requires doing today those things that men of intelligent good will would wish, five or ten years hence, had been done.” –Edmund Burke (1729-1797)

WE HUMANS ALL OVER THE WORLD FACE DAUNTING THREATS TO OUR HEALTH, and those threats are constantly changing. We could do much more than we are doing to reduce these threats, and it is in everyone’s interest that we start doing so right now. If we fail to seize this opportunity to improve the future of humankind, we do so at our children’s peril—all 2.1 billion of them.

Children born in the most advanced industrialized countries these days experience infant mortality rates of 10 per thousand live births or less and can expect to live an average of more than 70 years. Children born in many developing countries, on the other hand, often face infant mortality rates of 150 or higher and have a life expectancy of 50 years or less. Pregnant women may face even greater odds, depending on where they live. The relative risk of dying in childbirth is 50 times higher for mothers in Africa than for those in developed countries. A study in Bangladesh found that about half of all deaths of females between the ages of 15 and 34 were related to reproduction.

In developing countries excessive rates of disease and death reflect the interlocking effects of poverty, infections, insufficient nutrition, and inadequate spacing of pregnancies. Poor people, for example, may not be able to afford necessary preventative or primary health care, even when it is available. Diarrheal disease, respiratory infections, malaria, and AIDS are major killers. In addition to stunting physical development, chronic undernutrition in children often permanently damages their ability to learn and think. Frequent pregnancies, with too brief intervals in between, not only compromise the health of mothers and infants but also strain the coping capacities of parents, families, communities, and countries. The resulting increase in population densities helps the spread of such deadly diseases as tuberculosis, cholera, and measles. The cycle of ill health becomes a vicious one: Measles can precipitate acute undernutrition, diarrhea, or fatal respiratory infection; overpopulation and/or undernutrition can increase vulnerability to, and mortality from, measles, tuberculosis, diarrhea, and respiratory infections.

Recently, new influences, including smoking, automobile accidents, and the overuse of refined sugar, have added to these long-standing health risks in the developing world. Exposure to cigarette smoke or to smoke from wood fires in enclosed huts increases the risks of contracting certain types of meningitis and acute respiratory infections (ARI). Studies in Gambia showed that girls under five years old who were exposed to smoke while their mothers cooked on traditional wood stoves suffered a six fold increase in ARI. Imagine the cumulative impact on mothers in the developing world who have frequent pregnancies; use traditional wood stoves; labor on the family farm, as so many do; and also haul household water—a task that can eat up 20 percent of their time and 9 percent of their caloric intake.

The vicious cycle reaches beyond health itself. A community's general poor health usually means that agricultural productivity and school attendance lag. As an example, a 1987 UNICEF-funded study in Nigeria found that the large numbers of rice farmers suffering from Guinea worm disease (dracunculiasis) resulted in the loss of 20 million dollars a year in unharvested rice. That was only one crop in a small part of one county. River blindness (onchocerciasis) causes populations to abandon large fertile riverine areas, and African sleeping sickness (trypanosomiasis) kills people and prevents survivors from raising cattle in certain regions of sub-Saharan Africa.

Why should the developed world care? Because these tragedies hurt all of us. Good health, education, and agriculture have been described as the building blocks, diseases become serious impediments to development, just as lack of education and poor agricultural techniques are barrier to better health. Better health would help advance many countries toward self-sustaining development and economic well-being, thus making them more self-reliant and stronger partners in the global economy. The recent examples of acquired immunodeficiency syndrome (AIDS), severe acute respiratory syndromes (SARS), and before them smallpox, are powerful proof that the personal health—and with it, the economic health—of everyone on Earth is inextricably intertwined and cannot be untangled.

Some important victories have been and are being won in the ongoing struggle to address these problems. Smallpox is eradicated, even if it hasn't disappeared completely as a cause for concern. Polio and Guinea worm disease will both be eradicated soon, and measles and lymphatic filariasis (elephantiasis), which are more prevalent diseases, may well take their places in the crosshairs of the global public health struggle in the near future. The proportion of children who were properly immunized against several common diseases rose worldwide from less than 5 percent in 1974 to 80 percent in 1990, though it slipped to some 70 percent overall during the 1990s. By 1998, 72 percent of children had been immunized against measles. That disease, which killed more than five million children in 1980, now kills less than a million—still far too many. In Bangladesh, immunizations reduced tetanus infections in newborns by more than 90 percent from 1986 to 1998. The threat of river blindness has been almost eliminated in much of Africa and Latin America and is under increasing attack elsewhere, thanks to programs that first started in 1974.

Meanwhile, the dozen international health experts that constitute the International Task Force for Disease Eradication, based at The Carter Center and supported by the Bill & Melinda Gates Foundation, continue to scan the public health horizon to identify new opportunities for controlling or eradicating diseases. Most diseases can't be eradicated of course, but many could be controlled much better. Global research and public health programs supported by the massive, targeted resources of the Gates Foundation have, in a few years, started to transform visions of what is possible and expected of public health professionals and organizations. Merck set a stunning precedent with its donation in 1987 of medication to fight onchocerciasis. Since then, GlaxoSmithKline has made similar donations to combat lymphatic filariasis and Pfizer to fight trachoma. DuPont contributed millions of dollars worth of nylon filter cloth and American Cyanamid/BASF the larvicide needed to eradicate dracunculiasis. And Rotary International and Lions Clubs have assumed unprecedented roles in polio eradication and prevention of blindness, respectively.

Other important advances in global health have come from the recognition that health improvements require collaboration with other public sectors to improve such critical areas as agriculture and the availability of safe drinking water. At last, policy makers are coming to understand the importance of a healthy population to a nation's economic well-being.

Advances notwithstanding, a quarter century after the world resolved to implement primary health care as a means of achieving "health for all," little has changed to provide routine, rudimentary health services to most of the world's poor. Our victories have been modest compared with what is needed. We are discovering "new" infections much faster than we are eradicating older ones, and that dynamic is not likely to change. Moreover, many improvements are limited to pilot projects or only parts of some countries. Much more can and ought to be done.

We have the technology to make a much greater impact on global health, and we are acquiring more tools each year: old and new vaccines, tablets that treat many parasites at once, antibiotics, oral rehydration therapy to counter diarrhea, bed nets to protect against mosquitoes, condoms to protect against HIV/AIDS, and more. We are lacking, however, in adequate enlightenment and the money and political will to put our tools to maximal use for everyone's benefit. We need fewer global resolutions and more manifest global resolve to help reduce disease and death wherever we can, as soon as we can, and for as long as necessary.

Current initiatives are piling up. In addition to those mentioned above, we now have AIDS control efforts, STOP TB, Roll Back Malaria, Intestinal Helminth Control, and more. But the nitty-gritty, foundation-building work of improving primary health care services is neglected, even by its most vocal advocates. Some expensive, hard-won gains in disease control are in danger of being rolled back because local primary health care services are too weak to sustain them. Two said examples of this are African sleeping sickness and yaws. The ongoing training, support, supply, and supervision of peripheral health workers needed to provide routine, prioritized services to fight these diseases is woefully lacking. That frontline health workers are too few, and even those few and commonly ignored, is a failure primarily affecting their communities and countries, but it also means less protection for the rest of the world as well.

Countries need sustained help to come up with programs that address their priority diseases simultaneously, and they need to be held publicly accountable for meeting announced, disease-fighting benchmarks along the way. We have missed some opportunities already. A generation ago, immunizations to control measles were conducted simultaneously with vaccinations to eradicate smallpox, but only in West Africa, while such a combined strategy for polio eradication and measles control was used only in the Americas. Both were successful. The Carter Center is now helping two Nigerian states to combine health education with mass drug administration against onchocerciasis as part of the African Program for Onchocerciasis Control (APOC), with similar interventions against schistosomiasis and lymphatic filariasis. But Nigeria has 36 states and APCO cover 19 countries, each of which has other diseases that also require better control.

Badly needed improvements in public health cannot be achieved in the typical three –or five-year time frame. It would be more realistic for developing countries to seek sustained assistance from developed countries until they can stand on their own feet

in the fight against disease. Since the late 1970s, the Centers for Disease Control and Prevention (CDC) has helped 20 Asian, African, European, and American countries develop national programs modeled after its own Epidemic Intelligence Service (EIS). In each country a single, experienced epidemiologist from CDC works for about five years, training local physicians to do routine surveillance and analyses, to investigate suspected epidemics, and to conduct operational studies under local conditions. Simultaneous assistance in upgrading diagnostic laboratory service is sometimes included. Even while they're being trained, however, the trainees are producing epidemiological information that is useful to the ministry of health. Within five years or so, the country has a service that is self-sustaining because graduates of the program help train and mentor new recruits while working in health posts, universities, and public health institutions nationwide. Every country needs some version of such a service, and the whole world would benefit from this. Year after year, we struggle with the consequences of not having such services. Disease surveillance, control, and eradication in Chile, China, and Chad is the world's business, not just a national concern. Microbes recognize our common humanity even if we don't.

We need greatly increased, sustained First World assistance, combined with Third World political will, and a mutual insistence on measuring success or failure by reductions in disease in villages and towns around the world. We need a grand alliance against disease, a sustained war on microbes, including continued research, and real progress in strengthening primary health care for rural and urban populations everywhere.

Mozart almost died of smallpox as a child. How much poorer would the world be if Nelson Mandela had died of measles as a boy? The world is losing potential scientists, statesmen, and artists every day, and we are all the poorer for it.

The microbes have already declared war on us. We need to come together to declare war on them and on other barriers to better health for us all. It's not charity. It's common sense.