

Providing Basic Human Security

A Chinese mother, Hu Ziyang, watches in despair as her youngest child dies from HIV/AIDS. The *New York Times* reports that her oldest has already succumbed to the epidemic that Chinese officials claim to be “blood poisoning” or “fever disease.” In 2001, HIV infections in China increased by 67 percent from the previous year. So-called AIDS villages, where the majority of the population is infected, are cropping up throughout the country.

A young man from India named Lala mournfully coughs, signaling that he is dying from tuberculosis (TB). The *Economist* reports that, although Lala had been taking medicine for this curable disease, he is now out of money for drugs and could be among the half-million Indians to die this year from TB. It is estimated that 30 percent of all TB cases in the world occur in India.

A nine-year-old Kenyan girl, Mahenzo Ngala, after days of a high fever and convulsions, the *Chicago Tribune* reports, slips out of consciousness and dies from malaria—a disease to which children are especially vulnerable. Each year, malaria takes the lives of three million people. It is estimated that another 500 million—one-twelfth of humanity—are stricken with the disease.

As horror stories flooding U.S. airwaves and newspapers increasingly report, people across the world face ever worsening devastation caused by disease because they lack the resources and the institutional stability necessary to fight it. It is time that the United States prioritize the global pandemics affecting all of us and take the lead in assuring that funds are provided to combat these threats to global health. If the United States doesn't, who will?

The United States has the medical and fiscal resources as well as the leadership in the international community necessary to improve the situa-

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tion significantly. As the single greatest world power, dedicating resources, technology, and diplomatic efforts to curbing the spread of and treating the effects of infectious diseases among foreign and domestic peoples is not just the morally responsible thing to do but is also vital to U.S. national interests. In an age where we are focused on weapons of mass destruction, I believe that these diseases are weapons of mass destruction. As part of a broader strategy—including education, better access to medical care, effective treatment strategies, and political will—foreign assistance is critical to combat the spread of infectious disease.

A Matter of National Security

The Clinton administration was among the first to embrace the concept that infectious diseases are more than just a health issue; they are also a matter of national security. Among the most remarkable documents on this principle was the 2000 National Intelligence Estimate, prepared by the Central Intelligence Agency's National Intelligence Council. Titled "The Global Infectious Disease Threat and Its Implications for the United States," it identified six ways that infectious diseases affect U.S. national security, both now and in the future.¹ The report noted that infectious diseases are likely to account for more military hospital admissions than injuries received on the battlefield, especially when the military is supporting humanitarian or peacekeeping missions. It also spoke of the dangers posed to international peacekeeping efforts, the detrimental impact on the socioeconomic development in developing nations, and how infectious diseases will challenge democratic development in former Communist countries.

The broadened concept of security that developed after the tragic events of September 11, 2001, has forced the United States to broaden its concept of threat. Yet, as early as 1996, President Bill Clinton noted in a Presidential Directive that the challenges created by global infectious diseases had necessitated a global strategy "as most cities in the United States are within a 36-hour commercial flight of any area of the world—less time than the incubation period of many infectious diseases."

This country is going to great lengths to reduce the threat of weaponized diseases such as anthrax, which showed its potential as a killer in 2001, and the smallpox virus, against which President George W. Bush was recently vaccinated; but what about those that have been killing the world population for decades? Even when under attack by the menacing threat of terrorism, the United States will continue to be a country open to immigrants, welcoming foreign guests and accepting diverse people and cultures. Those who most desperately seek life in the United States are fleeing poverty, and

studies show that poverty and infectious diseases go hand in hand. TB is a clear example.

The Western world thought it had eliminated TB, and with the development of antibiotics in the 1950s, it largely did. But TB made a comeback. In California, local public health officials never thought they would have to worry about TB again; today, they do. In 2000, more than 16,000 TB cases in the United States were reported to the Centers for Disease Control and Prevention. About 20 percent of these TB cases were in California. This is largely because California attracts so many immigrants and tourists who import diseases from other parts of the world with higher poverty rates than the United States. Mexico is the single-largest contributor of foreign-born TB cases in this country, accounting for almost a quarter of all foreign-born cases and 11 percent of total cases in 2000.

These diseases are weapons of mass destruction.

A renewed focus on TB cases has slightly reduced the number of U.S.-born cases, but the number of foreign-born cases within the United States continues to increase. In 2000, out of a total of 16,377 reported TB cases, 46 percent occurred in foreign-born persons. Right now, there are 21 U.S. states where at least 50 percent of all annual TB cases are foreign born.²

In 2001, Jordan Kassalow, a health professional and member of the Council on Foreign Relations, wrote that “increased trade and travel, population movements, and a shared food supply spread health risks across the globe and the socioeconomic spectrum.”³ With tens of millions of Americans traveling abroad each year and tens of thousands of foreigners entering the United States each day, it is clear that stopping infectious diseases in this country cannot be achieved without stopping infectious diseases elsewhere. The spread of infectious disease abroad is not limited to developing countries. Public health experts recently presented data to the British Parliament on TB incidence for Western Europe and pointed to places in Europe—including several London boroughs—where TB rates exceeded national rates in China and parts of India and Africa.

Signs of the onset of multi-drug-resistant infectious diseases is a particularly disturbing trend. Signs of drug-resistant malaria are increasing throughout Africa and Southeast Asia with the spread of drug-resistant parasite strains and insecticide-resistant mosquitoes for which no vaccine exists. Of the 120 multidrug-resistant TB cases reported in the United States in 2001, 68 percent were reported to be foreign born. The United States received a wake-up call in 1991 when multidrug-resistant TB was de-

tected in New York City. At that time, only half of all TB patients who had received treatment throughout the city were actually cured. Immigrants made up a majority of the cases. Between 1983 and 1991, New York City saw a 130 percent rise in the number of multidrug-resistant TB cases. The city was forced to spend \$1 million in an effort to turn these numbers around—and it succeeded. According to health experts, the number of TB cases in New York City fell by 62 percent during the 1990s, and multidrug-resistant TB fell by 93 percent.⁴ Unfortunately, this success was achieved for just one city, while other Western cities remain at high risk for widespread infection.

The Costs of Inaction

It is well known that the HIV/AIDS epidemic is destroying economies throughout the world, especially in sub-Saharan Africa, where companies will hire two or three workers for a single job because one or two can be expected to die from HIV/AIDS.⁵ That a disease that targets people in their most productive years would have devastating economic effects on any country makes sense. Productivity wanes because of lost work hours. Absenteeism caused by illness, attendance at funerals, and caring for those with HIV/AIDS leads to lost revenue for businesses impacted by the epidemic. In Africa, illness and death are the number one reason why a worker leaves a company. A Brookings Institution study compared the impact of HIV/AIDS to a payroll tax, stating that “companies pay direct costs for treatment of sick employees and more expensive health and insurance benefits, as well as the indirect costs of lower productivity, absenteeism, and increased recruitment and training costs for replacement staff.”⁶

As far as macroeconomics go, the World Health Organization (WHO) estimates that Africa’s gross domestic product (GDP) would be nearly \$100 billion greater if malaria had been eliminated 35 years ago. To understand the real impact of the disease, however, requires looking at the individual family. Households with an HIV/AIDS patient spend 20 times more on medical expenses than other households. Families often lose their main source of income to AIDS, and children are taken out of school and forced to work when a parent dies. AIDS has created 10 million orphans in sub-Saharan Africa alone. To compare, there are 10 million children in the entire state of California. In Uganda, one out of every four homes is providing for an orphan whose parents have died from AIDS.

The threat of infectious diseases also threatens the stability of nations in transition, such as the former Soviet Union and countries in eastern Europe. For example, World Bank figures estimate that by 2005 the costs of HIV/

AIDS and TB will claim a full 1 percent of Russia's GDP. Given these figures, the International Crisis Group has reported that "[t]he AIDS crisis will add greater burdens to a society already struggling with the historic economic and political reforms and persistent dangers of civil conflicts in its more remote regions." This report goes on to say that "[t]here already exists widespread public discontent with the hardships of transition, and relatively fragile democratic institutions are extraordinarily poorly positioned to deal with a major health crisis ... over time."⁷

Those nations currently struggling to democratize and to create a better life for themselves are often faced with war. Add to this struggle poverty and infectious diseases, and the world is faced with a nation or nations in a death spiral. During war, civilians are displaced, women are raped, medical care becomes unavailable, and poverty spreads. These upheavals lead to greater rates of infectious disease. Bring in peacekeepers and soldiers from around the world, and the diseases spread further. The infection rate of African militaries is extremely high. If these armies are decimated to the point of being ineffective, political security could also be at risk.

Peter Piot, the executive director of the Joint United Nations Program on HIV/AIDS (UNAIDS), has said:

There is a world of difference between the root causes of terrorism and the impact of AIDS on security. But at some deep level, we should be reminded that, in many parts of the world, AIDS has caused a normal way of life to be called into question. As a global issue, therefore, we must pay attention to AIDS as a threat to human security and redouble our efforts against the epidemic and its impact.

Infectious diseases are not just a health issue; they are a matter of national security.

The Moral Imperative to Do More

Americans are responding to what they hear and read and demanding that their leaders take action. We recognize that the responsibility for finding cures, treating the sick, and preventing future death comes with being the world's richest nation. According to an April 2002 survey for the Better World Campaign, 75 percent of Americans polled identified the spread of HIV/AIDS in developing nations to be "extremely serious" or "quite serious."⁸

My first personal experience with the domestic AIDS crisis was in the 1980s. One case that stands out among many was a young woman and mother named Elizabeth Glaser. After giving birth to her first child, Ariel,

she needed to have a blood transfusion. At the time, no one knew that one could contract HIV through a blood transfusion. Elizabeth then had another child, a son, still unaware that anything was wrong. Years later, Elizabeth and her husband learned that three of the four members of their family were HIV positive: a mother, a son, and a daughter.

The Glasers and others with similar stories showed me firsthand that such terror is not reserved for faraway nations but also strikes in our own neighborhoods. Still, the devastation caused by infectious diseases is exponentially higher in developing nations. The United States is unique among nations, not only in its inclination to succeed and come out on top but also in how it aims to do so while improving humanity. The United States has the wealth, the expertise, and the support of its people—all the ingredients necessary to increase dramatically its contribution to the fight against infectious diseases. Not to do so would be negligent. How will Americans explain to a generation of African children how the world's greatest power stood by as their mothers, fathers, and siblings died from these terrible diseases while U.S. resources and technology could have helped to treat them? How will we answer our own children's questions? How will the millions of AIDS orphans view the Western world when they are adults?

Spreading Prevention

An increase in U.S. aid dollars is important now because treatments are available now. HIV/AIDS, TB, and malaria can be prevented or treated for between \$0.05 and \$10.00 per patient. Even for HIV/AIDS, for which there is still no cure, the transmission of HIV from mother to child is responsible for more than 90 percent of infections among children under the age of 15. This is not a surprising figure given that HIV can be transmitted to an infant during pregnancy, delivery, or breast-feeding. In sub-Saharan Africa, HIV infects more than 30 percent of all mothers.

A study in Uganda showed that the drug Nevirapine can reduce the transmission of HIV from a mother to her newborn by almost 50 percent.⁹ Although the entire course of taking this drug can cost less than four dollars in developing countries, challenges still remain. Education about mother-to-child transmission needs to be expanded so that risks are known; access to care must be made widely available; and women must be tested so they know if they are infected with HIV.

The weakened immune system that results from HIV infection has also contributed to the renewed rise of tuberculosis, and yet we have a solution. A treatment that is proven to work—directly observed treatment shortcourse coverage—is available. This treatment, more commonly known as “DOTS,” is

the WHO's recommended strategy for treating TB. DOTS can produce cure rates of 95 percent even in the poorest countries, prevent the development of multidrug-resistant TB, and is one of the most cost-effective health interventions available today. To increase the safety of both U.S. citizens and people around the world, the United States must get these cures to the sick.

With the absence of a malaria vaccine in the foreseeable future, drugs are and will continue to be a major tool for malaria control. Current medicines, however, are losing the battle against this disease. Drugs for treating infection and controlling its symptoms lose their efficacy as the malaria parasite builds resistance to them. New drugs that are affordable to communities in areas of high malaria transmission are urgently needed if the impact of malaria is to be contained. According to WHO, recent evidence indicates that, due to rising levels of drug resistance, almost half of the money spent on antimalarial medicines is being used to pay for inappropriate treatments. WHO recommends a more expensive combination of drugs because the cheapest and most frequently used are ineffective. This is where additional foreign assistance can help.

In other cases, the answer may not be more money but a wiser allocation of existing resources. Meanwhile, 25 percent of child deaths caused by this disease could be prevented if children slept under insecticide-treated nets to avoid mosquito bites. Yet in Africa, where an insecticide-treated net could be provided for as little as four dollars per child, only an estimated 1 percent of children sleep under them.

There are bright spots amid this bleak backdrop that demonstrate to U.S. leaders that the small dollars we provide can make a major difference. A great majority of aid that goes to fight infectious diseases is being spent effectively. For example, prevalence of HIV in pregnant Ugandan women has fallen dramatically. International aid combined with political support from Uganda's leaders has been effective in combating the disease as well as reducing the stigma and discrimination associated with HIV/AIDS.

In only a few short years in Brazil, 10 times as many men are now using condoms as a result of prevention policies supported by the Brazilian government. According to WHO, more than a million lives have been spared from TB in the past decade due to the success of TB control efforts in countries such as China, India, Nepal, and Peru. The threat of malaria has been turned back in Azerbaijan and Vietnam and reduced in some parts of Kenya and Ethiopia.

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Recently, the Global Fund to Fight AIDS, Tuberculosis & Malaria was created to provide a new public-private partnership to address the infectious diseases that have the greatest impact in the developing world. Earlier this year, this international organization announced that a total of \$378 million would be awarded over the course of two years to 40 programs in 31 countries fighting AIDS, TB, and malaria. The fund estimates, however, that an additional \$6.6 billion will be needed over the next two years to fund the best proposals to stop these diseases. Unfortunately, the Bush administration has thus far only pledged a total of \$500 million for the fund.

Meeting U.S. Responsibility

The United States must take the lead in providing these needed funds. We must also properly fund U.S. bilateral efforts through the U.S. Agency for International Development (USAID), especially as the Global Fund is still in its infancy.

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As the world leader, our contributions to the fight against infectious disease will leverage support from other nations and nongovernmental organizations. It will push leaders in those countries that are most at risk to change their policies to reduce the stigma that goes with infectious diseases and to educate the public on effective health strategies.

If nothing is done, some experts predict that infectious diseases could kill more people in the next 10 years than all of the wars of the twentieth century combined. By meeting its responsibility to lead the world against infectious disease, the United States will not only increase its national security by protecting against the further spread of disease within U.S. borders and bolstering our global financial markets, but also maintain the mission of peace and prosperity that this country has maintained since its origin. I am confident that Americans will soon be reading news reports about a new era of global cooperation that will improve the health and security of the international community. The opportunity has presented itself—the United States has the responsibility to seize it.

Notes

1. National Intelligence Council, "The Global Infectious Disease Threat and Its Implications for the United States," NIE99-17D, January 2000.

2. Centers for Disease Control and Prevention, "Tuberculosis Morbidity among U.S.-Born and Foreign-Born Populations—United States 2000," February 2002.
3. Jordan Kassalow, "Why Health Is Important to U.S. Foreign Policy," May 2001, www.cfr.org/pubs/Kassalow_Health_Paper.html (accessed January 18, 2003).
4. See chapter 4 of the "Global Plan to Stop TB," www.stoptb.org/GPSTB/default.asp (accessed January 18, 2003).
5. International Labor Office, "HIV/AIDS: A Threat to Decent Work, Productivity, and Development," June 2000.
6. Erica Barks-Ruggles et. al, "The Economic Impact of HIV/AIDS in Southern Africa," *Conference Report* no. 9, September 2001, www.brookings.org/dybdocroot/comm/conferencereport/cr09.pdf (accessed January 19, 2003).
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8. Bill McInturff, Lori Weigel, and Bob Boorstin, "The Global AIDS Crisis: Executive Presentation," February 13, 2002, www.betterworldfund.org/multimedia/pdf/aids_presentation.pdf (accessed January 18, 2003).
9. "HIVNET 012: A Clinical Trial to Determine the Efficacy of Oral AZT and the Efficacy of Oral Nevirapine for the Prevention of Vertical Transmission of HIV-1 Infection in Pregnant Ugandan Women and Their Neonates," *Lancet*, 1999.

