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## Global Public Health Trumps the Nation-State

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It is generally agreed that governments are responsible for the protection of their citizens, a responsibility that falls under the rubric "national security." Today, the concept of national security, and even the idea of national sovereignty, is being challenged by the spread of infectious disease, particularly by the global pandemic of HIV/AIDS.

The term "security" has traditionally referred to safety from some form of violent attack. A decade ago, the United Nations, in the Declaration of Principles on Human Rights and the Environment (1994), broadened the definition of the term to include access to such basic requirements for human well-being as food, healthcare, education, and the like. Disease, which recognizes no borders, attracts less attention than warfare and civil strife, yet it can be even more threatening to state survival. Three times as many people die from AIDS each day as died in the attacks on September 11, and the disease has killed more people than all the wars of the twentieth century. It is the leading cause of death in Africa and is on the rise in many of the world's most populous countries. These facts should concern us not solely for humanitarian reasons but because, as the political scientist Andrew Price-Smith warns, "Rapid negative change in the health status of a population and pathogen-induced demographic collapse may...figure in the destabilization of states."1

Ironically, our notion of sovereignty, which prohibits both state and nonstate actors from intervening in the affairs of sovereign states, has aided the global spread of

infectious disease. As Price-Smith notes, "In the case of states like South Africa and Zimbabwe, where there remains an enduring culture of denial regarding HIV/AIDS, this means that the international community has little choice but to stand by and watch the ruling elites of these countries preside over the destruction of their populaces." According to a U.S. intelligence estimate published in 2002, over 25 million people have died of AIDS in the past two decades and 40 million people are currently living with HIV. By the year 2020, it is estimated that 70 million people will have died from the disease, 55 million of them in sub-Saharan Africa. Civil institutions are being decimated, and along with them the economic prospects of highly infected nations. Some 40 percent of Zambia's and 70 percent of Swaziland's teachers are HIV-positive. Up to half of Malawi's healthcare workers are expected to die of AIDs by 2020, and the disease is expected to kill similar numbers of civil service workers throughout the rest of sub-Saharan Africa over the same period.<sup>3</sup> As a result, poverty, political instability, and cross-border conflict are likely to increase. Stefan Elbe of the University of Essex, who has looked closely at the strategic implications of HIV/AIDS on national armed forces, international peacekeeping forces, and political stability, concludes that the spread of the disease may well undermine the ability of states and the international system to manage and contain conflict.4

The political economist Nicholas Eberstadt has demonstrated that the coming

Eurasian AIDS pandemic has the potential to derail the economic prospects of billions of people—particularly in Russia, China, and India—and to thereby alter the global military balance. 5 Eurasia (defined as Russia, plus Asia), is home to five-eighths of the world's population, and its combined GNP is larger than that of either the United States or Europe. Perhaps more importantly, the region includes four of the world's five militaries with over one million members and four declared nuclear states. Since HIV has a relatively long incubation period, its effects on military readiness are unusually harsh. Officers who contract the disease early in their military careers do not typically die until they have amassed significant training and expertise, so armed forces are faced with the loss of their most senior, hardestto-replace officers.

Moscow, New Delhi, and Beijing appear to be either unable or unwilling to monitor the epidemic, but even rough estimates of the number of people infected are alarming. As of two years ago, Russian officials had registered 200,000 cases, but independent estimates put the number at closer to 2 million. This would imply an infection rate of two to three times the U.S. rate. However, Russia spends only \$6 million a year on HIV/AIDS programs, compared to the \$6 billion the United States spends. Russia has also created incentives for infected people to conceal their condition, subjecting those who test positive to possible prosecution for drug use. A 2004 report published jointly by the Council on Foreign Relations and the Milbank Memorial Fund warns that the number of HIV-infected people in Russia by 2010 could "imperil Russia's tenuous democratic transition and breed economic and political disorder in a nation already struggling to safeguard thousands of nuclear weapons and vast quantities of nuclear materials."6 But Russia has opposed the inclusion of public health in the global security agenda of the U.N. Security Council, on the grounds that this would lead to increased

interference by outside agencies in its domestic affairs. China has taken a similar position.

All three countries face major obstacles in controlling their respective HIV transmission rates. India's ability to control transmission of the disease (estimates put the number of infected as high as 8 million) is hampered by the high illiteracy rate among its adult female population. China (where the number of infected is estimated to be 6 million) faces the problem of transmission by unsafe blood transfusions in rural areas, where desperately poor farmers sell their blood for cash. Unfortunately, China does not permit open discussion of the epidemic and has imprisoned activists who have attempted to do so.

Because it tends to strike people in the prime years of their labor productivity, AIDS will have an adverse affect on foreign direct investment, savings rates, productivity, and technology transfer. Russia's outlook is the bleakest: the next generation's life expectancy could be a full decade less than today's. With Russia poised to suffer long-term zero population growth, if not a net population decrease, the attendant economic setbacks may lead to the country's marginalization. Eberstadt is not alone in asking if this will result in a more belligerent outlook on Moscow's part.

In sub-Saharan Africa, where armed conflict is widespread, the toll of the HIV/AIDS epidemic has been catastrophic, both on military readiness and with respect to the role of armed forces in spreading the disease. In South Africa, about 5 million people— 20 percent of the adult population—are thought to be infected with HIV. Adult infection rates for South Africa's neighbors vary: Botswana, 39 percent; Mozambique, 13 percent; Namibia, 22.5 percent; Zimbabwe, 34 percent; Angola, 5.5 percent; and Zambia, 21.5 percent. It is very difficult to prevent an epidemic once the infection rate among the adult population reaches 5 percent, and five West African nations are near

or just over this level: Burkina Faso, Congo, Nigeria, Sierra Leone, and Togo. In all of these countries, the infection prevalence rate among members of the armed forces usually exceeds that of the civilian population by factors of two to five. Defense ministries in sub-Saharan Africa claim 10-20 percent infection rates for their armed forces, but in some countries with over a decade of high overall prevalence rates, the figure is 50-60 percent.8 According to a 2002 U.S. intelligence report, military HIV infection rates for selected countries in the region are as follows: Angola, 40-60 percent, Côte d'Ivoire, 10-20 percent, Democratic Republic of Congo, 40-60 percent, Nigeria, 10-20 percent, and Tanzania, 15-30 percent. With such infection rates, militaries struggle to replace sick or dead soldiers in a contracting conscription pool. Highly trained senior officers are not easily replaced, and the high absenteeism and low morale caused by disease reduces overall effectiveness throughout the ranks.

As a result, these countries are incapable of deploying their full forces, or even a fraction thereof, on short notice.9 But the scope of the problem is broader since many of these countries are key contributors to international peacekeeping forces. "One of the ugliest truths that everyone knows about AIDS," says the former U.S. representative to the United Nations Richard Holbrooke, is that "it is spread by U.N. peacekeepers." But Holbrooke doubted that efforts to combat the spread of the disease were likely to succeed because "almost none of the troop contributing countries will agree to have their troops tested."10 Cambodia blames the U.N. Transitional Authority for its high HIV infection levels; Croatia and Eritrea have both turned away peacekeepers out of fear of infected soldiers.

Two Reactions: South Africa and China Given the inherently cross-border nature of infectious disease, developing nations can do significant harm by asserting their sovereign

right to deal with public health issues on their own terms. In early 2000, South African president Thabo Mbeki shocked the international public health community by saying that he was persuaded by the argument of two American scientists who said that it was not HIV but poverty and malnutrition that caused AIDS. At the time, about 20 percent of South Africans were infected with the virus, and South African public health counselors began to encounter people who had returned to high-risk sexual behavior because of Mbeki's pronouncement.11 The previous fall, Mbeki had confounded AIDS activists when he questioned the safety of the antiretroviral cocktail AZT that was being used to treat the disease. "There exists a large volume of scientific literature alleging that, among other things, the toxicity of this drug is such that it is, in fact, a danger to health," he said.12

By July 2000, in the face of strong international and domestic protests against the president's position, the Mbeki administration had begun to back away from its claims about the toxicity of AZT. South Africa's health minister Dr. Manto Tshabalala-Msimang admitted to Parliament that Mbeki and other officials had been mistaken in saying the drug was too toxic to prescribe to pregnant mothers. But the government has dragged its feet and, according to Human Rights Watch, the country's overall response to the pandemic has been inadequate: "Access to life-prolonging antiretroviral medication for people living with HIV and post-exposure HIV prevention services for sexually assaulted persons have been severely restricted."13

Even if the government were more responsive, South Africa's healthcare system would likely not be able to cope with the AIDS crisis. According to a report by the South African Human Sciences Research Council, the infection rate among healthcare professionals is nearly 16 percent—close to the infection rate for all South Africans aged 25 and over.<sup>14</sup>

While the international community largely acquiesced in South Africa's insistence on its sovereign right to deal with the AIDS epidemic on its own terms, it took a different approach with China over the outbreak of SARS (Severe Acute Respiratory Syndrome). Unlike AIDS, SARS is caused by an airborne virus that does not depend on stigmatized behavior, such as sexual promiscuity and drug use, for its transmission. While 65 million people have contracted HIV in the past 20 years, the SARS outbreak at its worst affected some 8,098 people, killing 774.<sup>15</sup>

Elizabeth Prescott, an American Association for the Advancement of Science congressional fellow, chronicled the spread of the epidemic, which was exacerbated by weaknesses in China's political and public health infrastructure, in Survival in 2003. When the first cases of an atypical pneumonia, marked by "an aggressive form of upper respiratory distress with no effective treatment, no vaccine and a fatality rate of 15 percent," appeared in southern China in November 2002, no international health authorities were notified. "China," Prescott wrote, "treating the epidemic as a state secret, prohibited disclosure to public health authorities and the citizens whom the disease could potentially infect."16 Nevertheless, Chinese authorities were ultimately unable to control the flow of epidemiological information out of the country.

By February 2003, the World Health Organization (WHO) was receiving alerts about an outbreak in Guangdong province of a rare pneumonia, which had infected 305 people and caused 5 deaths. Soon afterward, a doctor infected with SARS traveled to Hong Kong and infected at least 12 more people, who then traveled to Vietnam, Singapore, and Toronto, where outbreaks ensued. Tracing the path of infection along international air travel routes, the WHO issued an emergency travel advisory to limit further transmission on March 12. Chinese authorities granted the WHO per-

mission to visit Guangdong province in April 2003, and only then was it confirmed that the earlier reports of the rare pneumonia were consistent with SARS. The outbreak continued its global advancement until its peak in late May.

The international response to SARS represents a qualified success in that over a hundred laboratories and universities in many countries mobilized to identify the disease and determine treatment on an emergency basis.17 The outbreak also served to demonstrate to governments that an unwillingness to confront epidemic disease in its early stages is costly. Canadian officials, fearing the short-term effects of a travel advisory on Canada's tourism industry and business in general, ignored WHO recommendations to screen every departing passenger in Toronto for SARS and were unpleasantly surprised to see losses from tourism and airport revenues reach \$950 million, \$570 million in Toronto alone.18

By some estimates, the SARS epidemic cost China up to \$100 billion in lost revenue, trade, and direct investment. But Beijing did learn useful lessons in how to deal with a nascent epidemic. Officials who had tried to keep the SARS outbreak under wraps were fired and laboratory procedures scrutinized. When there was a subsequent SARS outbreak this past April, China reported it to the WHO almost immediately.

The fast spread of SARS made it crystal clear that we "are only as secure as the world's weakest public health system and for as long as it takes a passenger to travel from that location." 19

## What We Should Do

It is in the developed world's interest to act in concert with developing nations to stem the spread of infectious diseases—not only HIV/AIDS and SARS but tuberculosis and other bacterial and viral illnesses that claim the lives of millions annually. These diseases have high attendant economic costs and contribute to instability and

conflict in the developing world. So what should we do?

First, Washington should increase funding for basic research. Elizabeth Prescott urges the development of "broad spectrum antibiotics and antivirals," thus making possible a range of versatile solutions to public health emergencies whose impact may not be fully understood at the first signs of an outbreak. Also important is the ability to develop and use diagnostics in nonstandard conditions and to ensure an adequate "surge capacity" (the ability of health services to handle a sudden and dramatic increase in the number of cases).<sup>20</sup> The federal budget should also authorize funds for unanticipated infectious disease outbreaks. Instead, recent federal budgets have cut expenditures for "epidemiological services and response" as well as for "infectious disease control."

Second, as Prescott notes, while "improved global surveillance and inter-governmental coordination will likely be aided by technological advances," the developed world must help developing countries create public health infrastructure, educate local health professionals, and implement detection technologies.<sup>21</sup>

Finally, the developed world must increase its financial aid to the developing world. The WHO estimates that a commitment to provide basic health services to developing countries would require \$27 billion in aid annually by 2007, and up to \$38 billion a year for the following eight years. (To put these figures in perspective, the President's Emergency Plan for AIDS Relief, announced by President Bush in January 2003, pledged \$15 billion over the next five years to fight AIDS in 14 targeted countries, 12 of which are in sub-Saharan Africa.) Such an initiative on the part of the developed world would save 8 million lives a year by 2010 and generate \$186 billion in new economic output per year by 2015.

We ignore the connection between epidemic disease, instability, conflict, and state collapse at our peril. We should worry about the perfect breeding grounds for even more virulent diseases than HIV/AIDS or SARS that are being created in conflict-ridden, economically deprived areas of the world, and we should act. ●

## Notes

- 1. Andrew T. Price-Smith, The Health of Nations: Infectious Disease, Environmental Change, and Their Effects on National Security and Development (Cambridge, MA: MIT Press, 2001), p. 121.
  - 2. Ibid., p. 136.
- 3. United States National Intelligence Council, *The Global Infectious Disease Threat and Its Implications for the United States* (Washington, DC, January 2000).
- 4. Stefan Elbe, remarks at the Conference on Disease and Security, 21st Century Trust, Lake Como, Italy, April 26, 2004.
- 5. Nicholas Eberstadt, "The Future of AIDS," *Foreign Affairs*, vol. 81 (November/December 2002).
- 6. Addressing the HIV/AIDS Pandemic: A U.S. Global Strategy for the Long Term (New York: Council on Foreign Relations/Milbank Memorial Fund, 2004).
  - 7. Price-Smith, Health of Nations, p. 136.
- 8. See Stefan Elbe, "HIV/AIDS and the Changing Landscape of War in Africa," *International Security*, vol. 27 (fall 2002).
- 9. See Lindy Heinecken, "Living in Terror: The Looming Security Threat to Southern Africa," *African Security Review*, vol. 10, no. 4 (2001).
- 10. As quoted in Price-Smith, *Health of Nations*, p. 129.
- 11. Rachel L. Swarns, "Dissent on AIDS by South Africa's President: Thoughtfulness or Folly?" *New York Times*, July 8, 2000.
- 12. Mark Schoofs, "South Africa Acts Up," Village Voice, December 22–28, 1999.
- 13. Human Rights Watch, South Africa Human Rights Overview, January 1, 2004.
- 14. See Dan J. Ncayiyana, "Doctors and Nurses with HIV and AIDS in Sub-Saharan Africa," *British Medical Journal*, September 11, 2004.
- 15. Centers for Disease Control and Prevention, "Revised U.S. Surveillance Case Definition for Severe Respiratory Syndrome (SARS) and Update on SARS

- Cases—the United States and Worldwide, December 2003," *MMWR Weekly*, December 12, 2003.
- 16. Elizabeth M. Prescott, "SARS: A Warning," *Survival*, vol. 45 (autumn 2003), p. 211.
- 17. Elizabeth M. Prescott, remarks at the Conference on Disease and Security, 21st Century Trust, Lake Como, Italy, April 30, 2004.
- 18. "SARS: Down But Still a Threat," Intelligence Community Assessment (Washington, DC: National Intelligence Council, August 2003).
  - 19. Prescott, "SARS: A Warning," p. 20.
  - 20. Ibid., p. 214.
  - 21. Ibid., pp. 220-21.