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Health as a Global Security Challenge

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I. Introduction

As threats to security evolve, we are forced to reexamine our notions of security to determine their current contribution, to discard what is no longer relevant, and to search for new approaches to what still may be uncertain threats but very real challenges. One relatively novel but rapidly expanding paradigm examines the overlap of health and security issues. While it is clear that health issues often intersect with security issues, not all health challenges represent security concerns. In fact, health challenges are rarely immediate threats to national security. Therefore, to lend clarity to what constitutes the nexus of health and security, we must deepen our conceptual and analytical approaches to such problems. This article aims to contribute to this objective by not only arguing for the inclusion of health challenges in our changing conceptions of security, but also by offering two analytical approaches for advancing "health and security" as a paradigm. First, characterizing threats posed by health and security challenges as either *direct* or *indirect* will help clarify whether the problem is an immediate or tangential concern for security planners. Second, elaborating a *risk-based approach* to health and security challenges will provide a framework that characterizes the degree to which health concerns represent threats to security. By identifying health and security challenges as direct or indirect threats and by evaluating the level of risk associated with these threats, we begin to elaborate on an analytical framework that will help policymakers and analysts better understand the nexus of health and security. Ultimately, this will lead to improved policy responses to novel challenges.

II. Changing Conceptions of Security

The concept of security has evolved over time so that today it encompasses many different things. Traditional conceptions of "national security" are concerned

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with the well-being of the state, relative power between states, the pursuit of national interests, and ultimately efforts by states to protect their borders from invasion. This notion of security is primarily concerned with military affairs and interstate conflict. The concept of "international security" explicitly acknowledges that the security of one state is connected with the security of other states. International security tends to focus on transnational dynamics, such as how actions taken by one state have an impact on the security of other states or the role of international organizations. "Global security" extends the security agenda in scale and includes social development, environmental protection, public health, human rights, and other issues considered to be inalienable prerequisites of security. "Human security" shifts the focus towards the individual and community levels and takes a more holistic approach to security by not only encompassing the concepts mentioned above, but also incorporating a notion of "physical" security of the individual or his or her freedom from injury, violence, sickness, poverty, or psychological harm. "Ecological security" may be the most far reaching of all because it looks at not only human populations on a global scale, but also the macro and micro natural environments in which they live.[1]

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While many analysts see the need to expand the definition of security to encompass nontraditional national and international security problems such as health challenges, others resist incorporating novel threats into their notions of security for fear of spreading our national security focus and resources too thin. The health and security debate has at times met resistance from the traditional national security community who argued that casting security in such terms dilutes the concept to an unmanageable degree. Skeptics of an expanded notion of security, therefore, argue that because everything can be related to national security in some way, systematic parameters must be created in order to establish what constitutes a national security challenge. Meanwhile, many in the public health community are also uneasy about viewing public health problems in security terms, fearing that framing the issues in such a way would offer a skewed perspective on what are in actuality public health, ecological, humanitarian, and developmental issues. These diverse approaches to security raise a question: What constitutes security as we enter the new millennium?

Each of these conceptions of security is useful for examining the changing dynamics, unique challenges, and nontraditional and uncertain threats, including those posed by health challenges. Therefore, to the degree to which they have implications for national security they should be more fully considered. This is not to say that all health challenges constitute national security concerns; they do not. It

also does not suggest that health concerns with security implications are the most important national security threats of the day, but the growing sense of urgency that surrounds many of the intersections between health and security have become increasingly apparent in recent years. For these reasons, such pressing health challenges warrant more attention from the national security community than they currently receive.

III. Health and Security: degrees of risk

Former United Nations Secretary-General, Boutros Boutros-Ghali, in his 1992 report, *Agenda for Peace*, points out that our evolving conceptions of security in the post-cold war era must include "new risks for stability," noting that "drought and disease can decimate no less mercilessly than the weapons of war."[2] At the nexus of health and security lie many poignant examples of "new risks to stability"—the growing threat of biological weapons, the potential destabilization of much of Africa from HIV/AIDS, the negative impact of naturally occurring infectious diseases on military and peacekeeping operations, the migration and proliferation of emerging and reemerging infectious diseases to non-endemic areas—that produce a strong case for including health concerns in the national security debate. The question is not *whether* some health challenges generate risks that have implications for security, but rather, *to what degree* do various health challenges pose risks that have security implications? The link between health and security should not be seen as a single point of intersection. Instead, it should be regarded as a continuum that encompasses a variety of risks ranging from high-risk biological weapon contingencies that are clearly security concerns to low-risk health issues with little relevance for security. When we examine the degree of risk generated by a health issue in relation to other health and security topics, it becomes clear that some health issues are far more important in terms of security than are others.

The link between health and security should not be seen as a single point of intersection.

To understand the degree of security risk that various health challenges create, we can distinguish health challenges as direct threats to national security in the traditional sense or as indirect factors that contribute to emerging national security threats.[3] Greater risk would be associated with direct threats than indirect threats. For example, direct security threats might involve risks related to more traditional aspects of security such as biological weapon attacks, attacks on medical personnel, facilities, and supplies by combatants in a conflict, and the declining health status of military personnel, peacekeepers, or deployed contingencies due to infectious diseases. Each of these challenges has direct implications for traditional national security considerations.

Indirect security threats might involve risks embedded in a broader definition of security such as global health emergencies caused by communicable diseases. Examples include severe acute respiratory syndrome (SARS), the potentially destabilizing social, political, or economic impact of HIV/AIDS, or a growing AIDS orphan population that could potentially turn to criminal, insurgent, or terrorist activity. While these challenges carry less risk than direct threats, they have the potential to impact national and international security and should not be excluded from traditional national security considerations.

Characterizing the nexus of health and security in terms of degrees of risk provides greater analytical clarity. A risk-based approach weeds out low-risk health challenges that are not appropriately viewed through the lens of security and clarifies the "hard" security issues in light of the high-risk health challenges that directly impact security. Moreover, the risk-based method identifies shifting health and social dynamics that could generate, in the future, increasing levels of risk to security. Using such an approach, we begin to distinguish the high-risk challenges from the medium- and low-risk challenges that lie at the intersection of health and security.

IV. Health and Security: The "Big" Issues

The ways in which health and security interact are numerous, but not all of these interactions warrant examination in the context of security. To comprehend the nature of the health and security relationship, we must start by asking: What are the "big" issues? As we survey the health and security landscape, several critical issues stand out.

First, among infectious disease threats to both military and civilian populations, biological weapons have emerged as the most salient. Over the last decade, biological weapons took on a new level of importance for the United States after revelations in the 1990s by the United Nations Special Commission that in Iraq, Saddam Hussein had one of the world's most advanced biological weapon programs, including large amounts of anthrax. It was this and other discoveries, like Dr. Ken Alibek's (former Deputy Director of the Soviet biological weapons agency Biopreparat) description of the Russian biological program, which made the United States realize that the security risk associated with biological weapons was higher than anticipated. September 11th and the subsequent anthrax mail attacks illustrate how much the security landscape has changed both generally and at the intersection of health and security. Not only are non-state actors challenging the rights of states to monopolize the use of violence, but also they are doing so with weapons of mass destruction and indiscriminate violence, resorting to the use of disease against their adversaries. The risks related to biological weapons no longer lie solely at the juncture of colliding military forces. Biological weapons threaten political leaders and civil servants in their workplaces. Civilians are threatened in their own homes by a routine postal delivery. No longer is the battle reserved solely for the battlefield, and no longer is military might the only appropriate response. Biological weapons are now being

used to attack us at the most personal level by targeting the health of individuals, communities, and societies. As such, the health of the individual is now vulnerable to deliberate attack, and security has come to encompass to some degree the protection of the individual citizen from these risks. The anthrax mailings, though a relatively small-scale occasion of biological weapon use, are a poignant example of the high-risk national security challenges located at the intersection of health and security.

Second, naturally occurring infectious disease outbreaks represent a direct threat to military operations. In 1987, Brigadier General Ognibene noted in the journal *Military Medicine*:

> *Disease is woven intricately into the fabric of war. The story of one cannot be told without the other and yet, each succeeding generation of history, soldier and scholar alike, seems destined to repeat the errors of history and fail to perceive the impact of disease.*[4]

In fact, naturally occurring infectious disease outbreaks, rather than firepower, are often responsible for more casualties in warfare. During the U.S. Civil War, for example, twice as many soldiers died of disease than were killed in combat.[5] More recently, some contingencies of the United Nations Mission in Sierra Leone reported an excess of 30 percent of troops bedridden with malaria in any given month, a significant drag on the performance of the operation.[6] Likewise, of the 225 U.S. Marine Corps service members who were in Liberia in August 2003, fifty were hospitalized with malaria.[7]

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Infectious diseases also impact predeployment force readiness. Throughout Africa, the armed forces and security apparatuses are particularly afflicted by HIV/AIDS with prevalence rates typically, and often drastically, higher than in the general population. For example, in 1999, the HIV prevalence rate in Nigeria's military is estimated to be 10 to 20 percent, in Tanzania 15 to 30 percent, and in Angola 40 to 60 percent whereas prevalence rates in the adult civilian populations were estimated to be 5.06 percent, 8.09 percent, and 2.78 percent, respectively.[8] These developments affect manpower resources and preparedness in military and police forces and may reduce the effectiveness and capability of these security apparatuses to maintain order domestically and abroad. Furthermore, faced with enormous HIV/AIDS challenges in their national militaries, major African troop-contributing countries are becoming reluctant to offer soldiers for peacekeeping missions given the strain HIV/AIDS is placing on the readiness of their national militaries. Moreover, many host countries are reluctant to accept HIV-positive peacekeepers because of the

risks related to the spread of the disease to local populations. Despite the enormous impact that infectious diseases have on force readiness, on the effectiveness of military operations, and on regional peacekeeping capabilities, military planners rarely give the risks posed by such health challenges sufficient attention.

Third, infectious diseases also represent an indirect threat to security as major killers of civilian populations. Smallpox alone is estimated to have killed 300 million people in the twentieth century, about three times as many people that died in wars during the same time period. Today, infectious diseases—HIV/AIDS, tuberculosis, malaria, and many others— continue to ravish the developing world. Of these, HIV/AIDS exemplifies the burden of disease because of its devastating impact, primarily in Africa. An estimated 20 million people have died globally since HIV/AIDS was reported in 1981, and 29.4 million are estimated to be living with the disease in sub-Saharan Africa as of 2002.[9] Countries such as Botswana, Zimbabwe, and Swaziland are witnessing prevalence rates in the 15 to 49 age group of 38.8 percent, 33.7 percent, and 33.4 percent, respectively.[10] With such a large percentage of these countries' populations sick and dying, economic productivity is drained through labor shortages and heightened absenteeism. National resources are redirected from critical needs such as education and infrastructure development to health care spending. Furthermore, economic development is impeded because the epidemic discourages capital investment, and gross national product decreases as HIV prevalence rates rise.[11] Poor health also reduces individual and family resources by diminishing savings and imposing higher health care costs. Left unabated, HIV/AIDS will not only continue to destroy the social fabric of communities in Africa, but also roll back economic development and impede democratic transition. Furthermore, HIV/AIDS will erode the capacity of governments to provide basic human services, place enormous strain on already fragile institutions, and with other pressures, potentially spark violence and state instability.

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Although the HIV/AIDS pandemic does not directly threaten security in the way that HIV/AIDS impacts military populations, should HIV/AIDS contribute to factors that result in instability, there would be serious security implications for the directly impacted countries and for regional and international security. While it is difficult for the national security community to calculate the security risks associated with such a scenario, some degree of risk, however uncertain, does exist. Failure to consider the potentially serious health and security implications of HIV/AIDS on social stability would be shortsighted.

Fourth, HIV/AIDS is negatively impacting social stability and the security sectors in Africa while simultaneously creating a huge orphan cohort as parents succumb to the disease. AIDS orphans, approximately 13 million currently in Africa, are expected to double by 2010 and are estimated to grow to 40 million by 2020.[12] Lacking family support and guidance and educational and economic opportunities and ostracized socially, many AIDS orphans will be forced to turn to crime or prostitution to survive. Already, many orphans are feared to have been recruited into paramilitary and terrorist organizations that offer attractive incentives such as food, shelter, and a sense of purpose. Should the involvement of AIDS orphans in illicit activities increase as their numbers grow, many national security sectors in Africa will be hard pressed to effectively control growing criminal or insurgent elements of society. While presently AIDS orphans represent an indirect and relatively low security risk, should AIDS orphans become involved in illicit activities, the threat to security may become increasingly direct.

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Fifth, in addition to the potential risk of infectious diseases contributing to instability in the developing world, globalization has increased the vulnerability of the developed world to infectious disease outbreaks originating abroad. An outbreak of SARS in China is only a plane ride away from Washington, D.C., London, or Tokyo and can no longer be viewed as a local event. The emergence and global proliferation of SARS illustrates the risks associated with the global spread of infectious disease.[13] Yet, we must be careful not to characterize all outbreaks of infectious diseases as security issues. Communicable diseases such as SARS represent a much higher risk of developing into a national or international security threat than other infectious diseases such as West Nile Virus or monkey pox. Even SARS, despite the relatively high level of risk associated with the outbreak and its declaration as a health emergency by the World Health Organization, did not reach proportions that would constitute a threat to national security. While SARS represented a public health crisis requiring the rapid implementation of emergency public health measures to contain and control the outbreak, it is difficult to argue that the national security of China, Canada, or the United States at any point was in serious jeopardy. This is not to say that infectious disease outbreaks cannot become security concerns. Without aggressive measures to control the outbreak, SARS could (and still may) develop into a security threat. In addition, most infectious disease experts agree that the emergence of a virulent strain of influenza could unleash a *pandemic* that would certainly constitute a global health crisis and possibly an international security crisis. Likewise, discovery of a *single case* of smallpox would be viewed as a public health,

national, and international security crisis. The key point to highlight is that SARS, influenza, smallpox, monkey pox, West Nile Virus and other infectious diseases each have different levels of risk associated with them. While some outbreaks could potentially represent security concerns, not all emerging and reemerging infectious diseases carry the same level of risk. This must be kept in mind as we think about infectious diseases in the context of security.

Finally, many of the HIV prevalence trends seen in Africa a decade ago are now emerging in what is being called the "Next Wave" countries of China, Russia, and India.[14] If these trends are not halted and prevalence rates continue to climb, the "Next Wave" countries will completely transform the demographics of the HIV/AIDS pandemic in terms of the sheer numbers infected and the geographic distribution of the pandemic. India and China are countries with enormous populations and double-digit prevalence rates in these countries would translate into hundreds of millions of HIV-positive persons. Despite the explosive potential of HIV/AIDS in these countries, and the benefit of hindsight regarding the pandemic in Africa, it is difficult to calculate the degree of risk, in terms of public health and security, associated with the "Next Wave" countries.

We should not overlook that national and international security concerns were a primary driver behind the current response to HIV/AIDS and are likely to be a central factor in how the international community responds to epidemics in the "Next Wave" countries.

If the past is any indication of the future, national security calculations are likely to be a primary catalyst for action in the "Next Wave" states. The experience in Africa over the past decade is instructive. Throughout the 1990s, the public health, humanitarian, and developmental communities warned of an impending HIV/AIDS tragedy in Africa and called for a stronger response by national governments and the international community to stem the spread of the disease. Although these warnings were heeded to some degree, it was not until January 2000 that the international community truly took notice when the United Nations Security Council convened a meeting to discuss AIDS. This was the first time that a health issue was considered by the UN body with primary responsibility for international peace and security. A National Intelligence Council report, *The Global Infectious Disease Threat and its Implications for the United States,* published in January 2000 corresponded with the Security Council meeting and with the Clinton administration's April 2000 announcement that it had formally designated AIDS as a threat to U.S. national security. These steps firmly established the linkage between HIV/AIDS and security, drew a great deal of attention in the international community to what had previously been a widely overlooked characterization of the HIV/AIDS challenge, and mobilized both political and financial capital to address the problem. We should

not overlook that national and international security concerns were a primary driver behind the current response to HIV/AIDS and are likely to be a central factor in how the international community responds to epidemics in the "Next Wave" countries.

V. Conclusion

At a time when our conceptions of security are evolving rapidly, we must look hard at our answers to the question: What constitutes security? Although the debate remains divided on whether to include health issues in the security debate, clearly health and security challenges are intersecting with greater frequency and intensity. Some health and security challenges represent direct threats to security in its traditional context, while others remain indirect and uncertain threats. Given this uncertainty and ambiguity, much more work is needed to bring analytical clarity to the health and security paradigm. The first step toward developing an analytical framework is to elaborate on the specific characteristics that emerge from the health and security paradigm, which produces particular risks. By creating and applying a standard risk-based methodology, analysts and policymakers alike will have a tool to assess the nature of such problems and thereby fashion better responses to them.

Notes

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[2] Report of the Secretary-General Boutros Boutros-Ghali, "An Agenda for Peace: Preventive Diplomacy, Peacemaking, and Peacekeeping," A/47/277-S/2411, January 31, 1992, p. 3. Also available online at www.un.org/Docs/SG/agpeace.html.

[3] Andrew Price-Smith, *The Health of Nations: Infectious Diseases, Environmental Change, and Their Effects on National Security and Development* (Cambridge, MA: MIT Press, 2002). See Price-Smith for a discussion of the direct and indirect impact of health issues in terms of relative deprivation and on a state's capacity to govern.

[4] Andre J Ognibene, "Medical and Infectious Diseases in the Theater of Operations," *Military Medicine*, vol. 52, no. 1, 1987, pp. 14.

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[6] Jonathan Ban, *Health, Security, and U.S. Global Leadership*, Health and Security Series, Special Report No. 2. (Washington, DC: Chemical and Biological Arms Control Institute, December 2001), p. 45.

[7] Amir Attaran, "Malaria, The Terrorist's Friend," *The New York Times*, September 25, 2003.

[8] Stefan Elbe, "Strategic Implications of HIV/AIDS," *The Adelphi Papers*, vol. 357, no. 1, July 2003 (London: International Institute for Strategic Studies), p. 18.

[9] UNAIDS. *Fact Sheet: HIV/AIDS in Sub-Saharan Africa*, January 9, 2003, accessed September 23, 2003 at: http://www.unaids.org/html/pub/Publications/FactSheets03/FS_AIDS_in_Africa_2003_en_doc.htm.

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[12] USAID, UNAIDS, UNICEF, *Children on the Brink 2002: A Joint Report on Orphan Estimates and Program Strategies*, July 2002. The 2020 Figure is from Phiri, Stanley and Webb, "The Impact of HIV/AIDS on Orphans and Program and Policy Responses," in Giovanni Andrea Cornia, ed, *AIDS, Public Policy and Child Well-Being*, chapter 15 (New York: UNICEF, June 2002), http://www.unicef-icdc.org/research/ESP/aids/chapter15.pdf (accessed September 23, 2002).

[13] For a review of the SARS outbreak see Elizabeth M. Prescott, "SARS: A Warning," *Survival*, vol. 45, no. 3, Autumn 2003, pp. 207-225.

[14] National Intelligence Council, *The Next Wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India, and China*, ICA 2002-04 D, September 2002.