HEALTH SECURITY ISSUES

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Contents

Summary

This article joins the emerging approach to security and argues that prominent international health threats should be a crucial element of any extended international security agenda. The article begins with a review of the ongoing theoretical debate within security studies, followed by a discussion of the relationship between health, security, and development. The conceptual framework developed emphasizes not simply state sovereignty, but also human welfare and empowerment. Three case studies then explore different types of international health threats that warrant international security attention and explain the role public health professionals can play in strengthening security responses. Finally, recommendations are offered on future research needed to move the health security agenda forward, including improving upon the theoretical foundation, developing stronger risk assessment methods, and formulating viable responses for policy makers.

Emerging infectious diseases and other health concerns, such as interpersonal violence and illicit drug use, are likely to become one of the most complex, cross-border, multilevel security problems humanity will face in the twenty-first century. Substantial investments in health are required by the international community now in order to avoid international instability in the future.

1. Introduction

Traditionally, international security has centered on the threat of military aggression across borders and on military means to meet such threats. This was especially true throughout the Cold War when nuclear stockpiles and military credibility monopolized foreign policy priorities. However, when the Soviet Union withdrew its military and ideological challenge, and then imploded, the whole military-political security agenda that had dominated the world for over 40 years evaporated. The new international environment ushered in demands for a new security agenda.

While the end of the Cold War has not meant that dominant international security issues have been rendered immaterial, there are growing demands that the security agenda give consideration to new threats to human life and collective security, often non-military in source, including ethnic violence, organized crime, environmental degradation, and economic stability. These emerging threats often stem from complex systems both natural (the ecosystem) and human-made (the global economy) in which individuals, states, and the system all play a part, and in which economic, societal, and environmental factors are all as important as political and military ones. As a result, international structural issues such as poverty, justice, and sustainable development are increasingly entering the international security discourse in an effort to formulate a concept of security that does not merely imply the preservation of the status quo but is

also a dynamic concept that includes human development and social justice, as well as physical security.

The complex web of democracy, individualism, and interdependence throughout the world is progressively shifting the emphasis of security from territorial integrity of the state to the protection of the individual. "Human security," argues Maclean in the *Australian Journal of International Affairs,* recognizes that an individual's personal protection and preservation comes not just from the safeguarding of the state as a political unit, but also from access to individual welfare and quality of life. Axworthy, in the *International Journal,* notes that human security denotes protection from unstructured threats to individuals in their personal surroundings, their community, and their environment, such as violence emanating from scarcity, human rights abuses, or mass migration.

In a Centre for International Studies working paper, Price-Smith points out that, currently, humanity finds itself in a state of profound ecological disequilibria, where factors such as the rapid destruction of the biosphere, changes in the speed and availability of transport technologies, rapidly increasing global population density and migration, economic development, poverty, and inequity have all contributed to the emergence and spread of new and reemerging microorganisms and human behaviors that threaten human life and stability in all regions of the world. Increasingly, individual states are unable to control unilaterally many of the health threats within their sovereign borders and international public health officials do not have the resources to contain serious outbreaks of communicable and non-communicable epidemics. Furthermore, the absence of public health expertise in the security community is hampering global efforts to control illicit drug use, transnational crime, and community violence.

Security issues, including health, involve psychological aspects related to fear, insecurity, anxiety, and in some cases panic. Both lack of security and increasing security measures can result in severe psychological distress that is indeed a "communicable condition." If prolonged, this distress can lead to psychological depression, as well as increased alcohol or drug intake. Massive movement of human populations, forced displacement, conflict, terrorism, and emergencies are determinants of mental and behavioral problems. The impact of these is not only immediate, but can also be prolonged, causing significant disability.

2. Health and Security

Recognition of the link between health and security is not new. In fact, the opening sentence of the constitution of the World Health Organization (WHO), written in 1946, reads: "the following principles are basic to the happiness, harmonious relations and *security* of all peoples." The manipulation of human health by states in conflict has long been recognized as an effective means to weaken the opposition. Throughout history warring parties have aimed to control the flow of food and medical supplies to adversaries and in recent times have occasionally employed biological and chemical weapons.

Recently, the massive burden of disease caused by AIDS in Africa has heightened attention to claims that health concerns should top international security priorities. In 2000, the United Nations Security Council adopted its first resolution on a health issue, asking countries to wage a "peaceful war" against AIDS. When debating the issue in the council, U.S. Ambassador Richard Holbrooke stated that AIDS is as great a security challenge as any the world has faced since the founding of the Security Council.

However, not all members of the security community believe health concerns warrant national and international security attention. Some wish to keep security confined to the study of the threat, use, and control of military force. Traditionalists argue that an emphasis on individual health violates the basic premise of security: territorial integrity and state survival. However, there is a "pluralistic coexistence" inherent in national defense that permits the inclusion of human security, including human health. This is because the preservation of human health, or welfare-oriented objectives, rightfully could be thought of as part of the central objectives of sovereign states. While a nation-state must first secure itself and its territory, once this is accomplished it often attends to matters of individual or societal well-being, quality of life, and welfare interests.

Traditionalists also argue that many health security concerns are within the realm of domestic and not international responsibility. However, traditional boundaries between domestic and international responsibilities are increasingly being restructured. Lee and Dodgson, in *Global Governance*, note that globalization is a set of processes that are intensifying human interaction by eroding boundaries of time, space, and ideas that have historically separated people and nations in a number of spheres of action including economic, health and environment, social and cultural, knowledge and technology, and political and institutional. The breakdown of boundaries has implications for the entire international system, as problems even in the weakest regions have ramifications for the more powerful ones, resulting in a condition where no region may be "immune" to the security risks in another.

Health offers a particularly strong example of "mutual vulnerability." Since the 1960s the reduced cost of transportation and the addition of faster technologies (high-speed rail, ocean liners, and air travel) have brought unprecedented movement of human populations and goods. As the following case studies illustrate, this has resulted in the spread of weapons, drugs, and disease-carrying organisms throughout the world that has had a negative affect on global health and security. Moreover, the addition and strengthening of linkages between nations has decreased the ability of states to protect the health of its citizens unilaterally. Coordination of policies between nations is increasingly necessary effectively to combat rising health threats.

Traditionalists also argue that broadening the security agenda to include health will endanger the overarching intellectual coherence of security studies, putting so much into it that its essential meaning is voided. Traditionalists are correct in demanding conceptually grounded security policies—a challenge that has yet to be met by health professionals. In health there is a huge number of potential threats; the challenge is distinguishing which health threats go beyond a humanitarian and development issue to being a real security issue.

Hard evidence must be collected and a consensus must be reached concerning where and how to draw the line between which health issues merit security attention and which do not. Risk assessment must be conducted for security responses to be justified. In the case of catastrophic disease outbreaks this may be quite difficult since past experiences and evidence may not be a reliable indicator of sudden "surprise" outbreaks in the future. As seen in the recent struggles with bovine spongiform encephalopathy (BSE) in Europe, a failure of governments to assess health risks accurately may result in civilian distrust of government policies. If health advocates cannot come to a consensus on these issues, health security will resemble little more than an attempt to generate attention and mobilize resources for public health.

A final critic of expanding the security agenda to include health issues is the fear that "securitization" could lead to restrictive national policies that do not correspond to the complex world in which we live. Making health a security issue could result in stricter travel and immigration restrictions on certain regions of the world, as well as xenophobia, racism, and paranoia. Such reactions are not without precedent. The following case studies provide vivid examples of problems that arise when health concerns are treated as national security threats. Responding to traditional security involving sovereign states with institutionalized politics and regularized forms of decision making requires diplomatic and military skills. Diverse approaches are necessary to secure individuals in their communities, including policing, the provision and allocation of public goods, regulatory mechanisms, constitutional and legal norms, and democratic development. These approaches move beyond diplomatic and military competencies, incorporating science, technology, public health, law enforcement, judiciaries, and social services. Poor responses are likely to continue if health issues are placed on the security agenda without opening the security community to non-military expertise. It is crucial that the security community includes a variety of experts, including health professionals, economists, and environmentalists.

The following three case studies present health issues that represent truly global challenges that must be met with concerted international cooperation. In choosing the case studies, the authors of this article looked for health threats with hard evidence showing that they were transnational in nature; posed a viable threat to individuals, states, and the international system; justified high-level political attention; and required the input of health professionals to alleviate the threat.

3. Interpersonal Violence

A 1996 WHO report defines violence as "the intentional use of physical force or power, threatened or actual, against another person or against oneself or a group of people, that results in or has a high likelihood of resulting in injury, death, psychological harm, 'maldevelopment' or deprivation." Three major subcategories of violence can be discerned according to the individual or entity that commits violence: self-directed violence, interpersonal violence, and collective violence. Collective violence refers to war and other forms of group violence organized around the attainment of political or ideological goals. Interpersonal violence refers to violence between individuals where there is no clearly defined political motive, and self-directed violence refers to self-abuse and suicidal behavior.

As stated in this article's introduction, collective violence has been the central focus of conventional approaches to human security. However, recent studies of violence from an epidemiological perspective, outlined by Krug in a WHO report, show that interpersonal violence accounts for a substantially larger proportion of deaths than does collective violence. Furthermore, preliminary studies by Cukier, Chapdelaine, and Collins in *Poverty, Health, and Sustainable Development* indicate an increased global vulnerability to interpersonal violence, due in part to illegal traffic of small arms across borders. Taken together, these findings suggest that an exclusive human security focus on collective violence may proceed with the risk of allowing interpersonal violence to escalate to a point at which it may threaten national, regional, and even global security. This case study begins with an overview of interpersonal violence as a global health problem. It then examines some of the cross-national and society-level risk factors for interpersonal violence, describes the impact of interpersonal violence on states and the international system, and concludes by arguing for the preventive importance of recognizing the full human security dimensions of interpersonal violence.

3.1. Interpersonal Violence as a Global Health Problem

Global burden of disease projections indicate that approximately 2.3 million people died in 1998 as a result of violence, which is equivalent to 4% of all deaths. A 1999 *World Health Report* noted that, in global terms and adjusted for age, this translates to an overall rate of 38.4 deaths per 100 000 people. Of these deaths, 42% were due to suicide, 32% were homicides, and 26% were due to war. In other words, Krug notes, only a quarter of all violent deaths resulted from the collective violence that to date has been the predominant focus of human security concerns. Among persons aged 15 to 44 years, homicides, suicide, and war-related fatalities all ranked among the top 10 causes of death worldwide. These categories of violence are closely linked. For instance, the occurrence of civil and international war has been shown to be a risk factor for postwar increases in interpersonal violence. Furthermore, violence against women predicts self-directed violence amongst those previously victimized, and being abused as a child predicts violent perpetration and victimization in adolescence and adulthood.

Rates of violent death vary according to country income levels. Generally speaking, violent death rates are higher in the lower-income nations. According to WHO's global burden of disease data for 1998, the rate of violent death in low- and middle-income countries (42.2 per 100 000 persons) was more than double that in high-income countries (17.3 per 100 000 persons). The proportion of violent deaths due to homicide or suicide also varies by country income levels. In high-income countries, suicide using firearms tends to be more frequent than do homicides, whereas in low- to middle-income countries gun-related homicides are generally more frequent than are suicides.

Interpersonal violence also shows clear gender- and age-related patterns. Up to four years of age, the proportion of male and female victims of homicide is roughly equal. From five years onward, male victims begin to outnumber female victims, and between the ages of 15 and 34 males outnumber female homicide victims by around 10 to one. While most infants and children are killed by older perpetrators, from age 15 onwards the victims and perpetrators of homicide tend to be of equivalent age groups.

These data concern fatal violence only. For every violent death, there are hundreds of non-fatal injuries, and thousands of cases where the effects of interpersonal violence manifest as diffuse developmental pathologies and psychosocial dysfunction. Nonetheless, the figures indicate that in terms of how fatal interpersonal violence affects people, it exemplifies the notion of a human security threat. Differences in rates and types of interpersonal violence follow the fault lines of social development and economic differences, both between and within societies, while age and sex strongly predict the groups in society most at risk for violence. These patterns are poorly explained by the conventional view of interpersonal violence as a criminal act committed by autonomous individuals, and better understood in terms of societal and transnational level causes in interaction with biological, familial, and community level factors.

3.2. Transnational and Societal Causes of Interpersonal Violence

Transnational and society-level factors that increase the vulnerability of nations or regions to interpersonal violence include the ways in which political, economic, and social systems are structured, changes that occur in these systems, and the proliferation of small arms. While much more research is required to clarify the exact mechanisms linking interpersonal violence to these macro-level determinants, there are by now a number of studies that identify potentially important associations at this level.

The economic structure and condition of a society are among the key factors that determine societal level vulnerability to interpersonal violence. Several studies show that homicide rates are higher among countries with a lower per capita gross domestic product (GDP), while numerous studies show that nations with high levels of inequality in income distribution exhibit comparatively high rates of homicide. As Messner notes, this relationship persists despite extensive statistical controls for other national characteristics (e.g. overall economic development, population size, and age structure) and appears repeatedly across analyses with different measures of key variables and different samples of nations.

Societal vulnerability to interpersonal violence also appears to be associated with the quality and level of state governance, both in terms of its legal framework and its social protection policies. For instance, Fajnzylber, Lederman, and Loayza, in a World Bank report, found that homicide arrest rates were negatively associated with homicide rates, suggesting that the extent to which a society enforces its laws through the arrest and prosecution of violent offenders helps deter further violence. Social protection by the state has also been examined in relation to interpersonal violence. Pampel and Gartner, in the *European Sociological Review*, have shown that the presence of national institutions for collective social protection has a preventive effect on homicide amongst 15- to 29-year-olds. Messner and Rosenfeld, in *Social Forces*, show that higher welfare expenditures are associated with lower homicide rates, suggesting a strong link between the presence of social investment nets and lowered rates of interpersonal violence.

Sharp changes in political and social structures have been associated with increased societal vulnerability to interpersonal violence. This is well illustrated by comparing the regional trends for youth homicide in the ex-Soviet states of Eastern Europe with the

regional trends for Western Europe over the period 1985 to 1995, a period that coincided with the collapse of the Soviet Union in the late 1980s. In the Eastern European region this was followed from 1991 to 1995 by a 400% increase in homicide rates among 19- to 24-year-old males (from 12 to 49 per 100 000), and more than a doubling in the proportion of youth homicides involving firearms. By contrast, youth homicide rates in Western Europe remained low (around 2.5 for males aged 20 to 24) and the proportion of firearm-related homicides kept stable.

The phenomena observed in Eastern Europe following the dissolution of the Soviet bloc, involving increased youth homicides and a rapid escalation in the proportion of firearm-related deaths, suggests a major transnational determinant of interpersonal violence—the illegal traffic of small arms across borders. Availability of firearms may have a significant impact on the scope and severity of interpersonal violence. Data from 52 countries reporting to WHO show that in the mid 1990s the deaths of over 115 000 people could be attributed to small arms. A Small Arms Survey in 2001 shows that while the global picture of the small arms trade that underlies these deaths is not complete, regional data suggest that arms transfers, many of them illegal, occur frequently between countries. Thus, from the data on the sharp rise in youth homicides within Eastern Europe between 1991 and 1995, the hypothesis can be drawn that reductions in cross-border trade restrictions and the introduction of free market mechanisms may have eased transfer of firearms into and between the states of the former Soviet Union. The resultant increase in firearm accessibility may have been a major factor in the rapid escalation of firearm-related homicides in the region.

The phenomenon of illegal, cross-border trafficking of small arms, which carries the potential of placing states at increased vulnerability to interpersonal violence, is not restricted to Eastern Europe. For instance, Cukier notes from anecdotal evidence on the sources of illegal firearms that guns in Japan often have their source in China and as far away as the U.S. and South Africa. Furthermore, preliminary studies indicate that in Asia and parts of Europe, rates of collective and interpersonal violence may be attributed in part to the supply of firearms from the states of the former Soviet Union. In addition to loosened border restrictions, national policies on the sale and possession of firearms may affect firearm availability in neighboring states. This may be the case in Canada, the Caribbean, and parts of Latin America, where it appears that most firearms are diverted from legal U.S. markets. These examples illustrate the three main factors that influence the global spread of firearms: increased profit incentives that influence policies, increased number of suppliers due to fewer market constraints, and the increased supply of small arms by manufacturers, brokers, and government surplus dumping in search of new markets.

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Biographical Sketches

Dr. Douglas Bettcher is the coordinator of the Framework Convention on Tobacco Control team, Tobacco Free Initiative at the World Health Organization in Geneva. He holds a Ph.D. in international relations and a graduate diploma in world politics both from the London School of Economics and Political Science, a master's of public health from the London School of Hygiene and Tropical Medicine, and a doctor of medicine degree from the University of Alberta, Canada. Dr. Bettcher sits on the editorial boards of the *Bulletin* of the World Health Organization and *Global Governance*, and is a vice-chair of the public health interest group of the American Society of International Law. He has written widely on several topics, including globalization and health, foreign policy and health security, international law and public health, tobacco control, and trade and health policy issues.

Heather Wipfli received her master's in international politics from the Graduate Institute of International Studies in Geneva, Switzerland. Ms. Wipfli worked for the World Health Organization where she was a technical officer in the Tobacco Free Initiative and consulted on health security issues. She is currently the project manager of the Institute for Global Tobacco Control and a faculty member at the Johns Hopkins Bloomberg School of Public Health, USA.

Roshan Ouseph graduated from the University of Texas with highest honors in 2000. He is currently a master's candidate at the Yale School of Epidemiology and Public Health, with a specialization in global health. Mr. Ouseph's previous work has included research on the Kerala State health transition and nongovernmental HIV/AIDS initiatives in southern and eastern Africa. He has also conducted substantial research on the United Nations system interaction with the private, for-profit sector, in collaboration with the Initiative on Public-Private Partnerships for Health (Geneva). Mr. Ouseph participated in the drafting of this article while working as an intern at the WHO/Tobacco Free Initiative.

Dr. Maristela Monteiro is the coordinator of the unit on Management of Substance Dependence of the Mental Health and Substance Dependence Department at the World Health Organization. She has been working for over eight years in WHO in the area of alcohol and drug abuse epidemiology and treatment, capacity building for the evaluation of treatment, prevention of alcohol and other drug related problems. This includes Dr. Monteiro's work as part of the WHO Task Force on Alcohol Policy. She is coordinating several multinational projects, including those in the areas of neuroscience of addiction, alcohol and injuries, alcohol epidemiology, brief interventions for drug and alcohol problems, health consequences of amphetamine type stimulants, evaluation of substitution treatment, injection drug use, and prevention of

HIV among drug users. Dr. Monteiro is a medical doctor with a Ph.D. in psychopharmacology and postdoctoral research training at the University of California, San Diego. She is an associate professor of psychopharmacology at the Federal University of São Paulo, Brazil (on leave of absence), and has undertaken research on biological markers of alcohol abuse and dependence. Dr. Monteiro is the author of over 80 publications in peer reviewed journals and books.

Dr. Alexander Butchart is a scientist at the World Health Organization, where he is a team leader for violence prevention within the Department of Injuries and Violence Prevention. His responsibilities include the development of a policy framework for the prevention of interpersonal violence, preparation of guidelines for the prevention of specific types of interpersonal violence, and the coordination of research into various aspects of interpersonal violence and its prevention. After completing his M.A. in clinical psychology in 1986, Dr. Butchart worked in Johannesburg, South Africa, as a coordinator of a neurotrauma outpatient clinic. In 1989 he became a principal investigator in the first epidemiological study of non-fatal injuries in that city. In 1994 Dr. Butchart was a steering committee member of the Goldstone Commission's investigation into the impact of political violence on children in South Africa. He completed his doctorate in 1995, with a focus on the sociology of Western clinical medicine, psychology, and public health as applied to Black South Africans over the nineteenth and twentieth centuries. In 1999/2000 Dr. Butchart was a visiting scientist in the Karolinska Institutet's Division of Social Medicine, where, in helping prepare the WHO World Report on Violence and Health, he researched the global epidemiology and macro-determinants of youth violence. From 1998 to April 2001 he was the lead scientist of the South African Violence and Injury Surveillance Consortium, and in collaboration with the Uganda-based Injury Prevention Initiative for Africa has participated in training violence and injury prevention workers from a number of African countries.

Dr. Guénaël Rodier is currently the director of the Department of Communicable Disease Surveillance and Response (CSR), World Health Organization. Before becoming director of this program, he served as the coordinator for Integrated Surveillance and Response from 1998 to 2000, the chief of Epidemiological Surveillance and Epidemic Response in the Division of Emerging and other Communicable Diseases from 1996 to 1998, as well as the chief of the Information System and Database Development Unit in the Division of Information System Development from 1994 to 1996. Before joining WHO, Dr. Rodier served for four years as an infectious disease epidemiologist at the U.S. Navy Medical Research Unit No. 3 in Cairo, Egypt, on secondment from the International Health Program, University of Maryland at Baltimore. He was also a private practitioner for five years in East Africa. Dr. Rodier's main professional experience includes the development of new approaches for communicable disease surveillance and response at national (e.g. multi-disease or integrated systems) and global (e.g. WHO global alert and response) levels, and comprehensive field experience in epidemic response, particularly in viral hemorrhagic fever (Ebola, Marburg, Rift Valley fever, dengue). Dr. Rodier's major degrees include an M.D. from the Cochin-Port Royal School of Medicine in Paris, and an M.Sc. in clinical tropical medicine from the London School of Hygiene and Tropical Medicine. Dr. Rodier is qualified in public health by the French *Ordre des Médecins* and has published over 50 publications in peer-reviewed scientific journals.

Dr. Ottorino Cosivi qualified in veterinary medicine at Parma University, Italy, and has a postgraduate degree in tropical veterinary medicine from Edinburgh University, Scotland. Dr. Cosivi has been working with NGOs and academic institutions in Latin America and as a practitioner in Europe. He joined the World Health Organization in 1993 working on bacterial zoonoses and from 1997 has also been working on the public health implications of biological and chemical weapons. Dr. Cosivi is the secretary of the international group of experts working on the second edition of the publication *Public Health Response of Biological and Chemical Weapons: WHO Response* and is the project leader for preparedness to deliberate epidemics in the Department of Communicable Disease Surveillance of Response at WHO headquarters.