

Reconceptualizing the Health/Security Interface

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During the mid-1990s, the US intelligence community initiated the State Failure Project, which analyzed thousands of variables in order to see which ones were the best predictors of State Failure. The task force found that Infant Mortality was 1 of the 2 optimal variables predicting state failure (see DC Esty et al, *State Failure Task Force Report*, 1995.) This led to deeper investigations into the linkages between health, governance and national security (see Elbe 2002, Ostergard 2002, Peterson 2002, Price-Smith 2001, 2004, 2009) It follows that the health of women and children (in particular) is highly associated with state stability. Thus, modern models of health and security must eschew purely statist models and acknowledge interactivity between state and society. Historically, G8 health security initiatives have focused on state-centric models, particularly defenses against deliberate biological assaults. But they have not substantively integrated this state-society model into their planning.

Poor health undermines stable governance through several mechanisms. Such processes include the erosion of human capital and impeding economic productivity at the micro, sectoral, and macro levels. It also stunts cognitive development in the young, which then impedes intellectual development, and consequently impedes the generation of ingenuity. Collectively, poor health dramatically constrains national productivity, whereas improving health is associated with more robust economic development (Robert Fogel, 1994). As the economist Angus Maddison argues, declining health is like “running Adam Smith in reverse.”

The proliferation of disease also generates substantive problems for effective governance and socio-political stability. Contagion often induces the disintegration of social capital and cohesion, may augment identity-based violence between factions (based on ethnicity or class), and erodes domestic productivity and prosperity. Collectively, this threatens the material and ideational interests of political elites, and the integrity of state institutions. Epidemics (and pandemics) may erode a state's apparatus of coercion (military and police forces), deplete key personnel in the bureaucracy, erode prosperity and thereby diminish tax revenues, and undermine the cohesion of the state. So, there is a strong historical association between the health of society, and the puissance and stability of a given state (McNeil 1977, Rosen 1993, Price-Smith 2009).

Pandemics, epidemics and biological attacks generate intense fear, and the ensuing confusion and panic often results in considerable economic damage. In the 21st century, the SARS epidemic of 03 generated roughly \$50 billion (US) in economic damage due to lost trade throughout Pacific rim nations. The fear appears to be augmented by the media, and new communications structures such as the internet. Fear is exacerbated by uncertainty, and uncertainty is generated by multiple voices at different levels of government, delivering different messages to a worried public. This problem was clearly illustrated in both Canada and the USA by both the SARS and the recent H1N1 outbreaks. The G8 should consider mechanisms to reduce fear through coordinated national mechanisms to supply information to their citizens.

Humanity known for some time that ecological disruption can generate negative long-term consequences for the health of human populations. What is novel is the absolute magnitude of environmental degradation occurring on a global scale, and its increasing rapidity. Global climate change is particularly worrisome, in that as it accelerates one will see the proliferation of existing

diseases such as malaria, dengue and diarrheal pathogens, and shifts in the distributions of those pathogens (including schistosomiasis) and their vectors to affect immunologically naïve populations. Moreover, global ecological change will facilitate the emergence of entirely new pathogens that will flourish in the new ecological disequilibrium.

The synergy between environmental degradation and the proliferation of disease illustrates the concept of *malign complex interdependence*, or the dark side of globalization. Increasing global connectivity also means that disease threats originating in the developing world (externalities) can generate problems for the G8, both through direct and indirect mechanisms. As a result of this deepening interdependence resulting from accelerating processes of globalization, the interests of the G8 are now increasingly linked to processes and events occurring in the developing world, such that destabilization of a polity in Central Asia can lead to externalities that directly affect and undermine the security of the UK. Disease induced destabilization in one region of the globe may compromise the prosperity, and security of all. As disease weakens states, those fragile polities can generate ‘externalities’ including regional political instability, migration, the further spread of disease, and weak and failed states can serve as harbors for radical and terrorist organizations.

A (Very) Brief History of the Health Security Nexus

The association between health and security actually begins in 1348 in the city states of Florence, Milan and Mantua in what is now Italy. It was a political response to the ineffectiveness of the physicians of the time in containing the Black Death (bubonic plague). The cholera epidemics that swept Europe in the 1830s (notably England, France, Prussia and Russia) generated such profound rioting and intra-state tensions that the epidemics were defined as threats to national security. The virulent pandemic influenza that swept the world from 1917 to 1919, and generated circa 50 million deaths was clearly a threat to national security, particularly of the combatants during World War I. In the early years of the antibiotic era (1940-1980) the health/security linkage diminished in salience, only to return to prominence with the emergence of the HIV pandemic.

The nascent field of ‘health security’ enjoyed an increase in salience during 2000, as the U.S. National Intelligence Council issued a National Intelligence Estimate (NIE) that concluded that infectious disease posed both direct and indirect threats to the material interests and security of the United States (Gordon 2000). In that report the NIC stated “New and reemerging infectious diseases will...complicate U.S. and global security over the next 20 years. These diseases will endanger U.S. citizens at home and abroad, threaten armed forces deployed overseas, and exacerbate social and political instability in key countries and regions in which the United States has significant interests.” Based upon the recommendations of the National Security Council, the Clinton Administration declared HIV/AIDS a threat to global security in 2000. During the first session of the United Nations Security Council of 17 July 2000, under the leadership of U.S. Ambassador Richard Holbrooke, the Security Council adopted Resolution 1308 (2000) and declared the HIV/AIDS pandemic a threat to global security.

Although the G8 polities were discussing these linkages between health and security prior to 2001, the attacks of September 11th (and the anthrax attacks in particular) galvanized the USA into action. The first G8 ministerial meeting on health and security occurred during the 7 November 2001 meetings in Ottawa, whereupon the G8 initiated the Global Health Security Initiative (GHSI), although its focus was upon deliberate biological attacks. In Mexico during the meetings of December 2002 the scope of the GHSI was expanded to deal with naturally occurring epidemics and pandemics. The Health/Security nexus retained its salience in the wake of the

SARS epidemic that struck Canada and China (among others) in 2003, and received greater attention during the emergence and spread of H5N1 in Southeast Asia in the mid-1990s, and the recent H1N1 pandemic that emerged in North America during the Spring of 2009.

Recommendations

- The G8 should create an interdisciplinary working *group to examine interactivity* between domains of security (health, environment, economic, demographic), to analyze how their synergies may create novel threats to national security in the 21st century.
- G8 should augment endogenous capacity of health-care *infrastructure*, and improve fundamental health of populations, particularly in developing countries.
- G8 countries should work to develop “*surge capacity*” to deal with mass morbidity and mortality. The US health care system is challenged by the lack of slack in a system that prioritizes economic efficiency.
- G8 should work to improve vaccine development and delivery, perhaps enhanced mechanisms for sharing vaccines if certain polities are hit very hard.
- G8 nations should consider strategies that are not just based upon technical ingenuity (vaccines), but also upon *social ingenuity* to create greater resilience in case vaccine development and distribution is not entirely effective.
- Work to improve the WHO through increased funding targeted towards infectious diseases, particularly those that affect children and women. Pressure WHO to deal with a range of often *neglected pathogens*, and not just HIV/AIDS.
- Strengthen the IHR, develop a range of mechanisms such that it has some substantive capacity to *enforce compliance* by its member states.
- G8 nations should work to *control fear by reducing uncertainty* during pandemics. Uncertainty and confusion would be reduced by coherent messages, coming from one primary institution at the federal level.

Many of the concepts detailed above are based upon arguments elaborated in Andrew Price-Smith, *Contagion and Chaos*, (Cambridge, MA: MIT Press, 2009), and Andrew Price-Smith, *The Health of Nations* (Cambridge, MA: MIT Press, 2002).

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