

GLOBAL HEALTH

Meeting Basic Survival Needs of the World's Least Healthy People: Toward a Framework Convention on Global Health

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INTRODUCTION

This Article searches for solutions to the most perplexing problems in global health—problems so important that they affect the fates of millions of people, with economic, political, and security ramifications for the world's population. No State, acting alone, can insulate itself from major health hazards. The determinants of health (pathogens, air, food, water, even lifestyle choices) do not originate solely within national borders. Health threats inexorably spread to neighboring countries, regions, and even continents.¹ It is for this reason that safeguarding the world's population requires cooperation and global governance.²

If it is correct that ameliorating the most common causes of disease, disability, and premature death requires global solutions, then the future is demoralizing. The States that bear the disproportionate burden of disease have the least capacity to do anything about it. And the States that have the wherewithal are

1. See Derek Yach & Douglas Bettcher, *The Globalization of Public Health I: Threats and Opportunities*, 88 AM. J. PUB. HEALTH 735, 737, tbl.1 (1998).

2. See David P. Fidler, *The Globalization of Public Health: Emerging Infectious Diseases and International Relations*, 5 IND. J. GLOBAL LEGAL STUD. 11, 17–18, 30–31 (1997).

deeply resistant to expending the political capital and economic resources necessary to truly make a difference to improve health outside their borders. When rich countries do act, it is often more out of narrow self-interest or humanitarian instinct than a full sense of ethical or legal obligation. The result is a spiraling deterioration of health in the poorest regions, with manifest global consequences for cross-border disease transmission and systemic effects on trade, international relations, and security.

There are a variety of solutions that activists and scholars propose to improve global health and to close the widening health gap between rich and poor. Advocates forcefully argue that global health is in the national interests of the major State powers, or that States owe an ethical duty to act, or that international legal norms require effective action. However, arguments based on national interest, ethics, or international law have logical weaknesses. The coincidence of national and global interests is much narrower than scholars claim. Ethical arguments unravel when searching questions are asked about who exactly has the duty to act and at what level of commitment. And international law has serious structural problems of application, definition, and enforcement. Current policies and practices, moreover, are not working on the ground and are unlikely to do so in the future.

Suppose that States were convinced that amelioration of global health hazards was in their national interests, or that they otherwise accepted the claim that they have an ethical or legal obligation to act. Would the consequent funding and efforts make a difference? If past history is any guide, the answer is no. Most development assistance is driven by high-profile events that evoke public sympathy, such as a natural disaster in the form of a hurricane, tsunami, drought, or famine; or an enduring catastrophe such as the AIDS pandemic. Furthermore, politicians may lurch from one frightening disease to the next, irrespective of the level of risk, ranging from anthrax and smallpox to SARS, Influenza A (H5N1), and bioterrorism.

What is truly needed, and what richer countries instinctively (although not always adequately) do for their own citizens, is to meet what I call "basic survival needs." By focusing on the major determinants of health, the international community could dramatically improve prospects for good health. Basic survival needs include sanitation and sewage, pest control, clean air and water, tobacco reduction, diet and nutrition, essential medicines and vaccines, and functioning health systems for the prevention, detection, and mitigation of disease and premature death. Interventions that focus on basic survival needs may "lack the glamour of high-technology medicine, but what they lack in excitement they gain in their potential impact on health, precisely because they deal with the major causes of common disease and disabilities" across the globe.³

If meeting basic survival needs can truly make a difference for the world's

3. GEOFFREY ROSE, *THE STRATEGY OF PREVENTIVE MEDICINE* 101 (1992).

population, and if this solution is preferable to other paths, then how can international law play a constructive role? Extant legal solutions have deep structural faults. The most glaring problem, widely debated by scholars, is whether international legal instruments and global institutions can effectively govern the diverse State and non-State actors that influence health outcomes. Setting normative standards and assuring follow-through are particularly problematic in health, even more so than in other fields of international law. But even this governance debate does not address the hardest problem in global health. International law seems ineffective in creating incentives, let alone binding obligations, to provide funding, services, or protection for the world's poorest people. But this is exactly what is required to solve the most intractable problems in global health.

If law is to play a constructive role, it will require an innovative way of structuring international obligations and this, in turn, will require States to accede to a new model. A vehicle such as a Framework Convention on Global Health (FCGH) could powerfully improve global health governance. Such a Framework Convention would commit States to a set of targets, both economic and logistic, and dismantle barriers to constructive engagement by the private and charitable sectors. It would have to stimulate creative public/private partnerships and actively engage civil society stakeholders. A Framework Convention on Global Health could set achievable goals for global health spending as a proportion of GNP; define areas of cost effective investment to meet basic survival needs; build sustainable health systems, including trained health care professionals, surveillance, and laboratories; and create incentives and systems for scientific innovation for affordable vaccines and essential medicines. The World Health Organization (WHO), or a newly created institution, could set ongoing standards, monitor progress, and mediate disputes.

A Framework Convention on Global Health, or a similar mechanism, would not be easy to achieve politically or provide an ideal solution. But, at least, a Framework Convention would go to the heart of the problem—finding creative ways to engage States, the private sector, and civil society to find sustainable solutions to improve prospects for a healthier and longer life for the world's population.

This Article first examines the compelling issue of global health equity and inquires whether it is fair that people in poor countries and regions suffer such a disproportionate burden of disease, disability, and premature death. Second, the Article explains a basic problem in global health: why health hazards seem to change form and migrate everywhere on the earth. Third, the Article inquires why governments should care about serious health threats outside their borders and explores the alternative rationales: direct health benefits, economic benefits, and improved national security. Fourth, the Article describes how the international community focuses on a few high-profile, heart-rending issues while largely ignoring deeper, systemic problems in global health. By focusing on basic survival needs, the international community could dramatically improve

prospects for the world's population. Finally, the Article explores the value of international law itself and proposes an innovative mechanism for global health reform—a Framework Convention on Global Health.

I. GLOBAL HEALTH DISPARITIES: ARE PROFOUND HEALTH INEQUALITIES FAIR?

It is well known that the poor suffer, and suffer more than the rich. Unfortunately, this is also true with respect to global health. What is less often known is the degree to which the poor suffer unnecessarily and why this occurs. With respect to health, the global burden of disease is disproportionately shouldered by the poor, such that health disparities across continents render a person's likelihood of survival drastically different based on where she is born. These inequalities have become so extreme, and the resultant effects on the poor so dire, that they have captured the attention of social epidemiologists, social justice theorists, and economists—an issue no less important than global warming or the other defining problems of our time.⁴ While awareness of the problem may be high, and despite the funding increases discussed above, these disparities have been stubbornly resistant to change.

The current global distribution of disease has led to radically different health outcomes between developed and developing countries. Disparities in life expectancy among rich and poor countries are vast,⁵ with the highest rates of early death in sub-Saharan Africa.⁶ Average life expectancy in Africa is nearly 30 years less than in the Americas or Europe;⁷ life expectancy in Zimbabwe or Swaziland is less than half that in Japan;⁸ a child born in Angola is 65 times more likely to die in the first few years of life than a child born in Norway;⁹ and

4. See, e.g., Amartya Sen, *Will There Be Any Hope for the Poor?*, TIME, May 22, 2000, at 94 (“Progress is more plausibly judged by the reductions of deprivation than by the further enrichment of the opulent. We cannot really have an adequate understanding of the future without some view about how well the lives of the poor can be expected to go. Is there, then, hope for the poor?”); World Health Organization [WHO] Comm’n on Social Determinants of Health, http://www.who.int/social_determinants/en/ (last visited Aug. 20, 2007).

5. Vital statistics such as morbidity and premature mortality, however, are systematically collected in only a minority of countries, so global comparisons are difficult. See Martin Adjuik et al., *Cause-Specific Mortality Rates in Sub-Saharan Africa and Bangladesh*, 84 BULL. WORLD HEALTH ORG. 181 (2006); Kenneth Hill, *Making Deaths Count*, 84 BULL. WORLD HEALTH ORG. 162 (2006).

6. See Econ. & Soc. Research Council, ESRC Society Today—Global Health Inequalities, <http://www.esrc.ac.uk/ESRCInfoCentre/facts/international/health.aspx?> (last visited Aug. 21, 2007).

7. See WHO, WORLD HEALTH STATISTICS 30 (2007), available at <http://www.who.int/whosis/whostat2007.pdf> (reporting that average life expectancy at birth in Africa is forty-eight for men and fifty for women compared with seventy-two and seventy-seven, respectively, in the Americas and sixty-nine and seventy-seven, respectively, in Europe). The gap between rich and poor is equally significant when measured by the number of years of healthy life (that is, life without significant illness or disability). *Id.* (describing WHO “Healthy Life Expectancy” or HALE, which adjusts life expectancy for time spent in poor health).

8. See *id.* at 24, 30 (reporting that a person born in Zimbabwe can hope to live only to age thirty-four for men or thirty-three for women, whereas a person born in Japan is expected to live to age seventy-nine for men or eighty-six for women).

9. UNICEF, THE STATE OF THE WORLD’S CHILDREN 2007, at 102–04 (2006), available at <http://www.unicef.org/sowc07/docs/sowc07.pdf>.

a woman giving birth in sub-Saharan Africa is 100 times more likely to die in labor than a woman in a rich country.¹⁰ While life expectancy in the developed world has consistently increased throughout the twentieth century, it actually has been decreasing in the least developed countries and in transitional States such as Russia.¹¹ Infectious disease epidemics, particularly HIV/AIDS (which kills over 5,800 Africans, but only 49 North Americans, each day)¹² and increased chronic disease, erased hard-won gains in life expectancy that took decades to achieve.¹³

Chances of living merely to the age of five are low among the world's poor compared with the wealthy.¹⁴ In many developing countries, child mortality rates can be twenty-five to thirty times higher than the rate in the developed world.¹⁵ In fact, of the 10.8 million children under five who die each year, 10 million are from low-income countries—more than twice the number of children born annually in the United States and Canada combined.¹⁶ As little as one concrete example offers a sense of perspective on the global health gap between the rich and the poor. The World Bank reports that in one year alone, 14 million of the poorest people in the world died, while only 4 million would have died if this population had the same death rate as the global rich.¹⁷

The health gap between the worst- and best-off groups, moreover, is growing. In wealthier nations, the population is increasingly healthy and living longer, while in the least developed countries, the population is getting sicker and dying younger.¹⁸ Populations in countries with the highest child and adult mortality rates suffer multiple deprivations when compared with their low-mortality counterparts: they are four times more likely to live on less than one dollar per day, have twice the female illiteracy rate, and a twenty-fold (for adults) or sixty-five-fold (for children) difference in per capita health spending.¹⁹

The causes of death and disability vary greatly between developing and developed countries. Developed countries suffer primarily from chronic, noncommunicable diseases because they have technologies to prevent and treat most

10. WHO/UNICEF/UNFPA, *MATERNAL MORTALITY IN 2000* (2006), <http://childinfo.org/areas/maternalmortality/countrydata.php> (last visited Aug. 21, 2007).

11. See WHO, *supra* note 7.

12. JOINT U.N. PROGRAMME ON HIV/AIDS, *GLOBAL FACTS AND FIGURES 06*, at 1 (2006), available at http://data.unaids.org/pub/epireport/2006/20061121_EPI_FS_GlobalFacts_en.pdf.

13. JOINT U.N. PROGRAMME ON HIV/AIDS, *REPORT ON THE GLOBAL AIDS EPIDEMIC* (2004); Econ. & Soc. Research Council, *supra* note 6.

14. See WHO, *supra* note 7, at 30 (reporting, for example, that the under-five mortality rate is over eight times greater in Africa than in Europe).

15. Global Health Council, *Child Mortality*, http://www.globalhealth.org/child_health/child_mortality (last visited Oct. 15, 2007).

16. Global Health Council, *The Importance of Child Health*, <http://www.globalhealth.org/childhealth/> (last visited Aug. 21, 2007).

17. See DAVIDSON R. GWATKIN & MICHEL GUILLOT, WORLD BANK, *THE BURDEN OF DISEASE AMONG THE GLOBAL POOR: CURRENT SITUATION, FUTURE TRENDS, AND IMPLICATIONS FOR STRATEGY* 12 tbl.2A (2000).

18. Jennifer Ruger & Hak-Ju Kim, *Global Health Inequalities: An International Comparison*, 60 J. EPIDEMIOLOGY & COMMUNITY HEALTH 928, 935 (2006).

19. *Id.* at 929 tbl.1.

communicable diseases.²⁰ Meanwhile, developing countries suffer a high burden of communicable, preventable, and treatable diseases, while simultaneously experiencing growth in rates of chronic illness—a double-edged sword of sorts.²¹ In poor regions such as Africa and South-East Asia, communicable diseases account for 83% and 55%, respectively, of years of life lost, compared with 9% for the United States and 11% for Europe.²² At the same time, non-communicable diseases now comprise more than half the disease burden in low- and middle-income countries.²³

A. DISEASES OF POVERTY: PREVENTABLE SUFFERING

The diseases of poverty are endemic in the world's poorest regions, but barely get noticed among the wealthy. Diseases such as diarrhea, elephantiasis, guinea worm, malaria, measles, river blindness, schistosomiasis, and trachoma are leading causes of sickness and death in poor countries, but are largely unheard of in rich countries.²⁴ For example, diseases of poverty account for 54% of deaths in high-mortality poor countries, compared with 6.2% of deaths in high-income countries.²⁵ These diseases are also leading causes of child mortality in poor countries.²⁶

Schistosomiasis infects 200 million people worldwide and cholera is common in the Indian subcontinent and sub-Saharan Africa, but these diseases are

20. See Abdallah Daar et al., *Top Ten Biotechnologies for Improving Health in Developing Countries*, 32 NATURE GENETICS 229, 229–32 (2002); see also Peter Singer & Abdallah Daar, *Harnessing Genomics and Biotechnology To Improve Global Health Equity*, 294 SCI. 87, 87–89 (2001).

21. See WHO, *supra* note 7; see also OLUSOJI ADEYI, OWEN SMITH & SYLVIA ROBLES, PUBLIC POLICY AND THE CHALLENGE OF CHRONIC NONCOMMUNICABLE DISEASES (2007), available at <http://siteresources.worldbank.org/INTPH/Resources/PublicPolicyandNCDsWorldBank2007FullReport.pdf>; GWATKIN & GUILLOT, *supra* note 17; Alan D. Lopez et al., *Global and Regional Burden of Disease and Risk Factors, 2001: Systematic Analysis of Population Health Data*, 367 LANCET 1747, 1753–54 (2006); Global Health Council, *Infectious Diseases*, http://www.globalhealth.org/view_top.php?id=228 (last visited Aug. 21, 2007).

22. See WHO, *supra* note 7, at 25, 31.

23. See Lopez, *supra* note 21, at 1747, 1753; see also Benjamin Caballero, *A Nutrition Paradox—Underweight and Obesity in Developing Countries*, 342 NEW ENG. J. MED. 1514, 1514–16 (2005).

24. Some diseases of poverty are becoming less common, but the task of eradicating these diseases is formidable. See generally *Diseases on the Brink*, N.Y. TIMES, Series (2006) (discussing campaigns to eliminate polio, guinea worm, trachoma, filariasis, measles, the “iodine solution,” and problems of coordination).

25. PHILIP STEVENS, INT’L POLICY NETWORK, DISEASES OF POVERTY AND THE 10/90 GAP 5 tbl.1 (2004); see also *id.* at 4 (noting that diseases of poverty are responsible for 45% of the disease burden in poor countries).

26. See WHO, *supra* note 7, at 23, 25, 27, 29, 33. More than one billion of the world’s 2.7 billion people living on less than US \$2 per day are infected with one or more neglected tropical diseases (NTDs), which are chronic, disabling, and stigmatizing. Their poverty-promoting features explain why parts of Africa, Asia, and the tropical regions of the Americas cannot escape their impoverished status. Peter Hotez, *A New Voice for the Poor*, 1 PLoS NEGLECTED TROPICAL DISEASES 1, 1 (2007), <http://www.plosntds.org/article/info:doi%2F10.1371%2Fjournal.pntd.0000077> (announcing a new journal devoted to raising the profile of the ancient diseases of poverty, such as river blindness, elephantiasis, hookworm, leprosy, and schistosomiasis).

rare or nonexistent in industrialized countries.²⁷ Eighty-five percent of the 2.1 million deaths each year from diarrheal disease are in low-income countries, principally among infants.²⁸ In Sierra Leone, almost 20% of all child deaths are due to diarrheal disease, compared with 0.1% of child deaths in America.²⁹ And, combined, mosquito-borne diseases are responsible for over half a billion clinical cases worldwide, mostly in tropical areas of Asia, Latin America, and sub-Saharan Africa, and largely affecting children under five years of age.³⁰

Beyond morbidity and premature mortality, the diseases of poverty cause physical anguish, for example, when a two-foot-long guinea worm parasite emerges from the genitals, breasts, extremities, and torso with excruciating pain; or filarial worms cause disfiguring enlargement of the arms, legs, breasts, and genitals (elephantiasis); or river blindness leads to unbearable itching and loss of eyesight. These diseases can also cause mental anguish, as those suffering from them are often socially stigmatized.³¹ Diseases of poverty facilitate the cycle of poverty in that they decrease earning ability and economic productivity.³²

B. HEALTH AND SOCIOECONOMIC STATUS

If residence in a poor country significantly increases a person's risk of illness and premature death, it is only more disadvantageous to be a member of a low-income, low-status population in that country. There is robust epidemiological evidence that individuals of low socioeconomic status live much shorter, less healthy lives than their neighbors. These empirical findings have persisted across time and cultures.³³ Some researchers go further, concluding the overall

27. See Jürg Utzinger et al., *Sustainable Schistosomiasis Control—The Way Forward*, 362 LANCET 1932, 1932 (2003).

28. See Umesh D. Parashar et al., *Global Illness and Deaths Caused by Rotavirus Disease in Children*, 9 EMERGING INFECTIOUS DISEASES 565, 568 (2003).

29. See WHO, *supra* note 7, at 29, 31.

30. See UNICEF, GLOBAL CHILD SURVIVAL AND HEALTH: A 50-YEAR PROGRESS REPORT FROM UNICEF CANADA (2006), available at www.unicef.ca/portal/Secure/Community/502/WCM/PRESS/50years/assets/FS/Background.pdf; see also Leslie Roberts, *Mosquitos and Disease*, 298 SCI. 82 (2002) (including data for mosquito-borne diseases such as malaria, dengue, lymphatic filariasis, yellow fever, and Japanese encephalitis).

31. See Pan Am. Health Org., *Neglected Diseases: The Diseases of Poverty* (2006), <http://www.paho.org/common/Display.asp?Lang=E&RecID=10098> (last visited Aug. 20, 2007).

32. Globally, elephantiasis results in a loss of \$2 billion annually from lost productivity and is the second-largest cause of permanent disability. *Id.*

33. See EVELYN M. KITAGAWA & PHILIP M. HAUSER, DIFFERENTIAL MORTALITY IN THE UNITED STATES: A STUDY OF SOCIO-ECONOMIC EPIDEMIOLOGY (1973); see also INDEPENDENT INQUIRY INTO INEQUALITIES IN HEALTH (Donald Acheson ed., 1998); KEN JUDGE ET AL., HEALTH INEQUALITIES: A CHALLENGE FOR EUROPE (2006), available at www.dh.gov.uk/assetRoot/04/12/15/83/04121583.pdf (reviewing European efforts to reduce health disparities including programs for social justice, social inclusion, and poverty reduction). JOHAN P. MACKENBACH, HEALTH INEQUALITIES: EUROPE IN PROFILE 4–7, tbl.1 (2006), available at www.dh.gov.uk/assetRoot/04/12/15/84/04121584.pdf (finding “substantial inequalities” in health in all European countries based on education, occupational class, and income); Stephen J. Kunitz & Irena Pesis-Katz, *Mortality of White Americans, African Americans, and Canadians: The Causes and Consequences for Health of Welfare State Institutions and Policies*, 83 MILBANK Q. 5, 5 (2005) (finding

level of economic inequality in a society correlates with (and adversely affects) population health.³⁴ That is, societies with wide disparities between rich and poor tend to have worse health status than societies with smaller disparities, after controlling for per capita income.³⁵ Drawing upon this line of argument, some ethicists contend, social justice is “good for our health.”³⁶

The way the disparities in socioeconomic status (SES) manifest in rich nations like the United States is that persons of poverty, non-white race, and/or menial position are more likely to experience significant health problems decades before their more privileged fellow citizens.³⁷ For example, for every mile moving northwest on Metro’s Red Line in Washington, DC, life expectancy rises nearly one year, a difference in over twenty years between a typical city dweller and a gentrified suburbanite.³⁸ But how does the phenomenon of SES affect health in the least developed countries that already have such low life expectancies? The answer is that if an individual is poorer, less valued, and

that “life expectancy of African Americans has been substantially lower than that of white Americans for as long as records are available” and that “life expectancy of all Americans has been lower than that of all Canadians since the beginning of the twentieth century”); M. G. Marmot et al., *Health Inequalities Among British Civil Servants: The Whitehall II Study*, 337 LANCET 1387, 1391 (1991); For a comparison of health disparities outcomes and politics across states and countries, see generally *Comparative Perspectives on Health Disparities*, 31 J. HEALTH POL. POL’Y & L. (SPECIAL ISSUE) 1 (2006), available at <http://jhpl.dukejournals.org/content/vol31/issue1>. Health disparities in the United States are vast even by international standards, which cannot be explained by race, income, or health care access alone. See A MORTALITY STUDY OF 1.3 MILLION PERSONS BY DEMOGRAPHIC, SOCIAL AND ECONOMIC FACTORS: 1979–1985 FOLLOW-UP (Eugene Rogot et al. eds., 1992); Christopher J. L. Murray et al., *Eight Americas: New Perspectives on U.S. Health Disparities*, 29 AM. J. PREVENTATIVE MED. 4, 6 tbls.2, 9 (2005) (stating that a black man living in a high-crime city can expect to live twenty-one fewer years than an Asian woman); see also S. Leonard Syme, *Social and Economic Disparities in Health: Thoughts About Intervention*, 76 MILBANK Q. 493, 493–505 (1998). In 2005, the WHO established a Commission on Social Determinants of Health with the mission to link knowledge with action. WHO Comm’n on Soc. Determinants of Health, *Imperatives and Opportunities for Change* (Feb. 18, 2005), http://www.who.int/social_determinants/strategy/stratdoc18Feb05/en/index.html; see also Eric Klinenberg, *To Have and Have Not*, WASH. POST, Aug. 1, 2004, at T03 (reviewing MICHAEL MARMOT, THE STATUS SYNDROME); Barbara Starfield, *State of the Art in Research on Equity in Health*, 31 J. HEALTH POL. POL’Y & L. 11, 11–32 (2006). See generally Robert Labonte & Ted Schrecker, *Globalization and Social Determinants of Health: Promoting Health Equity in Global Governance*, 3 GLOBALIZATION & HEALTH (Jun. 19, 2007), available at <http://www.globalizationandhealth.com/content/pdf/1744-8603-3-5.pdf>, <http://www.globalizationandhealth.com/content/pdf/1744-8603-3-6.pdf>, and <http://www.globalizationandhealth.com/content/pdf/1744-8603-3-7.pdf> (three-part series).

34. See RICHARD WILKINSON, UNHEALTHY SOCIETIES: THE AFFLICTIONS OF INEQUALITY 3–4 (1996).

35. But see John Lynch et al., *Is Income Inequality a Determinant of Population Health? Part I. A Systematic Review*, 82 MILBANK Q. 5, 5 (2004) (casting doubt on the theory that more equal societies are necessarily healthier, while acknowledging that raising the incomes of the least advantaged will improve their health and thereby increase society-wide health).

36. See Norman Daniels et al., *Justice Is Good for Our Health*, BOSTON REV., Feb.–Mar. 2000, at 4; see also Dan E. Beauchamp, *Public Health as Social Justice*, 13 INQUIRY 3, 3 (1976).

37. See, e.g., Nicole Lurie & Tamara Dubowitz, *Health Disparities and Access to Health*, 297 JAMA 1118, 1118–21 (2007).

38. See Klinenberg, *supra* note 33.

less powerful in these countries, it severely affects her health and longevity.³⁹

Although many developing countries do not have adequate data systems, demographic and health surveys demonstrate a strong social gradient in health. Those with the lowest SES fare worst and those with the highest SES fair best. The lower the SES quintile of households, the higher the rate of child mortality. And the lower the education, income, and job status among the population, the lower the life expectancy. These disparities within countries hold true even within the poorest States. The social gradient in health is also seen in transitional economies such as the Russian Federation, where the health gap between rich and poor and between the uneducated and the well-educated has grown wider every year since the collapse of the Soviet Union.⁴⁰

Vulnerable populations—women, children, and indigenous persons—in the world's poorest countries thus are even less healthy than their peers. In many of the poorest regions, women have little social, political, or economic control over their lives and communities, which are prime indicators of poor health.⁴¹ The leading causes of illness and early death among women in these countries are childbirth, endemic diseases (for example, HIV/AIDS, malaria, and tuberculosis), malnutrition, and sexual violence.⁴² Women suffer from these, and other, afflictions disproportionately compared with men. For instance, the maternal mortality ratio in Angola is 1,700 deaths per 100,000 live births, compared with 7 deaths in Switzerland,⁴³ and in sub-Saharan Africa, HIV infection rates are 5–16 times higher among young girls than boys, leading many to talk about the “feminization of AIDS” on the African continent.⁴⁴ Women also face the risk of injury and death from gender-based violence, including rapes, forced pregnancies, and other sexual assaults, which profoundly affect their mental and physical health.⁴⁵

Children are a traditionally vulnerable population that also fares worse in poor countries. These disparities begin at birth: 33 out of 1,000 infants die in developing countries during the neonatal period, compared with 4 out of 1,000

39. See generally Angus Deaton, *Health, Inequality, and Economic Development*, 16 J. ECON. LITERATURE 113 (2003) (theorizing that income inequalities pose a *greater* health risk for rich countries than they do for poor countries).

40. See Michael Marmot, *Harveian Oration: Health in an Unequal World*, 368 LANCET 2081, 2084 (2006).

41. See Mayra Buvinic et al., *Gender Differentials in Health*, in DISEASE CONTROL PRIORITIES IN DEVELOPING COUNTRIES 195, 202 (2d ed. 2006), available at <http://files.dcp2.org/pdf/DCP/DCP10.pdf>; cf. Global Health Council, *Women's Health*, http://www.globalhealth.org/view_top.php?id=225 (last visited Aug. 21, 2007). Although women generally live longer than men in both rich and poor countries, they experience higher morbidity, shaping a “gender paradox”: women live longer, but sicker, lives than men. Buvinic et al., *supra*, at 197.

42. See Buvinic et al., *supra* note 41; see also Global Health Council, *supra* note 41.

43. See WHO, *supra* note 7, at 22.

44. See Buvinic et al., *supra* note 41, at 195, 199.

45. See *id.* at 196, 202; GITA SEN, PIROSKA ÖSTLIN & ASHA GEORGE, WOMEN & GENDER EQUITY KNOWLEDGE NETWORK, UNEQUAL, UNFAIR, INEFFECTIVE, AND INEFFICIENT GENDER INEQUITY IN HEALTH: WHY IT EXISTS AND HOW WE CAN CHANGE IT (2007).

in developed countries.⁴⁶ Infants in developing countries are also more likely to be of low birthweight, with poorer prospects for a healthy life.⁴⁷ These inequalities persist to the point of extremely different survival rates for children in poor countries—92% of all children that die under the age of five are from low-income countries.⁴⁸

Indigenous groups historically have faced worse health outcomes due to low SES and marginalization within States and communities.⁴⁹ Indigenous persons experience an “epidemiological accumulation,” whereby disease and disability are exacerbated due to unmet basic needs.⁵⁰ Indigenous persons in Latin America—a region with large numbers of indigenous groups—have significantly lower life expectancy than others in their communities.⁵¹ In some countries, indigenous people live up to ten years less than the national average,⁵² and indigenous women and children (already vulnerable groups) face even higher mortality rates than their peers.⁵³

C. WHO HAS THE RESPONSIBILITY TO AMELIORATE THE VAST DISPARITIES IN GLOBAL HEALTH?

A core insight about health disparities is that there are multiple causal pathways to numerous dimensions of disadvantage. The causal pathways to disadvantage include poverty, poor education, unhygienic and polluted environments, and social disintegration. These, and many other causal agents, lead to systematic disadvantage not only in health, but in nearly every aspect of social, economic, and political life. Inequalities of one kind beget other inequalities, and existing inequalities compound, sustain, and reproduce a multitude of deprivations in well-being. Taken in their totality, multiple disadvantages add up to markedly unequal life-prospects for people in the poorest regions of the globe.⁵⁴

Human instinct tells us that it is unjust for large populations to have such

46. Joy E. Lawn et al., *Newborn Survival*, in *DISEASE CONTROL PRIORITIES IN DEVELOPING COUNTRIES*, *supra* note 41, at 531, 532, available at <http://files.dcp2.org/pdf/DCP/DCP27.pdf>.

47. UNICEF, *supra* note 9, at 109 (reporting that 35% of children under age 5 are moderately or severely underweight in poor countries compared with 25%, on average, worldwide).

48. Global Health Council, *supra* note 16.

49. See Stephen J. Kunitz, *Globalization, States, and the Health of Indigenous Peoples*, 90 AM. J. PUB. HEALTH 1531, 1531–32 (2000).

50. ROCIO ROJAS, PAN AM. HEALTH ORG., HEALTH PROGRAM OF THE INDIGENOUS PEOPLES OF THE AMERICAS: ACTION PLAN 2005–2007, at 5, available at www.paho.org/English/AD/THS/OS/Indig_PLAN05_07_eng.pdf.

51. Kunitz, *supra* note 49, at 1532.

52. *Id.* at 1532 tbls.1, 2.

53. Press Release, Pan Am. Health Org., Maternal Mortality Is Higher for Indigenous Groups (July 7, 2004), available at <http://www.paho.org/English/DD/PIN/pr040707.htm>.

54. See Lawrence O. Gostin & Madison Powers, *What Does Social Justice Require for the Public's Health? Public Health Ethics and Policy Imperatives*, 25 HEALTH AFF. 1053, 1053–1060 (2006). See generally MADISON POWERS & RUTH FADEN, *SOCIAL JUSTICE: THE MORAL FOUNDATIONS OF PUBLIC HEALTH AND HEALTH POLICY* (2006).

poor prospects for good health and long life simply by happenstance of where they live. Perhaps this is why social movements, and international governmental organizations (IGOs), have placed such a priority on reducing health disparities.⁵⁵ Although almost everyone believes it is unfair that the poor live miserable and short lives, there is little consensus about whether there is an ethical, let alone legal, obligation to help the downtrodden.⁵⁶ When are health inequalities between different societies unjust, and what do wealthier societies owe as a matter of *justice* to the poor in other parts of the world?⁵⁷ Even if reasonable people believed that health disparities were morally wrong, they would be hard-pressed to answer the difficult questions: Why are inequalities unfair? Who is responsible for ameliorating the high rates of illness and death? And what level of assistance is ethically warranted?

1. Are Disparities Ethically Wrong? A Theory of Human Functioning

A substantial literature exists as to why global health disparities are unethical, but no single theory has gained traction. Much of the scholarship is rhetorical, suggesting that disparities are self-evidently wrong⁵⁸ or that they violate fundamental human rights.⁵⁹ Certainly, there is a strong human intuition that vast health disparities based on wealth are unethical. But stating that inequalities are unfair, without more, does little to explain why it is so.

Nor is an appeal to human rights convincing because, used in this way, “rights discourse” is just another rhetorical device without explanatory power. The internationally recognized “right to health,” as explained further below, principally focuses on States’ obligations to meet the health needs of their own populations. In any event, the text of an international legal instrument cannot be read as a principled *ethical* argument that State A owes a duty to improve the health of State B’s population.

Perhaps the strongest claim that health disparities are unethical is based on

55. See Amy Kapczynski, *Strict International Patent Laws Hurt Developing Countries*, YALE GLOBAL ONLINE, Dec. 16, 2002, <http://yaleglobal.yale.edu/display.article?id=562>. See generally CAROLINE COSTONGS ET AL., *TAKING ACTION ON HEALTH EQUITY* (2007), available at <http://www.health-inequalities.eu/pdf.php?id=419761e2010b7de806b4477c8dc3d8f4>.

56. See generally LARRY TEMKIN, *INEQUALITY* (1993).

57. Norman Daniels, *Equity and Population Health: Toward a Broader Bioethics Agenda*, HASTINGS CENTER REP., July-Aug. 2006, at 22–35 (2006) (arguing that a broader bioethics agenda would address unresolved questions about the development of fair policies that affect health distribution).

58. Jennifer Ruger has repeatedly noted that few efforts have been made to explain why global health inequities are “morally troubling.” See Jennifer Ruger, *Rethinking Equal Access: Agency, Quality, and Norms*, 2 GLOBAL PUB. HEALTH 78, 88 (2007); see also Thom Brooks, *Is Global Poverty a Crime?* 23 (Nov. 9, 2006) (unpublished manuscript), available at <http://ssrn.com/abstract=943762> (noting that “many commentators take the fact of global poverty as sufficient to require we fulfill a positive duty to assist those in severe poverty”).

59. See generally PAUL FARMER, *PATHOLOGIES OF POWER: HEALTH, HUMAN RIGHTS, AND THE NEW WAR ON THE POOR* (2003); PAUL HUNT, *NEGLECTED DISEASES: A HUMAN RIGHTS ANALYSIS* (2007), available at http://www.who.int/tdr/publications/publications/pdf/seb_topic6.pdf.

what I call a theory of human functioning.⁶⁰ Health has special meaning and importance to individuals and the community as a whole.⁶¹ Health is necessary for much of the joy, creativity, and productivity that a person derives from life. Individuals with physical and mental health recreate, socialize, work, and engage in family and social activities that bring meaning and happiness to their lives. Every person strives for the best physical and mental health achievable, even in the face of existing disease, injury, or disability.

Perhaps not as obvious, health is also essential for the functioning of populations. Without minimum levels of health, people cannot fully engage in social interactions, participate in the political process, exercise rights of citizenship, generate wealth, create art, and provide for the common security. A safe and healthy population builds strong roots for a country's governmental structures, social organizations, cultural endowment, economic prosperity, and national defense. Population health becomes a transcendent value because a certain level of human functioning is a prerequisite for activities that are critical to the public's welfare—social, political, and economic.

Amartya Sen famously theorized that the capability to avoid starvation, preventable morbidity, and early mortality is a substantive freedom that enriches human life.⁶² Depriving people of this capability strips them of their freedom to be who they want to be and “to do things that a person has reason to value.”⁶³ Other ethicists have expanded on this theory, claiming that health, specifically, is important to the ability to live a life that one values—one cannot function who is barely alive.⁶⁴ Under a theory of human functioning, health deprivations are unethical because they unnecessarily reduce one's ability to function and the capacity for human agency. Health, among all the other forms of disadvantage, is special and foundational in that its effects on human capacities impact one's opportunities in the world and, therefore, health must be preserved to ensure equality of opportunity.⁶⁵

2. Does a Duty Exist To Rectify These Disparities?

Not everyone accepts the claim that health has a special value because it is

60. See generally LAWRENCE O. GOSTIN, *PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT* (2d ed. forthcoming 2008); see also Martha C. Nussbaum, *Human Functioning and Social Justice: In Defense of Aristotelian Essentialism*, 20 *POL. THEORY* 202 (1992).

61. See generally NORMAN DANIELS, *JUST HEALTH: A POPULATION VIEW* (2007); PUBLIC HEALTH, ETHICS, AND EQUITY (Sudhir Anand, Fabienne Peter & Amartya Sen eds., 2004) (arguing that if health is a prerequisite to a person functioning, inequalities in health constitute inequalities in people's capability to function—a denial of equality of opportunity).

62. See generally AMARTYA SEN, *DEVELOPMENT AS FREEDOM* 36 (1999).

63. *Id.*; see also Jennifer Ruger, *Ethics and Governance of Global Health Inequalities*, 60 *J. EPIDEMIOLOGY & COMMUNITY HEALTH* 998, 999 (2006); Amartya Sen, *Equality of What?*, in 1 TANNER LECTURES ON HUMAN VALUES 197 (1980), available at <http://www.tannerlectures.utah.edu/lectures/sen80.pdf>.

64. See Ruger, *supra* note 63, at 999; see also Nussbaum *supra* note 60 at 221–22; Ruger *supra* note 58, at 84.

65. See Norman Daniels, *Justice, Health, and Healthcare*, 1 *AM. J. BIOETHICS* 2, 3 (2001).

necessary for human functioning, agency, and opportunity. But even if this theory were sufficient, it would still not answer the harder question about the corresponding obligation to do something about global inequalities. First and foremost, what creates such a duty? Whose duty is it? And what is the scope of that duty, if there is one?

Even liberal egalitarians who believe in just distribution, such as Nagel,⁶⁶ Rawls,⁶⁷ and Walzer,⁶⁸ frame their claims narrowly and rarely extend them to international obligations of justice. Their theories of justice are “relational” and apply to a fundamental social structure that people share. States may owe their citizens basic health protection by reason of a social compact.⁶⁹ But positing such a relationship among different countries and regions is much more difficult. Those arguing for a non-statist view of health obligations might point to an increasingly interdependent world—social, political, and economic. They see a global community that sets norms regarding world health, and a network of international organizations that engage in rule making, ranging from the World Health Assembly, World Trade Association, and World Bank to the G8 and NATO.⁷⁰ But whether this international order requires fair terms of cooperation, let alone wealth transfer to poorer States, is far from well-accepted outside activist circles.

Some scholars argue for international health obligations based on a theory of restorative justice, suggesting that richer countries are responsible for the foreseeable and avoidable consequences of policies that benefit them to the detriment of the poor.⁷¹ Similarly, if an entity has accepted the benefits of a particular role, it also accepts the duties that go along with it.⁷² As such, wealthy States that have reaped the benefits of free trade, intellectual property protection, international financing arrangements, and other aspects of globalization, owe a corresponding duty to those who have suffered.⁷³

National policies and globalization have benefited the rich and contributed to global health disparities, but so have many other factors. Blame for harms in the Third World, however, is hard to assess. States usually do not intend to cause harm to poor countries, and political leaders may believe they are doing good. International policies, moreover, often have mixed benefits and harms that defy

66. See generally Thomas Nagel, *The Problem of Global Justice*, 33 PHIL. & PUB. AFF. 113, 113–47 (2005).

67. See generally JOHN RAWLS, *THE LAW OF PEOPLES* (1999).

68. See generally MICHAEL WALZER, *SPHERES OF JUSTICE: A DEFENSE OF PLURALISM AND EQUALITY* (1983).

69. See generally THOMAS HOBBS, *LEVIATHAN* (Touchstone 1997) (1651); Michael O. Hardimon, *Role Obligations*, 91 J. PHIL. 333 (1994); Robin West, *Unenumerated Duties*, 9 J. CONST. L. 221 (2006).

70. See Ronald Labonte & Ted Schrecker, *Foreign Policy Matters: A Normative View of the G8 and Population Health*, 85 BULL. WORLD HEALTH ORG. 185, 188–89 (2007).

71. See THOMAS W. POGGE, *WORLD POVERTY AND HUMAN RIGHTS: COSMOPOLITAN RESPONSIBILITIES AND REFORMS* (2002); see also Brooks, *supra* note 58, at 14.

72. A. John Simmons, *External Justifications and Institutional Roles*, 93 J. PHIL. 28, 29 (1996).

73. See, e.g., Daniels, *supra* note 57, at 31–33.

any simple assignment of blame. Finally, countries themselves may have contributed to the harms due to inadequate attention to population health, excessive militarization, or simple incompetence or corruption. At bottom, reasonable people disagree as to who bears the responsibility for health inequalities and who owes a duty to right the perceived wrongs.⁷⁴

Another argument supporting international justice obligations is based on the idea of keeping promises. Under this argument, when States, corporations, or charities make a pledge of international assistance, they ought to be bound to follow through.⁷⁵ States, corporations, or charities voluntarily assume a duty when they undertake to provide resources for global health assistance. States, for example, have agreed to commit resources to the Global Fund to Fight AIDS, TB, and Malaria (the Global Fund) and the Millennium Development Goals (MDGs), for AIDS prevention and treatment, and for minimal levels of international developmental assistance based on their GNP.⁷⁶ These commitments, it is argued, should have moral force because they make a promise to help and poor countries rely on such promises. The promises made sometimes appear sincere and very specific. For example, in addition to citing national security, trade, and humanitarian reasons for the President's Emergency Plan for AIDS Relief (PEPFAR), the United States noted that it "has the capacity" to lead an international response to global AIDS, and that "in an age of miraculous medicines," no person should go without treatment.⁷⁷ And as noted in the Gleneagles Agreement to double international aid to Africa by 2010, the G8 expressed a sense of obligation to further African development and achieve the MDGs.⁷⁸

But if making a pledge results in an enforceable duty, then it might have the perverse effect of discouraging promises. Also, whose duty is it to improve the health of the world's poor: IGOs (for example, the WHO, World Bank, IMF), powerful alliances (for example, G8, European Union),⁷⁹ wealthy States,⁸⁰ or large philanthropic organizations? Do rich entities assume a duty merely be-

74. See Brooks, *supra* note 58, at 13–14; see also Solomon R. Benatar, Abdallah S. Daar & Peter Singer, *Global Health Ethics: The Rationale for Mutual Caring*, 79 INT'L AFF. 107, 114 (2003); Jennifer Prah Ruger, *Public Health and Emerging Risks: Emerging Countries' Responsibility and International Cooperation*, IDÉES POUR LE DÉBAT (2007), http://www.iddri.org/Publications/Collections/Idées-pour-le-debat/id_0702_ruger_bei_ec_health1.pdf.

75. Labonte & Schrecker, *supra* note 70, at 186.

76. See, e.g., G8 Gleneagles Agreement for Africa (2005), available at <http://www.g8.gov.uk> (follow "summit documents" hyperlink; then follow "Gleneagles 2005" hyperlink) [hereinafter Gleneagles Agreement]; see also United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, Pub. L. No. 108–25, 117 Stat. 711, (codified as amended at 22 U.S.C. § 7601 (2000 & Supp. III 2003)) [hereinafter Leadership Act].

77. See Leadership Act, *supra* note 76, § 2(22), (27), 117 Stat. at 715–17.

78. See Gleneagles Agreement, *supra* note 76; G8, SUMMIT DECLARATION: GROWTH AND RESPONSIBILITY IN AFRICA (2007), available at http://www.g-8.de/Content/DE/Artikel/G8Gipfel/Anlage/Abschlusserk1_C3_A4rungen/WV-afrika-en.property=publicationFile.pdf (reaffirming the Gleneagles commitments).

79. See Labonte & Schrecker, *supra* note 70, at 186.

80. See POGGE, *supra* note 71.

cause they are in the best position to relieve suffering?⁸¹

And finally, even if it were possible to say that an international duty arises for specific entities, what is the scope of such a duty? Is it a duty to provide foreign aid at a certain level, offer debt relief, improve trade laws, or provide free treatment to those in need? Or, is there a purely negative obligation to avoid causing harm, such as by refraining from actively recruiting health care workers from poor to rich countries?⁸² Regardless, many lament the lack of an ethical framework for solving global health problems.⁸³

Perhaps there is no principled ethical argument because it is so hard to craft. A way forward might be to use international law, so that States can accede to a set of shared responsibilities, with a fuller understanding of what they are agreeing to, and why. I propose a Framework Convention on Global Health in the final Part of this Article, but before doing so it is necessary to explain how globalization has driven the spread of infectious and chronic diseases.

II. GLOBALIZATION AND THE SPREAD OF DISEASE: MANMADE AND CONTROLLABLE

A. THE RISE OF INFECTIOUS DISEASE: A PRODUCT OF HUMAN CIVILIZATION

It is axiomatic that infectious diseases do not respect national borders. But this simple truth does not convey the degree to which pathogens migrate great distances to pose health hazards everywhere. It also suggests that the rapid movement of infectious diseases is inevitable, but in another sense the underlying causes are principally manmade and, therefore, controllable.⁸⁴

Human beings congregate and travel, live in close proximity to animals, pollute the environment, and rely on overtaxed health systems. This constant cycle of congregation, consumption, and movement allows infectious diseases to mutate and spread across populations and boundaries. The global population is also vulnerable to deliberate manipulation and dispersal of pathogens. Those engaged in bioterrorism have incentives to move pathogens to places where they will have the most destructive impact. These human activities, and many more, have profound health consequences for people in all parts of the world, and no country can insulate itself from the effects. The world's communities are interdependent and reliant on one another for health security.

1. Mass Congregation, Migration, and Travel

Infectious diseases spread among populations and geographic areas as human beings congregate, migrate, and travel.⁸⁵ Mass movement of people occurs

81. See Ruger, *supra* note 63, at 1002.

82. See Daniels, *supra* note 57, at 30.

83. See Ruger, *supra* note 63, at 999.

84. See Anthony S. Fauci, *Infectious Diseases: Considerations for the 21st Century*, 32 *CLINICAL INFECTIOUS DISEASES* 675, 675–85 (2001) (describing the global scope of emerging infectious diseases).

85. See, e.g., Thomas C. Quinn, *Population Migration and the Spread of Types 1 and 2 Human Immunodeficiency Virus*, 91 *PROC. NAT'L ACAD. SCI.* 2407 (1994).

naturally as individuals travel to urban settings in search of livelihoods and social attachments.⁸⁶ People may also be compelled to travel in large numbers as they flee situations of famine, violence, civil unrest, or war.⁸⁷ The gross unsanitary conditions in refugee camps and other mass settings are deeply troublesome from a public health and humanitarian perspective.⁸⁸ Overpopulation, whether through voluntary or forced migrations, places a strain on drinking water, food supplies, and sewage systems, providing a breeding ground for infectious diseases.

2. Human/Animal Interchange

People do not merely congregate together, but do so in close proximity to animal populations through intensive farming, meat production (raising, slaughtering, and eating animals), and exotic animal markets.⁸⁹ Such interactions with animals entail serious risks as novel pathogens mutate and jump species.⁹⁰ For example, live bird markets, traveling poultry workers, cock-fighting, and migratory birds are vectors for spreading avian influenza A (H5N1).⁹¹ Farmers contribute to the problem of microbial resistance through overuse or inappropriate use of pharmaceuticals.⁹² Animal diseases have significant economic conse-

86. Today, approximately half of the world's population lives in urban centers and by 2030 nearly two-thirds will live in urban areas. Melinda Moore, Phillip Gould & Barbara S. Keary, *Global Urbanization and Impact on Health*, 206 INT'L J. HYGIENE ENVTL. HEALTH 269, 269–78; see also U.N. DEP'T OF ECON. & SOC. AFFAIRS, WORLD POPULATION PROSPECTS: THE 2005 REVISION, U.N. Sales No. ESA/P/WP/200 (2005); U.N. POPULATION FUND, STATE OF WORLD POPULATION 2007—UNLEASHING THE POTENTIAL OF URBAN GROWTH 19 (2007); Sandro Galea & Nicholas Freudenberg, *The Urban Health Advantage*, 82 J. URB. HEALTH 1, 1–4 (2005).

87. See Ronald Waldman, *Public Health in War*, 27 HARV. INT'L REV. 60, 60–63 (2005); WHO, HEALTH & HUM. RTS. PUB. SERIES, No. 4, INTERNATIONAL MIGRATION, HEALTH & HUMAN RIGHTS (2003); Douglas W. MacPherson, Brian D. Gushulak & Liane Macdonald, *Health and Foreign Policy: Influences of Migration and Population Mobility*, 85 BULL. WORLD HEALTH ORG. 200 (2007).

88. See Samantha L. Thomas & Stuart D.M. Thomas, *Displacement and Health*, 69 BRIT. MED. BULL. 115, 120–21 (2004) (describing health needs of refugees and the stress that concentrated and traumatized populations place on health care infrastructures).

89. See William B. Karesh et al., *Wildlife Trade and Global Disease Emergence*, 11 EMERGING INFECTIOUS DISEASES 1000, 1002 (2005) (describing global transmission of infectious pathogens as a result of contact between wildlife and humans).

90. More than sixty percent of known infectious diseases are capable of infecting both humans and animals. Most of these diseases, including HIV/AIDS, SARS, and the Ebola virus, originated in animals but have crossed the species barrier to infect humans. See William B. Karesh & Robert A. Cook, *The Human-Animal Link*, FOREIGN AFF. July–Aug. 2005, at 39 (explaining that no national agency or inter-governmental organization focuses on diseases that threaten people, domestic animals, and wildlife—the Food and Agriculture Organization of the U.N. monitors livestock and crops but not wild plants and animals, while the World Animal Health Organization considers wildlife-related disease but has limited power and resources).

91. See John H. Beigel et al., *Avian Influenza A (H5N1) Infection in Humans*, 353 NEW ENG. J. MED. 1374, 1374–85 (2005).

92. For example, Chinese farmers tried to suppress the 2005 A (H5N1) influenza outbreaks by feeding chickens an antiviral drug used for humans. As a result, the antiviral is unlikely to protect humans in the case of a pandemic. Alan Sipress, *Bird Flu Drug Rendered Useless: Chinese Chickens Given Medication Made for Humans*, WASH. POST, June 18, 2005, at A1; see also David P. Fidler, *Legal*

quences as illustrated by outbreaks of Bovine Spongiform Encephalopathy (BSE, or “mad cow disease”) and Foot and Mouth Disease (FMD).⁹³ Animal diseases also affect human health—animals, particularly wild animals, are the source of 70% of all emerging human infections.⁹⁴ These processes have transnational dimensions, with thriving international markets in cattle, meat, and poultry, enabling infectious diseases to cross national borders.

3. Ecosystem Degradation

Human well-being is highly dependant on ecosystems, and ecosystems are sensitive to human activity. Ecosystem degradation in one geographic area affects other parts of the world; in this way, living systems (air, sea, forests, and soil) are interconnected, as are people and places in the world.⁹⁵ Ecosystem degradation has multiple adverse health effects.⁹⁶ For example, air and water pollution increases respiratory (e.g., asthma) and gastrointestinal (e.g., cholera and *E. coli*) diseases as well as cancers. The emission of heat-trapping gases (e.g., carbon dioxide, methane, and nitrous oxides) contributes to global warming, which causes a number of health hazards: heat-related illnesses and deaths; infectious diseases carried by insects and rodents (e.g., malaria and West Nile Virus); droughts that result in famine and conflicts over water resources; and extreme weather events that produce floods and destruction (e.g., the Asian Tsunami and Hurricane Katrina).⁹⁷ Finally, excessive and unsustainable uses of scarce resources (e.g., deforestation, strip mining, and intensive farming or fishing) diminish natural assets needed for healthy living.⁹⁸

4. Health Systems

Health care systems themselves can contribute to poor health. The lack of sterilizing equipment, safe blood supplies, and basic infection controls in re-

Challenges Posed by the Use of Antimicrobials in Food Animal Production, 1 MICROBES & INFECTION 29, 38 (1999).

93. When a cow in Washington State was found to be infected with BSE in 2003, fifty countries put a ban on American beef, which cost the U.S. cattle industry \$1.7 billion and forced beef prices to rise by 20%. Editorial, *The Madness of Herds*, WALL ST. J., July 18, 2005, at A12.

94. Thijs Kuiken et al., *Pathogen Surveillance in Animals*, 309 SCIENCE 1680, 1680–81 (2005).

95. The Millennium Ecosystem Assessment, a comprehensive study of the natural environment commissioned by the United Nations, examined the interdependence of humans and ecosystems. Preliminary reports warn about severe depletion of the natural environment and the inability of ecosystems to support future generations. MILLENNIUM ECOSYSTEM ASSESSMENT BD., *LIVING BEYOND OUR MEANS: NATURAL ASSETS AND HUMAN WELL-BEING* (2005).

96. *How Bad Is the Environment for Our Health?*, 83 BULL. WORLD HEALTH ORG. 327, 327–28 (2005) (interview with Kerstin Leitner, Assistant Director-General of WHO’s Sustainable Development and Healthy Environment cluster of departments).

97. See Diarmid Campbell-Lendrum, Carlos Corvalan & Maria Neira, *Global Climate Change: Implications for International Public Health Policy*, 85 BULL. WORLD HEALTH ORG. 235, 235–37 (2007).

98. See LAURA WESTRA, *ENVIRONMENTAL JUSTICE AND THE RIGHTS OF UNBORN AND FUTURE GENERATIONS—LAW, ENVIRONMENTAL HARM, AND THE RIGHT TO HEALTH* (2006). F. Michael Willis, *Economic Development, Environmental Protection, and the Right to Health*, 9 GEO. INT’L ENVTL. L. REV. 195, 195–220 (1996).

source-poor hospitals puts both health care professionals and patients at risk for blood-borne diseases such as HIV/AIDS and Hepatitis B and C. Weak public health infrastructures can fail to detect and contain outbreaks of Ebola or SARS in their early stages, giving these diseases opportunities to spread. Lack of funding and infrastructure in turn create human resource deficits as trained health care professionals from poor countries leave for better-paying jobs in North America and Europe,⁹⁹ which further deteriorates a country's capacity for surveillance, response, and treatment. Finally, health care systems, even in the developed world, often deliver antibiotic and antiviral medications indiscriminately, causing microbial adaptation. These practices can result in changes in the virulence of pathogens and development of resistance to frontline medications (for example, multi-drug resistant TB, HIV, or streptococcal infections).¹⁰⁰

B. THE EPIDEMIOLOGIC TRANSITION FROM INFECTIOUS TO NONCOMMUNICABLE DISEASES: A DOUBLE BURDEN IN RESOURCE-POOR COUNTRIES

The spread of infectious diseases in a changing and interdependent world is to be expected, given increased human migration and trade. Less obvious is how, and why, noncommunicable diseases (NCDs) seem to have global dimensions. Noncommunicable or chronic diseases include cardiovascular diseases, cancers, diabetes, respiratory diseases, and mental illness. Human behavior—such as high fat or high caloric diets, sedentary lifestyles, smoking cigarettes, drinking alcoholic beverages, and stressful lifestyles—is a primary cause of NCDs, which means that they are largely preventable.¹⁰¹

The burden of NCDs was once felt disproportionately in highly industrialized countries. However, chronic diseases are now the major cause of death and disability worldwide and increasingly affect people from resource-poor countries.¹⁰² The latest available data, from 2001, show that chronic diseases contributed to 59% of the 56.5 million total reported deaths in the world and 46% of the global burden of disease. If the trend continues, by 2020 NCDs will account for 80% of the global burden of disease, causing seven out of every ten deaths in developing countries.¹⁰³ The ability of resource-poor countries to prevent and

99. See JOINT LEARNING INITIATIVE, HUMAN RESOURCES FOR HEALTH: OVERCOMING THE CRISIS (2004).

100. See Mario C. Raviglione & Ian M. Smith, *XDR Tuberculosis: Implications for Global Public Health*, 356 NEW ENG. J. MED. 656, 656–59 (2007); N. Sarita Shah et al., *Worldwide Emergence of Extensively Drug-Resistant Tuberculosis*, 13 EMERGING INFECTIOUS DISEASES 380, 380–87 (2007).

101. See Mickey Chopra, Sarah Galbraith & Ian Darnton-Hill, *A Global Response to a Global Problem: The Epidemic of Overnutrition*, 80 BULL. WORLD HEALTH ORG. 952, 952–58 (2002) (discussing “obesogenic” environment and international law as a tool to prevent obesity).

102. ADEYI ET AL., *supra* note 21, at xviii, 5–6 (warning that by 2015, chronic diseases will be the leading cause of death in developing countries); see also Lopez, *supra* note 21. See generally DISEASE CONTROL PRIORITIES IN DEVELOPING COUNTRIES, *supra* note 41, available at <http://www.dcp2.org/pubs/DCP>.

103. See OBESITY PREVENTION AND PUBLIC HEALTH (David Crawford & Robert W. Jeffrey eds., 2005); Abdesslam Boutayeb & Saber Boutayeb, *The Burden of Non-Communicable Diseases in Developing Countries*, 4 INT'L J. EQUITY HEALTH (2005).

treat NCDs is undermined by impoverished socioeconomic conditions and inadequate health systems.¹⁰⁴

What is causing the epidemiologic transition from infectious to chronic diseases, and why have high-risk behaviors moved from richer to poorer countries? High-risk lifestyles were once thought to be associated with abundance and excessive consumption. The affluent were more likely to consume high-energy diets and work in white-collar jobs with less physical activity. Smoking cigarettes and drinking fine wine and spirits were glamorous pursuits. Cinema, television, and magazines displayed images of well-heeled men and women with successful careers and vibrant lifestyles smoking and drinking. The poor seemed to have a different set of problems: malnutrition rather than over-eating, lives filled with hard work rather than leisure, and lives cut short from injuries and infections rather than chronic disease.¹⁰⁵

Yet, just as infectious diseases move and change, so do NCDs.¹⁰⁶ The global rise in NCDs reflects significant transformations in diet habits, physical activity levels, and tobacco use worldwide.¹⁰⁷ The process of industrialization, urbanization, economic development, and increasing food market globalization leads to a harmonization of behaviors.¹⁰⁸ What was once culturally attractive primarily in industrialized countries has gained popularity all over the world. Visit any major city and witness the effects of a blended culture, inspired by multinational corporations, media conglomerates, and the influence of tourists and immigrants as they travel globally. The High Streets are filled with food chains such as McDonald's, Burger King, KFC, and Dunkin' Donuts; the billboards display omnipresent images of Camel cigarettes, Hershey's chocolate, Coca-Cola, and Johnny Walker whiskey; and movies and television continue to run attractive images of alluring people smoking cigarettes and drinking alcoholic beverages.

104. In recognition of this dangerous trend, the WHO embarked in 2004 on a Global Strategy on Diet, Physical Activity and Health designed to identify and implement preventive strategies to control risk factors such as tobacco, alcohol, obesity, diet, and inactivity. See generally WHO, *Global Strategy on Diet, Physical Activity, and Health* (2004), available at http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_english_web.pdf; see also Derek Yach et al., *The Global Burden of Chronic Diseases: Overcoming Impediments to Prevention and Control*, 291 JAMA 2616, 2616–22 (2004).

105. See, e.g., Allyn Taylor et al., *Trade Policy and Tobacco Control*, in TOBACCO CONTROL IN DEVELOPING COUNTRIES (P. Jha & F. Chaloupka eds., 2000) (explaining how free-trade laws allow tobacco companies, which face increased regulation and resistance to smoking in developed countries, to create new markets in the developing world).

106. Derek Yach & Robert Beaglehole, *Globalization of Risks for Chronic Diseases Demands Global Solutions*, 3 PERSP. ON GLOBAL DEV. & TECH. 213, 219–20 (2004).

107. Andrew M. Prentice, *The Emerging Epidemic of Obesity in Developing Countries*, 35 INT'L J. EPIDEMIOLOGY 93, 93 (2005) (explaining that “[t]he obesity pandemic . . . is transmitted through [macro-environmental] vectors of subsidized agriculture and multinational companies providing cheap, highly refined fats, oils, and carbohydrates, labour-saving devices, affordable motorized transport, and the seductions of sedentary pastimes such as television”).

108. See WHO COMM'N ON MACROECONOMICS AND HEALTH, *MACROECONOMICS AND HEALTH: INVESTING IN HEALTH FOR DEVELOPMENT* (2001); Food Agric. Org. of the U.N. [FAO], *Ethical Issues in Food and Agriculture*, FAO Corporate Document Repository (2001), available at <http://www.fao.org/DOCREP/003/X9601E/X9601E00.HTM>.

This is how risk behavior migrates from place-to-place and permeates all people and cultures. Perversely, as developing countries begin to grow and prosper, behaviorally related chronic diseases stand out as “joint totems” of success.¹⁰⁹

“It makes little sense to expect individuals to behave differently from their peers,” wrote Geoffrey Rose in 1992.¹¹⁰ The problem is that one’s peers used to be neighbors, and so behavior varied across places according to cultural norms. Today the influences on behavior are broad and diffuse. In the age of the Internet, cable television, multinational corporations, and global markets, it is rarely possible to change behavior solely through action at a local, state, or even national level. Governments cannot meaningfully effect behavior change without global cooperation and solutions based on shared commitments to health.¹¹¹ It is for this reason that public health law must transcend frontiers.

Globalization, therefore, is a powerful force, propelling people, pathogens, goods, and even cultures to far-off places. Moreover, the mechanisms that spread disease across the globe are principally manmade and exist in almost every society. Thus, the only effective response is through global cooperation, which has proved highly elusive.

III. GLOBAL HEALTH: A MATTER OF NATIONAL INTEREST?

The description I have just offered about the spread of disease across countries and continents might well lead to the conclusion that global health is in every nation’s interests. Indeed, a compelling case can be made that large-scale health hazards have such catastrophic consequences for the health of the populace, the economy, and national security that international cooperation is a matter of vital State interest. The relationship between extremely poor health and dire economic and political consequences is far too complex to be expressed in simple cause-and-effect terms. Instead, it can be explained by how poor health contributes to State instability and how State instability, in turn, creates the conditions for poor health.

A. NATIONAL INTERESTS IN THE HEALTH OF THE POPULACE

Democratic theory holds that the common defense, security, and welfare of

109. See N. R. Kleinfeld, *Modern Ways Open India’s Door to Diabetes*, N.Y. TIMES, Sept. 13, 2006 at A2.

110. See ROSE, *supra* note 3, at 102.

111. Political leaders are beginning to understand the need for collective action. The G8 Summit in 2000 recognized that health is the “key to prosperity” and that “poor health drives poverty.” G8 Kyushu-Okinawa Summit 2000, *G8 Communiqué Okinawa 2000*, <http://www.g8.utoronto.ca/summit/2000okinawa/finalcom.htm>. The G8 leaders also agreed to mobilize resources, which eventually lead to the creation of the Global Fund for HIV/AIDS, Tuberculosis, and Malaria. See The Global Fund, *Investing in Our Future: The Global Fund To Fight AIDS, Tuberculosis and Malaria* (July 16, 2006), <http://www.theglobalfund.org/en/>; INT’L LABOR ORG., THE WORLD COMMISSION ON THE SOCIAL DIMENSION OF GLOBALIZATION: A FAIR GLOBALIZATION CREATING OPPORTUNITIES FOR ALL (2004); Michael Marmot, *Social Determinants of Health Inequalities*, 365 LANCET 1099, 1099–1104 (2005); see also Labonte & Schrecker, *supra* note 33, at 1.

the population are among the State's primary obligations—goods that can be achieved only through collective action. The first thing that public officials owe to their constituents is protection against natural and manmade hazards.¹¹² The populace can tolerate even the most catastrophic events if they are unforeseeable and unpreventable. But if political leaders fail to take steps in advance that could have ameliorated a naturally occurring epidemic or bioterrorism, the political price would be high. The political consequences from failure to act early and decisively with respect to outbreaks of SARS, BSE and FMD, for example, were evident in North America and Europe.¹¹³ The politics of infectious diseases can be seen in the fact that pandemic influenza planning has reached the highest levels of government, with enormous resources expended, even though Influenza (A) H5N1 has resulted in only a few hundred human deaths worldwide and none in the United States.¹¹⁴

If governments have an obligation to assure at least reasonable conditions of health, they have no choice but to pay close attention to health hazards beyond their borders. DNA fingerprinting has provided conclusive evidence of the migration of pathogens from less to more developed countries.¹¹⁵ In fact, more than thirty infectious diseases have newly emerged over the last two-to-three decades, including HIV/AIDS, SARS, Hemorrhagic Fevers, Legionnaires Disease, Lyme disease, and Hantavirus.¹¹⁶ Other diseases, such as West Nile Virus and monkeypox, which were once prevalent almost exclusively in developing countries, have migrated to developed countries. Vastly increased international trade in fruits, vegetables, meats, and eggs has resulted in major outbreaks of food-borne infections caused by *Campylobacter*, *Salmonella*, or *E. coli* O157:H7 bacteria, and Norwalk-like viruses. Emergent or resurgent diseases have affected both animal and human populations, as major outbreaks of BSE, FMD, and avian influenza potently illustrate.¹¹⁷ These naturally occurring epidemics, moreover, do not include the omnipresent concern over the intentional dispersal of pathogens, such as anthrax, smallpox, botulism, and tularemia. Although

112. See generally MICHAEL WALZER, *SPHERES OF JUSTICE: A DEFENSE OF PLURALISM AND EQUALITY* (1983).

113. See Ilona Kickbusch, *SARS: Wake-Up Call for a Strong Global Health Policy*, YALE GLOBAL ONLINE, Apr. 25, 2003, <http://yaleglobal.yale.edu/display.article?id=1476>.

114. WHO, Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO (June 4, 2007), available at http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_06_04/en/index.html.

115. See Jeffrey P. Koplan, *CDC Works in Global Environment*, U.S. MEDICINE (Jan. 2001), available at <http://www.usmedicine.com/article.cfm?articleID=136&issueID=20>; see also *Preventing Emerging Infectious Disease: A Strategy for the 21st Century Overview of the Updated CDC Plans*, 47 MORBIDITY & MORTALITY WKLY. REP., RECOMMENDATIONS & REP. 1, 6 (1998).

116. Anthony S. Fauci, Nancy A. Touchette & Gregory K. Folkers, *Emerging Infectious Diseases: A 10-Year Perspective from the National Institute of Allergy and Infectious Diseases*, 11 EMERGING INFECTIOUS DISEASES 519, 519–25 (2005), available at <http://www.cdc.gov/ncidod/EID/vol11no04/04-1167.htm>.

117. See, e.g., CANADIAN ANIMAL HEALTH COALITION, *BSE ECONOMIC IMPACT ASSESSMENT* (2003); D. Thompson et al., *Economic Costs of the Foot and Mouth Disease Outbreak in the United Kingdom in 2001*, 21 REV. SCI. TECH. 675, 675–87 (2002).

very rare, bioterrorism captures the attention of the highest levels of government, as the Bush Administration's 2003 smallpox vaccination campaign illustrated.¹¹⁸

Not only do emerging and re-emerging diseases increasingly affect the wealthiest countries, but also these countries are losing the ability to ameliorate these harms through technologies such as vaccines and pharmaceuticals. Resurgent diseases such as tuberculosis, malaria, and HIV have developed extreme resistance to front-line medications.¹¹⁹ "Super-bugs," such as methicillin-resistant staphylococcus aureus (MRSA), have the potential to infect populations, and even the most sophisticated medical systems cannot respond. As microbes change genetic form, existing vaccines and pharmaceuticals become inapt. For example, existing vaccines and antiviral medications would likely be ineffective against a future strain of pandemic influenza. The therapeutic challenges are not limited to exotic infections, as the WHO has warned that many pathogens are gaining resistance to therapies.¹²⁰ Even routine respiratory, diarrheal, and ear infections in countries with advanced medical systems are becoming resistant to treatment.

Overall, infectious diseases remain the third-leading cause of death in developed countries and a major cause of ill-health and disability. Aggregate costs of treating these diseases are hard to determine, but some estimates place them at fifteen percent of total health expenditures in highly developed countries.¹²¹ The potential loss of life, moreover, from a pandemic such as SARS or Influenza (A) H5N1 could be catastrophic. Extrapolating from SARS and historical data, models indicate that, in the absence of intervention, more than one million Americans could die from an influenza pandemic, with similar levels of morbidity in other developed countries.¹²²

The social and political costs of major epidemics also show why it would be in the national interest to avoid them. It is difficult to exaggerate the dread

118. See INST. OF MED., *THE SMALLPOX VACCINATION PROGRAM: PUBLIC HEALTH IN AN AGE OF TERRORISM* (Comm. on Smallpox Vaccination Program Implementation eds., 2005); see also Thomas May & Ross D. Silverman, *Should Smallpox Vaccine Be Made Available to the General Public?*, 13 KENNEDY INST. ETHICS J. 67, 67–82 (2003).

119. See WHO, *Tuberculosis: XDR-TB Extensively Drug-Resistant Tuberculosis*, <http://www.who.int/tb/xdr/en/index.html> (last visited Oct. 16, 2007); see also Ctrs. for Disease Control and Prevention, *Extensively Drug-Resistant Tuberculosis (XDR TB)*, <http://www.cdc.gov/tb/pubs/tbfactsheets/xdrtb.htm> (last visited Oct. 16, 2007); Lawrence K. Altman, *Agency Warns of Surge in Drug-Resistant TB*, N.Y. TIMES, June 6, 2007, at A16; Lawrence K. Altman, *Drug-Resistant TB in South Africa Draws Attention from U.N.*, N.Y. TIMES, Sept. 6, 2006, at A10; David L. Heymann, *Resistance to Anti-Infective Drugs and the Threat to Public Health*, 124 CELL 671, 671–75 (2006).

120. See generally WHO, *OVERCOMING ANTIMICROBIAL RESISTANCE: WORLD HEALTH ORGANIZATION REPORT ON INFECTIOUS DISEASES 2000* (2000), <http://www.who.int/infectious-disease-report/2000/intro.htm>.

121. See NAT'L INTELLIGENCE COUNCIL, *THE GLOBAL INFECTIOUS DISEASE THREAT AND ITS IMPLICATIONS FOR THE UNITED STATES*, NIE 99-17D, at 54 (2000); WHO, *REMOVING OBSTACLES TO HEALTHY DEVELOPMENT: WORLD HEALTH ORGANIZATION REPORT ON INFECTIOUS DISEASES 1999* (1999), available at <http://www.who.int/infectious-disease-report/pages/textonly.html>.

122. Michael T. Osterholm, *Preparing for the Next Pandemic*, 84 FOREIGN AFF. 24, 24–28 (2005).

caused by disease epidemics and the destabilizing effects on people and their communities.¹²³ A pestilence is a scourge, potentially decimating the population and presenting a threat to the common security as momentous as war.¹²⁴ History demonstrates that society, through its institutions, will take whatever measures it deems necessary to defend itself. The prevailing social response will be to exclude sufferers from the community to safeguard healthy members. Measures which were widely used with SARS and are currently incorporated in pandemic influenza plans include mass quarantine, travel restrictions, and social distancing—for instance, closure of public places (schools, childcare, workplaces, mass transit) and cancellation of public events (sports, arts, conferences).¹²⁵

The State's response to disease epidemics has profound social costs. Separation, particularly for long durations, can cause loneliness and emotional detachment, disrupt social and economic life (education, trade, business), and infringe upon individual rights. Community restrictions raise profound questions of faith (religious worship), family (funeral attendance), and protection of the vulnerable (food, water, clothing, medical care). Powerful reasons, therefore, exist for governments to pay close attention to global health, not only for the sake of people in far away places but to prevent the potentially catastrophic social, economic, and political consequences for their own citizens.

B. NATIONAL ECONOMIC INTERESTS: TRADE AND COMMERCE

Even the most powerful countries have a narrow interest in preventing the migration of large-scale health threats to their shores. But beyond narrow self-interest, are there broader, "enlightened" interests in redressing extremely high rates of disease and premature death in the world's poorest regions?¹²⁶ There is a strong case that a forward-looking foreign policy would seek to reduce enduring, intractable diseases in developing countries such as AIDS, cholera, dengue fever, dracunculiasis (guinea worm), lymphatic filariasis (elephantiasis), malaria, and onchocerciasis (river blindness). The reason is that poor health significantly affects economic, social, and political stability in developing and transitional States. And destabilization has major foreign policy implications for the United States and its allies in terms of trade and commerce, international relations, and, ultimately, national security.

123. See generally WILLIAM H. McNEILL, *PLAGUES AND PEOPLES* (2d ed. 1977); IRWIN W. SHERMAN, *THE POWER OF PLAGUES* (2006).

124. See generally JARED M. DIAMOND, *GUNS, GERMS, AND STEEL* 195–214 (rev. ed. 2005); WAR AND PUBLIC HEALTH (Baity S. Levy & Victor W. Sidel eds., 1997).

125. See generally CTRS. FOR DISEASE CONTROL & PREVENTION, *INTERIM PRE-PANDEMIC PLANNING GUIDANCE: COMMUNITY STRATEGY FOR PANDEMIC INFLUENZA MITIGATION IN THE UNITED STATES—EARLY, TARGETED, LAYERED USE OF NONPHARMACEUTICAL INTERVENTIONS* (2007).

126. See INST. OF MEDICINE, *AMERICA'S VITAL INTEREST IN GLOBAL HEALTH* (1997); JORDAN S. KASSALOW, COUNCIL ON FOREIGN REL., *WHY HEALTH IS IMPORTANT TO U.S. FOREIGN POLICY* (2001); Daniel M. Fox & Jordan S. Kassalow, *Making Health a Priority of US Foreign Policy*, 91 AM. J. PUB. HEALTH 1554 (2001); Ilona Kickbusch, *Influence and Opportunity: Reflections on the U.S. Role in Global Public Health*, 21 HEALTH AFF. 131, 131–41 (2002).

States should care about epidemic diseases because of their potentially major economic consequences. Epidemic disease dampens tourism, trade, and commerce. During the SARS outbreaks, for example, the WHO issued travel advisories for Ontario, Canada and parts of Asia, with considerable economic and political ramifications.¹²⁷ SARS had a negligible impact on global mortality, but Asian economies lost \$11 to \$18 billion (0.5% to 2% of GDP)¹²⁸ and Canada lost \$1.5 billion (0.15% of GDP).¹²⁹ Animal diseases such as FMD, BSE, and avian influenza similarly had severe economic repercussions on trade and commerce. Identifying even a single case in a country often necessitated the mass culling of flocks and herds, and provoked trade bans on beef, lamb, or poultry.¹³⁰ Massive economic disruption would ensue from a pandemic of human influenza, with a projected 2–6% loss of global GDP, depending on the severity of the strain.¹³¹

Even if diseases do not directly threaten developed countries, the economic effects on both developing and developed countries are apparent. In regions with extremely poor health and low life expectancy, economic decline is almost inevitable.¹³² Consider the effects of HIV/AIDS on the social fabric and economy in sub-Saharan Africa, which accounts for 72% of global AIDS deaths.¹³³

127. See Press Release, WHO, WHO Issues Emergency Travel Advisory (March 15, 2003), available at www.who.int/mediacentre/news/releases/2003/pr23/en/; see also David P. Fidler, *Germs, Governance, and Global Public Health in the Wake of SARS*, 113 J. CLINICAL INVESTIGATION 799, 799–804 (2004).

128. U.S. GEN. ACCT. OFF., REPORT TO THE CHAIRMAN, SUBCOMM. ON ASIA AND THE PACIFIC, COMM. ON INT'L RELATIONS, HOUSE OF REPRESENTATIVES ON EMERGING INFECTIOUS DISEASES, ASIAN SARS OUTBREAK, CHALLENGED INTERNATIONAL AND NATIONAL RESPONSES, GAO-04-564 (2004).

129. See PAUL DARBY, CONFERENCE BD. OF CAN., THE ECONOMIC IMPACT OF SARS (2003), available at <http://www.dfait-maeci.gc.ca/mexico-city/economic/may/sarsbriefMay03.pdf>.

130. FOOD AGRIC. ORG., FOOD AND NUTRITIONAL PAPER ON ANIMAL TESTING AND FOOD SAFETY (1997), available at ftp://ftp.fao.org/es/esn/food/meetings/NE_report_en.pdf.

131. See THE WORLD BANK E. ASIA & PAC. REGION, SPREAD OF AVIAN FLU COULD AFFECT NEXT YEAR'S ECONOMIC OUTLOOK (2005), available at <http://siteresources.worldbank.org/INTEAPHALFYEARLYUPDATE/Resources/EAP-Brief-avian-flu.pdf>; SHERRY COOPER, THE AVIAN FLU CRISIS: AN ECONOMIC UPDATE 4 (2006), available at <http://www.bmonesbittburns.com/economics/reports/20060313/report.pdf>; CONG. BUDGET OFFICE, A POTENTIAL INFLUENZA PANDEMIC: AN UPDATE ON POSSIBLE MACROECONOMIC EFFECTS AND POLICY ISSUES (2006), available at <http://www.cbo.gov/ftpdoc.cfm?index=7214&type=1>. In addition to these direct costs, a global flu pandemic would also implicate a considerable loss of global work output. Commerce will sharply decline as people avoid public spaces. The labor supply will also be depleted as workers get sick or stay home to care for others. The lack of an active workforce would place at risk essential goods and services such as food, water, electricity, gas, and transportation systems. THE WORLD BANK E. ASIA & PAC. REGION, *supra*; see also Beth Maldin et al., *Bulls, Bears, and Birds: Preparing the Financial Industry for an Avian Influenza Pandemic*, 3 BIOSECURITY & BIOTERRORISM 363, 363–67 (2005).

132. David E. Bloom & David Canning, *The Health and Wealth of Nations*, 287 SCIENCE 1207, 1207 (2000) (“The positive correlation between health and income per capita is one of the best-known relations in international development.”).

133. See WHO, AIDS EPIDEMIC UPDATE 2006, 10–13 (2006), available at http://www.who.int/hiv/mediacentre/04-Sub_Saharan_Africa_2006_EpiUpdate_eng.pdf; UNAIDS, REPORT ON THE GLOBAL AIDS EPIDEMIC 2006 (2006), annexes 2 & 3 (reporting that Africa has an estimated 24.5 of the 38.6 million people infected with HIV in the world, although it contains just over 10% of the global population); Richard Parker, *The Global HIV/AIDS Pandemic, Structural Inequalities, and the Politics of Interna-*

Average life expectancy in this region is now forty-seven years, when it would have been sixty-two without AIDS. For some of the worst affected countries such as Botswana, life expectancy has declined from 75.7 to 34.2 years of age. Most of the excess mortality is among young adults aged 15 to 49, leaving the country without entrepreneurs, a skilled workforce, parents, and political leaders. The economic effects are felt among families, where breadwinners fall ill and die, and children become orphaned; in the private sector, where there is markedly lower creativity and productivity and increased medical and death-related benefits; and in the public sector, where political leadership, public services, and government finances precipitously decline.¹³⁴ The political, human, and economic capital spent on HIV/AIDS has enormous opportunity costs for poverty reduction, health care, and education. The cumulative effect of the disease on the economy is difficult to calculate, but has been estimated at nearly 20% of GDP in the hardest-hit countries.¹³⁵ AIDS, of course, is only one disease in countries experiencing multiple epidemics, starvation, massive poverty, and regional conflicts that devastate the population.¹³⁶

Endemic disease in poor regions poses potentially significant threats to trade and commerce among developed countries. Countries with poor health become unreliable trading partners without the capacity to develop and export food, products, and natural resources needed in the West. And impoverished consumers cannot afford Western imports. They cannot pay for essential vaccines and medicines affecting the pharmaceutical industry; cannot repay debt affecting global financial institutions and markets; require increased technological and financial aid affecting donor countries; and require humanitarian assistance affecting non-governmental and philanthropic organizations. In short, a foreign policy that seeks to ameliorate health threats in poor countries can benefit the public and private sectors in developed, as well as developing, countries.

C. NATIONAL SECURITY

Extremely poor health in other parts of the world can also affect the security of the United States and its allies. The reasons are that extremely poor health undermines the viability of governments and their ability to prevent and control

tional Health, 92 AM. J. PUB. HEALTH 343, 343–46 (2002); see also Harvard Colloquium on Int'l Affairs, *Global Health: A Panel Discussion* (July 24, 2001), <http://athome.harvard.edu/programs/global/background.html> (discussing AIDS pandemic as a “striking example of the need for cooperation on a global scale”).

134. Markus Haacker, *HIV/AIDS: The Impact on the Social Fabric and the Economy*, in *THE MACROECONOMICS OF HIV/AIDS* 41 (2004).

135. See *id.* at 78–79.

136. See generally LAURIE GARRETT, COUNCIL ON FOREIGN RELATIONS, *HIV AND NATIONAL SECURITY: WHERE ARE THE LINKS?* (2005). Malaria and poverty, for example, are intimately connected with malarial countries having significantly lower income levels than similarly situated countries without malaria. John Luke Gallup & Jeffrey D. Sachs, *The Economic Burden of Malaria*, 64 AM. J. MED. HYGIENE 85, 85–96 (2001) (“It has long been recognized that a malarious community is an impoverished community.” (quoting T.H. Weller)).

humanitarian crises and war; affects military, peacekeeping, and humanitarian operations in those regions; and destabilizes strategically important countries, shifting the balance of political, economic, and military power.

Research shows a correlation between health and the effective functioning of government and civil society.¹³⁷ The Central Intelligence Agency, for example, finds that high infant mortality is one of the leading predictors of State failure.¹³⁸ Poor health can affect the competency, capacity, and integrity of government, as well as the public's trust in political leaders.¹³⁹ In its most extreme form, poor health can contribute to political instability, civil unrest, mass migrations, and even war.¹⁴⁰ The mechanisms and causal relationships between health and political instability are uncertain, and appear to be inter-related with poverty and lack of education. It may be that citizens are left without political leadership; the military without strong soldiers; children without parents, education, or guidance; families without livelihood; and communities without social structure and order. But despite the complexity of the health-security relationship, extremely poor health is a significant contributing factor to the instability of States.

States with exceptionally unhealthy populations are often in crisis, fragmented, and governed poorly.¹⁴¹ At the most extreme, weak or failed States are more prone to committing or allowing gross human rights abuses such as torture, trafficking of young girls for sex, enlisting child soldiers, and even genocide.¹⁴² In these states, there is more opportunity to harbor terrorists or recruit disaffected people to join in armed struggles. Politically unstable States require heightened diplomacy, create political entanglements, and sometimes provoke military responses.

When countries send their soldiers, peacekeepers, and humanitarian organizations into sub-Saharan Africa and other countries, exorbitant levels of endemic infectious disease can threaten the success of their missions. Infectious diseases cause a high percentage of troop casualties in war.¹⁴³ Disease can also affect troop morale and political support for peacekeeping or war. The troops them-

137. See generally ANDREW T. PRICE-SMITH, *THE HEALTH OF NATIONS: INFECTIOUS DISEASE, ENVIRONMENTAL CHANGE, AND THEIR EFFECTS ON NATIONAL SECURITY AND DEVELOPMENT* (2001).

138. See DANIEL C. ESTY ET AL., *STATE FAILURE TASK FORCE REPORT: PHASE II FINDINGS* (1998).

139. See Bruce P. Kennedy et al., *The Role of Social Capital in the Russian Mortality Crisis*, 26 *WORLD DEV.* 2029 (1998).

140. NAT'L INTELLIGENCE COUNCIL, *supra* note 121, at 10.

141. Maureen Lewis, *Governance and Corruption in Public Health Care Systems* (World Bank, Working Paper No. 78, 2006), available at http://www1.worldbank.org/publicsector/anticorrupt/Corruption%20WP_78.pdf.

142. See generally Jennifer Moore, *From Nation State to Failed State: International Protection from Human Rights Abuses by Non-State Agents*, 31 *COLUM. HUM. RTS. L. REV.* 81 (1999).

143. See Kenneth C. Hyams et al., *The Impact of Infectious Diseases on the Health of U.S. Troops Deployed to the Persian Gulf During Operations Desert Shield/Desert Storm*, 20 *CLINICAL INFECTIOUS DISEASES* 1497, 1497-1504 (1995).

selves can contract and spread disease.¹⁴⁴ For example, peacekeeping troops in Africa have a very high prevalence of HIV/AIDS, approaching 60% in the worst cases, and often transmit the infection to local women, and vice versa.¹⁴⁵ The U.S. National Intelligence Council concludes that infectious diseases complicate staffing and operations in the military.¹⁴⁶ Infectious disease similarly complicates humanitarian missions. Refugees who experience and flee natural disasters, famines, and ethnic conflicts often die disproportionately from the infectious diseases caused by conditions of overcrowding—insects, rodents, contaminated food and water, and forced sex for food or favor.¹⁴⁷

The burden of HIV/AIDS and other infectious diseases is overwhelmingly concentrated in sub-Saharan Africa, and it is no surprise that many of these political and military entanglements occur in that region.¹⁴⁸ The rest of the world, however, has largely been insulated from the devastation wrought by these endemic diseases. The explanation for this “awful dissonance” may lie in the region’s marginal strategic importance.¹⁴⁹ Sub-Saharan Africa has weak political, military, and economic power.¹⁵⁰ It is perhaps for this reason that wealthy nations have resisted seeing health in national security terms.

The same cannot be said about the burgeoning health crises emerging in pivotal countries in Eurasia, such as China, India, and Russia.¹⁵¹ These countries are in the midst of a “second wave” of HIV/AIDS, with as many as 12 million infections collectively.¹⁵² The alarming growth in HIV/AIDS infection rates in Eurasia mirrors the earlier explosion in Sub-Saharan Africa where it

144. Jean-Paul Chretien et al., *The Importance of Militaries from Developing Countries in Global Infectious Disease Surveillance*, 85 BULL. WORLD HEALTH ORG. 174 (2007) (discussing how military forces carry infectious agents to susceptible civilian populations).

145. See U.S. INST. OF PEACE, AIDS AND VIOLENT CONFLICT IN AFRICA (2001), <http://www.usip.org/pubs/specialreports/sr75.pdf>; Thalif Deen, *HIV/AIDS Threatens U.N. Peacekeeping*, INTERPRESS SERVICE NEWS AGENCY, Nov. 17, 2003, <http://ipsnews.net/interna.asp?idnews=21146>.

146. NAT'L INTELLIGENCE COUNCIL, NATIONAL INTELLIGENCE ESTIMATE: THE GLOBAL INFECTIOUS DISEASE THREAT AND ITS IMPLICATIONS FOR THE UNITED STATES, *reprinted in* ENVTL. CHANGE SEC. PROJECT REP., Summer 2000, at 33.

147. See Máire A. Connolly & David L. Heymann, *Deadly Comrades: War and Infectious Diseases*, 360 LANCET s23, s23–s24 (2002).

148. See JACK A. GOLDSTONE ET AL., AM. POLI. SCI. ASS'N, A GLOBAL FORECASTING MODEL OF POLITICAL INSTABILITY (2005) (stating that sub-Saharan Africa is the world's most unstable region, with 34.8% of the total global episodes of instability).

149. Nicholas Eberstadt, *The Future of AIDS*, FOREIGN AFF., Nov.–Dec. 2002, at 22, 23.

150. See, e.g., *NewsHour with Jim Lehrer: AIDS Threatens Global Security* (PBS television broadcast Oct. 1, 2002) (Interview by Ray Suarez with Nicholas Eberstadt, Henry Wendt Scholar in Political Economy, Am. Enter. Inst. Pub. Pol'y & Research) (transcript available at http://www.pbs.org/newshour/bb/international/july-dec02/aids_10-01.html).

151. See, e.g., JOAN KAUFMAN ET AL., HARVARD UNIV. ASIA CTR., AIDS AND SOCIAL POLICY IN CHINA (2006), available at <http://www.fas.harvard.edu/asiactr/publications/pdfs/AIDS%20Volume%20complete.pdf>; Robert Steinbrook, *HIV in India: The Challenges Ahead*, 356 NEW ENG. J. MED. 1197, 1197–1201 (2007).

152. See Eberstadt, *supra* note 149, at 31 (citing U.S. intelligence estimates of 12 million infections in these countries). *But see* UNAIDS, REPORT ON THE GLOBAL AIDS EPIDEMIC: A UNAIDS 10TH ANNIVERSARY SPECIAL EDITION (2006) (estimating approximately 6 million HIV infections in these countries).

only took seven years for the prevalence rate to jump from 1% to 20%.¹⁵³ The HIV prevalence rates in the Ukraine and the Russian Federation, for example, have risen twenty-fold in less than a decade.¹⁵⁴ In the decades ahead, the center of the global HIV/AIDS pandemic is projected to shift from Africa to Eurasia.¹⁵⁵ Nevertheless, Eurasian States have not been the focus of most global assistance efforts; for example, Vietnam is the only Eurasian country targeted by the President's Emergency Plan for AIDS Relief (PEPFAR).¹⁵⁶

The HIV/AIDS crisis in Eurasia is exacerbated by additional emerging health problems. Recall that infant mortality is a prime predictor of State instability.¹⁵⁷ Russia's official infant mortality rate (which is thought to be vastly under-reported) is three to four times higher than in North America and Western Europe,¹⁵⁸ and similar levels are found in parts of India and China.¹⁵⁹ Of children who are born alive, nearly two-thirds will be unhealthy, many suffering lifelong illness and disability. Women's reproductive health is also poor, with nearly half of all pregnant women being malnourished and sick, many losing their infants before term.¹⁶⁰ At the same time, Eurasian countries are suffering from steadily increased rates of chronic diseases affecting mostly the poor, such as diabetes and cardiovascular disease. The mechanisms for increased risk of noncommunicable diseases discussed earlier such as obesity, sedentary lifestyles, and smoking cigarettes are all present in China, India, and Russia to varying degrees.¹⁶¹

Eurasia is a region of high strategic importance in terms of its population,

153. See Peter Baker, *Russia Sees an AIDS "Explosion,"* WASH. POST, June 13, 2004, at A1; David Brown, *AIDS in India, China and Russia Nears "Tipping Point,"* U.N. SAYS, WASH. POST, Dec. 1, 2004, at A17 (quoting Belgian epidemiologist Peter Piot).

154. See Brown, *supra* note 153; see also UNAIDS, *supra* note 152, at 9.

155. See Eduardo J. Gomez, *The Politics of Government Response to HIV/AIDS in Russia and Brazil: Historical Institutions, Culture, and State Capacity* (Harvard Initiative for Global Health, Working Paper No. 4, 2006), available at <http://www.globalhealth.harvard.edu/documents/WorkingPaper4.pdf> (arguing that Russia's persistent failure to build strong, centrally governed federal agencies committed to AIDS policy will cause increased HIV prevalence in Russia).

156. President's Emergency Plan for AIDS Relief (PEPFAR), <http://pepfar.gov/countries/c19418.htm> (last visited Aug. 23, 2007).

157. See ESTY ET AL., *supra* note 138.

158. STEPHEN M. MASSEY, *RUSSIA'S MATERNAL AND CHILD HEALTH CRISIS: SOCIO-ECONOMIC IMPLICATIONS AND THE PATH FORWARD 2* (EastWest Inst. Pol'y Brief No. 9, Dec. 2002), available at http://www.iew.org/pdf/volume1_issue9.pdf.

159. See Wiji Arulampalam & Sonia R. Bhalotra, *Persistence in Infant Mortality: Evidence for the Indian States* (Inst. for the Study of Labor (IZA), Discussion Paper No. 2488, 2006), available at <http://ssrn.com/abstract=955291> (finding that, in thirteen of the fifteen major Indian states, the death of one child increases the risk of death of subsequent children in the same family).

160. MASSEY, *supra* note 158.

161. DISEASE CONTROL PRIORITIES PROJECT, WORLD BANK, *BURDEN OF DISEASE IN CHINA IN 2001* (2006), available at <http://www.dcp2.org/file/S3/BurdenDiseaseChina.pdf>; NAT'L COMM'N ON MACRO-ECON. & HEALTH, MINISTRY OF HEALTH & FAMILY WELFARE, GOV'T OF INDIA, *NCMH BACKGROUND PAPERS: DISEASE BURDEN IN INDIA: ESTIMATIONS AND CAUSAL ANALYSIS* (2005), available at http://www.whoindia.org/LinkFiles/Commission_on_Macroeconomic_and_Health_Bg_P2_Burden_of_Disease_Estimations_and_Casual_Analysis.pdf.

economic and military prowess, and political influence. It has more than 60% of the world's inhabitants; one of the highest combined GNPs; and at least four massive armed forces with nuclear capabilities.¹⁶² The geostrategic importance of the region is clear as it spans Asia and Europe, with ten new member states from Eastern Europe joining the European Union.¹⁶³ But due to extreme health hazards, Eurasia will suffer economic, political, and military decline due to similar factors that have altered Africa's future—a shrinking productive population that cuts deeply into the labor force, with resulting precipitous declines in investment, technology development, and leadership at all levels.¹⁶⁴ The conditions for political instability and economic stagnation described above would have wider international ramifications in a region with such a large population, economy, and military capabilities. It could also alter the balance of power; affect the region's relationship with the West; adversely affect trade and commerce; and interrupt vital supplies of natural resources such as petroleum or natural gas.

D. DO STATES PERCEIVE GLOBAL HEALTH TO BE IN THEIR NATIONAL INTERESTS?

Governments, therefore, have powerful reasons based on narrow or enlightened self-interest to ameliorate extreme health hazards beyond their borders: the rapid movement of pathogens threatening their own populations; the adverse effects on tourism, travel, trade, and commerce; the destabilizing effects on governments, with profound military and humanitarian consequences; and the unpredictability of strategically important States with considerable military, economic, and political resources.

Do political leaders acknowledge, and act on, the evidence just presented that global health is in their national interests? The answer may be that States are beginning to understand that responding to health threats outside their borders serves their interests, but their engagement in global health is relatively limited. And the sad truth is that the coincidence of interests is narrower than activists, and even scholars, have suggested. As then United Kingdom Chancellor Gordon Brown said when launching the International Finance Facility (IFF) to fund global health in January 2003, rich countries “simply don't care enough.”¹⁶⁵

162. China, India, Pakistan, and Russia have nuclear weapons, and North Korea purportedly has a nuclear weapons program. See generally Nuclear Threat Initiative, Country Information Index, http://www.nti.org/e_research/profiles/index.html (last visited Sept. 11, 2007).

163. Richard J. Cocker et al., *Health-Care System Frailties and Public Health Control of Communicable Disease on the European Union's New Eastern Border*, 363 LANCET 1389, 1389–92 (2004).

164. Nicholas Eberstadt, *Growing Old the Hard Way: China, Russia, India*, POL'Y REV., Apr.–May 2006, at 15. See also Eberstadt, *supra* note 149, at 40 (estimating that Russia's GNP per person of working age would rise by 50% by 2025 in the absence of HIV).

165. Kelley Lee et al., *The Challenge to Improve Global Health: Financing The Millennium Development Goals*, 291 JAMA 2636, 2636 (2004); see Gordon Brown, C. Exch., Address to the RIAA/Chatham House Conference on Corporate Social Responsibility (Jan. 22, 2003) (transcript available at http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2003/press_08_03.cfm.); see also SIR LIAM DONALDSON, CHIEF MEDICAL ADVISOR, UK DEPT. OF HEALTH, HEALTH IS GLOBAL: PROPOSALS

There is little doubt that developed countries are beginning to see global health as essential to their national interests. The United States and the Group of Eight (G8) countries, for example, have declared that HIV/AIDS is a matter of national security.¹⁶⁶ Richer countries have also increased development assistance for global health over the last two decades, from nearly \$2 billion in 1990 to \$12 billion in 2004.¹⁶⁷ At the same time, philanthropic organizations have devoted historic sums to global health. After Warren Buffett's gift of \$37 billion in 2006, the Gates Foundation will donate up to \$3 billion per year to improve global health equity, comprising nearly one fourth of all development assistance.¹⁶⁸ This level of financial assistance may appear substantial, but "sits modestly beside the \$1 trillion spent globally on military expenditure, and \$300 billion in agricultural subsidies paid each year by rich countries."¹⁶⁹

The increase in development assistance, moreover, is largely attributable to extensive resources devoted to a few high-profile problems: AIDS,¹⁷⁰ pandemic influenza,¹⁷¹ and the Indian Ocean tsunami.¹⁷² Even factoring in these new investments in high-profile hazards, developed countries have not fulfilled their pledges made in 1975 of spending 0.7% of Gross National Income (GNI) per annum on Official Development Assistance (ODA). More than thirty years later, their real contribution has only recently risen to reach a high of 0.33%. The developed world has similarly fallen short in supporting the Global Fund and

FOR A UK GOVERNMENT-WIDE STRATEGY 2 (2007), available at www.dh.gov.uk/prod_consum_dh/idcplg?IdcService=GET_FILE&dID=134304&Rendition=Web ("What happens abroad has never mattered more for our security and prosperity. In an age of rapid global change, the task for Government is to seek to understand and influence the world for the benefit of our people and all people." (quoting Tony Blair, then Prime Minister of the United Kingdom)); Liam Donaldson & Nicholas Banatlava, *Health is Global: Proposals for a UK Government-Wide Strategy*, 369 LANCET 857 (2007); Martin McKee, *A UK Global Health Strategy: The Next Steps*, 335 BRIT. MED. J. 110 (2007).

166. Gregory Folkers & Anthony Fauci, *The AIDS Research Model: Implications for Other Infectious Diseases of Global Importance*, 286 JAMA 458, 460–61 (2001).

167. George Schieber et al., *Getting Real on Health Financing*, FIN. & DEV., Dec. 2006, at 46, available at <http://www.imf.org/external/pubs/ft/fandd/2006/12/schieber.htm>.

168. Susan Okie, *Global Health—The Gates-Buffett Effect*, 355 NEW ENG. J. MED. 1084, 1084–88 (2006).

169. Lee et al., *supra* note 165, at 2637.

170. AIDS funding jumped from \$2.1 billion in 2001 to \$8.9 billion in 2006. MICHAEL BERNSTEIN & MYRA SESSIONS, CTR. FOR GLOBAL DEV., A TRICKLE OR A FLOOD: COMMITMENTS AND DISBURSEMENT FOR HIV/AIDS FROM THE GLOBAL FUND, PEPFAR, AND THE WORLD BANK'S MULTI-COUNTRY AIDS PROGRAM (MAP) 2 (2007), available at http://www.Cgdev.org/content/publications/detail/13029_file_TrickleOrFlood.pdf.

171. In 2006, thirty-five nations pledged \$1.9 billion to fund pandemic influenza prevention efforts. WORLD BANK, AVIAN AND HUMAN INFLUENZA: FINANCING NEEDS AND GAPS (2005), available at <http://siteresources.worldbank.org/PROJECTS/2015336-1135192689095/20766293/AHIFinancingGAPSFINAL12-21.pdf>; WORLD BANK, BEIJING DECLARATION AT THE INTERNATIONAL PLEDGING CONFERENCE ON AVIAN AND HUMAN PANDEMIC INFLUENZA (2006), available at <http://siteresources.worldbank.org/PROJECTS/Resources/40940-1136754783560/beijingdeclaration.pdf>.

172. See generally Alex de Waal, *Major Challenge, Minor Response*, FOREIGN AFF., Jan. 23, 2007, available at http://www.foreignaffairs.org/special/global_health/dewaal (part of the Web feature *Global Health: A Foreign Affairs Roundtable*).

the MDGs.¹⁷³ To close the vast investment gap, member countries of the Organization for Economic Co-operation and Development (OECD) would have to increase Global Fund pledges from \$6 billion to \$38 billion by 2015.¹⁷⁴ And they would need to spend an additional \$52.4 billion to reduce child mortality as promised in the MDGs.¹⁷⁵ With these additional expenditures, the WHO projects tens of millions of lives would be saved every year.¹⁷⁶

Rather than a general commitment to global health, States often prefer “targeted engagements” to prevent only those hazards deemed most likely to affect their own citizens, as evidenced by recent international cooperation in response to SARS¹⁷⁷ and pandemic influenza.¹⁷⁸ National security assessments and international agreements offer relatively narrow justifications for State action on global health. Governments frame the problem as one of averting direct threats of infectious diseases reaching their borders.¹⁷⁹ And this view is incorporated into the major global agreement on health. Although the International Health Regulations undoubtedly herald a new era in international cooperation,¹⁸⁰ they expressly apply to “public health emergencies of international concern” defined as “extraordinary” events that constitute a public health risk to other States.

In many respects, States may be correct that true global engagement does not serve their interests. Richer countries almost always have relative health advantages over poorer countries. The technological capacity to produce drugs and vaccines, the sophisticated health systems, and the simple fact that their populations generally are richer and healthier, means that developed countries usually can safeguard their citizens by looking inward. Nevertheless, I believe that

173. U.N. MILLENNIUM PROJECT, INVESTING IN DEVELOPMENT: A PRACTICAL PLAN TO ACHIEVE THE MILLENNIUM DEVELOPMENT GOALS: OVERVIEW 55–65 (2005), available at <http://www.unmillenniumproject.org/documents/overviewEngLowRes.pdf>; U.N. DEP'T OF ECON. & SOC. AFF., MILLENNIUM GOALS REPORT 2007 (2007) (reporting that while progress has been made towards implementing the MDGs, achieving success is far from assured), available at <http://www.un.org/millenniumgoals/pdf/mdg2007.pdf>.

174. COMM'N ON MACROECON. & HEALTH, MACROECONOMICS AND HEALTH: INVESTING IN HEALTH FOR ECONOMIC DEVELOPMENT 92 (2001), available at <http://whqlibdoc.who.int/publications/2001/924154550x.pdf>. The United States has only provided two-thirds of their 2001–2008 pledge for the Global Health Fund Pledges & Contributions. See http://www.theglobalfund.org/en/funds_raised/pledges/ (last visited June 15, 2007). In 2005, the G8 countries promised a \$25 billion annual increase in development assistance for Africa by 2010, driven by the European Union's pledge to raise members' aid spending to the target of 0.7%. See Labonte & Schrecker, *supra* note 70.

175. Karin Stenberg et al., *A Financial Road Map to Scaling Up Essential Child Health Interventions in 75 Countries*, 85 BULL. WORLD HEALTH ORG. 305 (2007); see WORLD BANK, THE COSTS OF ATTAINING THE MILLENNIUM DEVELOPMENT GOALS, <http://www.worldbank.org/html/extdr/mdgassessment.pdf> (2002).

176. See Labonte & Schrecker, *supra* note 70.

177. See Fidler, *supra* note 127.

178. See generally Lawrence O. Gostin & Benjamin E. Berkman, *Pandemic Influenza: Ethics, Law, and the Public's Health*, 59 ADMIN. L. REV. 121 (2007).

179. See, e.g., NAT'L INTELLIGENCE COUNCIL, *supra* note 121.

180. See David P. Fidler & Lawrence O. Gostin, *The New International Health Regulations: An Historic Development for International Law and Public Health*, 33 J. LAW MED. & ETHICS 85, 85–94 (2006).

individual States have a responsibility to work towards improving health across the globe. In the final section I present the idea of a Framework Convention on Global Health. However, before exploring that proposal, I will discuss the kind of obligation that I think is necessary to enshrine in a Framework Convention.

IV. BASIC SURVIVAL NEEDS: AMELIORATING SUFFERING AND EARLY DEATH

Global health is fashionable these days, with expressions of sincere concern and increased funding by political leaders, humanitarians, activists, and even celebrities. But is all this funding and interest likely to be successful in reducing extremely poor health? The answer is that most international aid is ineffective, even counterproductive. Undoubtedly, the current spate of support will wane, as the international community has only a limited attention span and resources. And when it does, it is conceivable that the least healthy people in the world will be in the same, or worse, position.

Admittedly, there are no clear solutions to complex problems in global health. But, we do know how to ameliorate much of the suffering and early death. The answer is disarmingly simple, if only it could rise on the agendas of the world's most powerful countries. Mobilizing the public and private sectors to meet basic survival needs, comparable to a Marshall Plan, could dramatically transform prospects for good health among the world's poorest populations.

A. REFRAMING THE APPROACH TO DEVELOPMENT ASSISTANCE

Currently, development assistance is given in an ineffective way, and not in a way that will enhance the capability for human functioning. International health assistance is often driven by emotional, high-visibility events such as large-scale natural disasters; diseases that capture the public's imagination such as HIV/AIDS; or diseases with the potential for rapid global transmission such as hemorrhagic fevers, SARS, or pandemic influenza. These funding streams, however, skew priorities, and divert resources from building stable local systems to meet everyday health needs.

A relatively small number of wealthy donors, such as OECD countries, the Gates Foundation, and the Global Fund, currently wield considerable influence in setting the global health agenda. Although the WHO and other IGOs may have the legitimacy and expertise to set priorities and coordinate activities, they are dependent on powerful donors for financial and political support. This small group of wealthy countries and philanthropists, while well meaning, often sets priorities that do not reflect local needs and preferences.

Sometimes donors exert control over the use of funds that discourages local leaders from taking ownership over programs. Strings attached to funding can even be detrimental to the public's health. No one undervalues the key role played, for example, by PEPFAR, but the Bush Administration's insistence on abstinence, fidelity, and faith-based programs undermines effective prevention

and harm-reduction strategies.¹⁸¹ Similarly, for years, development banks have encouraged or required poor countries to “cap” internal spending on health as a condition of loans or debt relief.¹⁸² A final illustration is the U.S. requirement that virtually all donated food be grown domestically and shipped mostly on U.S. vessels employing American crews. Allowing the purchase of locally grown food would lift up African farmers and save an estimated 50,000 more lives annually, but is opposed by American agribusiness and shipping interests.¹⁸³

Donor countries often fund politically popular projects, rather than what is most likely to improve global health, leading experts to conclude, “[F]unding is skewed towards what people in the West want to deliver.”¹⁸⁴ Donors concentrate on specific diseases or narrow self-interest, rather than on larger, systemic problems, such as failing health systems, that could influence outcomes from all diseases.¹⁸⁵ Donors, for example, pledged \$15 billion for PEPFAR (AIDS), \$8 billion for the Global Fund (AIDS, TB, and malaria), and \$7 billion for the 2004 Indian Ocean Tsunami. At the same time, global health funding reflects the national interests of developed countries, such as the \$2 billion spent on pandemic influenza and the “one-off” debt relief offered to oil-rich Iraq and Nigeria in 2005.¹⁸⁶ These and other initiatives represent significant advances in global health funding, but do not provide a large-scale solution to the problems facing many poor countries.¹⁸⁷ And yet they continue to garner more political will than projects based on the important, but considerably less glamorous, basic needs approach of the MDGs.¹⁸⁸

International health assistance, moreover, is fragmented and uncoordinated. NGOs and relief agencies often establish programs that compete with each other and, still worse, compete with local government and businesses. Rather than integrating policies and programs within local hospitals, clinics, and health agencies, they set up state-of-the-art facilities that overshadow and detract from government and private efforts. Foreign philanthropists can offer salaries and amenities that are far more generous than those that can be offered locally. As a

181. See generally INST. OF MEDICINE, *PEPFAR IMPLEMENTATION: PROGRESS AND PROMISE* (Jaime Sepúlveda et al. eds., 2007).

182. See Labonte & Schrecker, *supra* note 70, at 187; see also Paul Farmer, *From “Marvelous Momentum” to Health Care for All*, FOREIGN AFF., Jan. 23, 2007, http://www.foreignaffairs.org/special/global_health/farmer (part of the Web feature *Global Health: A Foreign Affairs Roundtable*).

183. See Celia W. Dugger, *Even as Africa Hungers, Policy Slows Delivery of U.S. Food Aid*, N.Y. TIMES, April 7, 2007, at A1.

184. Roger Bate & Kathryn Boateng, *Honesty Is a Virtue*, FOREIGN AFF., Jan. 23, 2007, http://www.foreignaffairs.org/special/global_health/bate_boateng (part of the Web feature *Global Health: A Foreign Affairs Roundtable*).

185. See Lee, *supra* note 165, at 2636–37; see also Laurie Garrett, *The Challenge of Global Health*, 86 FOREIGN AFF. 14, 14 (2007).

186. See Labonte & Schrecker, *supra* note 70, at 186.

187. See Garrett, *supra* note 185; see also Celia W. Dugger, *A Joint Attack on Many Perils of Africa’s Young*, N.Y. TIMES, Dec. 23, 2006, at A1.

188. See de Waal, *supra* note 172.

result, local innovation and entrepreneurship are stifled; talented individuals in business, health care, and community development migrate to foreign-run programs; and the local health industry cannot profit or easily survive.¹⁸⁹

Many humanitarian initiatives also set narrow, short-term goals that do not improve basic infrastructure and create sustainable systems. Donors want quick, observable, and quantifiable results. They count their successes in precise ways, such as how many people living with AIDS receive antiretroviral therapy (ARV) (for example, the WHO's "3 by 5" initiative¹⁹⁰), how many new cases of TB or malaria are prevented, or how many clinics are built. By focusing on specific diseases, treatments, or equipment, donors fail to see the long-term benefits of building human resources and health systems.

Finally, and perhaps most importantly, the massive infusion of humanitarian assistance into very poor countries can lead to reliance and dependency. If charity is the main vehicle for health improvement, it means that local government and businesses lose the desire and ability to solve problems on their own. One day, the foreign cash, clinics, medicines, and aid workers will leave. And when that happens, the least healthy will be no better off, and perhaps worse off, unless they gain the capacity to meet their own basic health needs.

It is important to stress that host countries also bear responsibility for the failure of international development assistance. Many poor countries spend a minute percentage of their GDP on health, preferring to spend on the military or other perceived needs.¹⁹¹ At the same time, some governments misappropriate foreign health assistance, whether by excessive bureaucracy, incompetence, or corruption. The World Bank estimates that roughly half of all foreign health funds in sub-Saharan Africa do not go for health services on the ground, but are spent on payments for non-existent employees, counterfeit drugs, drugs diverted to the black market, or bribes.¹⁹²

189. See Garrett, *supra* note 185.

190. "The '3 by 5' initiative, launched by UNAIDS and the WHO in 2003, was a global TARGET to provide three million people living with HIV/AIDS in low- and middle-income countries with life-prolonging antiretroviral treatment (ART) by the end of 2005. It was a step towards the GOAL of making universal access of HIV/AIDS prevention and treatment accessible for all who need them as a human right." WHO, The 3 by 5 Initiative, <http://www.who.int/3by5/en/> (last visited Aug. 22, 2007).

191. See JUDITH ASHER, *THE RIGHT TO HEALTH: A RESOURCE MANUAL FOR NGOS* 51 (2004). *But see* Garrett, *supra* note 185 (stating that, while health funding from poor countries has been historically low, it has increased over the last ten years from 3% to as much as 12%); Laurie Garrett, *Midway in the Journey*, FOREIGN AFF., Jan. 24, 2007, http://www.foreignaffairs.org/special/global_health/garrett (part of the Web feature *Global Health: A Foreign Affairs Roundtable*) (same).

192. See Garrett, *supra* note 185. See generally TRANSPARENCY INT'L, GLOBAL CORRUPTION REPORT 2006; SPECIAL FOCUS: CORRUPTION AND HEALTH (2006); William D. Savedoff, Transparency and Corruption in the Health Sector: A Conceptual Framework and Ideas for Action in Latin American and the Caribbean (May 2007) (unpublished working paper), available at <http://www.iadb.org/sds/doc/CorruptionHealthFrameworkSavedoff.pdf>.

B. DEFINING BASIC SURVIVAL NEEDS AS A MEASURE OF INTERNATIONAL
HEALTH ASSISTANCE

Reframing the approach to international developmental assistance requires interventions that dramatically improve the health and wellbeing of the world's least healthy people. I propose shifting assistance to what I call basic survival needs, namely those needs essential to restoring human capability and functioning. Such needs are laid out in international agreements. Three of the eight MDGs, for example, are health-related: child mortality, maternal health, and reducing the burden of infectious diseases.¹⁹³ The UN Economic & Social Council finds that basic survival needs are a core commitment of the right to health, including immunization, essential medicines, food, potable water, sanitation, disease prevention and treatment, primary health care, and health education.¹⁹⁴

1. Vaccines

Public health agencies rank immunizations as one of the most important public health strategies, saving millions of lives in all parts of the globe.¹⁹⁵ Vaccines are prophylactic, so they prevent suffering; cost effective because they avoid the need to medically treat patients every time they become ill or throughout the duration of a chronic disease; and have a low frequency of delivery, reducing the prohibitive costs of transportation and delivery of medicines. Vaccines, for example, have eradicated smallpox and pushed polio to the brink of elimination.¹⁹⁶ Yet, vaccine-preventable diseases, which are virtually extinct in developed countries, are still killing millions of children and adults annually in poorer regions. In 2001, an estimated 2.3 million deaths occurred in low-income countries from vaccine-preventable diseases, compared with approximately 34,000 in high-income countries.¹⁹⁷ Measles alone killed 348,000 people in sub-Saharan Africa and 239,000 people in South Asia in 2001, while less than 1,000 people died of measles in all high-income countries that year.¹⁹⁸

The inequalities in vaccine distribution are legendary. Very inexpensive vaccines—such as immunizations for measles, rubella, polio, and pneumococcal infections—that are widely used in rich countries, are absent in many poor

193. See U.N. DEP'T OF INT'L ECON. & SOC. AFF., THE MILLENNIUM DEVELOPMENT GOALS REPORT 2006, at 10, 12, 14 (2006), available at <http://www.un.org/millenniumgoals/>.

194. See U.N. Comm. on Econ., Soc. & Cultural Rights [CESCR], *General Comment 14: The Right to the Highest Attainable Standard of Health*, ¶ 3–4, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000).

195. See U.S. Ctrs. for Disease Control and Prevention (CDC), Nat'l Immunization Program, *Impact of Vaccines Universally Recommended for Children—United States, 1990–1998*, MORBIDITY & MORTALITY WKLY. REP., Apr. 2, 1999 (part of the series *Ten Great Public Health Achievements—United States, 1900–1999*), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/00056803.htm>; Logan Brenzel et al., *Vaccine-Preventable Diseases*, in *DISEASE CONTROL PRIORITIES IN DEVELOPING COUNTRIES*, *supra* note 41, at 389, 408, available at <http://files.dcp2.org/pdf/DCP/DCP20.pdf>.

196. See CDC, *supra* note 195.

197. See Brenzel et al., *supra* note 195, at 398 tbl.20.2.

198. *Id.*

regions.¹⁹⁹ Other vital vaccines are priced so high that they are well out of reach of the poor, including human papillomavirus (HPV) vaccine (cervical cancer) and rotavirus vaccine (childhood diarrhea), which range from \$200 to \$400 per vaccine. Rotavirus disease causes 600,000 deaths²⁰⁰ and cervical cancer causes 240,000 deaths²⁰¹ each year. Still other vaccines take unconscionable amounts of time to develop due to lack of private sector incentives, such as a malaria vaccine. For each year that a malaria vaccine is delayed, more than 2 million people die, half of whom are poor children (2,800 per day in Africa alone).²⁰²

Even when vaccines are affordable, First World ethical concerns can prevent Third World access. The RotaShield vaccine, which is nearly 90% effective against severe diarrheal disease, was approved by the FDA in 1998, but removed from the U.S. market only a little more than a year later after several cases of intussusception (a usually non-life-threatening bowel obstruction) were reported.²⁰³ A 1 in 40,000 risk of intussusception may or may not be acceptable in a rich country where infants rarely die of diarrhea, but when trials were stopped in Ghana, South Africa, Bangladesh, and India because of these First World concerns, the poor were left without a vaccine to prevent many needless child deaths.²⁰⁴

2. Essential Medicines

The need for increasing access to anti-retroviral (ARV) medications for AIDS has rallied IGOs, governments, and activists, as it should.²⁰⁵ Thanks to these efforts, the use of ARVs now cost hundreds of dollars annually, down from thousands, but they must be taken daily and for a lifetime, rendering them a still costly intervention. In contrast, a single annual dose of ivermectin (Mectizan®) and albendazole (Albenza®), costing a couple of dollars, rids the body of intestinal worms and the itching symptoms of river blindness, prevents blindness, and revives sex drive, thereby helping to regenerate populations in de-

199. *Id.*

200. Thea Kølsten Fischer et al., *Hospitalizations and Deaths from Diarrhea and Rotavirus Among Children <5 Years of Age in the United States, 1993–2003*, 195 J. INFECTIOUS DISEASES 1117, 1117 (2007), available at <http://www.journals.uchicago.edu/JID/journal/issues/v195n8/37603/37603.web.pdf>.

201. Donald Maxwell Parkin, *The Global Health Burden of Infection-Associated Cancers in the Year 2002*, 118 INT'L J. CANCER 3030, 3030–44 (2006); see Lawrence O. Gostin & Catherine D. DeAngelis, *Mandatory HPV Vaccination: Public Health vs Private Wealth*, 297 JAMA 1921, 1921 (2007).

202. *Malaria Vaccine Trial Begins*, BBC NEWS, July 8, 2003, <http://news.bbc.co.uk/2/hi/health/3054734.stm>.

203. WHO, Initiative for Vaccine Research (IVR), Diarrhoeal Diseases, Rotavirus, http://www.who.int/vaccine_research/diseases/diarrhoeal/en/index5.html.

204. *See id.*

205. *See, e.g.*, WHO, The 3 by 5 Initiative, <http://www.who.int/3by5/about/initiative/en/index.html> (last visited Aug. 23, 2007).

cline.²⁰⁶ Deworming drugs can even be distributed in household salt.²⁰⁷ Similarly, blindness from trachoma can be prevented for less than one dollar per patient.²⁰⁸ These illustrations represent the classic case for increasing access to essential medicines in poor countries.

Even if the international community could assure access to available, affordable medications, there would still be a need for research and development. The problems that account for 90% of the world's diseases only receive 10% of available biomedical research funding.²⁰⁹ The so-called 90/10 divide exists because developing-country markets are insufficiently lucrative for pharmaceutical and biotechnology companies to invest in curing the diseases of poverty. Furthermore, States that sponsor biomedical research have little incentive to allocate funds for illnesses that do not significantly affect their populations.²¹⁰ The needs of rich countries dominate drug development priorities to such a large extent that only sixteen drugs (1%) created in the last quarter-century address diseases of poverty.²¹¹

3. Basic Sanitation and Engineering

Basic sanitation and engineering can also have a dramatic impact on the health of the world's poor. Many of the diseases of poverty are water-borne (e.g., cholera, diarrhea, guinea worm, and schistosomiasis), mosquito-borne (e.g., dengue fever, elephantiasis, malaria, and yellow fever), or rodent-borne (e.g., plague, lassa fever, hantavirus, and leptospirosis). Wild rodents also serve as reservoirs for flea- or tick-borne diseases such as typhus, Lyme disease, and relapsing fever.²¹² These diseases are preventable through personal hygiene, environmental sanitation, and structural changes to abate the source of the infection.

Water and sanitation play a pivotal role in sustainable development and health, with more than 1 billion people lacking access to drinkable water and 2.6 billion lacking access to basic sanitation.²¹³ Ensuring clean water sources,

206. See WHO, *Lymphatic Filariasis*, 76 W.K.L.Y. EPIDEMIOLOGICAL REC. 149, 152 (2001); see also E.A. Ottesen et al., *Strategies and Tools for the Control/Elimination of Lymphatic Filariasis*, 75 BULL. WORLD HEALTH ORG. 491, 491, 494–95 (1997).

207. Donald G. McNeil, Jr., *Beyond Swollen Limbs, A Disease's Hidden Agony*, N.Y. TIMES, Apr. 9, 2006, at 1.

208. See Khalid F. Tabbara, Editorial, *Blinding Trachoma: The Forgotten Problem*, 85 BRIT. J. OPHTHALMOL. 1397, 1397–98 (2001), available at <http://bjo.bmj.com/cgi/reprint/85/12/1397.pdf>.

209. See David B. Resnik, *The Distribution of Biomedical Research Resources and International Justice*, 4 DEVELOPING WORLD BIOETHICS 42, 42 (2004).

210. See *id.* at 42–44, 48.

211. Nathan Ford, *The 90/10 Divide*, 10 STUDENT BMJ 260, 260 (2002), available at <http://student.bmj.com/issues/02/08/editorials/260.php>.

212. See, e.g., HANS ZINSSER, RATS, LICE AND HISTORY: A BACTERIOLOGIST'S CLASSIC HISTORY OF MANKIND'S EPIC STRUGGLE TO CONQUER THE SCOURGE OF TYPHUS (1934).

213. U.N. Dev. Programme [UNDP], *Foreword to Human Development Report 2006: Beyond Scarcity: Power, Poverty, and the Global Water Crisis* (2006), available at <http://hdr.undp.org/hdr2006/>.

such as potable drinking water and parasite-free lakes and rivers, can prevent most cases of water-borne diseases. Simple improved sanitation measures include the construction of latrines, basic engineering advances to provide clean drinking water, and disinfection of standing bodies of water. Something as simple as piped water could substantially reduce child mortality, and the simple use of preventive equipment such as household point-of-use water treatment kits can similarly reduce diarrhea episodes plaguing children in poor countries.²¹⁴ Such interventions are highly cost-effective because of the significant disease burden they can reduce at nominal expense, such as point-of-use kits costing as little as just over \$3 to treat 1,000 liters of water.²¹⁵ Similar engineering or preventive equipment can also prevent water-borne diseases, such as drilling wells, treating local water sources with a mild pesticide, or filtering drinking water with a cloth to remove guinea worms.²¹⁶

Mosquito-borne diseases are more resistant to amelioration, but cost-effective interventions exist to prevent these diseases by reducing the mosquito population and human exposure. An insecticide-treated bed net, which costs roughly \$5 and provides protection for up to five years, is highly effective in reducing malaria, river blindness, elephantiasis, and other insect-borne diseases among children.²¹⁷ But only about one in seven children in Africa sleep under a net, and only 3% of children under age five use a net impregnated with insecticide.²¹⁸ Structurally, using insecticides and reducing larval breeding sources can also be effective. Dieldrin (DDT) has “a remarkable safety record when used in small quantities for indoor spraying in endemic regions.”²¹⁹ Yet, the Persistent Organic Pollutants Treaty plans to phase out the use of DDT and many donor agencies refuse to fund its use.²²⁰ Again, First World environmental concerns are preventing a highly effective intervention for the world’s poor.

Rodent-borne diseases are also resistant to amelioration, but the burden of disease can be significantly reduced by sanitation and disinfection. Improving human hygiene and environmental sanitation can deprive rodents of food, living

214. See Alix Peterson Zwane & Michael Kremer, *What Works in Fighting Diarrheal Diseases in Developing Countries? A Critical Review* 2, 4, 10–12 (Ctr. for Int’l Dev. at Harvard Univ., Working Paper No. 140, 2007), available at <http://www.cid.harvard.edu/cidwp/pdf/140.pdf>.

215. See Pavani Kalluri Ram et al., *Bringing Safe Water to Remote Populations: An Evaluation of a Portable Point-of-Use Intervention in Rural Madagascar*, 97 AM. J. PUB. HEALTH 398, 398 (2007).

216. See Donald G. McNeil Jr., *Dose of Tenacity Wears Down an Ancient Horror*, N.Y. TIMES, Mar. 26, 2006, at 1.

217. See David H. Molyneux & Vinand M. Nantulya, *Linking Disease Control Programmes in Rural Africa: A Pro-Poor Strategy To Reach Abuja Targets and Millenium Development Goals*, 328 BRIT. MED. J. 1129, 1129–32 (2004); see also Christian Lengeler, *Insecticide-Treated Bed Nets and Curtains for Preventing Malaria*, 2 COCHRANE DATABASE SYS. REV. 1, 1 (2004).

218. See John M. Miller et al., *Estimating the Number of Insecticide-Treated Nets Required by African Households To Reach Continent-Wide Malaria Coverage Targets*, 297 JAMA 2241, 2242 (2007); Gavin Yamey, *Roll Back Malaria: A Failing Global Health Campaign*, 328 BRIT. MED. J. 1086, 1087 (2004).

219. See Yamey, *supra* note 218, at 1087.

220. See Richard Black, *Battle Over Anti-Malaria Chemical*, BBC NEWS, Mar. 4, 2004, <http://news.bbc.co.uk/2/hi/science/nature/3532273.stm>.

spaces, and passage into areas where humans frequent. The use of poisons, bait, and traps can reduce rodent populations.

Basic engineering and sanitation can result in remarkable benefits for the health of the world's poorest people. It does not take advanced biomedical research, huge financial investments, or complex programs. Just as industrialized countries profoundly reduced the prevalence of disease during the late nineteenth century through sanitary measures applied to water, food, pests, and the environment,²²¹ so too can this be accomplished at relatively low cost in the world's poorest regions.

C. HEALTH SYSTEMS: BASIC INFRASTRUCTURE AND CAPACITY BUILDING

There is little doubt that the single most important way to ensure population health is to build enduring health systems in all countries. States and local communities must possess well-functioning public health and health care systems with sound infrastructures and human resources. If the vast preponderance of international assistance went into helping poor States develop and maintain health systems, it would give them the tools to safeguard their own populations. What poor countries need is not foreign aid workers parachuting in to rescue their people from specific diseases that seem important to donors. Nor do they need foreign run state-of-the-art facilities. Rather, they need to gain the capacity to provide basic health services themselves. Health system capacity has the added benefit of improving world health by significantly reducing the potential for disease migration to other countries and regions. Local capacities empower health professionals to prevent, rapidly detect, treat, and contain health hazards before they spread out of control.²²²

1. Public Health

Governments possess a primary duty to safeguard their populations against significant health hazards.²²³ Public health agencies, in collaboration with civil society partners (for example, businesses, the community, and the media), have a responsibility to create the conditions for people to be healthy.²²⁴ Their role is

221. See, e.g., EDWIN CHADWICK, REPORT ON THE SANITARY CONDITIONS OF THE LABOURING POPULATION OF GREAT BRITAIN 369 (University Press 1965) (1842) (“[T]he various forms of epidemic, endemic, and other disease caused, or aggravated, or propagated chiefly amongst the labouring classes by atmospheric impurities produced by decomposing animal and vegetable substances, by damp and filth, and close and overcrowded dwellings prevail amongst the population in every part of the kingdom.”).

222. See generally WHO, THE WORLD HEALTH REPORT 2000: HEALTH SYSTEMS: IMPROVING PERFORMANCE (2000), available at http://www.who.int/whr/2000/en/whr00_en.pdf (stating that health systems require (1) investment in people, facilities, and equipment, (2) public/private partnerships in the delivery of comprehensive services, and (3) stewardship (oversight) of system resources and operations).

223. See GOSTIN, *supra* note 60.

224. See COMM. ON ASSURING THE HEALTH OF THE PUB. IN THE 21ST CENTURY, BD. ON HEALTH PROMOTION & DISEASE PREVENTION, INST. OF MEDICINE, THE FUTURE OF THE PUBLIC'S HEALTH IN THE 21ST CENTURY 96, 184–85 (2002).

to identify, prevent, and ameliorate risks to health in the population. To do so, poor countries do not need advanced technology or sophisticated equipment. Rather, they require basic capabilities: disease surveillance, laboratories, data systems, and a competent workforce. There are multiple public health functions that are not expensive, but are vital for a healthy community, such as health education, hygiene and sanitation, uncontaminated food and drinking water, pest removal, and access to immunizations and essential medicines. Thus, by training and supporting epidemiologists, biostatisticians, health educators, and public health nurses, poor countries can find sustainable solutions to their own problems.

2. Primary Health Care

Primary health care is an integral part of a country's health system, bringing basic health care as close as possible to where people live and work. The WHO Alma-Ata Declaration defined primary health care as "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible [and affordable] to individuals and families in the community . . . to maintain at every stage of their development in the spirit of self-reliance and self-determination."²²⁵ The components of primary health care include counseling, maternal and child health, family planning, and medical treatment. Primary health care does not require advanced tertiary care centers or even highly specialized physicians. Rather, it requires family doctors, nurses, midwives, and community health workers to take care of pregnant women, safely deliver babies, teach people how to live safely, and diagnose and treat the most common injuries and diseases. Primary care promotes individual and community self-reliance and participation in the planning, organization, operation, and control of health services, making fullest use of local and national resources.²²⁶

3. International Migration of Health Care Workers ("Brain Drain")

Human resources are critically important for well-functioning health systems. But the availability of skilled health workers is dangerously low in developing countries. In a cruel twist of fate, countries with the highest burden of disease also garner the lowest proportion of the global health workforce. Southeast Asia, which shouldered the largest share of the global disease burden (29%), has only 12% of the world's health workforce to address this burden.²²⁷ Africa represents 24% of the global burden of disease, but has access to only 3% of health workers worldwide and less than 1% of the world's financial resources,

225. See WHO, Declaration of International Conference on Primary Health Care, art. VI, Alma-Ata (1978), available at http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf.

226. See PAN AM. HEALTH ORG./WHO, RENEWING PRIMARY HEALTH CARE IN THE AMERICAS (2007), available at <http://www.paho.org/English/AD/THS/primaryHealthCare.pdf>.

227. WHO, WORLD HEALTH STATISTICS (2007), available at <http://www.who.int/whosis/en/>.

even when foreign aid is included.²²⁸ In contrast, the countries with the least need have the highest percentage of health workers—the Americas comprise only 10% of the world's disease burden but command a far larger share of health and medical professionals (37%) than their need would indicate.²²⁹

Poor countries often do not have the public health, medical, pharmacy, and nursing schools necessary to train sufficient numbers of health care workers (HCWs). But, even when developing countries do train HCWs, many leave for more lucrative positions in richer countries. For example, in Ghana and Liberia, 30% and 60%, respectively, of the countries' physicians are working in the United States or the United Kingdom.²³⁰ Physicians in middle-income countries such as India and Pakistan are similarly moving to the West in droves.²³¹ The migration of HCWs is caused by a "push" from depressed working conditions and opportunities in poor countries and a "pull" from more attractive conditions elsewhere. North America and Europe represent an overpowering lure for doctors and nurses, offering salaries and career opportunities that far surpass what could be offered in a poorer country. The problem is not simply due to diffuse global market forces. Rather, OECD countries, which are experiencing their own human resource shortages, are aggressively recruiting HCWs, even as they acknowledge the resulting dire situation in poor countries.

This "brain drain" is leaving some countries—as many as fifty-seven by WHO calculations—unable to meet the MDGs because of a shortage of HCWs.²³² Africa would need at least one million health workers, in addition to the current workforce, just to offer the services that could accomplish the MDGs.²³³ Empirical evidence demonstrates a correlation between health worker availability and leading health indicators. WHO data, for example, show that maternal, infant, and child survival increases with the density of health workers in a country.²³⁴ In addition to the potential negative health impact, a lack of health care workforce can represent a significant monetary loss for poor countries, which subsidize medical education only to have their trained workers leave the country.²³⁵

228. *Id.*

229. *Id.*

230. Fitzhugh Mullan, *Doctors and Soccer Players—African Professionals on the Move*, 356 *NEW ENG. J. MED.* 440, 441 (2007).

231. See Saad Shafqat & Anita K.M. Zaidi, *Pakistani Physicians and the Repatriation Equation*, 356 *NEW ENG. J. MED.* 442, 442 (2007).

232. See Lincoln C. Chen & Jo Ivey Boufford, *Fatal Flows—Doctors on the Move*, 353 *NEW ENG. J. MED.* 1850, 1851 (2005); WHO, *WORKING TOGETHER FOR HEALTH: THE WORLD HEALTH REPORT 2006*, at xviii (Leo Vita-Finzi ed., 2006).

233. Lincoln Chen & Piya Hanvoravongchai, *HIV/AIDS and Human Resources*, 83 *BULL. WORLD HEALTH ORG.* 243, 243 (2005).

234. See WHO, *supra* note 232, at xv–xvi.

235. See Chen & Boufford, *supra* note 232, at 1851. But see Michael Clemens, *Do Visas Kill? Health Effects of African Health Professional Emigration* (Cent. Global Dev., Working Paper No. 114, 2007) (arguing that health care worker emigration has no effect, or a possible positive effect, on health staffing and public health outcomes in Africa).

Solving the problem of the large-scale exodus of HCWs from poorer to richer countries is difficult, particularly because the freedom of movement is a basic human right.²³⁶ Solutions can be found by changing policies and practices both in sending and receiving countries. International assistance could be directed toward considerably increased professional education in developing countries. In a global health labor market, HCWs ultimately will stay only if their salaries, conditions, and career opportunities improve at home, which, again, requires investment in local health systems.²³⁷ At the same time, if developed countries take steps to meet their own labor requirements by increasing support for medical and nursing schools, there will be less need to recruit foreign workers.²³⁸ Richer countries could also ramp up programs to place physicians and nurses in the developing world—a “peace corps for health.”²³⁹

To ensure effective and well-functioning health systems in poor countries and to meet basic survival needs, the international community, in partnership with host countries, must invest in health system infrastructure. It is not simply the amount of money spent that is important, but how those resources are invested and used. This requires a structured approach that sets priorities, ensures coordination, and monitors results. Accomplishing a system of coordinated and effective international aid will require political will and a system that unifies the myriad efforts of States, IGOs, NGOs, businesses, and private foundations. A Framework Convention on Global Health, as proposed below, provides just such a vehicle for change. Debating and creating such a Convention would provide the opportunity to: amass political consensus around a strategy for meeting basic survival needs and improving health infrastructure; set goals accordingly; and ensure that all the key stakeholders are operating in a coordinated, effective manner. As the next section indicates, current global health governance efforts have not been able to accomplish such goals, and a fresh approach is badly needed.

V. GLOBAL GOVERNANCE FOR HEALTH: A PROPOSAL FOR A FRAMEWORK CONVENTION ON GLOBAL HEALTH

The salient dilemmas in global health can be succinctly put. Poor countries suffer from astonishing burdens of disease and early death, but they utterly lack the means to pull themselves out of a downward spiral of extremely poor health.

236. Universal Declaration of Human Rights, G.A. Res. 217A (III), art. 13(2), at 71, U.N. GAOR, 3d Sess., U.N. Doc. A/810 (Dec. 12, 1948) (“Everyone has the right to leave any country, including his own, and to return to his country.”).

237. See Chen & Boufford, *supra* note 232, at 1851; see also WHO, *supra* note 232, at 99; Marko Vujicic & Pascal Zurn, *The Dynamics of the Health Labour Market*, 21 INT’L J. HEALTH PLAN. & MGMT. 101 (2006).

238. See Chen & Boufford, *supra* note 232, at 1851; see also WHO, *supra* note 232, at 103; Mullan, *supra* note 230.

239. Fitzhugh Mullan, *Responding to the Global HIV/AIDS Crisis: A Peace Corps for Health*, 297 JAMA 744 (2007); see also INST. OF MEDICINE, *HEALERS ABROAD: AMERICANS RESPONDING TO THE HUMAN RESOURCE CRISIS IN HIV/AIDS* (Fitzhugh Mullan et al. eds., 2005).

Their health problems, in turn, threaten countries everywhere as diseases rapidly migrate across the globe. The solution is simple in concept but extraordinarily complex in reality. It requires a stable commitment of resources over the long-term that is modest compared with existing commitments in other spheres. The resources committed, moreover, must be directed toward genuinely effective interventions to meet basic survival needs. All this requires setting priorities, coordinating efforts, fostering public/private partnerships, and helping poor countries take ownership of policies and programs in a competent and transparent manner.²⁴⁰

Consequently, there is a demonstrable need for global cooperation and governance in world health. The very purpose of international law is to address grave problems of transnational significance that no single country or group of States can solve on its own. Global health, therefore, should be a major focus of international law, but the reverse is true. The WHO, the first U.N. agency, was established in 1948 as a normative institution.²⁴¹ The WHO Constitution envisaged an agency that would use law and exercise power to proactively promote the attainment of “the highest possible level of health.”²⁴² But the agency has never met these key expectations. The few legal instruments that are in place are historically, politically, and structurally inadequate to do what is needed to lift countries out of their perpetual state of extremely poor health. The final Part of this Article proposes an alternative structure for governing global health that, at least, gets to the heart of the problem—building long-term capacity for poor countries to take ongoing responsibility for their own health in collaboration with IGOs, States, businesses, foundations, and civil society.

A. INTERNATIONAL HEALTH LAW: THE WHO'S “THIN” RECORD OF LAW MAKING

The WHO Constitution grants the agency extensive normative powers to adopt conventions (Art. 19), promulgate binding regulations (Art. 21), make recommendations (Art. 23), and monitor national health legislation (Art. 63). The WHO's treaty-making powers are noteworthy. The agency can adopt binding conventions or agreements which, unlike normal treaties, affirmatively require States to “take action”—submitting the convention for ratification and notifying the Director General of the action taken and State's reasons within eighteen months.²⁴³

240. See WHO, *THE WORLD HEALTH REPORT 2007: A SAFER FUTURE: GLOBAL PUBLIC HEALTH SECURITY IN THE 21ST CENTURY* (2007), available at http://www.who.int/whr/2007/whr07_en.pdf.

241. GIAN LUCA BURCI & CLAUDE-HENRI VIGNES, *WORLD HEALTH ORGANIZATION* 18 (2004).

242. WHO CONST. art. 1.

243. The World Health Assembly, by a two-thirds vote, may adopt conventions or agreements. WHO CONST. art. 19. While these are not binding on member governments until accepted by them, WHO members have to “take action” leading to their acceptance within eighteen months. Thus, each member government, even if its delegation voted against a convention in the assembly, must act. For example, it must submit the convention to its legislature for ratification. It must then notify the WHO of the action taken. If the action is unsuccessful, it must notify the WHO of the reasons for nonacceptance. WHO CONST. art. 20.

The WHO also possesses quasi-legislative powers to adopt regulations on a broad range of health topics—for example, international epidemics; the safety, potency, and advertising of biologicals and pharmaceuticals; and a nomenclature for diseases, causes of death, and public health practices.²⁴⁴ WHO regulations, unlike most international law, are binding on Member States unless they proactively “opt out.” Once adopted by the World Health Assembly (WHA), the regulations apply to all WHO member countries, even those that voted against it, unless the government specifically notifies the WHO that it rejects the regulation or accepts it with reservations.

The WHO’s normative powers, therefore, are extraordinary. It possesses the authority to oblige States to take health treaties seriously by submitting them to a national political process and informing the international community of the result. Its regulatory powers are even more far-reaching, as States can be bound by health regulations without the requirement to affirmatively sign and ratify. States, moreover, have ongoing duties to make annual reports to the agency of actions taken on recommendations, conventions, and regulations.²⁴⁵

Despite the WHO’s impressive normative powers, modern international health law is remarkably thin—two of the three existing international health instruments predate the agency. The World Health Assembly (WHA), at its first session in 1948, adopted World Health Regulation No. 1, Nomenclature with Respect to Diseases and Causes of Death, which formalized a long-standing international process on the classification of disease.²⁴⁶ By providing standardized nomenclature, the regulation facilitates the international comparison of morbidity and mortality data. The Nomenclature Rule was modest at its onset, but it subsequently became merely advisory, now known as the International Classification of Diseases. The Rule is, therefore, technical rather than normative, and recommended rather than obligatory.

World Health Regulation No. 2, the International Health Regulations (IHR), dates back to a series of international sanitary conferences held in Europe during the second half of the nineteenth century to address the trans-boundary effects of infectious diseases. The sanitary conferences had little to do with improving health in developing countries. Rather, they reflected the national interests of European powers to prevent the importation of devastating tropical diseases.²⁴⁷ The legal and diplomatic work begun by the international sanitary conferences eventually produced the International Sanitary Regulations (ISR), which the WHA adopted in 1951 and which were renamed the IHR in 1969.²⁴⁸

244. WHO CONST. art. 21.

245. WHO CONST. art. 62.

246. See WHO, HISTORY OF THE DEVELOPMENT OF THE ICD 6–7, available at <http://www.who.int/classifications/icd/en/HistoryOfICD.pdf>.

247. See generally NORMAN HOWARD-JONES, THE SCIENTIFIC BACKGROUND OF THE INTERNATIONAL SANITARY CONFERENCES, 1851–1938 (1975).

248. David P. Fidler, *From International Sanitary Conventions to Global Health Security: The New International Health Regulations*, 4 CHINESE J. INT’L L. 325, 327, 333 (2005).

Before the IHR was fundamentally revised in 2005, the regulations applied only to cholera, plague, and yellow fever²⁴⁹—the same diseases originally discussed at the first International Sanitary Conference in Paris (1851).

Not unlike the original ISR, the revised IHR was motivated by the potentially drastic economic and security consequences of fast-moving infectious diseases, in this case hemorrhagic fevers, SARS, avian influenza, and those caused by bioterrorism. The IHR's primary focus is on "public health emergencies of international concern," defined as "a public health risk to other States through the international spread of disease."²⁵⁰ The IHR, therefore, historically and politically, was intended to prevent trans-migration of disease, rather than to improve health in poor countries. To be sure, the revised IHR is far more expansive and bold than its predecessors, but it is unlikely to do the work that is needed in global health—namely, to dramatically improve the plight of the world's least healthy people.

The WHO did not create a health convention until 2003, when the WHA adopted the Framework Convention on Tobacco Control (FCTC).²⁵¹ The FCTC declares the bold objective of protecting present and future generations from "the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke" (Art. 3). It adopts multidimensional strategies, including demand reduction, supply reduction, and tort litigation.²⁵² Although a laudable achievement, the FCTC is almost *sui generis* because it regulates the only lawful product that is uniformly harmful. The FCTC was politically feasible because the industry was vilified for denying scientific realities, engineering tobacco to create dependence, engaging in deceptive advertising, and targeting youth, women, and minorities.²⁵³

Prominent scholars have strongly chastened the WHO for its reluctance to create binding norms, despite the bold mission and sweeping powers granted in its Constitution.²⁵⁴ At the turn of the twenty-first century, more than fifty years

249. *Id.*

250. A public health emergency of international concern is defined as "an extraordinary event which is determined, as provided in these Regulations: (i) to constitute a public health risk to other States through the international spread of disease and (ii) to potentially require a coordinated international response." Int'l Health Regs. art. 1. The International Health Regulations also apply to a "public health risk," defined as "a likelihood of an event that may affect adversely the health of human populations, with an emphasis on one which may spread internationally or may present a serious and direct danger." *Id.*

251. WHO, *Framework Convention on Tobacco Control*, WHO Doc. A56/VR/4 (May 21, 2003), available at http://www.who.int/gb/ebwha/pdf_files/WHA56/ea56r1.pdf.

252. See Ruth Roemer, Allyn L. Taylor & Jean Lariviere, *Origins of the WHO Framework Convention on Tobacco Control*, 95 AM. J. PUB. HEALTH 936, 936 (2005); see also Allyn L. Taylor & Douglas W. Bettcher, *WHO Framework Convention on Tobacco Control: A Global "Good" for Public Health*, 78 BULL. WORLD HEALTH ORG. 920 (2000).

253. See ALLAN M. BRANDT, *THE CIGARETTE CENTURY: THE RISE, FALL, AND DEADLY PERSISTENCE OF THE PRODUCT THAT DEFINED AMERICA* (2007); see also Garrett Mehl, Heather Wipfli & Peter Winch, *Controlling Tobacco: The Vital Role of Local Communities*, HARV. INT'L REV., Spring 2005, at 54.

254. See, e.g., David P. Fidler, *The Future of the World Health Organization: What Role for International Law?*, 31 VAND. J. TRANSNAT'L L. 1079 (1998); Allyn L. Taylor, *Making the World Health*

after its founding, the agency had failed to adopt a single treaty. And its two regulations—on disease classification and epidemic control—were largely historical, were limited in scope, and lacked real-world impact. Since that time, the WHO has been far more proactive, suggesting that it may be prepared to exercise political power when necessary to avert global health crises. The evolution in thinking can be traced to the SARS outbreaks when the WHO issued politically controversial travel advisories with severe economic impacts.²⁵⁵ In the FCTC, the agency demonstrated a willingness to take on a powerful industry. And the revised IHR was, in many respects, the high-water mark for the exercise of normative power, as the agency exerted its influence on matters of trade and human rights. The scope of the IHR expanded to include capacity building, surveillance, health information, and international travel. The critical question, however, is whether the WHO can build on these recent achievements to deal with the most important, and intractable, health problems in the poorest regions of the world.

B. AN EXPANDED SPHERE OF INTERNATIONAL HEALTH LAW: THE INFLUENCE OF TRADE AND THE HUMAN RIGHT TO HEALTH

International lawmaking under the auspices of the WHO, as indicated, is sparse. But there is a much larger body of international law that powerfully affects global health in areas ranging from food safety, arms control, and the environment, to trade and human rights.²⁵⁶ The WHO should be a leader in creating, or at least influencing, these norms, but that has not happened. The agency has shied away from the “high politics” of international law because it has seen itself principally as a scientific, technical agency.²⁵⁷ Thus, the WHO is comfortable developing technical standards for food safety under the auspices of the joint FAO/WHO Codex Alimentarius Commission, but it has not ventured into the harder terrain of World Trade Organization (WTO) rule-making and dispute resolution. It ought to have a great deal to contribute to, and have some sway over, matters of trade in goods and services (GATT and GATS); sanitary and phytosanitary measures (SPS); and intellectual property rights in vaccines and medicines (TRIPS). Yet, its influence is nowhere to be found.

The WHO has had very little engagement in environmental law or arms control,²⁵⁸ and it is only beginning to recognize the significance of trade and human rights to global health. In most respects, the agency has been reactive,

Organization Work: A Legal Framework for Universal Access to the Conditions for Health, 18 AM. J.L. & MED. 301 (1992).

255. Fidler, *supra* note 127, at 801–02.

256. See Allyn L. Taylor et al., *International Health Instruments: An Overview*, in OXFORD TEXTBOOK OF PUBLIC HEALTH 359 (4th ed. 2002).

257. DAVID P. FIDLER & LAWRENCE O. GOSTIN, *BIOSECURITY IN THE GLOBAL AGE: BIOLOGICAL WEAPONS, PUBLIC HEALTH, AND THE RULE OF LAW* (forthcoming Dec. 2007).

258. See, e.g., *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996 I.C.J. 226, 235 (July 8) (holding that the WHO lacked competence to ask ICJ to rule that any use of nuclear weapons would violate international law because of the adverse health consequences).

and subservient to more active norm-making institutions such as the WTO and the Economic and Social Council (ECOSOC). The IHR states that health measures must “avoid unnecessary interference with international traffic and trade.”²⁵⁹ And the regulations simply parrot the mantra of “full respect for the dignity, human rights and fundamental freedoms of persons.”²⁶⁰ Although the WHO urges fundamentally greater access to vaccines and pharmaceuticals, and proclaims the universal right to health, it has not set standards in either area. In its only significant foray into international trade, in a joint statement with the WTO, the agency merely describes WTO jurisprudence without pushing the envelope for health-enhancing norms.²⁶¹ Even in the area of the human right to health, which seems so central to the WHO’s mission, it has been the U.N. Committee on Economic, Cultural and Social Rights (CESCR) that has developed detailed standards in General Comment 14²⁶² and appointed a Special Rapporteur.²⁶³

It might not matter whether the WHO was a prime mover on matters of global health if extant international norms were adequate. However, international health law is not up to the hard task of health improvement for the world’s poorest people.²⁶⁴ Perhaps the two most promising, and most discussed, bodies of international health law are the IHR and the human right to health. But, in each case, the norms established are vague or rhetorical, lack implementation mechanisms, and are silent on critically important aspects of global health.

1. The IHR: Innovation and Limitations

The purpose of the IHR is “to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade.”²⁶⁵ The IHR undoubtedly is highly innovative—empowering non-State actors, exerting political and economic power, and stressing the importance of public health capacities.

259. Int’l Health Regs. art. 2.

260. Int’l Health Regs. art. 3.

261. WHO SECRETARIAT AND WTO SECRETARIAT, WTO AGREEMENTS AND PUBLIC HEALTH (2002) (recognizing the inexorable, yet resolvable, link between international trade and public health); see Robert Howse, *The WHO/WTO Study on Trade and Public Health: A Critical Assessment*, 24 J. RISK ASSESSMENT 501, 501–07 (2004).

262. Comm. on Econ., Soc. & Cultural Rights, *General Comment 14: The Right to the Highest Attainable Standard of Health*, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000).

263. U.N. Comm’n on Human Rights Res., E/2002/23–E/CN.4/2002/200 (Apr. 22, 2002); see also Special Rapporteur, *The Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health*, UN Doc. E/CN.4/2003/58 (2003); Paul Hunt, *The UN Special Rapporteur on the Right to Health: Key Objectives, Themes, and Interventions*, 7 HEALTH & HUM. RTS. 1, 18 (2003) (expounding upon the activities of the Special Rapporteur on Health).

264. Laurie Garrett & Scott Rosenstein, *Missed Opportunities: Governance of Global Infectious Diseases*, 27 HARV. INT’L REV. 64 (2005).

265. Int’l Health Regs. art. 2.

The IHR, cognizant of past State recalcitrance, requires Member States to communicate promptly and fully on events that pose health risks. The new approach is radical because it also authorizes the WHO to make use of unofficial data sources and electronic data systems.²⁶⁶ The agency, therefore, need not rely exclusively on State cooperation, but can tap into rich global information networks among NGOs, independent scientists, and the Internet.

The authority to make recommendations grants the agency considerable political and economic sway, as the SARS outbreaks illustrated. WHO recommendations can influence national public health measures (e.g., medical examinations, vaccination, contact tracing, and quarantine) and the travel industry (e.g., baggage, cargo, containers, conveyances, and goods), as well as trade and tourism (e.g., travel advisories and the seizure and destruction of goods).²⁶⁷

Finally, and importantly, the IHR requires States Parties to develop, strengthen, and maintain core public health capacities to detect, assess, notify, and report events; and to respond promptly and effectively to public health risks and emergencies of international concern.²⁶⁸ The mandate to build public health infrastructures, however, is vacant without a funding mechanism. The WHA urged Member States to “mobilize the resources necessary” and to provide support upon request “in the building, strengthening and maintenance of public health capacities.”²⁶⁹ Although the IHR asks States Parties to provide financial and technical resources, these provisions are either non-binding or weak; they require States to comply only “to the extent possible.”²⁷⁰ Similarly, WHO duties to provide surveillance and response assistance²⁷¹ do not address the WHO’s own shortage of funds and personnel. Given the financial demands created by other global health problems, such as the need to increase access to HIV/AIDS treatment and to meet the health-related MDGs, the IHR’s silence on how the economic demands of the core capacity objectives will be met is a serious problem for which the IHR provides no apparent answers or strategies.²⁷²

Beyond the absence of a realistic funding mechanism, it is important to recall that the IHR, historically and politically, was not intended as a vehicle for improving health in poor countries. Its *raison d’être* is to control the international migration of diseases. And since most serious infectious diseases move

266. See generally WHO, Global Outbreak Alert & Response Network Home Page, <http://www.who.int/csr/outbreaknetwork/en/> (last visited Aug. 23, 2007).

267. Criteria for issuing recommendations include consideration of the views of States Parties and the Emergency or Review Committee, scientific evidence, and international standards. See Int’l Health Regs. art. 17.

268. Int’l Health Regs. arts. 5(1), 13(1), Annex 1.

269. WHO, *Third Report of Committee A*, W.H.A. Doc. A58/55 (May 23, 2005); see also G.A. Res. A/58/3 (2003) (calling for improved global public health preparedness and encouraging States to “actively support capacity-building in global public health”).

270. Int’l Health Regs. arts. 13(5), 44(1).

271. Int’l Health Regs. arts. 5(3), 13(3), 13(6).

272. David P. Fidler & Lawrence O. Gostin, *The New International Health Regulations: An Historic Development for International Law and Public Health*, 33 J.L. MED. & ETHICS 85 (2006).

from the Southern to the Northern Hemisphere, richer countries stand to benefit most from the regulations.

2. The Human Right to Health

International institutions and social activists increasingly have turned to the language of human rights to articulate their fondest dreams for global health. And, like the IHR, the international right to health resonates with bold-sounding obligations. The right to health can be found in the most basic U.N. documents: the Charter (“promote . . . solutions of international economic, social, health, and related problems”),²⁷³ Universal Declaration of Human Rights (“standard of living adequate for . . . health”),²⁷⁴ and International Covenant of Economic, Social, and Cultural Rights (ICESCR) (“highest attainable standard of physical and mental health.”).²⁷⁵ The WHO’s Constitution states the agency’s mission as “the attainment by all peoples of the highest possible level of health,”²⁷⁶ and it defines health so broadly as to be simply unachievable: “a state of complete physical, mental and social well-being.”²⁷⁷ The Preamble reflects back to human rights discourse, stating that health is “one of the fundamental rights of every human being.”²⁷⁸ The WHO’s 1977 “Health for All” campaign pledged the attainment by 2000 of a level of health to permit all citizens of the world “to lead a socially and economically productive life.”²⁷⁹

These high-minded declarations have had little normative force, as they lack the basic features of a “right”: What exactly does the right entail and to what obligations do States, and others, have to conform? When is the right violated? And what are the mechanisms to enforce the entitlement?

General Comment 14 went a long way toward inserting meaning into the broad declaratory language.²⁸⁰ It parsed the right to health into norms, obligations, violations, and implementation. In so doing, the Committee on Economic, Social and Cultural Rights (“CESCR”) specified core obligations similar to the “survival needs” approach stressed here—for example, primary health care;

273. U.N. Charter art. 55.

274. Universal Declaration of Human Rights, G.A. Res. 217A (III), Art. 25, U.N. Doc. A/810, at 71 (Dec. 12, 1948).

275. Int’l Covenant on Econ., Soc. & Cultural Rights, G.A. Res. 2200A (XXI), at 59, U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6316 (Dec. 16, 1966), 999 U.N.T.S. 302, entered into force Mar. 23, 1976 [hereinafter ICESCR]. Article 12 defines the steps needed to achieve the full realization of the right to health: reduction of the stillbirth-rate and infant mortality, and the healthy development of the child; improvement in environmental and industrial hygiene; prevention, treatment and control of epidemic, endemic, and occupational diseases; creation of conditions to assure medical services in the event of sickness. The ICESCR, therefore, defines the right to health as encompassing both physical and mental health and offers concrete tasks to achieve the goal. *Id.*

276. WHO CONST. art. 1

277. WHO CONST. pmb1.

278. *Id.*

279. World Health Assembly, Res. WHA 30.43 (May 1977).

280. See Comm. on Econ., Soc. & Cultural Rights, *General Comment 14: The Right to the Highest Attainable Standard of Health*, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000).

essential food; basic shelter, sanitation, and safe potable water; and essential drugs.²⁸¹ Health facilities, goods, and services must be available, accessible, and acceptable.²⁸² Notably, the General Comment adopts a broad perspective on State obligations, finding a duty to respect (non-interference), protect (prevent private violations), and fulfill (facilitate and promote) the right.²⁸³ In determining violations, the CESCR distinguished between acts or omissions, and a State's inability or unwillingness to comply.²⁸⁴ Implementation requires the adoption of health indicators and benchmarks, methods of accountability, and implementing national legislation.²⁸⁵ Since the publication of the General Comment, a Special Rapporteur has continued to specify content into the right to health.²⁸⁶

Despite considerable progress, recasting the problem of extremely poor health as a human rights violation does not help for a number of reasons. First, the legal obligation falls primarily on each State to “respect, protect, and fulfill” the right to health for its own population. Although the ICESCR posits that all States have duties to assist and cooperate in achieving economic and social rights,²⁸⁷ the obligation to assist other States' populations cannot become primary.²⁸⁸ Second, the right to health itself is expressed as “progressive realization,”²⁸⁹ so there can be little agreement as to when a State has breached an obligation to its people, let alone to people in far away places. Finally, even if some obligation to offer financial and technical assistance could be read into human rights instruments, there is no systematic method of implementation and enforcement. This leaves us with the very problem posited in this Article—the duty to improve the health of the world's most disadvantaged people falls primarily on those who lack the means to do so. This is undoubtedly an untenable position if global health is to be taken as a serious issue of international concern.

C. TOWARD A FRAMEWORK CONVENTION ON GLOBAL HEALTH

The problem of global health governance has perplexed scholars, and for good reason. International health law has a number of structural inadequacies—

281. *Id.* ¶ 43(a)–(f).

282. *Id.* ¶ 12(a)–(c) (detailing the elements of “Availability,” “Accessibility,” and “Acceptability”).

283. *Id.* ¶¶ 33–37.

284. *Id.* ¶¶ 48–49.

285. *Id.* ¶¶ 53–62.

286. Office of the U.N. High Comm'r for Human Rights, *Special Rapporteur of the Commission on Human Rights on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health*, available at <http://www.ohchr.org/english/issues/health/right/> (last visited Sept. 15, 2007).

287. ICESCR, *supra* note 275, art. 3 (“The States Parties to the present Covenant undertake to ensure the equal right of men and women to the enjoyment of all economic, social and cultural rights set forth in the present Covenant.”).

288. Daniels, *supra* note 57, at 29.

289. ICESCR, *supra* note 275, art. 2(1) (describing the goal of “achieving progressively the full realization of the rights recognized” by ICESCR); *see also* GOSTIN, *supra* note 60, at ch. 7 (discussing the concept of “progressive realization”).

for example, vague standards, ineffective monitoring, weak enforcement, and a “statist” approach that insufficiently harnesses the creativity and resources of non-State actors and civil society more generally. The question of whether international law can, or should, govern the diverse entities that influence global health is the subject of intense debate in the literature.²⁹⁰ Indeed, modern cutting edge global health governance initiatives eschew formal international legal regimes, such as the Global Fund, Global Health Security Initiative (GHSI),²⁹¹ International Drug Purchase Facility (UNITAID),²⁹² and International Finance Facility for Immunization (IFFIm).²⁹³

1. Global Health Governance Scheme

If law is to play a constructive role, new models will be required and here I make the case for a Framework Convention on Global Health (FCGH) as a mechanism to channel more constructive and cooperative action to address one of the defining issues of our time—the health of the world’s population. I am proposing a global health governance scheme incorporating a bottom-up strategy that strives to:

- *Build capacity*, so that all countries have enduring and effective health systems;
- *Set priorities*, so that international assistance is directed to meeting basic survival needs;

290. See, e.g., GLOBAL HEALTH AND GOVERNANCE: HIV/AIDS (Nana K. Poku & Alan Whiteside eds., 2004); Scott Burris, *Governance, Microgovernance and Health*, 77 TEMP. L. REV. 335 (2004); Scott Burris, Peter Drahos & Clifford Shearing, *Nodal Governance*, 30 AUSTL. J. LEGAL PHIL. 30 (2005); David P. Fidler, *Architecture Amidst Anarchy: Global Health's Quest for Governance*, 1 J. GLOBAL HEALTH GOVERNANCE 1, http://diplomacy.shu.edu/academics/global_health/journal/PDF/Fidler-article.pdf; David P. Fidler, *A Globalized Theory of Public Health Law*, 30 J.L. MED. & ETHICS 150 (2002); Lawrence O. Gostin, *World Health Law: Toward a New Conception of Global Health Governance for the 21st Century*, 5 YALE J. HEALTH POL'Y L. & ETHICS 413 (2005); Kelley Lee, *The Pit and the Pendulum: Can Globalization Take Health Governance Forward?*, 47 DEV. 11, 11–17 (2004); Kelley Lee, *Shaping the Future of Global Health Cooperation: Where Can We Go From Here?*, 351 LANCET 899 (1998); Allyn L. Taylor, *Governing the Globalization of Public Health*, 32 J.L. MED. & ETHICS 500 (2004); Caroline Thomas & Martin Weber, *The Politics of Global Health Governance: What Ever Happened to “Health for All by the Year 2000”?*, 10 GLOBAL GOVERNANCE 187 (2004).

291. The GHSI, launched by Canada, the European Commission, France, Germany, Italy, Japan, Mexico, the United Kingdom and the United States in 2001, is an informal, international partnership of States to strengthen health preparedness and response globally to threats of chemical, biological, radio-nuclear terrorism (CBRN) and pandemic influenza. Global Health Security Initiative Home Page, <http://www.ghsi.ca/english/index.asp> (last visited June 15, 2007).

292. UNITAID, established by Brazil, France, Chile, Norway and the United Kingdom in 2006, is an innovative funding mechanism to accelerate access to drugs and diagnostics for HIV/AIDS, malaria and tuberculosis in countries with a high burden of disease. WHO Welcomes Launch of UNITAID, Sept. 19, 2006, <http://www.who.int/mediacentre/news/statements/2006/s15/en/index.html>.

293. IFFIm, an idea presented by then U.K. Chancellor Gordon Brown at the 2003 G8 Summit, is designed to accelerate the availability of funds for health and immunization programs through the GAVI Alliance (formerly Global Alliance for Vaccines and Immunization) in seventy of the poorest countries. International Finance Facility for Immunisation Home Page, <http://www.iff-immunisation.org> (last visited Sept. 15, 2007).

- *Engage stakeholders*, so that a wide variety of State and non-State actors can bring to bear their resources and expertise;
- *Coordinate activities*, so that programs among the proliferating number of actors operating around the world are harmonized;
- *Evaluate and monitor progress*, so that goals are met and promises kept.

a. Capacity building. Capacity building must be a central focus of any effective global health governance regime. Capacity building for health is an approach to developing human resources, organizational structures, and resources such that all elements of the health sector can perform their core functions and meet needs in a sustainable manner, improving health many times over.²⁹⁴ By building a strong infrastructure, the public and private sectors will be better able to detect, prevent, respond to, and treat disease, particularly among the most vulnerable. Capacity building is most likely to be effective because it provides countries with the enduring ability to better meet the basic survival needs of the population—nutrition, potable water, sanitation, pest abatement, and essential vaccines and medicines.²⁹⁵

To make health systems stronger, however, it will be necessary to change the usual way of doing business among development organizations and donor aid programs. It is not possible to build infrastructure with a top-down approach that privileges the ideas and priorities of IGOs and foreign governments over local leaders. Nor will high-visibility rescue or disease-specific programs solve the problem. We know this because, despite billions of new dollars pouring into development assistance, little has changed on the ground.

What is needed is a systems approach that strengthens multiple layers inside and outside the health sector.²⁹⁶ Capacity building requires long-term commitments from all parties, poor countries that take responsibility for the health of their populations, and measures of success that move beyond simply how much money has been donated.²⁹⁷ An FCGH has the ability to build consensus on issues such as capacity building and utilize existing empirical evidence to direct resources to the most cost-effective interventions.²⁹⁸

b. Priority setting, engagement, and coordination. The priority-setting problem in global health is well understood, with donors pumping resources into an

294. See ANNELI MILEN, WHO, WHAT DO WE KNOW ABOUT CAPACITY BUILDING? AN OVERVIEW OF EXISTING KNOWLEDGE AND GOOD PRACTICE 5 (2001).

295. See NEW SOUTH WALES HEALTH DEPARTMENT, A FRAMEWORK FOR BUILDING CAPACITY TO IMPROVE HEALTH (2001).

296. See MILEN, *supra* note 294, at 16–20; Anne K. LaFond, Lisanne Brown & Kate Macintyre, *Mapping Capacity in the Health Sector: A Conceptual Framework*, 17 INT'L J. OF HEALTH PLAN. & MGMT. 3, 3–22 (2002).

297. See GETTING GOOD GOVERNMENT: CAPACITY BUILDING IN THE PUBLIC SECTORS OF DEVELOPING COUNTRIES (Merilee S. Grindle ed., 1997); MILEN, *supra* note 294.

298. See George W. Downs, Kyle W. Danish & Peter N. Barsoom, *The Transformational Model of International Regime Design: Triumph of Hope or Experience?*, 38 COLUM. J. TRANSNAT'L L. 465 (2000).

ever-increasing number of activities that do not reflect the true burden of disease or address the underlying determinants of health. Donor programs often fail to align with the health priorities of poor countries themselves, despite efforts to jointly prioritize, such as the Monterrey Consensus and the MDGs.²⁹⁹ Because no single entity has the capability to solve today's daunting global health crises, and because there has been such a proliferation of players, consensus building and communal priority setting are sorely needed.³⁰⁰

Consequently, a global health governance regime must effectively set priorities, as well as engage and coordinate all relevant stakeholders—both State and non-State actors. A renewed focus on the health conditions that cause by far the greatest burden of illness and early death, and on achieving greater equality, is necessary.³⁰¹ Furthermore, any effort to improve this situation must direct its attention beyond a simple accounting of how much money has been spent by the donor community. In the currently fractured environment where states, NGOs, IGOs, and foundations all fund and prioritize different health interventions, establishing a global set of priorities and coordinating efforts is an overwhelming, but essential, task.

So far, attempts to do this by existing global governance regimes have not been successful. Though the UN and the WHO have admirably attempted to direct international health assistance toward the most pressing priorities of the world's poor, most of these efforts have not succeeded. The Alma-Ata Health for All by the Year 2000 campaign³⁰² and the “Three by Five” campaign did not meet their stated goals, and the MDGs are careening toward the same fate.³⁰³ As such, a global health governance mechanism that can successfully bring all relevant parties to the table to set coordinated priorities and commitments is most likely to break the seemingly endless cycle of poverty and disease. A

299. Monterrey Consensus of the International Conference on Financing for Development, ¶ 6, U.N. Doc. A/CONF.198/3 (2003), available at www.un.org/esa/ffd/Monterrey/Monterrey%20Consensus.pdf; see Landis MacKellar, *Priorities in Global Assistance for Health, AIDS, and Population*, 31 POPULATION & DEV. REV. 293, 293–312 (2005).

300. See Sally K. Stansfield, *Philanthropy and Alliances for Global Health*, in GLOBAL PUBLIC GOODS FINANCING: NEW TOOLS FOR NEW CHALLENGES 94, 94 (2002), available at <http://www.undp.org/ods/monterrey-papers/stansfield.pdf>.

301. See, e.g., Sabine Kleinert, *What Are the World's Priorities?*, 360 LANCET 1118, 1118 (2002); Jan Abel Olsen, *Theories of Justice and Their Implications for Priority Setting in Health Care*, 16 J. HEALTH ECON. 625, 625–639 (1997).

302. The Declaration of Alma-Ata formally adopted primary health care, or essential health care, as the “means for providing a comprehensive, universal, equitable and affordable health care service for all countries.” John J. Hall & Richard Taylor, *Health for All Beyond 2000: The Demise of the Alma-Ata Declaration and Primary Health Care in Developing Countries*, 178 MED. J. AUSTRAL. 17, 17–18 (2003), available at http://www.mja.com.au/public/issues/178_01_060103/hal10723_fm.pdf. Primary health care was defined to include basic services such as health education, proper nutrition, clean water and basic sanitation, maternal and child health, and vaccination and provision of essential drugs. The Declaration was unanimously adopted by all WHO member countries at Alma-Ata in the former Kazakh Soviet Republic in September, 1978. *Id.*

303. See *id.*; Joia Mukherjee, *Basing Treatment on Rights Rather than Ability To Pay: 3 by 5*, 363 LANCET 1071, 1071–72 (2004).

Framework Convention could establish principles and create defined obligations among the relevant parties, as well as a finance mechanism for meeting the Convention's goals.

c. Ongoing monitoring, evaluation, and enforcement. In light of the failure of many prior campaigns, redirecting global health assistance requires a governance regime with the capability to monitor and evaluate progress and ensure that stated goals are met. Despite overwhelming consensus on campaign goals, and high-profile commitments from States and philanthropists, many key players have not kept their commitment to improve the lot of the world's least healthy.³⁰⁴

As such, an international mechanism capable of setting key objectives, and ensuring compliance, is a necessary component of an effective global health governance regime. A Framework Convention, to which I now turn, presents a unique opportunity to build normative consensus around the most pressing problems in world health.³⁰⁵

2. The Framework Convention-Protocol Approach

Given these concerns about existing global health governance, it is vital to explore new strategies for meeting the basic survival needs of the world's least healthy populations. One promising idea is that of a Framework Convention on Global Health. The framework convention-protocol approach refers to a process of incremental regime development. In the initial stage, States would negotiate and agree to the framework instrument, which would establish broad principles for global health governance: goals, obligations, institutional structures, empirical monitoring, funding mechanisms, and enforcement. In subsequent stages, specific protocols would be developed to achieve the objectives in the original framework.³⁰⁶ These protocols, organized by key components of the global health strategy,³⁰⁷ would create more detailed legal norms, structures, and processes. The framework convention approach has considerable flexibility, allowing Parties to decide the level of specificity that is politically feasible now, saving more complex or contentious issues to be built in later protocols.

The framework convention approach is becoming an essential strategy of powerful transnational social movements to safeguard health and the environment.³⁰⁸ A series of international environmental treaties serve as models for global health governance, including the Barcelona Convention for Protection of

304. See Hall & Taylor, *supra* note 302; Lee, *supra* note 165; Mukherjee, *supra* note 303.

305. See Daniel Bodansky, WHO, *The Framework Convention/Protocol Approach*, in FRAMEWORK CONVENTION ON TOBACCO CONTROL TECHNICAL BRIEFING SERIES, WHO/NCD/TFI/99.1 (1999).

306. The Framework Convention on Tobacco Control (FCTC) protocols can serve as a model upon which to base protocols for a Framework Convention on Global Health. See WHO, THE FRAMEWORK CONVENTION ON TOBACCO CONTROL: A PRIMER 6, WHO/NCD/TFI/99.8 (2003).

307. The FCTC, for example, anticipates that issues such as advertisement, illicit trade, and treatment will be addressed individually in separate protocols. *Id.*

308. See *id.*

the Mediterranean Sea Against Pollution (1976),³⁰⁹ the Convention on Long-Range Transboundary Air Pollution (1979),³¹⁰ and the Vienna Convention for the Protection of the Ozone Layer (1985)³¹¹ (leading to the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987).³¹²

The U.N. Framework Convention on Climate Change (UNFCCC) (1992), the most prominent international environmental treaty, is designed to stabilize greenhouse gas concentrations in the atmosphere.³¹³ The 1997 Kyoto protocol required ratifying States to reduce their total greenhouse gas emissions, with specific quantitative levels assigned to each country.³¹⁴ Although the United States failed to ratify,³¹⁵ and highly polluting transitional States such as China and India are largely exempt, the Kyoto Protocol represents a nascent attempt at global cooperative governance to reduce global climate change.³¹⁶

These framework conventions recognize that the world's atmosphere and bodies of water are shared resources, and that a collective effort is necessary to mitigate the threat that humans pose to the global environment. Although far from perfect, international environmental treaties offer innovative approaches to global governance. The Montreal protocol, for example, adopted a "common but differentiated responsibility," with disparate legal obligations on developing and developed countries; created a multilateral implementation fund administered by the World Bank to provide technical and financial assistance to developing countries;³¹⁷ and utilized trade sanctions for enforcement.³¹⁸

The FCTC, the only treaty negotiated under the WHO's constitutional authority, was modeled on environmental framework conventions, notably the UNF-

309. Convention for Protection of the Mediterranean Sea Against Pollution (1976) and Protocols (1980, 1982), Feb. 12, 1978, *available at* <http://eelink.net/asilwildlife/barcelona.html>.

310. Convention on Long-Range Transboundary Air Pollution, Mar. 16, 1983, 34 U.S.T. 3043 (establishing a broad agreement between European and North American countries to address the problem of emissions that cross borders, causing regional environmental and health effects).

311. Vienna Convention for the Protection of the Ozone Layer, *opened for signature* Mar. 22, 1985, 26 I.L.M. 1529 (1985) (entered into force Sept. 22, 1988).

312. Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, 26 I.L.M. 1550 (1987) (entered into force Jan. 1, 1989).

313. United Nations Framework Convention on Climate Change, art. 2, May 9, 1992, 1771 U.N.T.S. 107, S. Treaty Doc. No. 102-38, U.N. Doc. A/AC.237/18 (Part II)/Add.1, 31 I.L.M. 849 (1992).

314. Kyoto Protocol to the United Nations Framework Convention on Climate Change, *opened for signature* Mar. 16, 1998, 37 I.L.M. 22 (1998) (entered into force Feb. 16, 2005) [hereinafter *Kyoto Protocol*]; see David M. Dreisen, *Free Lunch or Cheap Fix?: The Emissions Trading Idea and the Climate Change Convention*, 26 B.C. ENVTL. AFF. L. REV. 1, 20-21 (1998).

315. See *Kyoto Protocol: Status of Ratification*, *available at* http://unfccc.int/files/kyoto_protocol/background/status_of_ratification/application/pdf/kp_rat_131206.pdf (last visited Nov. 5, 2007).

316. U.N. CLIMATE CHANGE SECRETARIAT, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE: THE FIRST TEN YEARS 84-93 (2004), *available at* http://unfccc.int/resource/docs/publications/first_ten_years_en.pdf.

317. See LAUREN KELLY, WORLD BANK, THE MULTILATERAL FUND FOR IMPLEMENTATION OF THE MONTREAL PROTOCOL, at ix (2004).

318. WORLD BANK, THE WORLD BANK AND THE MONTREAL PROTOCOL: REDUCING HEALTH RISKS BY RESTORING THE OZONE LAYER (2003), *available at* <http://siteresources.worldbank.org/INTMP/214578-1110890369636/20489383/WBMontrealProtocolStatusReport2003.pdf>.

CCC.³¹⁹ It too has inventive governance approaches to tobacco control that include: *demand reduction*—price and tax measures, as well as non-price measures; *supply reduction*—control of illicit trade and sales to minors, as well as creation of economically viable alternatives to tobacco production; and, most controversially, *tort litigation*—international cooperation on tort actions and criminal prosecutions, such as information exchange and legal assistance.³²⁰

3. The Key Modalities of an FCGH

An FCGH would represent a historical shift in global health, with a broadly imagined global governance regime. The initial framework would establish the key modalities, with a strategy for subsequent protocols on each of the most important governance parameters. It is not necessary, nor perhaps even wise, to specify in detail the substance of an initial FCGH, but it may be helpful to state the broad principles:

a. FCGH mission

Convention Parties seek innovative solutions for the most pressing health problems facing the world in partnership with non-State actors and civil society, with particular emphasis on the most disadvantaged populations;

b. FCGH objectives

Establish fair terms of international cooperation, with agreed-upon mutually binding obligations to create enduring health system capacities, meet basic survival needs, and reduce global health disparities;

c. Engagement and coordination

Finding common purposes and processes among a wide variety of State and non-State actors, setting priorities, and coordinating activities to achieve the mission of the FCGH;

d. State party, and other stakeholder obligations

Incentives, forms of assistance (for example, financial aid, debt relief, technical support, subsidies, tradable credits), and levels of assistance, with differentiated responsibility for developed, developing, and least developed countries;

e. Institutional structures

Conference of Parties, secretariat, technical advisory body, and financing mechanism, with integral involvement of non-State actors and civil society;

f. Empirical monitoring

Data gathering, benchmarks, and leading health indicators, such as maternal, infant, and child survival;

g. Enforcement mechanisms

Inducements, sanctions, mediation, and dispute resolution;

h. Ongoing scientific analysis

319. See Roemer, *supra* note 252; Taylor & Bettcher, *supra* note 252.

320. See WHO, *supra* note 306.

Processes for ongoing scientific research and evaluation on cost effective health interventions, such as the creation of an Intergovernmental Panel on Global Health, comprised of prominent medical and public health experts.

i. Guidance for subsequent lawmaking process

Content, methods, and timetables to meet framework convention goals.

4. Strengths of the Framework Convention-Protocol Approach

a. Facilitating global consensus. The framework convention-protocol approach has a number of advantages resulting from the incremental nature of the process, and its ability to evolve over a longer time horizon. The framework agreement allows for the initial codification of normative parameters, with the expectation of building detailed standards in the future. The incremental nature of the governance strategy allows the international community to focus on a problem in a stepwise manner, avoiding potential political bottlenecks over contentious elements. A comprehensive international governance regime can emerge from a long-term negotiation process as political will develops.³²¹ Although the graduated nature of framework conventions can frustrate those desiring rapid results, it can offer the only realistic strategy for finding global consensus.

b. Facilitating a shared humanitarian instinct. The creation of international norms and institutions provides an ongoing and structured forum for States and stakeholders to develop a shared humanitarian instinct on global health. A high-profile forum for normative discussion can help educate and persuade Parties, and influence public opinion, in favor of decisive action. And it can create internal pressure for governments and others to actively participate in the framework dialogue. The creation of such a normative community, therefore, may be an essential element of building an international consensus.³²² The imperatives of global health have to be framed not just as a series of isolated problems in far-off places, but as a common concern of humankind.

c. Building factual and scientific consensus. The framework convention-protocol approach can be used to build international consensus about the essential facts of global health, such as the causes of extremely poor health and stark disparities, as well as the most cost-effective solutions. Just as the normative process can shape values, it can also serve as a forum for experts and policymakers to collect and analyze health data and scientific evidence. The FCTC process, for example, facilitated discussion about the harms of tobacco and role of the industry, which was vital to the adoption of the treaty. At the

321. See Allyn L. Taylor, *An International Regulatory Strategy for Global Tobacco Control*, 21 *YALE J. INT'L L.* 257, 257–304 (1996).

322. See Marc Levy, Robert O. Keohave & Peter M. Haas, *Improving the Effectiveness of International Environmental Institutions*, in *INSTITUTIONS FOR THE EARTH* 397 (Peter M. Haas et al. eds., 1993).

same time, the incremental approach of a Framework Convention allows for normative development to accommodate evolving scientific evidence.

d. Transcending shifts in political will. An ongoing diplomatic forum can also help to transcend the inevitable ebbs and flows of interest in international cooperation around global health. As political environments change, governments can become more or less interested in creating new international obligations, or complying with existing obligations. One of the strengths of an FCGH is that it can serve as a lasting entity that is resistant to temporary shifts in political will.

e. Engaging multiple actors and stakeholders. The really interesting and vital aspect of an FCGH is not merely how it governs inter-State responsibilities. The critical challenge is how to make it do the really hard work of mobilizing the diverse drivers of health, including NGOs, private industry, foundations, public/private hybrids, researchers, and the media. It is essential to harness the ingenuity and resources of these non-State actors. The FCGH, therefore, should actively engage major stakeholders in the process of negotiation, debate, and information exchange, as well as reducing barriers for them to actively engage in capacity building.

5. Political Difficulties of a Framework Convention on Global Health

An FCGH offers an intriguing approach, potentially creating a process and structure for an innovative international mechanism for ameliorating complex problems in global health. It will not, however, be a panacea, and there are multiple social, political, and economic barriers to the creation of such a framework convention. The framework convention-protocol approach cannot easily circumvent many of the seemingly intractable problems of global health governance: the domination of the most economically and politically powerful countries; the deep resistance to creating obligations to expend, or transfer, wealth; the lack of confidence in international legal regimes and trust in international organizations; and the vocal concerns about the integrity and competency of governments in many of the poorest countries.

Although the framework convention-protocol approach can help create the political, scientific, and normative space for agreement to be reached, it does not ensure consensus on contentious issues. In fact, this approach has a number of structural problems that could hinder the creation of a universal, cooperative solution to global health problems. Loss of momentum is one potential barrier. The extended, incremental process can be seen as detrimentally long and drawn out.³²³ After an initial framework convention, if years pass without an agree-

323. See Lawrence E. Susskind, *The Weaknesses of the Existing Environmental Treaty-Making System*, in ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS 11, 11-39 (1994).

ment on subsequent protocols, there is a risk that political momentum will wane. Furthermore, the long time frame can be used to derail the imposition of binding obligations. Parties that were initially reluctant to engage in negotiations about an issue can take advantage of the political capital achieved by signing a framework convention, then subtly disengage from, or even subvert, the subsequent protocol creation process.³²⁴

But given the dismal nature of extant global health governance, an FCGH is a risk worth taking. It will, at a minimum, identify the truly important problems in global health. Solutions will not be found solely in increased resources, although that is important. Rather, an FCGH can demonstrate the imperative of targeting the major determinants of health, prioritizing and coordinating currently fragmented activities, and engaging a broad range of stakeholders. It also will provide a needed forum to raise visibility of one of the most pressing problems facing humankind.

CONCLUSION

I have sought to demonstrate why politically and economically powerful countries should care about the world's least healthy people. It may be a matter of national interest, so that helping poor States makes everyone safer and more secure. Or, global health assistance simply may be ethically the right thing to do to avert an unfolding humanitarian catastrophe. Or, there may be a growing sense of legal obligation, whether through WHO treaties and regulations or the international right to health. Although no single argument may be definitive in itself, the cumulative weight of the evidence is now overwhelmingly persuasive. Whatever the reasons, perhaps we are coming to a tipping point where the status quo is no longer acceptable and it is time to take bold action. Global health, like global climate change, may soon become a matter so important to the world's future that it demands international attention, and no State can escape the responsibility to act.

If that were the case, States would need an innovative international mechanism to bind themselves, and others, to take an effective course of action. Amelioration of the enduring and complex problems of global health is virtually impossible without a collective response. No State or stakeholder, acting alone, can avert the ubiquitous threats of pathogens as they rapidly migrate and change forms. If all States and stakeholders voluntarily accepted fair terms of cooperation through an FCGH, then it could dramatically improve life prospects for millions of people. But it would do more than that. Cooperative action for global health, like global warming, benefits everyone by diminishing collective vulnerabilities.

The alternative to fair terms of cooperation through a Framework Convention is that everyone would be worse off, particularly those who suffer compounding

324. See Taylor, *supra* note 321.

disadvantages. Absent a binding commitment to help, rich States might find it politically or economically easier to withhold their fair share of global health assistance, hoping that others will take up the slack. Major outbreaks of infectious disease, including extensively drug resistant forms, would become increasingly more likely. Even if the economically and politically powerful escaped major health hazards, they would still have to avert their eyes from the mounting suffering among the poor. And they would have to live with their consciences knowing that much of this anguish is preventable.

What is most important is that if the global community does not accept fair terms of cooperation on global health soon, there is every reason to believe that affluent States, philanthropists, and celebrities simply will move on to another cause. And when they do, the vicious cycle of poverty and endemic disease among the world's least healthy people will continue unabated.