
**Better health for
human security**

6

Disease and poverty go hand in hand. So, too, do disease and conflict

One of the most significant human achievements of the 20th century is the spectacular progress in health. About a billion people today have average life expectancies of nearly 80 years, twice the average of a century before. These gains were made possible by material advances in the provision of food, education and clean water; medical developments in scientific knowledge; and political and social advances that harnessed new knowledge for human betterment.¹

But good health, like so many things, is inequitably distributed. Entering the 21st century, about half the world's people had been left behind, unable to achieve their full health potential. World health today spotlights the paradox of unprecedented achievement among the privileged and a vast burden of preventable diseases among those less privileged, the majority of humankind (figure 6.1).

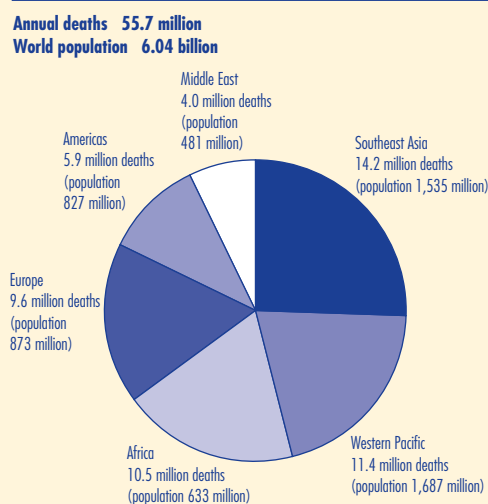
Differing risks and vulnerabilities to avoidable health insults are found among people of different ages, sexes, communities, classes, races and nations. No surprise then that the poor, marginalized and excluded have a higher risk of dying than other groups. Especially vulnerable are children and women across all groups. These disparities are found not only among countries—but within countries, rich and poor.

The World Health Organization (WHO) recently estimated that more than 40% of the 56 million deaths each year are avoidable, given the world's existing knowledge, technologies and resources.² Social, behavioural, economic and environmental conditions shape these outcomes. Many of the unnecessary deaths can be prevented by better health behaviour—stopping smoking,

eating more healthful foods, getting more exercise, practicing safe sex. But many avoidable deaths—especially those due to infectious diseases, nutritional deprivations of children and maternity-related risks of unsafe childbearing and childrearing—can be prevented only by reaching people trapped in poverty or conflict. This gap in avoidable deaths is due to differences in risks and vulnerabilities and in access to modern health knowledge and care. Disease and poverty go hand in hand. So, too, do disease and conflict.

Simple comparisons illuminate these tragic health failings. The average lifespan in Sierra Leone and Ethiopia is only about half that in Japan and Sweden.³ Fewer than half the newborns in Guinea-

Figure 6.1 The global burden of disease, 2000



Source: WHO 2000.



Good health is both essential and instrumental to achieving human security

Bissau survive to their fifth birthday. Inequities in health are marked among and within countries. In the United States, children in poverty are far more likely to become sick and die than their better-off counterparts. Disturbing inequities are compounded by “hot spots” of health emergencies around the world. Health crises threaten the interdependence and solidarity of global health efforts.

In just two decades, HIV/AIDS has become the world’s fourth ranking cause of death. Life expectancy averages only 47 years in Sub-Saharan Africa, 15 years less than it would without AIDS. With 22 million cumulative deaths and more than 40 million HIV-infected people, HIV/AIDS will soon become the greatest health catastrophe in human history—exacting a death toll greater than two world wars in the 20th century, the influenza epidemic of 1918 or the Black Death of the 14th century. The devastation is being superimposed on other crises, such as the ongoing drought and famine in Southern Africa. Among the few poor populations with reliable health statistics, the worst health condition documented, due to both HIV/AIDS and underdevelopment, is in Bandim, Guinea-Bissau, where life expectancy today is a meagre 36 years.⁴

Health crises also plague the countries in transition to democracy and a market economy. Russia and several Eastern European countries have experienced rising mortality. In Russia, higher mortality rates are particularly marked among less educated adult men, unable to cope with changing circumstances.⁵ In Latin America, the transition to democracy and open markets has not yielded the social benefits hoped for, instead perpetuating or exacerbating some of the world’s severest income and social inequalities.

Other societies trapped in prolonged conflict (Sudan) or recovering from war (Afghanistan) have “slow-burn” health crises characterized by very high or stagnant death rates. Sixteen of the 20 countries with the worst human development indexes are either in the midst of conflict or recently emerging from it.⁶ Worldwide, war and poverty are the gravest threats to health and human security.

The links between health and human security

Good health is both essential and instrumental to achieving human security. It is essential because the very heart of security is protecting human lives. Health security is at the vital core of human security—and illness, disability and avoidable death are “critical pervasive threats” to human security. Health is defined here as not just the absence of disease, but as “a state of complete physical, mental and social well-being”. Health is both objective physical wellness and subjective psychosocial well-being and confidence about the future.

In this view, good health is instrumental to human dignity and human security. It enables people to exercise choice, pursue social opportunities and plan for their future. A healthy child can learn, grow and develop. An adult cured of tuberculosis can resume work to support the livelihood of her family. Saving a child’s life can secure the future generations of a family. The absence of good health can result in enormous grief (the loss of a newborn or young child) and can precipitate an economic catastrophe for the family (the sudden death of a working adult).

Health’s instrumental role is collective as well as personal. Good health is a precondition for social stability. Sudden outbreaks of a contagious disease or other health crisis can destabilize an

Three health challenges stand out as closely linked to human security: global infectious diseases, poverty-related threats, and violence and crisis

entire society. In times of crisis, visible and demonstrable capacity for effective health action is essential to calm public fears. Even during conflict, combatants have agreed on ceasefires to enable immunizations of children, recognizing the shared importance of good health.

Health and human security are inextricably linked, but good health is not synonymous with security. Nor does security encompass all aspects of human health. So, which health challenges are linked particularly to human security?

Health security and military security are directly related. Indeed, from a historical perspective, the legitimacy of rulers has depended on their capacity to protect the health of the public, through military and other means. In recent decades, especially during the Cold War, health and military security fields went separate ways, each developing its distinctive technical aspects, political constituencies and institutional networks.⁷

But throughout human history, military security has had strong health dimensions.⁸ Battles have been won by disease rather than arms. Maintaining the health of combatants has been an important element of military preparedness and has motivated research into the control of tropical diseases and the health impacts of military action. Troop movements have spread contagious diseases. Recently, those concerned with military security have redoubled their focus on the health aspects of defence—on germs as weapons, on epidemics weakening fragile states, on health risks among military troops, on the humanitarian impact of military action. The possibility that biological weapons of mass destruction would be used has caused an upsurge of public attention and put health matters squarely on the security agenda.

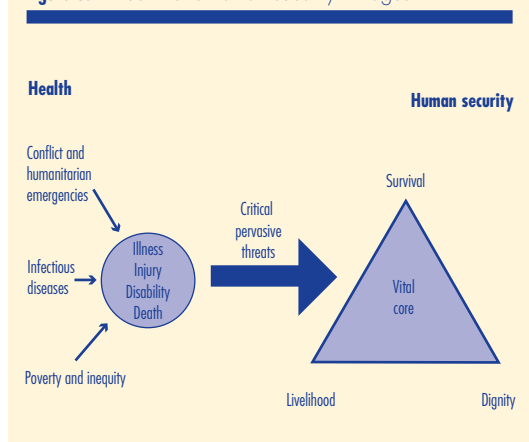
The health field is also reconnecting to concerns about security. Links extend beyond military security to more comprehensive health security (figure 6.2).

Four criteria influence the strength of links between health and human security:

- The scale of the disease burden now and into the future.
- The urgency for action.
- The depth and extent of the impact on society.
- The interdependencies or “externalities” that can exert ripple effects beyond particular diseases, persons or locations.

Applying these criteria, three health challenges stand out as closely linked to human security: global infectious diseases, poverty-related threats, and violence and crisis. The connection between infectious diseases and human security has been forcefully validated by recent developments—the HIV/AIDS epidemic, the accelerating spread of

Figure 6.2 Health and human security linkages





Box 6.1 Controlling infectious disease

Although few infectious diseases have been eradicated throughout the century, the criteria for eradication are clear. Clinical diagnosis of the disease must be possible. There must be a low degree of transmissibility and a relatively slow rate of spread. There can be no non-human carrier, such as mosquitoes in the case of malaria. Finally, eradication requires practical and effective interventions that are safe, inexpensive, long lasting and easily deployed and that provide strong immunity to secondary infection.

Attempts to eradicate disease have typically relied on vaccines, as for smallpox, or curative prophylactic methodologies, as for yaws and guinea worm. In some cases, such as tuberculosis, there has been controversy over the best method of disease control or eradication. The BCG vaccine is administered to 85% of the world's children, but its effectiveness is currently unknown. Because of this ambiguity, most countries have turned to a combination of treatment (directly observed treatment, short course) and quarantine.

However, these control methods have been largely ineffective for eradication because of the difficulty of identifying infected individuals, assuring patient compliance with treatment, and combating the disease's resistance to treatment and its ease of transmission.

In an increasingly globalized world, most methods of control and eradication will remain ineffective without coordinated control between poor and rich countries. As global populations move at unprecedented rates, difficulties in the identification of infected individuals, the long incubation periods of diseases like HIV/AIDS and the uncoordinated monitoring procedures of exit and entry countries make control of disease more challenging. The HIV/AIDS epidemic alone has made it clear that there is no place in the world from which a country is disconnected. Increased international cooperation will be required for effective monitoring, control and eradication of infectious diseases, to prevent further outbreaks and decrease transmission both within and between countries.

Source: Heyman 2002.

contagious diseases, the looming threat of bioterrorism, epidemics that weaken already fragile states and the creation of new international funds and organizations. Poverty-related health threats are perhaps the greatest burden of human insecurity. Most preventable infectious diseases, nutritional deprivation and maternity-related risks are concentrated among the world's poor. Poverty and disease set up a vicious spiral with negative economic and human consequences. And all forms of violence—collective, interpersonal and self-directed—are public health problems. Indeed, the growing social crises of violence all have strong health dimensions.

Global infectious diseases

Many recent developments explain the emergence of infectious diseases on the global agenda—the discovery of more than two dozen new disease agents, the spread of antibiotic resistance and the devastating impact of recent epidemics—cholera in Latin America, plague in India, the ebola virus in Africa, dengue fever in Southeast Asia and mad

cow disease in Europe. Public fears are aroused. The economic costs are staggering. And government credibility is questioned (box 6.1).⁹

Start with HIV/AIDS. Within a few years of its discovery, this equal-opportunity pathogen has spread to every continent, every country. It kills productive adults, impoverishes families, creates orphans, destroys communities and weakens fragile governments. Even the elderly are affected because of the deterioration of their adult working children. In some heavily-infected countries, HIV/AIDS is depleting skilled workers (teachers, nurses, police officers, civil servants), with health staff losses as high as 40% in some countries.¹⁰

The burden of HIV/AIDS is overwhelmingly concentrated among the poorest people in the poorest regions, especially in Sub-Saharan Africa. The US National Intelligence Council recently released projections of the “next wave” of the HIV/AIDS epidemic in five populous countries—China, Ethiopia, India, Nigeria and Russia (figure 6.3). The council estimated that the number of

The burden of HIV/AIDS is overwhelmingly concentrated among the poorest people in the poorest regions

people infected with HIV/AIDS in these countries is likely to soar from 14–23 million today to 50–75 million in 2010.¹¹ Even in rich countries, HIV/AIDS threatens to resurge, concentrated among the poor and excluded.

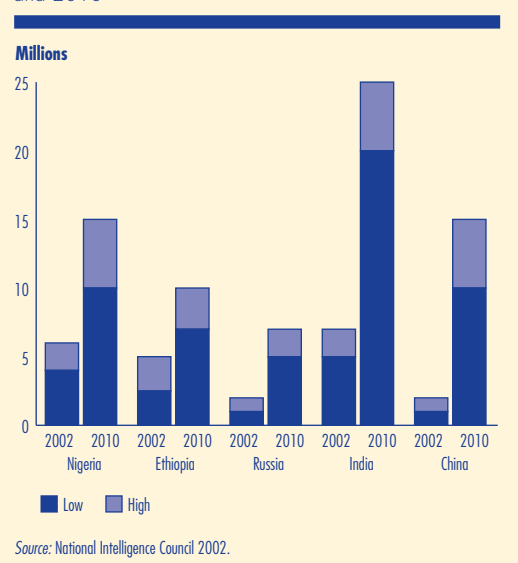
In 2000, the UN Security Council declared HIV/AIDS a national security threat, followed by similar announcements by the G-8 at meetings in Okinawa and Genoa. Underscoring the political imperatives for global action, the UN General Assembly devoted a special session to HIV/AIDS in 2001, and a Global Fund to Fight AIDS, Tuberculosis, and Malaria was launched in 2002.

Poverty-related threats

Poverty and infectious diseases are fellow travellers—each feeding on the other. The poor are at higher risk of infectious disease, and sickness can deepen poverty, creating a vicious cycle of illness and poverty. Especially prevalent among the poor are the first-generation diseases—common infections and maternity-related diseases, mainly affecting children and women (box 6.2). The risk and vulnerability to these poverty-related health threats are compounded by hunger, malnutrition and environmental threats, especially the lack of clean drinking water and sanitation. A significant share of the world's avoidable deaths and human insecurities is linked to poverty.

When poor people have voice, they consistently express fears about the multiple insecurities of everyday life.¹² They worry about economic insecurity from loss of jobs. They fear local violence. They want to immunize their children. And not surprisingly, they rank preventable sickness and premature death high among their priorities, not only to avoid pain and

Figure 6.3 High and low estimates of current and future HIV/AIDS-infected adults in next-wave countries, 2002 and 2010



suffering but also to prevent family bankruptcy. For the poor with fragile asset bases, catastrophic sickness deprives the family of daily wages, and compulsory health expenditures put enormous pressures on limited resources.

HIV/AIDS, for instance, decreases the ability of affected individuals to work and increases their health care costs, resulting in greater financial strain on their households. To cope financially, families initially respond by depleting any savings and by selling their non-productive assets. Children are removed from school, to lower family expenses and to care for the sick. The number and quality of meals are reduced to stretch resources, weakening the ability of the sick to fight off



Box 6.2 Ensuring human security for women: reproductive health

Complications from childbirth are the leading cause of death among women in many developing countries. Over 515,000 women die yearly in pregnancy or childbirth, and 99% of these deaths occur in developing countries. The risk of dying from childbirth is 1 in 1,800 in developed countries but 1 in 48 in developing countries. This gap implies that countless pregnancy-related deaths in developing countries could be prevented with adequate resources and services.

For every woman who dies in childbirth, 10–15 more women become incapacitated or disabled due to complications from childbirth. Over a quarter of women in the developing world, approximately 300 million women, suffer from short- or long-term complications of childbirth. Each time a woman gives birth, she is at significant risk of death or disability. She is also exposed to these risks more often since she will be likely to bear more children than a woman in a developed country. High rates of maternal mortality leave over a million children around the world motherless each year. A study in Bangladesh showed that such children are 3 to 10 times more likely to die within two years than children who live with both parents (Strong 1992).

There are many reasons for the high risk of death and disability during pregnancy and childbirth for women in developing countries. First, they lack access to family planning or safe abortion services. The UN Population Fund estimates that meeting family planning needs in developing countries alone would reduce maternal deaths and injuries by 20%. Unsafe abortions account for nearly 15% of all deaths related

to pregnancy. Second, many women do not receive any type of antenatal care. Over half of births in developing countries are not assisted by a trained birth attendant. And after birth, as few as 5% of women in poor countries receive postpartum care. Factors impeding woman's access to many of these reproductive health services include the accessibility of clinics, the cost of services, control over resources within households, decision-making power within family units, social isolation and time constraints.

While many other health indicators have improved in recent decades, little progress has been made in decreasing maternal mortality rates. Provision of primary health service is complicated by the social, political, cultural and economic environments of poor countries, which can marginalize women's roles and participation. Women are often discriminated against in access to education, food, employment, financial resources and primary health care services. Addressing issues of women's status and integrating them into mainstream social and political systems will be essential for improving reproductive health and allowing women wider participation within society. In addition, inexpensive and technologically simple methods are needed to promote women's reproductive health. Improving the quality of reproductive health care and women's access to it will not only improve the security of billions of women around the world, but also that of their children and families.

Source: UN Population Fund [www.unfpa.org/mothers/facts.htm]; www.safemotherhood.org/facts_and_figures/maternal_mortality.htm; www.unfpa.org/mothers/statsbycountry.htm; www.unfpa.org/mothers/skilled_att.htm] and Strong 1992.

secondary infections. Later, families are forced to sell their land, tools and other productive assets, to borrow money from relatives and friends and to go into debt to money-lenders. These strains continue even after death. Funeral celebrations can be very costly, and traditions of ownership prevent women and children from inheriting productive assets.

Health emergencies like this can precipitate a vicious downward spiral of sickness, compulsory spending, asset depletion and impoverishment. And not just in poorer countries. In the United

States, high health care costs account for an estimated half of personal bankruptcies.¹³

Violence and crisis

Today's conflicts are both within and among countries, often driven by inter-group hostilities and fuelled by the proliferation of small arms (chapters 2 and 3). The health dimensions of conflicts are multifaceted, entailing both emergency medical demands as well as long-term health challenges. To protect people, health

All forms of violence—collective, interpersonal and self-directed—are public health problems

responses to complex humanitarian emergencies must navigate through unsafe and unstable political, military and ecological contexts. The tradition of “medical neutrality”, sanctioned by humanitarian law and human rights covenants, may be difficult, if not impossible, to uphold. Humanitarianism is often overwhelmed by political and military imperatives.¹⁴ Medical workers must work with the military, the United Nations and non-governmental organizations—each with its own mandate.

Sickness and death can expand beyond the zone and time of conflict. The scale of deaths due to conflict escalate dramatically through ripple effects, extended in time to neighbouring regions. The impact of violence also impairs health, retarding economic recovery, increasing security costs and eroding the trust that underpins the functioning of all social institutions.

The direct casualties of war are modest in comparison with the toll from other forms of violence—physical, sexual, psychological, interpersonal, domestic and self-directed (table 6.1).¹⁵

Although the underlying causes are not well understood, the overwhelming proportion of interpersonal violence takes place among low-income people and in low-income countries. There is also a growing body of evidence that economic, social and political inequality and alienation provide fertile breeding grounds for all forms of violence.

Natural disasters are also a major threat to health and human security worldwide (chapter 5). The multidimensional devastation of natural disasters can wreak havoc on people’s lives. Ecological and climatic disasters—hurricanes, tornadoes, draught, flooding, landslides—are

Table 6.1 Estimated global violence-related deaths, 2000

Type of violence	Number ^a	Rate per 100,000 population ^b	Proportion of total (%)
Homicide	520,000	8.8	31.3
Suicide	815,000	14.5	49.1
War-related	310,000	5.2	18.6
Total ^c	1,659,000	28.8	100.00
Low- to middle-income countries	1,510,000	32.1	91.9
High-income countries	149,000	14.4	8.9

a. Rounded to the nearest 1,000.

b. Age-standardized.

c. Includes 14,000 intentional injury deaths resulting for legal intervention.

Source: WHO 2002.

becoming more frequent. These unexpected catastrophes can devastate families and communities, especially the poor living in precarious environments.

Historically well-documented and always feared, the use of germs as a biological weapon became a reality in the United States with the anthrax attacks of 2001. Although the attacks resulted in only five deaths, they generated unprecedented public fears, nearly paralysing the postal service and the Congress. As many as a third of the workers at the US Centers for Disease Control were assigned to combat anthrax.

Public concerns over biological weapons were so aroused that the US government was compelled to rebuild its stockpile of nearly discarded smallpox vaccine. Pre-emptive vaccination against smallpox is now being implemented in North America and Europe. The resulting scrutiny of health institutions exposed the long-standing



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underinvestment in public health infrastructures, underscoring the centrality of public health for the protection of people.

Adopting a human security approach

Windows of opportunity are opening to tackle the last century's unfinished health agenda, to confront this century's new threats and to build a unified and secure health future. The world's poor are threatened by global infectious diseases, poverty-related threats and violence. But in this globalizing world, no community can be entirely impervious to these contagious threats. Immunizing a child, for example, protects not only that child but also other children, the family and the entire neighborhood. Control of infectious epidemics thus has positive externalities where protecting an individual has wider benefits for others. Poverty and its related health threats are not only morally unacceptable—they also generate conditions for new pathogens, disease transmission and social and political pathologies. Reducing violence protects victims—and also reduces the “culture of violence” that perpetuates it.

Ensuring the health security of the public is, like police and fire protection, an indivisible good, with strong multiplier effects. Improvements in health anywhere benefit everyone everywhere. Protecting the health of the public—locally, nationally, globally—is thus a core public good.¹⁶ Gross health disparities and selective approaches are neither sustainable nor morally acceptable. Reducing health threats to human security will require unprecedented cooperation among diverse actors and nation states.

Recognition of global interdependencies in health is growing among the public and political

leaders. Public financing for global health has begun to increase from the low levels at which it has stagnated. After the Monterrey Conference on Financing Development and stimulated by the UN Millennium Development Goals, resource pledges of foreign assistance for health have increased significantly—for the first time in decades. New actors—civil society, business and the media—are joining the field. Non-governmental organizations are proliferating, and media coverage of health and security has increased markedly. New institutional arrangements are being established, such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria. And global health security is increasingly recognized as a political priority. If appropriately harnessed, this new awareness and responsiveness could help energize global health as a human security priority.

A people-centred approach to global health would focus on empowerment and protection. Empowerment strategies would enhance the capacity of individuals and communities to assume responsibility for their own health. These strategies would thus generate the conditions, such as community-based insurance for health care, to enable families and local groups to pursue self-help strategies. While governments and businesses are important, it is people, both directly and through government, who have the authority and responsibility for health and human security.

Protective strategies would promote the three institutional pillars of society: to prevent, monitor and anticipate health threats. Protection aims to prevent avoidable disease by reducing risks and vulnerabilities to the root causes of unnecessary sickness and death. Protection also entails developing early warning systems and building

Good health and human security for all depend on peace and development

standby preparedness capacity. Protection would focus on mitigating and ameliorating the impact of unavoidable crises, such as natural disasters. A key dimension of protection is the recognition that health security is imbedded in allied social, political and environmental conditions.

Fostering peace and equitable development

Good health and human security for all depend on peace and development—to ensure universal access to the basic requirements of food, nutrition, clean drinking water, hygiene and sanitation, and housing. Peace reduces the threat of violent conflict and illegal trafficking in people and drugs, thereby also reducing the threat of HIV/AIDS transmission through sexual violence, exploitation and intravenous drug use. Development is especially important for good health by promoting basic education, especially of women, and secure economic livelihoods. When basic conditions of peace and development are achieved, good health can be attained as part of human security. This does not require great wealth; it is achievable even at very low incomes, as has been well demonstrated in Costa Rica, Vietnam and the Kerala state in India.

Health and human security are knowledge-based and socially driven. The knowledge base generates medical technologies, such as vaccines and drugs. It also educates the public to adopt healthful behaviour, seek health services and participate in democratic decision-making to protect their own health. So, knowledge systems—such as health-based information, data and analyses on disease risks and spread—should be promoted and made openly accessible to achieve health and human security.

Health is also advanced by social arrangements, such as health care systems, local health groups and civic engagement. The role of the information media is growing in educating and engaging the public. Most important, the state's assumption of responsibility and authority for the health of its citizens is a critical social arrangement for producing health and human security.

Creating and using knowledge

With people as the ultimate producers of good health, and with health security dependent on knowledge, achieving universal basic education is one of the most important steps to health and human security. Knowledge also empowers health workers, professional associations and civil society to contribute to public health. And knowledge is the basic building block for improving the tools and technologies for health, such as new vaccines, drugs and diagnostics.

Intellectual property for health security. Knowledge builds on the wisdom of the past and the ingenuity of the present for future generations. Traditional knowledge has given the world such essential drugs as aspirin, quinine and taxol—improving the quality of life of millions of people around the world. The recent acceleration of global trade has sparked international debate over the ownership and application of knowledge for human health and security. The debate is twofold. Although there are many barriers to poor people's access to essential drugs, recently promulgated international rules governing intellectual property could lessen the capacity of the world's poorest people to afford vaccines and drugs essential to their health security. Consider life-saving antiretroviral drugs for HIV-



National disease surveillance and control systems should be strengthened and then networked into a global system

positive people in poor countries. Private markets alone do not provide sufficient incentives for investment in knowledge-creation for the many diseases of the poor. Only 10% of global investment in health research, for example, is aimed at the illnesses responsible for 90% of the global disease burden (box 6.3).¹⁷

At the centre of the debate is the World Trade Organization's (WTO) agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Ratified by member countries of the WTO in 1994, TRIPS affords 20 years of patent protection on a worldwide basis to technological inventions, including vaccines and medicines. Through patenting, a pharmaceutical company that develops a new drug is granted a temporary global monopoly on all production, pricing and marketing of the patented entity.

In November 2001, the Doha Ministerial Declaration of the WTO recognized the special challenges faced by developing countries. It affirmed that "under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate". It also reaffirmed the right of governments to use "compulsory licensing" and "parallel imports" to obtain access to key vaccines and drugs to combat national public health emergencies. Compulsory licensing and parallel imports by many of the poorest countries without domestic manufacturing capacity would, however, have little practical meaning because under the restrictive TRIPS clause, developing countries such as Brazil and India, which now export generic medicines, must cease exports by 2005.

WTO negotiations remain divided over the definition of "insufficient manufacturing capacity", the potential for companies in developed countries to export generic drugs still under patent and the measures necessary to prevent the re-export back to the developed world of drugs manufactured under compulsory licenses. Among participating countries, only the United States insisted on a limited, inflexible list of key diseases that would qualify for compulsory licensing, such as HIV/AIDS, tuberculosis and malaria. All other countries, recognizing that health emergencies are by definition unpredictable—witness the urgent need for the antibiotic Cipro during the anthrax crisis and the emergency production of smallpox vaccine—wanted a more flexible approach that did not restrict "public health emergencies" to a few diseases.

Addressing these issues and meeting the challenge to health security posed by the current intellectual property rights regime will require new approaches and new thinking about the ownership of knowledge, health as a human right, and market and institutional structures to both offer incentives and protect lives.

Information to control priority threats. Health empowerment and protection depend on reliable and up-to-date data and analysis and a capacity to act in response to information. Central to health and human security, therefore, are systems to collect and deploy information for detecting disease threats, monitoring their changes and guiding control efforts. All surveillance and control activities ultimately depend on people and local communities, but national and international systems are needed to empower people and

Box 6.3 What role can antiretroviral drugs play in combating the HIV/AIDS threat?

Over the last decade, the HIV/AIDS epidemic has reached daunting proportions, particularly in Africa and Asia. With a vaccine still years away, and prevention efforts having limited success, large-scale use of antiretroviral therapy could help tip the scale of the epidemic back to controllable levels. Antiretroviral therapies reduce the amount the AIDS virus in affected individuals, improving their clinical condition, quality of life and life expectancy. When provided to pregnant women, antiretroviral therapy decreases the risk of transmission to newborns to less than 10%.

Until recently, there was widespread concern that antiretroviral therapy was too complex and resource intensive for use in developing countries. The programme requires adequate pharmaceuticals and diagnostics, human resources, information management systems and physical infrastructure. Recent work in Botswana, Brazil, Haiti and Thailand, however, indicates that with proper support and financing antiretroviral therapy can play an important role in combination with prevention. Each of these countries developed unique programmes suited to their situation and were able to achieve outcomes comparable to those in developed countries. In addition, because of the relative ease of implementation, programmes to prevent mother to child transmission are now being implemented throughout Africa and Asia.

With new funding sources such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the wider use of antiretroviral therapy in Africa and Asia is increasingly plausible. There are risks as well as benefits to the use of antiretroviral therapy that must be managed. Major risks include taking attention away from prevention efforts, overburdening weak health systems, creating resistance to drugs and improperly communicating the limitations of therapy. The benefits, however, are substantial and include bolstering prevention efforts by reducing the stigma of the disease and increasing testing, maintaining the integrity of communities by increasing life expectancy of affected adults, improving economic performance by sustaining work forces, and increasing hope. Many African nations have now committed to providing therapy for their people and are working to consolidate the support needed to make this promise a reality.

Making large-scale use of antiretrovirals a reality will require increased access to low-cost pharmaceuticals and diagnostics, innovative approaches to bolstering human resources for health, better integration of therapy programmes, and prevention programmes to keep the focus on control of the epidemic. If developed and developing countries commit to these changes, among others, antiretroviral therapy can be a critical measure for improving human security until a vaccine for HIV/AIDS is found.

Source: Shisana, Zungu-Dirwayi, and Shisana 2002.

communities. The transnational spread of contagious diseases and the ripple effect of health problems call for a global surveillance and control system for health and human security. National disease surveillance and control systems, in various stages of maturity, should be strengthened and then networked into a global system (box 6.4).

That global system would allow for the rapid sharing of information and responses. It should be plural in participation—including non-governmental organizations, the media and others. But the state and the intergovernmental system must play a key role. The central mission would be to protect the world public from infectious and other contagious threats, irrespective of national boundaries. These national and global systems

should not be dependent on “foreign aid”. They are central to health and human survival for all and should thus be supported by the global public through all member governments.

Surveillance systems would naturally focus on the greatest health threats. In many regions of the world, HIV/AIDS, tuberculosis and malaria demand high priority action. Diverse priorities, however, would be expected among different communities and countries. There is sufficient commonality of shared disease threats to link these local systems into a coherent global system—a win-win situation for all participants.

Among these major killers, HIV/AIDS is a global security emergency. But assisted by information, intelligence and monitoring, some



Box 6.4 Minimizing threats to human security through global health surveillance

The challenge of infectious diseases has changed remarkably over the last 30 years. Today the world is more mobile and interconnected as transportation has become more rapid, communication more instantaneous and borders more permeable. The epidemiology of many infectious diseases is rapidly changing, as are the geographical patterns of disease distribution and drug resistance. To respond to infectious disease threats to human security, communities must be able to identify infectious outbreaks and respond rapidly with international support. Improving global surveillance systems represents the best chance for reducing such threats.

Global health surveillance began in 1896 when the International Sanitary Conference agreed on the need for international health surveillance. In 1907 the Organisation Internationale d'Hygiene Publique was established in Paris to gather information on disease outbreaks for eventual distribution to participating countries. Despite these efforts, international health legislation proved ineffective because treaties did not keep pace with scientific advances, and poorer countries were reluctant to participate, for fear of possible repercussions.

After World War II the Organisation Internationale d'Hygiene Publique was replaced by the World Health Organization (WHO). In 1951, WHO issued the International Sanitary Regulations, renamed the International Health Regulations in 1969 and later revised in 1981. The aim was to achieve the greatest possible security against the spread of disease and minimal disruption of international trade and travel. These regulations required member states to notify WHO within 24 hours of outbreaks of cholera, yellow fever and plague. WHO possessed no enforcement powers, working only through persuasion and recommendation. Again, not all countries complied, fearing the costly repercussions on trade and tourism that other reporting countries had faced in the past. The present International Health Regulations cover only three diseases (cholera, plague, and yellow fever) and fail to address other infectious diseases with the potential for international spread.

Today, as globalization has accelerated the spread of disease through trade and travel, the global community must invest anew in every aspect of infectious disease surveillance systems, from basic laboratory and clinical

capacity to international agreements on lines of communication and appropriate responses to epidemics. One of the most successful recent initiatives for global surveillance has been the collaborative development of a highly sensitive global infectious disease surveillance and response system, the Global Outbreak Alert and Response Network, initiated by the WHO and maintained by Health Canada. Under development since 1997, it has created a network of over 100 laboratory and disease reporting systems, providing up-to-the-minute reports of infectious disease outbreaks by systematically scanning electronic resources, including web sites, news wires, public health email services and electronic discussion groups. These sources are collaboratively linked to information networks from government centres, academic institutions, UN agencies, overseas military laboratories and prominent non-governmental organizations, including Médecins sans Frontières and the International Federation of Red Cross and Red Crescent Societies.

For outbreaks of international concern, electronic communications are initiated immediately with the affected country to provide rapid, confidential assistance. The Global Outbreak Alert and Response Network also maintains a global database of health professionals who can advise on infectious disease control strategies. The WHO's network of collaborating centres of national laboratories and institutes similarly helps affected countries make efficient use of scarce public health expertise and resources.

From July 1998 to August 2001 the network identified 578 outbreaks in 132 countries, from cholera, meningitis, haemorrhagic fever, and viral encephalitis to anthrax. The network has also undertaken numerous containment activities in developing countries. The network has coordinated large-scale monitoring and international assistance by establishing standardized procedures for verifying infectious disease outbreaks and by coordinating responses with the help of international experts. This approach has helped to minimize the infectious disease-related threats to human security. As the world continues to shrink, efforts like this will remain crucial to protecting the poor from the ravages of infectious outbreaks and protecting the global community from the rapid international spread of infectious diseases.

Source: Heymann 2002; Fidler 1997; WHO 1983; Zacher 1999; Heymann and Rodier 1998.

Promoting community-based health care through insurance can protect people from the devastating downside of catastrophic illness

heavily-infected countries—such as Thailand, Senegal and Uganda—show that HIV/AIDS can be contained. Other countries, where the disease is less widespread—such as Brazil, Mexico, and in Western Europe—show that it is possible to contain an incipient epidemic. Many others—China, India and Russia—face the possibility of explosive growth in the epidemic. Until an efficacious vaccine is developed, the only effective approach to HIV/AIDS is changing human behaviour. The health yield of “safe sex”, as estimated by WHO, is enormous. Urgent priority should be accorded to health education, peer support and changes in the conditions that can accelerate modifications in human behaviour for health and human security.

Mobilizing social action

Knowledge that sits on the shelf does little to advance people’s health. Social arrangements and institutions, appropriately motivated, are essential to health protection and empowerment. The health advances in the 20th century can be attributed in part to the revolutionary development that governments increasingly assumed responsibility and authority for the health of their citizens. Social action by civil society organizations, business, mass media and other organizations also contributed to these health advances.

Community-based health. Perhaps because poor people are so vulnerable to health risks, they are attempting to mobilize and deploy their health security assets. When poor women gain rudimentary health education, they can become agents of change for their families. When poor communities train local health workers or set up

health insurance schemes, they can manage many health risks at a local level. In strong civil societies, non-governmental initiatives can complement public sector health activities and also advocate for socially progressive changes in public health. But where individual and institutional advocates of health security are only weakly present, or even discouraged, the health security of a population rests on a fragile public sector or imbalanced private market.

Health emergencies arising from epidemics demanding urgent action are the small visible tip of a large iceberg. More significant and longer in term are the silent crises of poverty-linked illnesses and violence, especially gender-based domestic violence. Too often neglected, these silent crises of human insecurity deserve similar priority. A human security approach would recognize these people-centred priorities.

A central part of the peace and development agenda should be a core public health system shaped to national priorities. Because health threats vary among people and countries, these systems naturally would focus on the health and human security priorities of diverse communities and countries. But the core functions of public health are similar—primary prevention and care for major health threats.

“Health for All”, promulgated at the Primary Health Care Conference at Alma Ata in 1978, has not been realized. The reasons for this failure range from weak political will to economic incapacity. Public systems have not been adequately developed, and private markets in health care have catered only to those with the money to pay for care. The revitalizing of Health for All will require renewed political commitment translated into



A new balance must be established among individual, state and global responsibilities for health and human security

sustained investments in the people and infrastructure for universal prevention and care. As long as people are deprived of primary prevention and care, health and human security for all are unachievable.

Promoting community-based health care through insurance can protect people from the devastating downside of catastrophic illness. Although not all sickness can be prevented or treated, all people should have access to core primary health care services. And all should be protected from the downside risks of devastating illness and catastrophic economic loss. Risk-sharing arrangements based on pooled membership funds and community income generation projects have proven successful, as demonstrated by pioneering innovation of non-governmental organizations such as the Self Employed Women's Association and the Bangladesh Rural Advancement Committee. With health risks more global, risk-sharing requires vastly expanded pools of members. National and global resources should back community-based insurance systems, financially and organizationally (box 6.5).

Global health security. In this globalizing era, a new balance must be established among individual, state and global responsibilities for health and human security. Responsibility for health security is shifting down from the national level to individuals, communities and civil society organizations—and upwards to international institutions and networks. As health security responsibilities shift, a stronger system of global health governance is required. Such a system should support and coordinate local and national initiatives—and establish global ground-rules for

health security. How? By modernizing international health rules and regulations, fostering partnerships between public and private sectors and building the architecture for global health.

Formal cooperation in international health began in 1851, when the first international health conference sought to contain disease without impeding international trade. The International Health Regulations, last adopted in 1969, were built on a series of agreements over the previous century and a half. As the first formal recognition of global health interdependence, they maximize security against infectious diseases while minimizing the impact on trade and travel. In this globalizing era, the regulations should be updated and expanded to include many emerging transnational health risks, such as environmental threats, tobacco control and criminal violence.

Given the complexities of these tasks, no single institution can perform them all. Many actors are necessary. Recently, innovative partnership arrangements between public and private actors have filled gaps and exploited new opportunities. Mission-driven partnerships have expanded immunization coverage, developed vaccines and drugs against neglected diseases and accelerated health action against priority diseases. Experimental partnership arrangements should be encouraged along with revitalization of formal organizations.

Any global system must grapple with the different threats confronted by people living in diverse contexts. Privileged people in richer countries, having mostly controlled the common infectious diseases, worry about bioterrorism and new or re-emerging infectious diseases that threaten their health and economy, such as the

Box 6.5 Community-based health insurance

The Declaration of the International Conference on Primary Health Care in Alma Ata in 1978 stated that “Primary health care requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control of primary health care, making fullest use of local, national and other available resources”. But the question of how poor communities can contribute to the provision of health care persists.

Disease or illness can cause an individual or household to enter a downward spiral in which poor health results in the depletion of assets, and low levels of assets lead to worsening health and the inability to cope with future illness. Government provision of health care should meet the health needs the poor, but in practice often does not.

Community-based health insurance offers the poor an alternative for coping with health crises. It provides a much-needed level of health security to the poor and allows them to pool their resources to access otherwise inaccessible health services. Individuals or households

pay a premium in exchange for compensation for future medical expenses. The community determines the criteria for eligibility, the level of premiums, the method for their collection and the level of payouts. This may allow developing country health sectors, which are starved for funds, to mobilize resources that would otherwise be unavailable.

Vimo SEWA is one example of a community-based health insurance plan, organized by informal economy workers in India. It has been running for more than 10 years and today has 93,000 insured members. From its experience with community-based health insurance in India, Vimo SEWA has concluded that health insurance is not only a growing need and demand of the working poor, but it is also a significant economic support for them. Its members regularly acknowledge that it is Vimo SEWA’s health insurance that protects them from slipping back into the poverty from which they had struggled to emerge. Vimo SEWA’s experience has also proven that investing in the poor, and women in particular, through community-based health insurance is viable.

Source: Chatterjee and Ranson 2002.

anthrax threat in the United States and mad cow disease in Europe. People in poorer contexts, no less fearful of terror or economic setbacks, must grapple with the more common infections already controlled among the rich. Measles, respiratory infections, cholera and other common infectious diseases are the greatest threats to the world’s poor.

These differences in disease risk underscore the importance of encouraging local and national priorities, while seeking mutual health security through international cooperation. Public health infrastructure can provide “dual-use” capacity for managing natural epidemics and defending against bioterrorism. Early warning and response against bioterrorism require public health capacity to identify, validate and control infectious agents. Developing this core public health infrastructure in every country benefits not only individuals but also the global community.

Policy conclusions

Health and human security are central matters of human survival in the 21st century. Knowledge

and technology can make a difference. The challenges are to make tools and knowledge accessible while promoting incentives and structures for the production of new knowledge. And social action is needed to deploy that knowledge for health and human security.

Health and security have long been distinct fields, to the detriment of both. Health has been seen as a “medical problem”, and security, as a matter of military defence. The state was responsible for the health and defence of the public, but it assigned these responsibilities to unconnected ministries. People in all countries want good health and human security. And maintaining artificial distinctions between “health” and “security” distorts the priorities of what the public wants in most democratic societies. The main requirements:

- Urgent action is needed to combat HIV/AIDS and other human security-threatening diseases.
- Intellectual property rights should build in incentives for advancing human security.
- National disease surveillance and control systems should be formally linked into a global



system. Such a system would allow for the rapid sharing of knowledge and quick response to infectious disease-related threats, including those resulting from emerging and re-emerging communicable diseases, drug-resistant strains of disease and incidents of bioterrorism.

- Every country should build a core public and primary health care system, shaped to national priorities.
- Community-based health-insurance should protect otherwise-vulnerable people from the devastating downside of catastrophic illness.

Notes

1. World Bank 1993.
2. WHO 2003.
3. UNDP 2002.
4. INDEPTH Network 2002.
5. Chen, Wittgenstein and McKeon 1996.
6. Petter Gleditsch and others 2001, UNDP 2002.
7. Rothschild 1995.
8. Cash and Narasimhan 2000.
9. McNeill 1998.
10. Cohen 2002.
11. National Intelligence Council 2002.
12. Narayan 2000.
13. Jacoby and others 2001.
14. Leaning, Briggs and Chen 1999.
15. WHO 2002.
16. Chen, Evans and Cash 1999.
17. UNDP 2002.

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