EDUCATION AND PUBLIC HEALTH
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1. Public Health, Education - and Human Security?

Of the proposed elements of human security, perhaps the most controversial are those in this chapter: public health and education. In a recent issue of Security Dialogue in which authors debated concepts of human security, one author argued sharply that the “broad vision of human security” – such as that used in this book, which includes freedom from want as well as freedom from fear – “is ultimately nothing more than a shopping list” with, he argues, little policy utility. He writes, “It is not clear that anything is gained by linking ‘human security’ to issues such as education, fair trade practices or public health challenges. Does it change our understanding of the right to basic education when we describe illiteracy as a threat to human security? Does it facilitate more effective action?”

We answer the above questions with a careful yet considered affirmative. Securing the freedoms vital to human life requires the identification of, and investment in, key and cost-effective leverage points. Public health and basic education, we argue, are two of these – two which are often overlooked precisely because they are so familiar, or because they are not considered to be security investments. But in these two areas, a relatively marginal investment in monetary terms could have a transformative impact.

Consider, for example, a young girl in an impoverished conflict zone. What does she need to survive into her 40s? After all, survival is an indivisible and rudimentary aspect of human security. She may be at risk from military groups or from common criminals. She may need to work in order to procure food and other essentials. She may suddenly fall ill and need an antibiotic. She may need to learn how to avoid mines, and how to purify water. The distinctive nexus of human security dimensions – which include education and public health as well as conflict-, policing-, livelihood- and food-related concerns – emerge organically even when we consider how to protect mere survival. So we begin by reviewing why public health and education are elements of human security – not why they are important overall, but why they belong to this discussion.

Public Health

The transparent priority of public health rests on the magnitude of preventable health insecurities and fatalities. In 2002 the earth held 6.22 billion human beings. Of these, 57 million persons perished in 2003 according to preliminary estimates. The WHO estimates that 30-40% of these deaths were preventable. For example many of the

2 World Health Report 2004 (all figures in this section)
11 million deaths due to infectious and parasitic diseases – HIV/AIDS, diarrhea, tuberculosis, childhood diseases, and malaria – could have been prevented. Similarly, adequate public health would have significantly reduced the number of mothers who died of birth-related causes (510,000), or the infant deaths (2.5 million), or the fatal respiratory infections (4 million).

The WHO estimates the number of war deaths in 2002 to be 172,000 (down from 230,000 in 2001 and 310,000 in 2000). Violence data are notoriously weak, and efforts are underway to strengthen them. Yet even if the actual figures were 3-fold higher, the number of battle deaths would only barely surpass the number of mothers who perish in childbirth, and would number less than 5% of the deaths from infectious disease. The tragedies of conflict vastly exceed the number of violent deaths, and mortality comparisons omit the devastating psychological, economic, political and environmental costs of war. But this is no argument for ignoring the overwhelming human cost of non-violent public health failures.

Public health failures generate ‘quiet’ deaths. They do not inspire equivalent media attention or outrage as do incidents of terrorism or violence. But, as the Voices of the Poor study documented, illness ranks among the primary worries of the poor across the world. As a woman in Egypt said, “We face a calamity when my husband gets ill. Our life comes to a halt until he recovers and goes back to work.” Additionally, health insecurity is especially critical in conflict zones, where often more people expire from preventable disease than battle wounds. To advocate public health as a core element of human security is to advocate measles vaccines for children in Darfur and clean water for internally displaced persons, as well as to urge for sufficient peace-time investments in basic health infrastructure and personnel. Whether in war or peace, it sees the prevention of preventable mortality to be a core element of human security.

**Education**

The priority of education as human security factor rests mainly on its link to people’s empowerment or agency. A basic education can form people who act as critical agents of their own security and that of others. For example, to reduce child mortality, or hunger, or family size it is essential to educate girls and women. Similarly, educated citizens are more able to make their voices known in the public space, and more likely to have adequate livelihoods. While certainly national governments and other institutions play a critical role in shielding people from many threats, one of the distinctive features of the concept of human security presented in this volume is its insistence that people be supported as agents of their own security. Basic education is a critical means for achieving this.

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3 World Health Report 2004 p 120f
In addition to its contribution to human agency, education has the direct potential to inflame or to calm conflicts of many kinds. What is taught at a young age forms attitudes and values for years to come. Habits of acrimony are no exception. As a song in the musical *South Pacific* put it, “You’ve got to be taught, before it’s too late, before you are six or seven or eight, to hate all the people that your relatives hate – you’ve got to be carefully taught.”⁶ Not only relatives teach: the lessons children learn in school matter too. To reinforce human security, basic education would need to foster amity rather than division, and kindle social action, not apathy. Thus education is not only interconnected with health and employment, as is often recognized, but also with violent conflict.

**Human Security**

But, to return to the critical question posed at the outset, what is gained by seeing public health and basic education as components of human security? We argue that three things are gained. The first is an impetus to find ways to provide ongoing support to public health and education before, during, and directly following periods of conflict. Given that the institutions that operate during conflicts are often deeply constrained, to provide basic human services requires a considered innovation in strategy. In 2003, 19 countries were in active conflict (having greater than 1,000 deaths)⁷ and while this is the lowest number in the post-Cold war period, a far greater number of countries are stabilizing and undergoing in post-conflict reconstruction, and thus also re-building public health and education systems.

Second, if public health and education are elements of human security then investment in them can be evaluated alongside other private and public security investments. Low income countries spend an average of $21 per citizen per year on health care, whereas high income countries spend $2735 per person, and middle income, $115.⁸ In terms of education, most estimates of the cost of providing basic education to all primary school-aged children range from an additional $8 to $15 billion a year.⁹ Over the past 2 years, world military expenditure increased by 18% in real terms, to $956 billion in 2003 dollars.¹⁰ Thus universal schooling could be paid for by three to six days of military expenditure a year. It may be that the security returns to education would be far higher than the security returns to certain weaponry systems although this comparison would need to be explored fully and impartially. The point is that such comparisons – which the 1994 *Human Development Report* of the United Nations pioneered – can be made when the security impact of public health and education are considered.

Third, public health and education may be empirically interconnected with other human security variables such as violent conflict, or economic resilience, or informal

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⁷ *SIPRI Yearbook 2004*
¹⁰ *SIPRI Yearbook 2004*
social safety nets. The connections may be indirect, but still worth exploring with some persistence despite their complexity.

Having argued that education and public health are, indeed, core elements of human security, the remainder of this chapter identifies strategic priorities within each sector. Readers will at once recognize that many of these priorities are not fundamentally “new”. Indeed Japan’s educational code promised universal primary education in 1872. What is new is our ability to redress these insecurities effectively at a large scale, as well the ability of the deprived to observe the glaring neglect if we fail to do so.11

2. Public Health Priorities

What makes some health problems a threat to human security, and others not? A set of attributes distinguishes priority health-security threats – the scale of the human burden, now and into the future; the urgency of action; the depth and extent of societal impact; and wider consequences or “externalities” beyond disease, person, or location.

Scale – Human security health threats exacts a major health burden, both now and into the future. The scale and scope of the HIV/AIDS epidemic are obviously of global dimensions. 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. The toll of avoidable death toll due to poverty-related health threats is similarly gigantic. While many deaths overlap between infectious and poverty-related causes, a significant share of the 57 million deaths yearly may be linked to poverty. Avoidable deaths associated with poverty can be estimated by applying the probability of death among privileged populations to those of the poor. The scale of deaths due to violence and crises, both natural and human-made, are more modest than infectious diseases and poverty-related diseases. But, the numbers escalate dramatically if the impact of violence and crisis are considered in terms of a ripple effect of higher than normal mortality rates in neighbouring regions and continuing retarded health developments over time. For example, in the Democratic republic of the Congo, disease caused six times more deaths than battles, with women and children being particularly vulnerable to them.

Urgency – Human security health threats demand urgent action, as perceived by policy-makers and the people themselves. Conflict and epidemics are visible crises demanding urgent public action. The anthrax attacks generated unprecedented public fears in the US. At one time or another, about one-third of US Centers for Disease Control workers were assigned to combat anthrax. The visibility of war and epidemics contrasts with the silent crises of poverty-related diseases and violence, especially among the poor. An “iceberg” analogy illustrates the dilemma of visible and quiet or silent crises.
Health emergencies due to conflict and epidemics demanding urgent action are the visible tip of an iceberg. More significant and longer-term in terms of human toll are the silent crises of poverty-linked illnesses and violence, especially gender-based domestic violence. While too often neglected, these silent human crises of insecurity deserve similar priority, at least to the people affected. A human security approach would recognize these people-centred priorities. Visible and silent crises of health security, interestingly, parallel Amartya Sen’s studies of famine. Famine, because of its visibility commands political attention in democratic societies with a free press, but the silent crises of chronic hunger and malnutrition do not enjoy the same policy attention.

**Impact** – The depth and extent of these health threats are much more than simply medical or health problems. HIV/AIDS impoverishes families, creates orphans, and destroys communities. The scale of sickness and death can cripple an economy and destroy a society. In some heavily-infected countries, HIV/AIDS is already depleting skilled teachers and nurses from schools and hospitals, in some places at a rate of 10 percent annually. The impact of poverty is no less devastating, although the effects may be less visible. Poverty is linked to illiteracy and ill-health; it wastes human lives; and poverty impact on a family and the entire society. Poverty can be transmitted intergenerationally. The impact of violence is both immediate as well as longer-term in increasing security costs, retarding economic development, and eroding societal trust that underpins the functioning of social institutions. Indeed, government’s capacity to manage crisis is critically important. Mismanagement of health crises, like Mad Cow Disease and the anthrax bioterrorist attacks, can ruin the credibility of government.

**Externalities** – Externalities describe consequences or costs beyond the immediate medical problem or individual affected. Negative externalities are illustrated by the “contagion effect” of infectious diseases which infects not only the victim but also increases transmissibility and risk to others. Control of infectious epidemics, thus, has
positive externalities since protecting an individual, say by immunization, has the beneficial impact of reducing transmission to the non-immunized. Epidemics can also exacerbate humanitarian crises, such as the devastating outbreak of cholera among Rwandan refugees in Goma, which fuelled the exodus of refugees and continuing conflict. A high prevalence of HIV/AIDS among the military creates national security concerns. The externalities of poor public health are likewise tremendous. Poor health reduces children’s attention as well as school attendance, thereby decreasing their ability to learn in school, and compromising their long term skill set. Labor productivity declines with health crises; worker absenteeism rises; and, in aggregate, the economy suffers. Recent developments suggest complex connections between conflict, terrorism, and destitution. Poverty can have negative externalities, such as alienation, resentment, and hostilities. Violence begets more violence. Control of violence has positive externalities because a safe environment enables unimpeded economic growth, tourism, and a higher quality of life.

Applying these four criteria to the health insecurities will generate different priorities in different situations and at different points in time. The human security responses chosen will likewise be large-scale, urgent, and high impact interventions with positive externalities. Basic public health priorities (clean water, vaccination, birth attendance) are large-scale, high-impact ongoing aspects whose urgency is visible when they are absent. Other ‘urgent’ priorities also emerge. Clearly as the excellent chapter by Okazaki details, the HIV/AIDS crisis as well as tuberculosis and malaria epidemics threaten the human security of millions. Part of an adequate human security response will be to identify adequate responses. Earlier a key leverage point was the release of antiretroviral medications to the 5 million people who actively require them.12 Through considerable negotiations on intellectual property rights, the WHO has been able to secure sufficient antiretrovirals to treat 3 million people by 2005.

But during implementation of the so-called “3 by 5 initiative” a new bottleneck has become visible: the dire shortage of health workers to deliver these antiretrovirals to those who need them most. Nurses and doctors in the priority HIV/AIDS countries face extreme insecurities. Exposed to HIV/AIDS often without gloves, or antiretrovirals for themselves and family members, burdened by social duties linked to funerals, overworked due to the increasing health crises and dismal health budgets, doctors and nurses are leaving the workforce or migrating to developed countries in increasing numbers, where they are safer, and relatively well paid.13 A widespread, urgent, and high impact health priority at present, with significant positive externalities, is to recruit and train health workers so that they can deliver the hard-won medicines and sustain public health systems.

As this example shows, the precise priorities will evolve over time, and will vary in different contexts, as well as according to the kind of institution that is at work (private sector, NGO, government, or international organization). Still, the criteria by which public health emergencies should be addressed are clear. The cost of neglecting such

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13 See Dugger July 12, 2004 and Chen [JLI report].
emergencies should be weighed carefully against the cost of failing to invest in other aspects of human and state security.

3. Education Priorities

Insofar as basic education enables people to act on their own behalf, it builds up the grass-roots resilience of individuals, households, and communities to weather many kinds of insecurities. Its positive ‘externalities’ in terms of better health for the whole family, labor productivity, income, and children’s education are well known. For such reasons, primary education has come to be affirmed as a ‘universal’ priority. Education is also a longer term investment, and some of the returns from a first grade education may not be realized until years into the future. It could seem difficult, then, to prioritise education along the same four categories as health. For although its externalities are large, its scale is meant to be universal, it cannot be delivered ‘urgently’, and its short-term security impact may or may not be intense. We take the position that a commitment to human security must sustain an ongoing, long-term commitment to the provision of universal basic education as a non-negotiable priority.

This is particularly the case because educational deprivations remain significant, with one-third of all adults in developing countries being illiterate – and 57% of those in least developed countries. At present, around 114 million primary-school aged children are not in school. Progress towards their universal primary education continues to fall far short of what would be required to achieve this by 2015 – at present rates Africa will not achieve this goal until after 2100.

Two qualifications must accompany the assertion that primary schooling is fundamental to human security. First, human security would not be furthered if the world community were to achieve universal primary education by subjecting its children to ghastly schools. Yet this is a real possibility. In some places parents document the excessively brutal corporal punishment; in others girls are vulnerable to sexual harassment at school. The physical classroom conditions may be unhealthy, or the journey to school may expose students to dangers from wild animals, violence or drugs, hazardous paths, or other difficulties. The ‘human security’ of schooling is thrown into sharp relief precisely because of the deep insecurities to which many schoolgoing children are now subjected.

Equally important for educational impacts on human security is the process and content of schooling. What is taught at a young age forms attitudes and values for years to come. Acrimonies are no exception. And not only relatives teach: the lessons children learn in school matter too. For education to impact human security via the many possible externalities (by giving people voice, by conveying basic health and hygiene information, by teaching literacy, by forming publicly committed and tolerant citizens) it must convey

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14 Human Development Report 2004 Table 11.

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not only information and life skills, but sound ethics and attitudes also. If it does not, a culturally or ethnically biased curriculum or atmosphere can feed political instability. Teachers’ own attitudes constantly impart implicit instructions on how students should deal with disagreement, and the ethics by which they should live. Furthermore not all educational approaches empower (which is vitally important because empowerment is a key anticipated outcome of schooling). Schools may reinforce traditional gender roles, encourage subservience rather than collaboration and initiative, or rely on rote-learning rather than problem solving. Thus the content and process of education can fundamentally affect how whether or not education contributes to self-reliance and empowerment, as well as whether it mends social rifts or inflames them.

Of with course a solid foundation of skills students can complete their own education and fill knowledge gaps – thus it may be more important for students to attain basic skills such as literacy and confidence, than to absorb particular bits of information. For example the World Bank study, Education and HIV/AIDS, found that “a general basic education—and not merely instruction on prevention—is among the strongest weapons against the HIV/AIDS epidemic.” More important, perhaps, is the nurture of self-confidence, curiousity, and other skills by which people can engage in life-long learning.

In addition, however, other aspects of education may indeed be human security interventions whose prioritization can be accomplished using the same four criteria. For example, during or after a flood, massive public education campaigns may be needed to instruct people on how to purify water. Another example of an urgent educational campaign (the World Bank’s quote notwithstanding) refers to HIV/AIDS prevention. For example, the interior of Angola had, until recently, low rates of prevalence (1.6% among those aged 15-49) 40 years of war as well as its legacy of land mines discouraged travel in the interior. Recently, the border crossings have been opened, and thousands of troops, who may have been exposed to HIV/AIDS on their term of duty, were demobilized and returned to their hometowns throughout Angola. This provoked a massive and arguably urgent educational drive to inform soldiers of the cause of HIV/AIDS as well as methods to prevent its spread.

Other forms of education may have high externalities. For example, by gaining access to information and communications technology, fishing communities can know the weather conditions at sea and thus improve their safety; farming communities can know the market prices for their commodities, thus evading the middleman or decreasing the discrepancy between the rates paid to them and market rates. Access to such very practical information can improve human security too.

Perhaps the most influential, and yet the most elusive, contribution that education can make to human security is by its contribution to the ‘enlightenment’ of the individual. When Amartya Sen spoke on human security at Chulalongkorn University Thailand, he

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began by recollecting that two thousand five hundred years ago, Gautama Buddha left a secure life to seek enlightenment.\textsuperscript{18} His departure from a life of material security responded to the existential insecurity of all human life— insecurity that he found deeply troubling. Outside the safety of his walls he saw a dead person, and wondered why there was such a thing as death. He saw a person wracked by illness, another very old and disabled, and wondered why. His reflection and compassion built up a way of thinking about the wider world that, with other faiths and world views, has influenced our own. His thought was profoundly spiritual. But he faced the very practical questions of how to reduce human insecurity in this life as well.

The point of Sen’s introduction was to observe that to address human insecurities we need enlightenment—not only information, but ethics and compassion also. Building such fragile bonds of affiliation or compassion – what Imannual Kant called people’s recognition of their ‘imperfect obligation’ to help one another – may be particularly important in the richer countries, where leaders, supported by their citizenry, could do a great deal to reduce human insecurity across the world.\textsuperscript{19}

4. Conclusion

In this paper we have argued that education and public health, far from being marginal aspects of human security, are indeed central to it. Even the most primitive conception of human security – the prevention of preventable mortality – would entail attention to public health and basic education. Were these inputs sufficiently provided by other public investments it might be less important to establish them as aspects of human security. Unfortunately, public expenditures – as well as health and educational outcomes – remain deeply insufficient. Indeed the world is not on track to achieve either the modest health MDGs or the MDG related to universal primary education. In this setting it is all the more important to prioritise those interventions that will produce widespread, high impact benefits, as well as to identify urgently needed interventions, and those with high indirect or downstream benefits.

\textsuperscript{18} This section draws heavily on Sen, \textit{Keynote Address}, Chulalongkorn University, 11 December 2002.
\textsuperscript{19} See also Sen ‘Global Justice’ [other refs]
Box 1. Teaching Prejudice in school

Bulgarians, Greeks, and Turks
Textbook caricatures are no new phenomenon. A 1920s study of 71 Bulgarian textbooks and four children’s newspapers identified an array of emphatic stereotypes: “Serbs . . . always exaggerate . . . Greeks are great hypocrites [and] are vindictive . . . Turks are workshy [and] are fanatics . . . Romanians . . . bear grudges [and] are intemperate.” Conversely, A 1983 study found that “out of 104 references to Bulgarians in Greek textbooks, 60 (57.7%) were negative, 41 (39.4%) were neutral and only 3 (2.9%) were positive. In the same books, out of a total of 315 references to Turks, 191 (60.6%) were negative, 120 (38.1%) were neutral and . . . 4 (1.3%) were positive.”

India
The politicization of textbooks, however, continues. In 2001, the National Council of Education Research and Training announced that Romila Thapar’s History of India, the primary history textbook for most high schools would be replaced in favor of a text that would promote “patriotism,” “values education,” and “India’s contribution to the world civilization.” This change was allegedly part of the then-ruling Bharatiya Janata Party’s (BJP) effort to promote Hinduvta, or Hindu-ness, despite the large presence of Muslims and other religious groups. Their actions prompted a heated debate over the role of government is establishing content for and procedures for approving educational materials. The following is an example of a passage from one of the BJP textbooks: “Arabs (barbarians) came to convert people to their religion. Wherever they went, they had a sword in their hand. Their army went like a storm in all the four directions. Any country that came in their way was destroyed. Houses of prayer and universities were destroyed. Libraries were burnt. Religious books were destroyed. Mothers and sisters were humiliated. Mercy and justice were unknown to them.” The government that succeeded the BJP began the process of reforming these textbooks.

Pakistan
Pakistani textbooks, in turn, exaggerate the differences between the two countries. A textbook for Standards IX and X describes the differences between Hinduism and Islam as follows: “Islam gives a message of peace and brotherhood . . . There is no such concept in Hinduism. Moreover Islam preaches brotherhood, equality and justice. It does not differentiate on the basis of colour, creed or status. . . On the other hand, the Hindu society is based on caste system which downgrade the entire mankind.”

Israel/Palestine
As would be expected, the inflammatory language between rival groups is heated and arguably perpetuates the conflict. A review of 124 Israeli textbooks approved by the Ministry of Education for use in 1994 found that the majority of books stereotyped Arabs negatively. One junior high school history book said explicitly: “They [the Arabs] are extremists and we are moderates. They murder indiscriminately and we defend ourselves. They violate laws and we obey laws.” A recently concluded review of Palestinian textbooks observed, “The Palestinian textbooks are very clear. They deny the right of Jewish people to exist as a nation, and they present Israel as a dangerous colonialist implant in the Middles East. As a result,
the Palestinian textbooks conclude that the destruction of the State of Israel is an historically-justified act of self-defense.”

Japan
In developed countries, textbooks are edited such that they form a national identity. This can provoke interesting discussions. The content and tone of history texts in Japan, focusing on their portrayal of Japan’s military action in the Pacific Region before and during World War II, have produced heated debate in the country for more than three decades. Criticism has also come from outside Japan, especially from China and South Korea. In 1996, the Ministry issued a statement agreeing to give more consideration to controversial events in Japan’s modern history, and it also sanctioned the use of several textbooks that provide more graphic descriptions of Japan’s brutal occupation of Korea and the invasion of China. In 1998, an author won a court judgment for a 1992 change imposed on his high school social studies textbook, and another author won a Supreme Court judgment for the unlawful deletion of a textbook passage that had described a Japanese germ warfare group engaged in biochemical experiments on humans in northern China during World War II. Strong opposition to more unflattering textbook treatment of Japanese history continues, however, and generates considerable public interest. In 1997 two of the top-ten bestsellers in Japan were volumes one and two of Fujioka Nabukatsu’s *Japanese History Not Taught in School Texts*, which criticizes the historical perspective of current texts and its impact on Japanese national identity and unity.

United States
Treatment of minorities in textbooks has been studied for nearly a century in the US, yet despite much success in eliminating blatant prejudice, subtle biases are still perpetuated by omissions, inaccuracies, and nuances in language. For example, a 2002 review of popular history texts found Latin Americans portrayed as “alternately violent, passive, lazy and unwilling to assimilate into mainstream society.”

Omissions and inaccuracies also occur with regard to unpleasant periods in U.S. history. For example, some textbooks make no mention of Japanese-American internment camps while others downplay the unjust treatment. Many texts under-represent the role of African Americans in early U.S. history; for example, in its account of the founding of South Carolina, one text made no reference to the state’s African American population – which was the majority in 1710. Despite much progress, bias against other countries and cultures still appears. For example, one popular textbook depicts pre-war Japanese in a way that strongly conveys the impression that they were “aggressive, militaristic kamikazes.” As these examples demonstrate, the challenge of ascertaining that successive editions of textbooks portray diverse groups in positive tones is and will be an ongoing one, thus vigilance about the content of curriculum is likely to be a perennial feature of human security.

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30 Michael Romanowski, “Problems of Bias in History Textbooks,” 60 *Social Education* 170 (1996).
31 Id.
32 Id.