Introduction

By Philip Stevens

In many public health and journalistic circles, it is taken for granted that globalisation and market-lead economic growth are undermining people's health, particularly in the poorest countries. HIV/AIDS dominates discussion to the extent that the casual observer would be forgiven for believing it to be the only health problem in Africa. Commentators, academics and activists routinely accompany their gloomy prognostications with calls for greater intervention by governments and global health agencies in the supply and management of healthcare in less developed countries, to be funded lavishly by wealthy countries.

It is certainly true that far too many people around the world are dying unnecessarily from preventable or curable diseases. But is it true that the world's health is deteriorating as economic globalisation accelerates? Are the grand plans and strategies executed by international intergovernmental organisations such as the UN the best way to tackle the myriad health problems faced by the world's poorest people? And why exactly is it that millions of children still die every year from easily preventable illnesses that have long been consigned to history in the West? Are governments the most efficient and equitable suppliers of healthcare, or does the market have a role? This book is an attempt to shed some light on these questions.

Good news: the world is getting healthier

At this point in history, we appear to be in the grip of a cultural pessimism that implies not only that things were better in the past, but also that things are set to get much worse unless governments take drastic action. Such thinking underpins much of the debate about health in less developed countries. Surely with scourges such as HIV/AIDS, malaria and tuberculosis rampant in many parts of the world, we have no reason to be optimistic about human health outside of a few cosseted pockets of the West?

Indur Goklany's chapter demonstrates that such pessimism is unwarranted. At the beginning of the 21st Century, human beings live longer, healthier lives than at any other time in history. This trend is set to continue, as living standards continue to rise and technology improves and spreads around the world. Using human development data from across time and over many countries, Goklany shows how, with some minor hiccoughs, the lot of humanity has steadily improved since modern economic growth began in the early nineteenth Century.

Since around 1820, infant mortality rates and life expectancy have improved dramatically around the world, and food is more abundant and inexpensive than ever before. These indicators of human well-being improved particularly noticeably in rich countries from the mid to late 19th century, as water supplies were cleaned up and basic public health measures, such as sanitation, pasteurization, and vaccination were introduced. Then, in the first half of the twentieth century, antibiotics, pesticides, and an array of vaccines were added to the arsenal of weapons against disease.

Once the traditional infectious and parasitic diseases were essentially conquered, richer countries turned their ingenuity and wealth to dealing with so-called diseases of affluence: cancer, heart diseases and strokes (plus HIV/AIDS, a non-traditional infectious disease). While these have not yet been entirely defeated, a vast array of new treatments, drugs and technologies now exist to mitigate their effects.

During the second half of the twentieth century, the diffusion of technology from the rich to lower-income countries, as well as greater wealth in the lower-income countries, led to what has been described as the third of three great waves of mortality decline (Gwatkin, 1980). This period saw an increase in access to safe water and sanitation services in lower-income countries. Such access, coupled with increases in per capita food supplies, basic public health services, greater knowledge of basic hygiene, and newer weapons (such as antibiotics and tests for early diagnosis) were instrumental in reducing mortality rates.

As a result of these advances, life expectancies lengthened worldwide, not just in the richest nations. Globally, average life expectancy increased from 46.6 in 1950–1955 to 66.8 years between 1950–1955 and 2003, as technology and knowledge was diffused around the world (World Bank, 2005).

Economic growth, technology and free trade – a cycle of progress

This amazing story has at its roots what Goklany describes as the "mutually reinforcing, co-evolving forces of economic growth, technological change and free trade." Economic growth is a particularly potent force for improving health, as was demonstrated by a seminal 1996 study by economists Lant Pritchett and Lawrence Summers. Their research demonstrated a strong causative effect of income on infant mortality, showing that if the developing world's growth rate had been 1.5 percentage points higher in the 1980s, half a million infant deaths would have been averted.

When economic growth translates into higher incomes, it allows people to invest in cleaner drinking water, proper sewage and sanitation, clean fuel and better nutrition. Currently, water-borne diseases, chest infections caused by using biomass fuels in unventilated dwellings and malnutrition constitute a large proportion of the disease burden in the world's poorest countries. If a country is wealthy, these diseases can easily be overcome by upgrading water and electrical infrastructure, and by ensuring the population is well nourished.

The improvements in health that prosperity brings can also help to further reinforce and accelerate economic growth. Good nutrition, for example, allows working adults to be more productive at work and to spend more time generating income. Proper nutrition amongst children improves their cognitive and physical ability as adults, helping to ensure that the future adult population is economically productive.

Healthier people who live longer also have stronger incentives to invest capital in developing their skills, because they expect to accrue the benefits over longer periods. So, for example, if a child is more likely to make it to adulthood, the risk of investing in its education is reduced. So parents are more likely to make such investments, which tend to raise productivity, and hence income, in adulthood. Improved child health can also reduce the economic burden on both families and governments, freeing up resources for investment elsewhere (Karoly *et al.*, 1998).

Free trade and health

Free trade is the final part of this 'cycle of progress.' Increased crossborder trade is directly and causatively associated with economic growth (Dollar, 1995; Dollar & Kraay, 2001; Frankel & Romer, 1999; Sachs & Warner, 1995), which, as we have seen, is directly beneficial to health. International trade also expands competition, forcing companies to innovate and drive costs down in order to gain new competitive advantages. This helps to bring newer, better products to more people at lower costs, a process which also explains why medical technology continues to advance at an incredible pace.

Free trade also facilitates the spread of ideas, knowledge and technology across borders. The discovery by John Snow in London in 1854 that cholera is spread by contaminated water was to have significant implications for the prevention of infectious diseases throughout the world. This knowledge gradually filtered from London throughout Europe, leading city authorities to upgrade their water and sewage systems in order to prevent human waste contaminating water supplies (Williamson, 1990). Today, germ theory is widely understood and recognised by public health authorities all over the world as an important tool for fighting disease. Similarly, lowering the costs of trade can speed up the rate at which proven medical technologies can be adopted by other countries. Some of the most effective and simple medicines such as antibiotics and vaccines were first developed in richer countries, but the international manufacture and trade of such technologies has allowed them to become readily available and inexpensive in most parts of the world.

The progress made in Asia in the 20th century is a particularly powerful testament to the ability of trade to improve health. In the 1940s, most countries in the region ended several decades of relative economic and cultural isolation and began to integrate into the global economy. Alongside trade in goods came the transfer of knowledge, technologies and techniques from richer countries, and led to the development of public health programmes. The 1920s to 1940s had seen huge advances in pharmacology, including the development penicillin, sulfa drugs, bacitracin, streptomycin and chloroquine. With the arrival in Asia of these and other drugs, effective treatments for the diseases which had once killed millions were now available at low cost. Furthermore, DDT, invented in 1943, offered a powerful weapon in the fight against malaria, enabling the eradication of the disease from the US and Europe, and near eradication (caseloads reduced by over 99 per cent) in parts of Sri Lanka and India (Gramiccia & Beales, 1988).

As a result of the widening availability and decreasing cost of such interventions – made possible by freer trade – crude death rates dropped steeply, particularly in eastern Asia in the late 1940s. By the 1960s, far fewer children and young people were succumbing to the easily preventable diseases which had historically impacted the health of the region's people and life expectancy was on the rise (Bloom & Williamson, 1997).

This process continues today as new drugs and medicines that are invented in one place are made available on international markets. Even though nearly all drugs start their life protected by patents, these eventually expire, opening the market for generic competition. As a result, many off-patent medicines are available throughout the world at extremely low prices – allowing people in poorer countries to benefit from the knowledge and innovation of more affluent parts of the world. More recent examples of this would include antiretroviral drugs and statins, as well as items such as neonatal intensive care units, kidney dialysis equipment, screening equipment and myriad other modern medical devices. Of course, many drugs that are on-patent are also subject to competition from other medicines in the same class. Moreover, with price differentiation, patent drugs are often made available to poorer people at prices close to the cost of production.

What about inequality?

A frequently cited objection to the arguments made above is that although economic globalisation may indeed improve matters for a small proportion of the world's population, it leads inexorably to a widening level of inequality across countries. The fear is that globalisation is causing the poor in many countries to become poorer and, as a consequence, less healthy. Such reasoning has underpinned a number UN Human Development Reports and countless NGO campaigns calling for greater redistribution of wealth from rich to poor countries.¹

Does the evidence support such concerns? Indur Goklany's research shows that income disparities between countries have widened since the early 19th century but that these gaps are now narrowing – especially as economic growth in China and India has begun to lift hundreds of millions out of poverty. The numbers of people living in absolute poverty in sub-Saharan Africa have not declined, however, mainly because of political mismanagement. As a result, diseases such as malaria, tuberculosis and other common infectious diseases remain rampant, and HIV/AIDS has exploded. This notwithstanding, the health indicators that really matter – life expectancy, infant mortality and hunger – are continuing to converge globally, making the world a far more equal place healthwise than it was in 1950, despite the continuing divergence of

incomes (Kenny, 2005). Although life expectancy has fallen slightly in sub-Saharan Africa as a result of the reasons outlined above, modest progress is being made with infant mortality rates.

Another sub-species of the inequality argument is that income disparities within countries are bad for health *per se*, even if those at the lowest end of the socio-economic scale are relatively well-fed, housed and have access to public services, as is the case in most OECD countries. According to this reasoning, broader economic policies have an important role to play in improving health, especially those which reduce inequality by facilitating the redistribution of wealth. Such thinking underpins much of the work of the World Health Organisation, which in 2005 established a Commission on the Social Determinants of Health, which is due to report in 2008.

The premise that economic inequality is deleterious to health stems from an influential series of studies on health outcomes in the British civil service in the 1980s and 1990s. These "Whitehall studies" found a strong association between grade levels of civil servant employment and mortality rates from a range of causes. Men in the lowest grade (messengers, doorkeepers, etc.) were found to have a mortality rate three times higher than that of men in the highest grade (Marmot *et al.*, 1984; 1991)

The "Whitehall studies" gave empirical backing to the idea that *relative* rather than *absolute* poverty can be a significant determinant of health. This, it is argued, is largely attributable to negative psychosocial factors such as stress, which are heightened amongst individuals further down the social hierarchy in industrialised countries. Stress has been associated with a wide range of health problems, including cardiovascular disease – which imposes a great health burden on both rich and poor countries alike. As a country becomes wealthier, income inequalities often also increase, which gives rise to the idea that economic growth *per se* is undesirable unless it is accompanied by strong government measures to ensure greater income equality.

Proponents claim that these studies challenge the idea that the

best way to improve health is to maximise economic growth. Such an approach, it is argued, will do nothing to tackle income and social inequality, which is in itself a significant determinant of health. Instead, policymakers should aim to foster greater income equality through expanding welfare systems and restricting private employment policies. The theory suggests that subsequent improvements in the social environment due to reduced income stratification will improve a population's psychosocial welfare as well as social cohesion. This will see concomitant improvements in a wide range of physical disorders and thereby contribute to improvements in population health (Wilkinson, 1999).

However, such an approach could, in fact, be counterproductive, not least because there is a paucity of evidence that actually links income inequality (rather than social stratification) with health inequalities. This is especially true of lower-income countries. Early cross-country correlations between life-expectancy and income inequality were driven by flawed measures of inequality and are impossible to reproduce with more credible data (Deaton, 2003).

The relationship between income inequality and poor health is more complex than it appears at face value. For instance, in his analysis of data from 42 countries, Adam Wagstaff (2002) finds that in both rich and poor countries health inequalities rise with rising per capita incomes. This is probably due to in part to the rapid improvements in health technology that accompany economic growth, which are often taken up more speedily by the rich than the poor. However, it is important to note that the poorest levels of society do not get *less* healthy as the society's wealthier elements get healthier. Rather, they become healthier at a slightly slower rate.

As such, it is not clear that policies which forcibly redistribute wealth from the rich to the poor will actually have a net beneficial effect on health. As we have already seen, economic growth is strongly and causatively associated with improved health (Pritchett & Summers, 1996). So, although rising incomes appear to be associated with rising health inequalities, they are also associated with rising overall levels of health. As Wagstaff writes, "the force that makes for higher health inequalities – higher per capita incomes – is precisely the same that makes people healthier on average" (Wagstaff, 2002). There is a danger that aggressively redistributive policies will stifle economic growth, undermining the very process that is most associated with improving health.

A study conducted by Issidor Noumba (2004) reinforces this hypothesis. Like Wagstaff, Noumba found that the higher the inequality in health and income in a number of African countries, the lower the infant mortality and crude death rates and fertility index: "In other words, for African countries, income is relatively more important for the health of the population than income inequality and inequality in health status. Consequently, it is a priority to take measures that accelerate income growth rather than those directed to the reduction in inequalities."

Is the state the best provider of healthcare?

It is now both clear and generally accepted that the best way to ensure economic prosperity is to allow the operation of free and open markets. Nevertheless, the provision of healthcare is typically assumed by politicians and commentators to be too important to be left to the caprices of the market. As a result, in most countries the majority of formal healthcare provision is controlled by the government. This ranges from direct state funding, to mandatory insurance, to regulation. Governments around the world own and manage hospitals, employ doctors and nurses, control the supply of pharmaceuticals, and finance healthcare collectively through taxation, social insurance or other mechanisms.

The justifications for such intervention are many. Privately provided healthcare is portrayed as divisive and inequitable. Private health insurance is assumed to suffer from 'adverse selection.' By contrast, state-provided healthcare is seen as an important means of achieving "universal" access to healthcare, thereby fulfilling the human "right" to health,² and achieving "social justice." It is also often assumed that the state can achieve better health outcomes at lower financial cost.

In recent years, national governments from Accra to Washington, DC have been centralising and collectivising large parts of their healthcare systems. An example is South Africa, which has recently enacted legislation to centralise and bolster the poorly-performing state health sector, placing significant restrictions and controls on the freedom of private sector. Johan Biermann evaluates these reforms in chapter two, and concludes that they will emasculate South Africa's world-class private sector while leaving the poor in much the same position as they are now.

Biermann argues that the South African government has ignored the problems faced by centrally-planned, state-owned health systems the world over. These include: rationing in the form of waiting lists; cost-containment through the use of outdated medical technology and pharmaceuticals; shortages; inefficiency; increased corruption; decisions made according to political rather than clinical needs; an absence of patient choice and capture by producer interests. At a broader level, state healthcare can lead to higher taxes and reduced productivity, which may even feed through into lower economic growth, thereby negatively impacting health – especially in poorer countries where the association between health and wealth is stronger.

Biermann argues that the government should instead be encouraging a massive expansion of the successful private sector so that it can be accessed by all levels of society – not just the rich. Universal access could be accomplished by establishing medical savings accounts, by providing vouchers, or by through competition between medical aid funds. Such a reform would remove the daily management and allocation of healthcare from the purview of the government, which has consistently proved incapable of efficiently managing the extremely complex and costly business of delivering healthcare.

Corruption in healthcare

South Africa's movement towards a more fully socialised healthcare system is in tune with the strategy being promoted by the UN to achieve its Millennium Development Goals, as well as the various anti-poverty campaigns that have been calling for increased foreign aid. These campaigns are based largely on the premise that the poor health and education in lower-income countries is a root cause of their poverty, so massive public investments in health and schools are needed to make the population more productive, which would then stimulate economic growth.³

While there is a positive feedback effect between health and wealth, there is little evidence that the "big push" government healthcare approach can actually achieve results. A multi-country study by Filmer and Pritchett (1999) showed that public spending on health in lower-income countries has only a minute impact on mortality. The authors showed that a significant proportion of deaths of children below five years could be averted for as little as US \$10 each, yet even in the poorest countries, the average amount spent by governments per child death averted is a staggering US \$50,000–\$100,000.

One of the prime movers behind this failure has been the high levels of corruption in public health agencies in less developed countries. As a result of this corruption, the proportion of a donor's contribution that actually results in delivery of healthcare services (whether they are vaccines or nurses' salaries) is often very low. Unfortunately, donor and recipient governments have historically responded to healthcare funding needs without first considering effectiveness and outcomes. As a result, corruption within the various bureaucracies and ministries that administer healthcare in less developed countries has gone largely unaddressed, thereby severely blunting the effectiveness of donor funding.

This is the issue raised by Maureen Lewis in her chapter on "corruption in public health," which examines the role of government institutions in healthcare delivery. Her conclusion is that the improvements in mortality envisaged by the Millennium Development Goals will be extremely difficult to achieve unless governments pay more attention to the institutional factors in healthcare systems that incentivise corruption. Lewis looks at evidence from a range of countries over the last decade, and examines many of the forms of corruption that impede the delivery of health services – ranging through bribery, absenteeism, the purchasing of public positions, drug mismanagement and leakage, corruption in the supply chain, and informal payments. She then goes on to suggest some strategies for strengthening accountability and transparency. In the end, she concludes, the issue of governance can only be addressed by empowering consumers of healthcare by providing them with better information, by incentivising health staff through such things as targeted training and performance related pay, and by importing commercial management and accounting techniques into health systems.

What is the greatest health challenge: pharmaceutical innovation or distributing existing medicines?

The controversy surrounding the role of markets in healthcare does not stop at the provision of hospitals and doctors. There is also a considerable degree of scepticism about the ability of the market to deliver the drugs that are needed to fight diseases that are specific to lower-income countries. Health activists make much of the fact that billions of dollars are spent researching cures for erectile dysfunction and baldness, while tropical diseases and other diseases of poverty have been relatively neglected by commercial research and development. This alleged imbalance has become formalised in a construct known as the "10/90 gap," the premise of which is that 90 per cent of all health research benefits only 10 per cent of the world's population. The implication of the activists' campaigning is that profit-driven markets are incapable of meeting the needs of the poor, who can only be catered for by state-sponsored collectivist measures. Such thinking was behind the creation in 2003 of the World Health Organization's Commission on Intellectual Property

Rights, Innovation and Public Health (CIPIH), and the subsequent and (at the time of writing) ongoing Intergovernmental Working Group on Public Health, Innovation and Intellectual Property.

This view has become practically orthodox in public health circles, but is it justified by the evidence? My chapter reviews the publicly available data on the global burden of disease (much of which is collated by the World Health Organization) and concludes that the 10/90 gap is a deeply flawed interpretation of the market's ability to deliver innovative medicines. The data shows that there are only a handful of diseases that have been truly neglected by medical research, and that – contrary to popular belief – the disease burden of poorer countries increasingly resembles that of rich countries, with chronic diseases accounting for an ever bigger proportion of mortality. New drugs for these diseases are being developed in large numbers, a fact which somewhat undermines those who reflexively cry 'market failure.'

In fact, the biggest problem faced by lower income countries is not a lack of suitable drugs, but the widespread inability to distribute already existing, off-patent drugs to the sick. There are many factors which actively impede access to medicines, a range of which are examined by the authors of the chapter on "Increasing Access to Medicines," a version of which was originally drafted by a coalition of civil society groups as a response to the CIPIH. In their analysis, the authors discovered that a number of self-generated public policy failures are responsible for the fact that up to 50 per cent of people in parts of Africa and Asia have no access to essential medicines. These include, amongst other things, weak healthcare infrastructures, regulatory environments that are hostile to health insurance markets and other risk pooling mechanisms, and taxes, tariffs and price controls on medicines.

This notwithstanding, there is still some need for new medicines for less developed countries. Bacterial and viral resistance to existing medicines is a major problem in treatments for diseases such as malaria and tuberculosis (Zumla *et al.*, 2001; Ridley, 2002). In addition, specific subpopulations such as pregnant women and children are most at risk from diseases such as malaria, and require medicines with specific formulations (Bremen, 2001).

The manifold failures in drug distribution are directly related to the fact that few commercial companies are willing to shoulder the risk of developing these new medicines. If a medicine stands little chance of actually reaching its intended consumer, there is little point in risking large amounts of capital in developing a drug specifically designed for a poorer market. If the barriers to access were lifted, there would be far greater demand for new medicines, which would make them a more enticing commercial proposition.

Grand plans and political diseases

Since the early 1990s, the United Nations and its various subagencies have assumed a leadership role in coordinating and managing the global response to the HIV/AIDS and malaria pandemics, as well as many other of the health problems that beset less developed countries. More often that not, however, the UN has failed to achieve its self-imposed targets and goals.

Moreover, it has failed to contain and reverse pandemics such as HIV/AIDS and malaria, despite being given both a mandate and generous resources. Both of these diseases appear to be getting worse. The UN spent \$8.3bn on HIV/AIDS in 2005, yet global HIV prevalence had risen to an estimated 40.3 million people by the end of 2005 (UNAIDS, 2006), from a figure of 34.9 million in 2001 (UNAIDS, 2004). 4.1 million people were infected in 2005 alone, an increase from 3.9 million in 2003. The UN's efforts to tackle malaria have been equally ineffectual: despite launching the Roll Back Malaria initiative in 1998 with the aim of halving global malaria incidence by 2010, malaria incidence is likely to be increasing. Although problems associated with collecting accurate data make it difficult to determine precisely how many people suffer from malaria, in 2002 an external evaluation of RBM set up by the WHO said:

"Anecdotal evidence and the strong consensus among experts suggests that, at the very least, the malaria burden has not decreased. What is more likely, and believed to be the case by most of those involved, is that malaria has got somewhat worse during this period" (Malaria Consortium, 2002).

The authors of chapter six, "Cost effective means of reducing the diseases of poverty," examine some of these UN-sponsored programmes and ask why they have to date been less than successful. In the cases of HIV/AIDS and malaria, the root of the failure lies in serious strategic errors on the part of the planners in control of the programmes. With HIV/AIDS, the leaders at UNAIDS and the World Health Organization have consistently prioritised palliative treatment of people already infected over the prevention of new infections, leading to the depressingly predictable increases in HIV incidence rates.

Turning to malaria: the UN's Roll Back Malaria consortium has until recently underpinned its prevention strategy with the promotion of insecticide-treated bednets, while refusing to endorse demonstrably more effective methods, such as spraying the interiors of dwellings with pesticides. The WHO compounded this error for several years by recommending the use of ineffective antimalarial drugs (against the advice of some of its own advisors).

The trouble with these grand plans, as the authors of chapter six show, is that bureaucrats often have little idea about the realities faced by people on the ground, and are sometimes pressured into making questionable strategic decisions by outside political and NGO pressure. The damaging UN policy of prioritising HIV/AIDS treatment, for instance, arose partly as a response to a long and vocal campaign by activists and NGOs. The goal of rolling out ARV treatment to everyone in need seemed feasible according to the spreadsheet calculations done in Geneva, but it failed to take into account the terrible paucity of health infrastructure in the most affected countries. More egregiously, the outside pressure from NGOs and activists distracted the planners from making decisions which would have been politically unpopular, but more effective at reducing the incidence of HIV/AIDS (such as investing a greater proportion of available resources in prevention).

This politicisation of disease is counterproductive: it directs energy and resources towards the causes championed by the most effective and charismatic pressure groups, and away from other approaches that do not attract the same level of cheerleading. UNAIDS has estimated that treating HIV/AIDS will require \$22.1bn in 2008, or approximately 30 per cent of all Overseas Development Assistance (ODA) from OECD countries. As more patients become drug resistant and are moved onto second-line therapies, the cost of achieving the UN's goal of putting 10 million on treatment could easily rise to \$44bn by 2010 – not including the costs of corruption, recurrent costs, or the lavish running costs of international organisations (and their consultants), which could easily boost this figure to over \$62 billion. At around 65 per cent of all ODA spending globally (Adelman et al., 2005), this would leave precious little to tackle the myriad other diseases which afflict people in less developed countries.

Prioritisation

The politicisation of diseases such as HIV/AIDS has warped global health priorities to the extent that the relatively simple and inexpensive are often neglected in favour of the complex and expensive. Donors often lose sight of the fact, for instance, that HIV/AIDS is only one of many health problems faced by less developed countries: the biggest killer of children is chest disorders caused by burning biomass fuels in poorly ventilated homes, followed by diarrhoeal diseases. As the chapter on the "10/90 gap" observed, these diseases are easy and inexpensive to prevent, but have received relatively little attention from the international community.

Another area which delivers extremely cost-effective and quick results is vaccination. Because of vaccination programmes, preventable childhood diseases such as polio, measles and pertussis only account for 0.2 per cent of DALYs in high-income countries. A lack of such programmes in other parts of the world, however, means that these diseases account for an intolerable 5.2 per cent of DALYs in high mortality lower income countries (WHO, 2002). Roughly 3 million people die from vaccine-preventable diseases every year (Center for Global Development, 2005).

Part of the reason why vaccination programmes have been relatively under-resourced by the donor community, as David Bloom and his colleagues argue in their chapter on 'The value of vaccination', is that policymakers have tended to look at the narrow benefits of averted medical costs, instead of looking at the broader economic advantages of the healthier population that universal vaccination would create. As a result, the steady progress made towards achieving universal vaccination coverage in the 1970s and 1980s has stalled in recent years as other health problems have risen up the international agenda.

Who's Health Organisation?

This kind of activity should be a priority of transnational health bureaucracies such as the World Health Organization, argues Richard Wagner in his provocative final chapter. Wagner associates the images of smallpox and Mother Theresa with the WHO: the former because of the WHO's role in eradicating this deadly communicable disease, and the latter because of the body's commitment to improving the lives of the poor. But how far does this vision reflect reality?

Wagner's examination of the WHO's budget for 2006–7 shows that less than half is spent on communicable diseases, suggesting the image of smallpox is misrepresentative. In fact, the greatest proportion of the WHO's resources are spent on issues that are neither trans-boundary nor of primary concern to the poor, such as road safety and obesity. These activities, Wagner argues, are seemingly intended to satisfy the political demands of the WHO's funders – predominantly wealthy countries – and to ensure a steady flow of the funds required to sustain its own bureaucracy. Mother Theresa would not have been proud of the large proportion of the WHO's budget (far in excess of 25 per cent) which is devoted to that bureaucracy. One way to refocus the WHO onto the issues that matter would be to relocate its headquarters from comfortable Geneva closer to the coalface in a less developed country.

Conclusion

In these opening years of the 21st century, we should reflect on and be thankful for how far humanity has travelled in a few short centuries. Vast swathes of people have effectively escaped from hunger and premature death, to paraphrase the work of the Nobel Laureate Robert Fogel. For those countries that have stayed on the margins of the global economy, there now exists an unprecedented number of international and national bureaucracies, NGOs and philanthropic organisations that are dedicated to improving the health of their citizens.

The danger is that often these well-intentioned organisations will continue to advocate and pursue the same interventionist policies that have historically undermined wealth and health in so many parts of the world. In the end, the poorest countries of the world need self-sustaining, efficient health-care systems that allow effective distribution of life saving medicines, as well as the propagation of vital health education. Poverty and weak health infrastructure have the same root causes: corruption and poor governance. Solve the latter and you solve the former. The reform of governance structures must therefore be a priority; that means strengthening property rights, improving legal systems and entrenching the rule of law. This is the only way to achieve the economic growth required to tackle ill-health on a sustainable basis. In the interim, I hope that this book points to a more constructive way forward, which may make the Declaration of Alma-Ata of "health for all" a reality instead of a utopian fantasy.