Chapter 10

IMPROVING THE LIVES OF "HALF THE SKY"

How political, economic and social factors affect the health of women and their children

Andrew Harmer

LSHTM



A community-based family planning distribution agent with her baby outside the health facility in Shallo, Ethiopia, where she reports and gets monthly updates. Plan International is implementing a family planning project in the area.

Key messages

- Strong and visionary political leadership has been essential in sustaining reform and championing the cause of improved health in the countries studied. This leadership is not restricted to politicians and includes senior civil servants, nongovernment elites and a variety of others who have provided inspiration.
- "Governance" is a complex construct that seems to be not especially well captured by existing indicators. However, the case studies do suggest a link between popular and informed engagement, especially of women, and improved health outcomes.
- Although the relationship between economic development and improvements in maternal and child health is complex and contested, it is apparent that improvements in physical infrastructure (such as transport and electronic communications) have improved access to services and raised awareness of what is possible.
- A link between empowerment of women and improvements in mother and child health is likely but the pathway is complex. While the evidence supports the conclusion that empowerment is a "neglected instrument for health", further work is required to understand better the virtuous cycle of gender equality and good health.
- Education emerges as a strong explanatory factor for better health in some of our country case studies. However, it remains unclear whether demand for education from an increasingly emboldened female constituency or an increase in the supply of education (more schools, better access) is the underlying driver of change.
- Civil society can, and does, play an important role in securing improved health outcomes for women and children, both through redressing inequality of access to services and through empowering women.
- Despite pro-poor policies and improvements in infrastructure, inequality continues to impede progress in mother and child health in each of the five case study countries, with many interventions and policies not benefiting the poorest groups.

Introduction

Although written a quarter of a century ago, there is much about today's political economy that would strike a chord with readers of the 1985 Good health at low cost study. Then, profound political change was just around the corner for what is now termed the former USSR; now the changes are taking place in countries in northern Africa and south-west Asia. Then, the world was only just recovering from one global economic recession and would be hit by another, two years later. Now, the world is again emerging from a global financial crisis yet so far has failed to address its fundamental causes, raising fears for the future. There have been seismic shifts too that distinguish, quite starkly, now from then. Politically, socialist governments - flagged as having an important role in promoting good health in the 1985 report – have come under severe pressure from the forces of global capitalism. A bipolar world, dominated by the United States and the USSR, has given way to one that is multipolar, with China and India emerging as economic powerhouses; a resurgent European Union; and Brazil, South Africa, the Russian Federation and Nigeria waiting in the wings. Economies have become global since the first Good health at low cost study, heralding a new and interconnected world: words such as globalization or, indeed, global barely registered before in the health policy lexicon and yet today they shape how we perceive, and act upon, health problems worldwide. Technologically, we can now monitor epidemics globally, in real time, and utilize mobile technology for health interventions in ways that would defy the imagination of a 1980s' audience. In short, political, economic and social factors mattered to health then and matter just as much today, as this chapter seeks to demonstrate.

Patricia Rosenfield's contribution to the 1985 report was groundbreaking in its argument that a strong political commitment to good health was essential for countries seeking to strengthen their health systems¹. Her analysis expressed a growing realization amongst the international health community that primary health care was more than just a technical intervention; it was also a springboard for holistic social, political and economic development. Therefore, education, universal franchise and land reform were viewed as integral components of an enlightened health policy. There is insufficient space here to explore the shift from comprehensive to selective primary health care but two points are striking when the 1985 report is compared with the analysis presented in this current study². The first is that health systems remain under-resourced. By the end of the 1960s, it was evident that "teams with spray guns and vaccinating syringes" were insufficient to meet a society's most serious health needs³. Thirty years later, scholars were bemoaning the fact that new global responses to health through public-private partnerships were in danger of creating "islands of excellence" (specific health interventions) in "seas of underprovision" (health systems)⁴. Ten

years further down the line and we are only now sufficiently appreciating the need for joined up thinking around disease-specific measures and health system strengthening^{5,6}. Health systems are, therefore, back on the global health agenda and it is serendipitous that two Rockefeller Reports should bookend this shift in policy priorities.

The second point is that ideas about the importance of social determinants of health are enjoying a resurgence. Twenty years after the 1985 report, the WHO's Commission on Social Determinants of Health reinforced one of the study's key messages, arguing that poor health was not a natural state of affairs but the result of "a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics" (p. 1)⁷. The importance of non-health factors (including literacy, social development and political leadership) as major predictors of health status has long been recognized^{7–9}. For example, the impact of maternal education on child health was established in the 1980s, as demonstrated in a synthesis of evidence¹⁰. However, the extent to which non-health factors explain achievements in health is an area of research and policy that continues to excite broad interest^{8,11–15}. The debate is particularly relevant to decisions on strategic investments designed to improve health, within the Millennium Development Goal (MDG) framework and beyond.

There is a wealth of literature seeking to answer the million-dollar question: which non-health factors contribute most to improved health outcomes? Perhaps unsurprisingly, different studies have reached different conclusions (Box 10.1). These studies have attached varying degrees of importance to non-health system versus health system factors. The ways in which these factors are conceptualized and form typologies clearly depend on the prevailing political and ideological climates, and different combinations of factors will be important in different settings. The case studies presented in this book identify those factors that were perceived as important in explaining achievements in health outcomes and intermediary indicators.

The purpose of this chapter is to present cross-cutting themes emerging from the experience of the study countries, while placing these in the context of other relevant work. The following analysis distinguishes three broad pathways to improving health outcomes: political, economic and social. As in most of the country chapters in this book, this chapter uses mother and child health as a tracer. It is accepted that progress in this area indicates a health system's strength to perform across the board. However, achievement of MDG4 and MDG5 has been problematic. As philanthropic and other donors finally begin to invest in the health of "half the sky" it is an appropriate moment to consider what effect non-health factors have on women's health as well as the health of their children 16.

Box 10.1 Non-health explanatory factors: two examples of typologies

1985: Rosenfield's five social and political contributions to good health I

Political and historical commitment to health as a social goal	Legislation Government expenditure on health Establishment of health facilities Historical and cultural influences
Social welfare orientation to development	Preventive orientation Support for basic necessities Educational programmes Land reform
Participation in the political process	Universal franchise and political engagement Extent of decentralization Community involvement
Equity-oriented services	Health, education and nutrition status of women, minorities, etc. Urban-rural coverage Income-asset distribution
Intersectoral linkages for health	Mechanisms to ensure linkage Incentives to ensure linkage Recognition that health is socially determined

2006: Croghan, Beatty & Ron: political, economic and social contexts for routes to better health $^{\rm 14}$

Political context	Past colonial rule Stability of government Changes in government through violent and non-violent means Structure of government and political parties Leadership strength and stability Governance and corruption
Economic context	Per capita GDP Income inequality Foreign aid from bilateral and international development partners Management and integration of aid with existing internal resources
Social context	Basic and secondary education including but not limited to literacy Family planning policy Social integration and cohesion

Political pathways to good mother and child health

Rosenfield's original study put politics firmly on the map as an important explanatory factor of good health in low-income countries. The relevance of a government's political commitment to health remains as crucial today as it was in 1985. It has been repeatedly endorsed by WHO as a key factor in successful health reform, beginning with the push for primary health care in 1978 at Alma-Ata and in most subsequent World Health Reports. The political commitment to reform of mother and child health evident in each of our countries is all the more remarkable given their historically (and, for some, continuing) high levels of political instability. Indeed, as World Bank data show, a period of increasing political instability that began in the mid-1990s (Figure 10.1) also saw some improvement in the health of mothers and children. Is it possible to explain this apparent contradiction – political commitment and political instability? As our country chapters revealed, and as we explore further below, there is no one-sizefits-all response. Political pathways to good mother and child health are

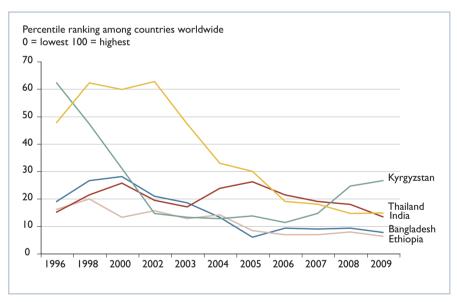


Figure 10.1 Trend in perceived political stability in five countries

Source: Reference 17.

Note: The World Governance Indicators (WGI) are a set of aggregate indicators "based on several hundred individual underlying variables, taken from a wide variety of existing data sources" 18. For a discussion of the methodology used see reference 18.The political stability indicator is a measure of perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism. The core data are derived from a wide range of surveys and from governmental and nongovernmental bodies.

complex, requiring an understanding not only of context but also of the plurality of actors engaged in the political process.

Exploring political commitment to health reform

Injudicious use of the phrase political commitment is an analytical accident waiting to happen and so we should be mindful of the difficulties it presents. For example, it tells us nothing about the length or intensity of the commitment and also raises the question why political commitment has led to good health in some countries but not in others¹². Several scholars have attempted to define more precisely how political commitment can be translated to explain health priorities or progress to achieving various health goals^{8,19}.

In addition to its conceptual ambiguity, the evidence supporting political commitment as a key driver of good health outcomes has not been compelling. Researchers seeking to establish significant statistical correlations between political factors and improvements in child and maternal health have shown few positive results. Lykens et al. found no significant relationship between child survival and political and civil rights; Greco et al. argued that because donors tended to bypass political systems by giving aid directly to nongovernmental organizations, (NGOs) the politics of a country were less important than other factors; and Croghan et al. were unable to show a significant relationship between improved child health outcomes and either political will or positive social welfare orientation^{14,15,20}. Consequently, if we are to present a narrative that gives politics a more prominent role in mother and child health than that afforded by previous studies we must accept that a degree of unpacking is required to understand how specific policy commitments translate into good health outcomes.

But health *is* political. In Bangladesh, health has long been perceived as a winning ticket to secure political advantage; the current government (2011) rose to power partly on the strength of its commitment to re-establishing community health clinics throughout rural Bangladesh. Implementing health reform can fatally damage political careers too, as the Bangladeshi political leader Ershad found in 1990 when he tried to introduce reforms to improve sanitation, nutrition and family planning services for poor people²¹. In Ethiopia, decentralization of decision-making – a fundamentally political decision – is identified in the country chapter as perhaps the single most important government decision to have improved mother and child health outcomes, but the process has been criticized for not being inclusive and was prone to capture by political elites.

In Tamil Nadu, shrewd politicians recognized the importance of new technologies for mother and child health and embraced them. For example, in the late 1990s the health secretary led a campaign against female feticide and used the media to generate public support for reform. In Bangladesh, politicians have made effective use of terrestrial and mobile technologies to cut through a tradition of mistrust of politics and deliver important health messages directly to its citizens. This contrasts with the experience in Kyrgyzstan, where public trust in government is much higher than in neighbouring countries (72% according to the World Bank's World Governance Indicators (WGI) database¹⁷). This helped the government to implement its radical Manas health reforms (described in Chapter 5). Innovation does not take place in a political vacuum either. In Tamil Nadu, leadership, vision and the commitment of senior bureaucrats were required to implement health reforms, as evidenced by support for policies regarding the surveillance of maternal deaths and establishing 24-hour emergency obstetric care²².

Our country case studies also illustrate the important point that political leadership does not necessarily reside in government. For example, Thailand has had a rapid turnover of governments (11 in the 19 years between 1969 and 1988) and its technocrats have been key to maintaining policy formulation at national level and key policy implementation at local levels. However, it was the Thai royal family who motivated and supported annual public health conferences and galvanized public support for mandatory health policy reform. Thailand illustrates very clearly the multiple and overlapping political factors that have combined to explain effective implementation: consistent policy commitment by successive governments; the high profile of health in policy statements and plans since 1942; strong social recognition of the Ministry of Public Health; and, linked to this last point, strong motivation of all stakeholders to improve social development.

The contribution of multiple stakeholders – specifically the inclusion of civil society – in policy reform is not always evident in our case study countries. At various stages in their political histories, each country has experienced autocracy as well as democracy, and the people's voice has often been weak. Our study is not the first to reflect on the uncomfortable observation that autocratic governments can often be very effective in implementing desirable public health policies¹². Bangladesh is a nascent democracy but its political decision-making remains largely top-down, bureaucratic and technocratic. It has a thriving civil society but its input on political life remains minimal - though this may not be the case in terms of its contribution to governance, as we explore later in the chapter. The newly emerging civil society in Kyrgyzstan remains relatively undeveloped and there are few examples of its influence on the policy process. In times of political, economic and social unrest, factors such as trust, allegiance to publicly respected figureheads and respect for civil society leaders helped to smooth the implementation of necessary health reforms in each of our countries.

Governing mother and child health

Governance is another term frequently associated with politics and government - though equally open to abuse. As Lawrence Finkelstein wryly observed: "we say governance because we don't really know what to call what is going on"23. Nevertheless, there *have* been international efforts to improve conceptual clarity and operationalize governance to a set of measurable indicators and indices. The MDGs are an obvious example, although it is salutary to recall early criticisms of their measurability as efforts to achieve them continue to falter in some regions^{24,25}. National health systems are complex and rendered all the more so by their interaction with international and global health systems. Application of complexity theory to the field of public health is beginning to make some sense of these multiple interactions but development of meaningful measures of governance remains a work in progress²⁶.

The WGI express governance in terms of voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption²⁷. While useful in providing a composite measure of a country's performance in governance, the WGI are not without their critics^{28,29}. The WGI's authors have rebutted these criticisms, although debate will no doubt continue³⁰. We utilize the WGI database in this chapter to draw attention to specific governance challenges while being mindful of its limitations. For example, as our case studies illustrate, advances in social factors such as gender and women's empowerment, education and civil society engagement have played key roles in improving health. Indeed, it is testament to the strength of these social drivers of change that they have been able to partially mitigate weak governance in some areas. Nevertheless, their contribution to systems of governance remains poorly understood. The WGI reduce civil society involvement in governance to little more than representation of minority views and it is likely that further refinement is required to capture fully civil society's complex governance role.

Controversy aside, when we apply the WGI to our countries, we find what previous studies of other developing countries have also found: that governance indicators are not strongly correlated to good mother and child health 14,15,20. Indeed, only Ethiopia experienced a significant increase in any of the WGI noted above (Figure 10.2). To take one of the WGI indicators (control of corruption) as an illustration - although Ethiopia has worked hard to address corruption within government, there are few quantitative data to support the contention that this has resulted in better health outcomes. Similarly, corruption

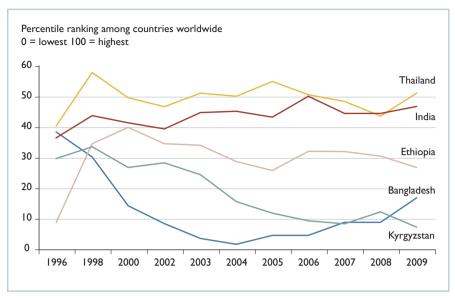


Figure 10.2 Trend in ranking of control of corruption in five countries

Source: Reference 17.

Note: The WGI control of corruption indicator captures "perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests" ¹⁸.

in Kyrgyzstan has remained a significant problem. High levels of informal payments for inpatient care are reported in the country chapter, suggesting that a culture of illicit transactions and possible soliciting from staff persists despite efforts to reform. This is likely to reflect a wider occurrence of direct transactions between public service providers and clients beyond the health sector, reflecting culture but also possible insufficient trust in formal arrangements³¹.

The key points that emerge from this overview of the political experiences of four countries and one southern Indian state are summarized below but it should be obvious that there is no one-size-fits-all blueprint for fledgling democracies to follow. Political factors such as country context, history, institutional strengths and weaknesses, social capital (the trust that a country's citizens place in their leaders and their willingness to 'chip in' to help push forward a health policy) all play their part. The next section of this chapter reviews the economic factors that feed into the mix.

Summary points

- Political pathways to improved mother and child health are complex and existing indicators struggle to capture this complexity.
- Political commitment is conceptually ambiguous and previous quantitative analyses suggest a weak correlation between political commitment and improved health. Nevertheless, strong leadership from government and nongovernment actors is a recurring motif in our country studies.
- While governments have changed frequently in our focus countries, strong political institutions committed to health reform have helped to overcome periods of political instability.
- Although WGI suggest that each of the countries studied performs poorly against a range of governance measures, understanding governance as a complex and adaptive system means thinking again about how to capture accurately what is going on. Civil society participation in mother and child health is a case in point. It has a role to play that is simply not captured through a crude measure of representation of minority views.

Economic pathways to good mother and child health

Worldwide, around nine million children die each year before their fifth birthday³². The vast majority of these deaths occur among children born in low- or middle-income countries and, within these countries, among children of more disadvantaged households and communities. While statistical data show an inverse correlation between increased income and the under-five mortality rate³³ and between GDP and the under-5 mortality rate³⁴, our five country case studies show that high per capita income is not a precondition for good child and health outcomes. Looking at different sets of developing countries, other studies have come to similar conclusions¹⁴. Indeed, the positive experiences recounted in the country chapters are in accord with a new wave of development analysis that focuses on the convergence of indicators such as health and education, rather than the divergence of economic indicators such as incomes and GDP (e.g. Kenny, 2011³⁵). After all, the challenge is to understand how good mother and child health outcomes are possible at low cost.

There is an international dimension to the story. Since 2003, official development assistance for maternal, newborn and child health in all developing countries has increased by 105% (US\$2632200 in 2003 to US\$5395300 in 2008)³⁶. This substantial increase in additional funding and support has meant more money for newborn. maternal and child health but has also encouraged efficiencies in the ways in which that money is spent by recipient governments³⁷. Each of the five countries studied in this report received substantial funding from various donors in the 1980s and 1990s. Between 2003 and 2006, Bangladesh received a 233% increase in official development assistance for maternal, newborn and child health, while Ethiopia saw a 222% increase²⁰. It is important to understand *how* donor funding might contribute directly to good health outcomes and Ethiopia provides a good case. As noted earlier in this chapter, the main factor that ensured successful implementation of devolution in Ethiopia was financial support from multilateral donors. In addition, support from the World Bank meant that Ethiopia's health sector continued to receive funding when the Ethiopian Government diverted resources to help to fund its 1999–2001 border dispute with Eritrea. However, as a 2010 study has shown, increased development assistance for health has resulted in a decrease in total government spending on the health sector in countries heavily dependent on external financial assistance³⁸. This effect is especially marked in those countries subject to the strict conditionality associated with loans from the International Monetary Fund³⁹.

Clearly, the pathways by which poverty and prosperity affect health and mortality are complex. Recent years have seen advances in our understanding, particularly through studies undertaken by the Commission on Social Determinants of Health and its collaborators and networks^{7,40}. At the national level, our country studies suggest positive mother and child health outcomes are linked not only to improvements in infrastructure (transport, water and sanitation) but also to equitable distribution of access to health care. These are explored in more detail below

Developing infrastructures

Of the five countries, Thailand's policies seem to reflect the most explicit understanding of the benefits of non-health investment and the need to target health policies towards the poorer population. Increased investment in rural electrification in Thailand seems to have had a significant impact on fertility rates⁴¹. The pathways are complex but the link between electrification and knowledge of health issues - through increased access to technologies such as television - is now well documented⁴². The Thai Government's additional spending on research to improve agricultural productivity has also had an impact on rural poverty reduction and rural education⁴³, while the economic growth that Bangladesh has experienced in the past decade has led indirectly to improved health by providing the capital to improve the country's transport infrastructure.

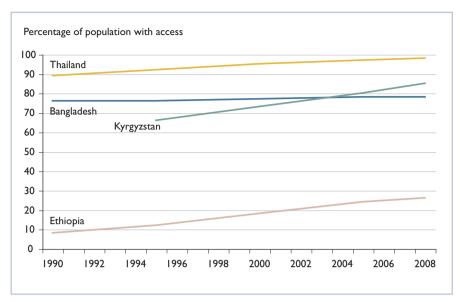


Figure 10.3 Access to improved water source in rural areas, by country

Source: Reference 47.

In 2003, there was a higher density of roads in Bangladesh than in the United Kingdom (166 km compared with 163 km per 100 km of land area). As Chapter 3 suggests, better road infrastructure may have contributed to improved access to emergency obstetric care in Bangladesh, which has reduced adverse outcomes despite the persisting high level of home-based and unattended delivery. With an improved transport infrastructure, the government was able to introduce financing innovations such as a voucher scheme to reimburse transport costs. As an indirect effect, health improved as better (and subsidized) transport made it easier for patients to access services provided at rural clinics.

The overall evidence for the importance of investment in water supply and effective sanitation for general health outcomes is well documented^{44,45}. Although there has been a steady increase in access to water in rural areas of Ethiopia, Kyrgyzstan and Thailand (Figure 10.3), the health benefits are not always evident. In one study in Ethiopia, the expected improvement to women's health from access to clean water (assumed to lower the time taken to collect water and therefore to improve quality of life) was not seen. Instead fertility increased, increasing the demand for resources, which in turn, led to higher child malnutrition⁴⁶. This is an example of the substantial complexity in this area. Improved sanitation is likely to have contributed to improvements in child mortality seen in these five countries, particularly in Kyrgyzstan (access to an improved water supply increased from 66% to 85% of the population in rural areas between 1990 and 2008) and Ethiopia (from 8% to 26%) (Figure 10.3). Improved access to sanitation may come about either through deliberate policy-making (whether around planning of settlements or building of new facilities), or because of migration into cities. All five countries have higher access to sanitation within urban areas than in rural areas, dramatically so in some cases such as in Ethiopia. This may also come about simply because increased family income allows families to build their own facilities. However, sanitation and improved access to water alone cannot account for the improvements seen in health in most of these countries.

Rapid expansion of communications technology is an important development in Bangladesh that has not been considered in many previous studies. With 80% access, television has become the primary mode for communicating health messages. For example, it was used most effectively to raise awareness about the efficacy of using zinc to treat childhood diarrhoea and about population control. A good example of the use of media is the Behavioral Change Communication campaign. As described Chapter 3, this intervention capitalized on opportunities provided by the rapidly expanding communication networks, putting emphasis on multimedia, multichannel and intersectoral approaches. Mobile phone technology – sending timely health messages directly to people's handsets - is one potential way to raise awareness of health issues but there are limited data to support the argument that it has led to better health 48,49. However, family welfare assistants communicate with each other and with families mainly via mobile phones and this has facilitated the rapid scale up of the programme.

Equity of wealth distribution and health outcomes

Addressing the non-health factors that help to explain 'good health at low cost' inevitably raises the question: good health for whom? In 2010, the United Nations Development Programme's Human Development Report included a new inequality measure - the inequality-adjusted human development index. With renewed attention on the MDGs, the report stressed that it would be entirely possible to achieve MDG1, MDG4 and MDG6 without improving the lot of the poorest 20%⁵⁰. Each of the five countries in our study performed better than expected in terms of child and maternal mortality outcomes compared with other countries with similar GDPs and each has implemented targeted policies that have benefited the health of the poor. However, as Figure 10.4 shows, some of these countries have performed better than others.

Higher number equals greater inequality 60 50 Thailand 40 Bangladesh 30 Ethiopia 20 10 2010 1985 1990 1995 2000 2005

Figure 10.4 Trends in the Gini index

Source: Reference 47.

Figure 10.4 shows the Gini index – a standard economic measure of income inequality – for four of the five case studies (data were unavailable for Tamil Nadu). Ethiopia, Kyrgyzstan and Thailand show progress in terms of reducing inequality but inequality is increasing in Bangladesh due to a number of interlinked factors. The last is a good example of a country in which improved health outcomes preceded economic growth - a country with "health without wealth"12. Microcredit provided by the Grameen Bank and other sources as well as an expanding garment industry are often cited as factors contributing to poverty reduction. However, the pathways from microcredit to good health are not always explicit, and microcredit may help only those who are already on the road to economic recovery⁵¹. Yet, other authors provide some evidence to suggest that some women have used microcredit schemes to enrich their lives and emancipate themselves from domestic violence¹⁶. Paradoxically, the health sector is becoming a generator of poverty through out-of-pocket expenditures. Although primary health care is free at the point of delivery, expenditures in the private sector are contributing to a medical poverty trap for the poorest sectors of society (see Chapter 3).

An important element of the inequality and health debate is the disparity in access to health services between urban and rural populations. Rural communi-

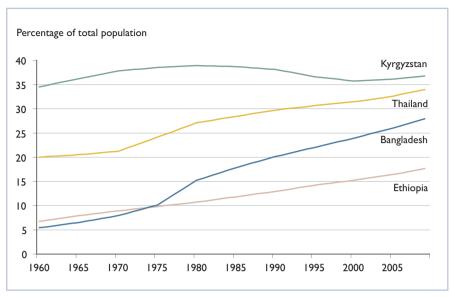


Figure 10.5 Urban population as percentage of total population

Source: Reference 47.

ties worldwide suffer from progressive underinvestment in infrastructure and amenities and experience disproportionate levels of poverty and poor living conditions⁵². These often lead to migration to urban centres (Figure 10.5). The five countries studied are predominately rural but it appears that governments have recognized the need to address urban-rural inequalities, including access to a range of basic health services. In Ethiopia and Thailand the fact that leaders come from, or have worked in, rural areas could help to explain their commitment to improving health in such areas. However, the rate of urbanization is accelerating and leading to improved access to health care - Tamil Nadu is one of the most urbanized states in India with 47% of the population living in urban areas.

Bangladesh has experienced extremely high growth in the urban population, estimated at more than 7% per year, and Dhaka is expected to have a population of 22 million by 2025. The complex impact of urbanization on health outcomes is of public concern. On one hand, people living in urban areas have better health outcomes and higher levels of utilization of services. On the other, there are concerns about the health of the urban hard-to-reach, although the gap is narrowing through concerted government action. Ensuring access to basic services (including health) is a challenge that the Bangladeshi Government must overcome in order to continue to improve health outcomes. Although Ethiopia is one of the least urbanized countries in east Africa, urbanization is identified as an increasing health problem as many people are now living in large peri-urban slums with little access to services. While there have been government efforts to improve access to primary health care services in rural and hard-to-reach areas, there is an acknowledgement that these have had limited success.

Challenges facing the rural poor in Kyrgyzstan are well documented in Chapter 5, but data suggest that the number of people not accessing services because they are either too far away or too expensive is decreasing. The chapter suggests that targeting these groups in terms of access to reproductive health services and contraceptives is vital if further progress is to be made. In Thailand, the focus on improving rural health appears to have been part of a concerted and long-term effort to improve the rural infrastructure and standards of living. This effort has focused on improving access to paved roads, electricity, piped water and health facilities. Thai health officials acknowledge that their policies have been propoor and pro-rural. Health disparities between rural and urban areas are decreasing and policies such as bonding doctors to rural areas and creating the Rural Doctors Society have helped to retain doctors in rural areas. The reduced inequalities in health identified in Thailand (similarly in Tamil Nadu) and elsewhere have been a result of long-term initiatives to improve the health of people living in rural areas⁵³.

In summary, it is worth reiterating the point that the focus countries have enjoyed better health outcomes than some other countries *despite* lower incomes and weaker economic growth. While not underplaying the relationship between health and wealth, there is clearly more to health development than a country's GDP. If there is an overarching theme to the economic pathways described above, it is the commitment that each country has shown to improving infrastructure. This has then improved *access* to health services through better roads and utilities, loans from microcredit schemes and access to knowledge via modern technologies. Health development is not necessarily about making people richer but also about making drugs and services cheaper and more widely available.

Summary points

- International donor funding has increased but the direct benefit of these funds for mother and child health is unclear; targeted support for specific policies has provided essential support during periods of political instability.
- Although the relationship between economic development and good mother and child health is complex and contested, improvements in infra-

structure have helped to improve access to services and raised awareness through investment in communication technologies.

Despite pro-poor policies and improvements in infrastructure, and despite some signs of improvement in reducing the equality gap, inequality continues to impede mother and child health in each of the five case study countries.

Social pathways to 'good health at low cost'

In each of the country studies, three social factors - empowering women, education and civil society - recur and were widely seen to have impacted positively on good health outcomes. While presented here as social factors, it is evident that these factors are complexly interrelated with clear political and economic dimensions.

Empowering women

There is a considerable literature that argues that the empowerment of women is a "neglected instrument for health" 54, and that "gender relations of power constitute the root causes of gender inequality, and are amongst the most influential of the social determinants of health" 55,56. This has particular resonance for mother and child health⁵⁷. It has been argued that MDG4 and MDG5 will not be achieved without more progress towards the achievement of MDG3 - which pertains to promoting gender equality and empowering women. The five case studies were, therefore, reviewed with a gender lens to see whether part of the explanation for achieving 'good health at low cost' (especially given the focus on mother and child health outcomes), was related to the status of gender equity and empowerment of women.

The answer to whether gender empowerment is important to achieving good health is complex and not clear-cut. However, it appears that some awareness of, and effort towards, gender equality forms part of a virtuous cycle in which decisions at individual and household levels concerning fertility and female schooling interact with income and health system changes to increase human development and health outcomes⁵⁸. Thus, while gender empowerment does not seem to be a single causal factor that distinguishes the case studies (or explains the good outcomes described) it may be part of the context explaining why progress in terms of mother and child health outcomes has been possible at low cost. For example, research from the Indian subcontinent suggests that a range of gender-related non-health factors may help to explain why states in

southern India have experienced better mother and child health outcomes and lower fertility rates than elsewhere in the region. Women's autonomy – in terms of decision-making; mobility; freedom from threatening relations with spouse; and access to, and control over, economic resources – was constrained in all three settings. However, women in Tamil Nadu fared considerably better than women from the northern portions of the subcontinent because patriarchal and genderstratified structures were less constraining⁵⁹.

As acknowledged in Chapters 1 and 2, the relationship between the determinants of health, the role of health systems and health outcomes are "inherently complex" with "time lags between each determinant and its effect on health". Weaving gender into these relationships makes it yet more complex, partly because of the way that gender intersects with economic inequality, racial or ethnic hierarchy, caste domination, differences based on sexual orientation and a number of other social markers^{56,60}. An additional challenge in assessing gender's role in achieving good health outcomes is how to measure and evaluate progress towards gender equality in health systems, especially in low- and middle-income countries. There are a number of standard indicators. For example, the Gender-related Development Index (GDI) introduced in the Human Development Report 1995 aims to assess whether men and women are making the same progress in terms of the Human Development Index (HDI). The Gender Empowerment Measure (GEM) looks at the degree to which women play an active role in political and economic life. Also, health outcome and health intervention data increasingly take gender into consideration – albeit only by disaggregating the data by sex.

None of the five case study countries is a consistently high performer across the standard indicators of gender/equality-related outcomes. Thailand drafted legislation in the late 1970s that sought to empower women by increasing their roles in the political process (see Chapter 7) and is also a high performer in terms of GDI, ranking 15th of the 155 countries in the world for which such a ranking is available. However, Thailand performs less well on the GEM score, ranking only 76th of the 109 countries for which there is a ranking. Women in the other four countries enjoy higher political profiles - Kyrgyzstan elected the first woman president in central Asia and has achieved considerable improvements in improving the status of women in comparison with its neighbours; Bangladesh has had a female prime minister and leader of the opposition for the last two decades and within the current 2011 cabinet both the home and the foreign minister are women; since 1991 a woman has been one of the two alternating chief ministers in Tamil Nadu; and in Ethiopia the Prime Minister's wife is also the Minister for Women).

However, as Bangladesh, Kyrgyzstan and Ethiopia (no data are available for Tamil Nadu) are all relatively poor performers in terms of both GDI and GEM ratings, it is questionable whether this has really led to significant shifts in attitudes towards, or improvements in opportunities for, women in these countries. While political leadership is lacking in this area, our case studies suggest considerable civil society commitment to empowering women and making progress towards gender equality in Tamil Nadu, Ethiopia, Bangladesh and Thailand. Kyrgyzstan is the exception, reflecting a regional trend, as the United Nations Development Programme concluded in a 2008 study⁶¹. While the former USSR has inherited a historical legacy of equality in access to education and to paid employment, it seems that the withdrawal of public services and periods of economic uncertainty have particularly burdened women.

Education

In addressing the question of why women die in childbirth, Kristof and Wudun argue that education is associated with decreased family size, increased use of contraception and increased use of hospitals 16. However, the authors point out that correlation is not causation and provide a list of caveats to the claim that education necessarily leads to an individual's social and economic development. Establishing a link between education and improved health is equally – perhaps more - difficult. Chapter 3 suggests that a combination of factors contributed to the increases in adult female literacy rates in Bangladesh (from 18% in 1980 to 51% in 2008): government provision of free secondary schooling for girls; civil society, especially BRAC's involvement in the delivery of education; and microcredit. It remains unclear how this improvement has translated into better health status.

Furthermore, the relationship between education and better health remains ambiguous. On the one hand, while maternal and child mortality and morbidity is lower in (for example) Bangladesh than in neighbouring countries, the country has only outperformed Nepal regionally in terms of the increase in mean number of years of education for women aged 25–34⁶². On the other hand, when seeking to identify causal direction, it is not always possible to separate demand-side from supply-side factors. For example, was it the demand for education and women's autonomy that led to the dramatic reduction in fertility rates in Tamil Nadu or was this due to increased opportunities for improved education and women's autonomy? Breierova and Duflo found that increased school attendance in Indonesia resulted in women marrying later and having fewer children, while Osili and Long concluded that each additional year of primary education attended by a girl in Nigeria led to a reduction of 0.26

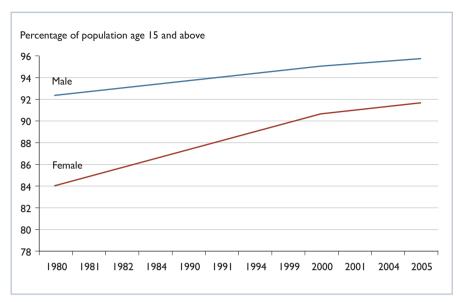


Figure 10.6 Thailand: adult literacy rate, by gender

Source: Reference 48.

children (both studies cited by Kristof & Wudun¹⁶). However, it is not clear whether demand or supply factors were more important. Looking at literacy levels, in Tamil Nadu, female literacy was important only to some extent⁶³ while other studies in southern Asia were unable to determine what level of female literacy would precipitate a sharp decline in fertility⁶⁴. Indeed, one study⁶³ indicated that demand-side explanations of rapid drops in fertility - including education and female autonomy - "are unable to explain the full course of fertility transition taking place in many developing countries including some of the states in India and Bangladesh" (p. 1). Tamil Nadu's impressive reduction in fertility - reaching replacement level of 2.1 by 1990/1991 - also requires an understanding of supply-side factors such as "vigorous implementation of family planning services" and understanding the mechanism through which the know-ledge of services and practise was diffused through communities to individuals^{63,65}.

Thailand's experience of improved female literacy shows the importance of education as a social pathway to better health (Figure 10.6). The case study suggests that improved health outcomes were the result of improvements in youth and adult education and in reducing the gender education gap. As the country chapter reported, a one-year increment in a mother's education corresponded to a 7-9% decline in the under-5 mortality rate. Furthermore, education exercised a stronger influence in early and later childhood than during infancy. Although Thailand has a relatively low GEM ranking, women have had more opportunity to study and obtain employment. Female literacy rates among youths increased from 97% in 1980 to 99% in 2002. Thai gender-disaggregated statistics also showed that in 2006 enrolment rates for females were higher than for males, especially at the tertiary level. With better education, Thai women were more able to find employment. Data from 2002 to 2006 showed that women held a higher proportion of jobs than men, improving women's economic status.

Kyrgyzstan has benefited from the inherited model of near universal education for men and women operating during the Soviet regime, which is seen to benefit the development of the country, and to a large degree this has been sustained in the face of subsequent shortages.

Civil society

What emerges from the country chapters is that many of these countries have a vibrant NGO community working to empower women and interacting with the health sector in interesting and innovative ways. Previous studies have come to similar conclusions, noting the importance of civil society in addressing inequality in society³⁴. For example, the World Health Report 2005 recognized that civil society in Bangladesh was crucial for changing health priorities and agendas, describing it as "the mass base" of support and impetus for forging broad political alliances – sowing the seeds for political reform⁶⁶.

Historically, the involvement of NGOs and civil society organizations has been very different across the five case studies. Ethiopia and Kyrgyzstan have relatively new but increasing nongovernment sectors (since the country gained independence, more than 2000 NGOs are now working in Kyrgyzstan's health sector, largely thanks to international donor support). Bangladesh and Thailand both have a long and lively history of indigenous (and international) civil society -Bangladesh is host to BRAC, the world's largest NGO. Another example from Bangladesh is the women's group Naripokkho, which has been strengthening gender awareness in subdistricts. One of its actions was to set up health advisory committees as part of the devolution of public services. It also mobilized journalists and local women's groups to lobby these committees to make genderspecific decisions. These included demands to increase the number of female gynaecologists and to decrease women's waiting times for medical services⁶⁷. In Bangladesh, women's rights groups were asked to participate in formulating the government's Health and Population Sector Programme. Some ideas were apparently incorporated, but implementation and oversight has been weak⁶⁸.

In Tamil Nadu, the Campaign Against Sex Selective Abortion used the Right to Information Act 2005 to obtain district-wide data on sex ratio at birth from the Department of Health, enabling it to identify where problems existed. This organisation has waged a campaign to have doctors who disclose the sex of a fetus (which is illegal in India) deregistered from the Medical Council and have campaigned against problems in the relatively unregulated private sector, where the law is regularly flouted^{68,69}. This group has encouraged pregnant women to go into private clinics and hospitals as mystery patients to see if doctors break the law. Where this has occurred, the group then attempts to have them prosecuted. The action of this and other groups working with the state health department and the media seems to offer at least part of the explanation why Tamil Nadu's sex ratio is now better than in many states in India.

In Ethiopia, the involvement of civil society in policy decisions is less well understood. Chapter 4 provides some positive examples of civil society participation but it is noted that the decentralization process was not inclusive and hence probably less effective than it could have been. However, positive advances in women's participation in the political process have been achieved through a Ministry of Women's Affairs, affirmative action and legal protection for women against early marriage.

In summary, this section has explored three social pathways to good health: empowering women, education and civil society. These pathways intersect at various points and have contributed to good health outcomes, as described in the country chapters. However, the directional arrows of causation between empowerment and education are not always clear: are women empowered because they are better educated, or does an empowered community demand better education? Gender adds a further dimension. None of the five countries performs particularly well against gender equality indicators and pointing to the presence of women in a country's government is surely too crude an indication of shifting cultural practices. A vibrant civil society is another recurring motif in some, though not all, of the country chapters. The role of civil society in good mother and child health outcomes remains weakly understood and warrants much closer scrutiny.

Summary points

- Women's empowerment is a likely factor contributing indirectly to advancements in mother and child health but the relationship is complex.
- Education is a strong explanatory non-health factor leading to better health in some of our country case studies but the relative importance of supply and demand factors is not always clear.

Civil society played an important role in securing good mother and child health, through redressing inequality of access to services and, specifically, through working to empower women.

Conclusions

Political, economic and social factors have contributed to the improvements in mother and child health seen in our five country case studies. Complex political, economic and social relations compound efforts to establish significant correlations between variables and outcomes. A working group set up to report on health inequalities in the United Kingdom expressed the problem well: "We are dealing with 'wicked problems', that is, problems that defy easy or single bullet solutions. They have complex causes and require complex solutions" 70. That complexity is captured in this chapter and it illustrates the importance of context in understanding how interventions are derived and why they are effective

Political commitment to improving maternal and child health outcomes is a common theme that emerges from each of the case studies. However, the devil is in the detail and it is essential to understand the political nuance. On the one hand, top-down hierarchies that get things done seem to be effective in increasing access to services and thus affecting health, especially where they work with civil society. On the other hand, bottom-up services provided by civil society may not be accurately captured through current health governance indicators, where 'voice' is only a crude indicator of engagement in the policy process. Further work is required to understand the role of civil society over time in achieving good mother and child health outcomes. Little is understood about the way relationships between government and civil society emerge or about processes of adaptation, accommodation and challenge.

Inequity lies at the heart of the country chapters, notably inequity between urban and rural areas and within regions and cities. Redressing the urban bias in infrastructure and services depends on investment in the rural sector to provide not just health care services but also education free at the point of use, reliable utilities, usable roads and accessible public transport. The demonstrable and positive effect of low cost communication technology on people's access to health care is one bright light at the end of a still too dark tunnel.

Although the pathway to good health is complex, gender equality appears to be an important part of a virtuous cycle. Changes linked to decisions at individual and household levels concerning fertility and female schooling interact with income and health system changes to increase human development and health outcomes. Exploring direct cultural pathways, this chapter suggests that health outcomes are improved where women are more engaged in decision-making, more mobile and relatively free from threatening relations.

Better-educated women and children lead healthier lives. The data on education from our focus countries do not establish a clear causal pathway to 'good health at low cost' but strongly support other evidence which links education to better health. Some of the case studies suggest that female empowerment is an important pathway to good health outcomes. Improved economic opportunities coupled with strong pressure by civil society in some countries have resulted in greater access to health services and rights.

Challenges remain. All of our countries face significant inequalities in income and health. Non-health factors that provide an initial boost to health – such as better employment opportunities, increased urban infrastructure, more disposable income – also lead to increases in chronic noncommunicable diseases and other health burdens for which our countries show varying levels of preparedness.

ACKNOWLEDGEMENTS

I would like to thank Loveday Penn-Kekana and Nicola Watt for their input to sections of early drafts of this chapter. The chapter as a whole was significantly restructured following an intensive workshop at the Rockefeller Bellagio Centre and I am very grateful to all the participants for their incisive feedback. Finally, the entire manuscript has benefited from the editorial guidance of a number of colleagues but in particular Dina Balabanova, Lesong Conteh, Mushtaq Khan, Martin McKee and Anne Mills.

REFERENCES

- Rosenfield P. Social and political factors. In: Halsted SB, Walsh JA, Warren KS, eds. Good health at low cost: proceedings of a conference held at the Bellagio Conference Centre. New York: Rockefeller Foundation; 1985:173–80.
- 2. Cueto M. The origins of primary health care and selective primary health care. *American Journal of Public Health* 2004; 94(11):1864–74.
- 3. Bryant J. *Health and the developing world.* New York: Cornell University Press; 1969.
- 4. Buse K, Waxman A. Public–private partnerships: a strategy for WHO. *Bulletin of the World Health Organization* 2001; 79(8):748–54.

- 5. Ooms G et al. The diagonal approach to global fund financing: a cure for the broader malaise of health systems? Globalization and Health 2008; 4:6.
- 6. De Savigny D, Adam T. Systems thinking for health systems. Geneva: World Health Organization; 2009.
- 7. CSDH. Closing the gap in a generation: health equity through action on the social determinants of health. Geneva: World Health Organization, Commission on Social Determinants of Health; 2005.
- 8. Shiffman J. Generating political priorities for maternal mortality reduction in 5 developing countries. American Journal of Public Health 2007; 97(5):796-803.
- 9. Alvarez J et al. Factors associated with maternal mortality in sub-Saharan Africa: an ecological study. BMC Public Health 2009; 9:462.
- 10. Cleland J, van Ginneken JK. Maternal education and child survival in developing countries: the search for pathways of influence. Social Science & Medicine 1988; 27(12):1357-68.
- 11. Caldwell JC. Routes to low mortality in poor countries. Population and Development Review 1986; 12(2):171-220.
- 12. Reich M. The political economy of health transitions in the third world. In: Chen L, Kleinman A, Ware NC, eds. Health and social change in international perspective. Boston, MA: Harvard School of Public Health; 1994:413-51.
- 13. Bloom DE, Canning D. The health and wealth of nations. Science 2000; 287(5456):1207-9.
- 14. Croghan TW, Beatty A, Ron A. Routes to better health for children in four developing countries. Millbank Quarterly 2006; 84(2):333-58.
- 15. Lykens K et al. Social, economic, and political factors in progress towards improving child survival in developing nations. Journal of Health Care for the Poor and *Underserved* 2009; 20(4 Suppl):137–48.
- 16. Kristof N, Wudun S. Half the sky: how to change the world. London: Virago; 2010.
- 17. World Bank. Worldwide governance indicators [online database]. Washington, DC: World Bank; 2010 (http://info.worldbank.org/governance/wgi/index.asp, accessed 1 August 2011).
- 18. Kaufmann D, Kraay A, Mastruzzi M. The worldwide governance indicators: methodology and analytical issues. Washington, DC: World Bank; 2010 (Policy Research Working Paper 54).
- 19. Geneau R et al. Raising the priority of preventing chronic diseases: a political process. Lancet 2010; 376(9753):1689-98.

- 20. Greco G et al. Countdown to 2015: assessment of donor assistance to maternal newborn, and child health between 2003 and 2006. *Lancet* 2008; 371(9620):1268–75.
- 21. Reich M. Bangladesh pharmaceutical policy and politics. *Health Policy and Planning* 1994; 9(2):130–43.
- 22. Padmanaban P, Raman PS, Mavalankar D. Innovations and challenges in reducing maternal mortality in Tamil Nadu, India. *Journal of Health, Population and Nutrition* 2009; 27(2):202–19.
- 23. Finkelstein L. What is global governance? Global Governance 1995; 1:368.
- 24. Davis K, Kingsbury B, Merry S. *Indicators as a technology of global governance*. New York: New York University School of Law; 2010 (IILJ Working Paper 2010/2).
- 25. Attaran A. An immeasurable crisis? A criticism of the millennium development goals and why they cannot be measured. *PLoS Medicine* 2005; 2(10):e318.
- 26. Hill P. Understanding global health governance as a complex adaptive system. *Global Public Health* 2010; 28 April:1–13.
- 27. World Bank. *Worldwide governance indicators: documentation.* Paris: World Bank; 2010 (http://info.worldbank.org/governance/wgi/resources.htm, accessed 1 August 2011).
- 28. Devarajan S. Two comments on "Governance indicators: where are we, where should we be going?" by Daniel Kaufmann and Aart Kraay. *World Bank Research Observer* 2008; 23(1):31–6.
- 29. Langbein L, Knack S. The worldwide governance indicators: six, one, or none? *Journal of Development Studies* 2010; 46(2):350–70.
- 30. Kaufmann D, Kraay A, Mastruzzi M. Response to: "The worldwide governance indicators: six, one, or none?" Washington, DC: World Bank; 2010 (http://info.worldbank.org/governance/wgi/pdf/ResponseKL.pdf, accessed 27 July 2011).
- 31. Ensor T, Savelyeva L. Informal payments for health care in the former Soviet Union: some evidence from Kazakhstan. *Health Policy and Planning* 1998; 13(1):41–9.
- 32. UNICEF. *The state of the world's children: maternal and newborn health.* Geneva: United Nations Children's Fund; 2009.
- 33. Powell-Jackson T et al. Democracy and growth in divided societies: a health inequality trap? *Social Science & Medicine* 2011; (73(1):33–41.

- 34. Cattaneo A et al. Progress towards the achievement of MDG4 in the Commonwealth of Independent States: uncertain data, clear priorities. Health Research Policy and Systems 2010; 8:5.
- 35. Kenny C. Getting better: why global development is succeeding. New York: Basic Books: 2011.
- 36. Pitt C et al. Countdown to 2015: assessment of official development assistance to maternal, newborn, and child health, 2003-2008. Lancet 2010; 376(9751):1485-96.
- 37. Taskforce on Innovative International Financing for Health Systems. *More money* for health, and more health for the money. Geneva: International Health Partnership; 2009 (http://www.internationalhealthpartnership.net/CMS_files/ documents/taskforce_report_EN.pdf, accessed 20 April 2011).
- 38. Lu C et al. Public financing of health in developing countries: a cross-national systematic analysis. Lancet 2010; 375(9723):1375-87.
- 39. Stuckler D, Basu S, McKee M. What causes aid displacement? International Monetary Fund and aid displacement. International Journal of Health Services 2011; 41(1):67-76.
- 40. Blas E, Kurup AS. Equity, social determinants and public health programmes. Geneva: World Health Organization; 2010.
- 41. Harbison S, Robinson W. Rural electrification and fertility change. Population Research and Policy Review 1985; 4(2):149–71.
- 42. Independent Evaluation Group. The welfare impact of rural electrification: a reassessment of the costs and benefits. Washington, DC: World Bank; 2008.
- 43. Fan S, Yu B, Jitsuchon S. Does allocation of public spending matter in poverty reduction? Evidence from Thailand. Asian Economic Journal 2008; 22(4):411–30.
- 44. Genser B et al. Impact of a city-wide sanitation intervention in a large urban centre on social, environmental and behavioural determinants of childhood diarrhoea: analysis of two cohort studies. International Journal of Epidemiology 2008; 37(4):831–40.
- 45. Fewtrell L et al. Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis. Lancet *Infectious Diseases* 2004; 5(1):42–52.
- 46. Gibson M, Mace R. An energy-saving development initiative increases birth rate and childhood malnutrition in rural Ethiopia. PLoS Medicine 2006; 3(4):e87.

- 47. World Bank. World Development Indicators [online database]. Washington, DC: World Bank (http://data.worldbank.org/data-catalog/world-development-indica tors, accessed 1 August 2011).
- 48. Etzo S, Collender G. The mobile phone revolution in Africa: rhetoric or reality? African Affairs 2010; 109(437):659-68.
- 49. Lester RT et al. Effects of a mobile phone short message service on antiretroviral treatment adherence in Kenya (WelTel Kenya1): a randomized trial. Lancet 2010; 376(9755):1838-45.
- 50. Barros F et al. Health and nutrition of children: equity and social determinants. In: Blas E, Kurup A, eds. *Equity, social determinants and public health programmes.* Geneva: World Health Organization; 2010:49-75.
- 51. Schurmann A, Johnston H. The group-lending model and social closure: microcredit, exclusion, and health in Bangladesh. Journal of Health, Population and Nutrition 2009; 27(4):518-27.
- 52. Ooi G, Phua K. Urbanization and slum formation. Journal of Urban Health 2007; 84(Suppl 1):27-34.
- 53. Gravel N, Mukhopadhyay A. Is India better off today than 15 years ago? A robust multidimensional answer. Journal of Economic Inequality 2010; 8(2):173–95.
- 54. Editorial. Gender equity is the key to maternal and child health. Lancet 2010; 375(9730):1939.
- 55. Marmot M, on behalf of the Commission on Social Determinants of Health. Achieving health equity: from root causes to fair outcomes. Lancet 2007; 370(9593):1153-63.
- 56. Sen G, Ostlin P. Unequal, unfair, ineffective and inefficient. Gender inequality in health: why it exists and how we can change it: Final Report to the WHO Commission on Social Determinants of Health, Women and Gender Equity Knowledge Network. Stockholm: Karolinska Institute: 2007.
- 57. Bhutta Z et al. Delivering interventions to reduce the global burden of stillbirths: improving service supply and community demand. BMC Pregnancy and Childbirth 2009; 9(Suppl 1):S7.
- 58. Molina G, Purser M. Human development trends since 1970: a social convergence story. Geneva: United Nations Development Programme; 2010 (Human Development Research Paper 2010/2).
- 59. Jejeebhoy J, Sathar Z. Women's autonomy in India and Pakistan: the influence of religion and region. Population and Development Review 2001; 27(4):687-712.

- 60. WHO. Women and health. Today's evidence, tomorrow's agenda. Geneva: World Health Organization; 2009.
- 61. UNDP. Regional gender equality strategy, 2008–2011. New York: United Nations Development Programme Regional Bureau for Europe and the Commonwealth of Independent States; 2008 (http://europeandcis.undp.org/uploads/public1/ files/RBEC%20%20Gender%20Equality%20Strategy%20%202008%20-%20 2011%20revised%20FINAL.doc, accessed 20 April 2011).
- 62. Gakidou E et al. Increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009: a systematic analysis. Lancet 2010; 376(9745):959-74.
- 63. Dev SM, James KS, Sen B. Causes of fertility decline in India and Bangladesh: an investigation. New Delhi: South Asia Network of Economic Research Institutes. SANEI; 2002:27.
- 64. Visaria P, Visaria L. Demographic transition: accelerating fertility decline in 1980s. Economic and Political Weekly 1994; 29(51-52):3281-92.
- 65. Guilmoto CZ, Irudaya Rajan S, eds. Fertility transition in south India. London: Sage; 2005.
- 66. WHO. The world health report 2005 make every mother and child count. Geneva: World Health Organization; 2005: 166.
- 67. Naripokkho. Women's health and rights advocacy partnership completion report: 2003–2006. Dhaka: Naripokkho; 2006 (Internal document).
- 68. Murthy RK. Strengthening accountability to citizens on gender and health. Global Public Health 2008; 3(Suppl 1):104–20.
- 69. Joseph J. Reflections on the campaign against sex selection and exploring ways forward. New Delhi: Centre for Youth Development Activities; 2007 (india.unfpa.org/drive/Reflections.pdf, accessed 20 April 2011) (Report commissioned by the UN Population Fund).
- 70. Hunter DJ et al. Learning lessons from the past: shaping a different future. Durham: University of Durham; 2009:9 (http://www.dur.ac.uk/resources/public.health/ news/FinalSynthesisedReporttoMarmotReview-WC3subNov09.pdf, accessed 28 July 2011) (Marmot Review Working Committee 3, Cross-cutting Sub-Group Report).