‘Good health at low cost’ 25 years on
What makes an effective health system?

In 1985 the Rockefeller Foundation published an influential report entitled *Good health at low cost* which sought to shed light on a fundamental problem: why are some low and middle income countries able to achieve better health outcomes than others at similar levels of income? The report found that China, Costa Rica, Kerala (India) and Sri Lanka achieved levels of health comparable to those seen in wealthier countries, but at significantly lower levels of income. Government investment in affordable and accessible community-oriented health services was key. Other public services; political mobilization; female empowerment; improved literacy; commitment to equity as a social goal; and strong government leadership were central to these good health outcomes. The report convincingly dispelled the myth that economic growth was a sufficient driver of development and, with it, better population health.

To mark the 25th anniversary of the publication of the original *Good health at low cost* report, a team of researchers at the London School of Hygiene and Tropical Medicine along with partner institutions from Bangladesh, Ethiopia, Kyrgyzstan, Tamil Nadu (India) and Thailand has returned to the original research question posed a quarter of a century ago: how can countries with relatively low incomes achieve maternal and child health outcomes that put some countries with similar levels of economic resources to shame? Are the factors identified in the mid-1980s the same? If not, what new challenges have been overcome, and how?

The new Good Health at low cost study

The new research focused on five countries. Case studies were conducted which involved an in-depth exploration of developments over many years. They triangulated data from multiple sources, drawing on existing quantitative data on mortality, health interventions and health system indicators. Extensive interviews were undertaken with a range of respondents who work, or had worked, at national, district and local levels.

Countries were chosen as a result of research commissioned by the Rockefeller Foundation, which led to a shortlist of possible study countries. Drawing on this list, we identified countries that had undertaken large-scale and innovative system-level reforms, suggesting effective government stewardship, vision and capacity to implement change despite financial constraints. We sought to include a variety of health system configurations, models of governance, geographical regions, population sizes and income levels. Availability of well-established research organisations with expertise and interest in health systems research, and the existence of documented experience from implementing policies and programmes both within the particular country and internationally were also important in the choice of countries. Consideration was also given to the scope for policy engagement and the level of international and regional interest likely to be generated through the research.

The study countries have made substantial improvements in health and access to essential services beyond what might be expected on the basis of their income level. Bangladesh and Tamil Nadu have among the longest life expectancies for men and women in their regions. Ethiopia has gone from being one of the worst performers in under-5 mortality to outperforming neighbouring Tanzania and Uganda. Thailand, a country that has achieved all the health MDGs, has now adopted MDG+, a set of targets that go well beyond the internationally agreed goals. Thailand and Kyrgyzstan have achieved universal health care coverage through expansion of health insurance schemes. Many of these positive trends were sustained or accelerated over long periods of time. These improvements were due to the strengthened health system and factors beyond the health system such as literacy levels, road infrastructure and political openness.

As part of our study we also revisited the original countries included in the 1985 *Good health at low cost* report: China, Costa Rica, the Indian state of Kerala, and Sri Lanka. At the time of the original report, these four countries had shown dramatic improvements in infant mortality rate and life expectancy, despite severe economic constraints, and their improvements were substantially better than comparable countries.

IHPP Thailand
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Box 1: Key Messages

What is a successful health system?

A health system has been found to be successful when it:

- Has vision and long-term strategies, and effective institutions able to implement these;
- Takes into account the constraints imposed by path dependency;
- Builds consensus at societal level;
- Allows flexibility and autonomy in decision-making;
- Is resilient and learns from experiences, feeding back into the policy cycle;
- Receives support from the broader governance and socioeconomic context in country, and is in harmony with culture and population preferences;
- Achieves synergies among sectors and actors; and
- Demonstrates openness to dialogue and collaboration between public and private sectors, with effective government oversight.

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Table 1: Health and other indicators

	BANGLADESH (year)	ETHIOPIA (year)	KYRGYZSTAN (year)	TAMIL NADU (year)	THAILAND (year)
Average life expectancy - years	58 (1994) 66 (2008)	-	66 (1980) 68 (2008)	67 (2001) 69.8 (2006)	58 male: 63 female (1975) 69 male: 77 female (2005)
Maternal mortality -per 100 000 live births	600-800 (1960) 322 (late1990s)	1005 (1980) 600 (2008)	46.4 (2003) 75.3 (2009)	319 (1982-1986) 111 (2004)	420 (1960) 48 (2008)
Total fertility - births per woman aged 15–49 years	6.6 (mid-1970s) 2.7 (2007)	-	4.1 (1980s) 2.8 (2008)	2.1 (early 1990s) 1.7 (2006)	6.3 (1965) 1.7 (2003)
Infant mortality - number of infant deaths - one year of age or younger- per 1000 live births	85 (late 1980s) 52 (between 2002 and 2006)	-	66 (1997) 38 (2006)	35 (2007)	68 (1970) Under 10 (2006)
Under-5 mortality - probability of dying by age 5 per 1000 live births	202 (1979) 65 (2006)	210 (1990) 105 (1999)	72 (1997) 44 (2006)	55 (1980) 35.5 (2006)	90 (1970) 8 (2006)
Population living on less than $1.25 a day	49.6% (2005)	39% (2005)	1.9% (2007)	-	10.8% (2009)
Adult literacy	55.9% (2009)	30% (2008)	99% (1999)	80% (2011)	93.5% (2005)
Access to improved water source	80% (2008)	60% (2007)	-	93.5% (2005 – 2006)	98% (2008)

Recipe for success: health systems and beyond

The original *Good health at low cost* report reflected a contemporary interest in the multiple determinants of health and understanding how these are distributed across populations. A key conclusion emerging from this new study, 25 years later, is the increasing importance of strengthening health systems in improving health compared to the 1985 report.

The study countries' health systems shared a set of common characteristics, and our analysis suggests that these characteristics are what makes them successful (Box 1). For example, in Thailand successive, five-year national health plans transcended political divides. Health was given the utmost priority. Leadership was provided and guided by charismatic individuals in the Royal Family, government and the public health sector who were supported by experienced technocrats. Long term planning and leadership were also important in Kyrgyzstan where the Manas and ManasTaalimi health reform programmes radically restructured the health system and ensured continuity throughout reform cycles.

Tamil Nadu is the only state in India that has a dedicated public health cadre, which has been credited with improving efficiency and implementing best practice. Tamil Nadu also trained and deployed village health nurses to serve rural communities more rapidly than in most other parts of India. By the early 1980s, approximately 2000 village health nurses were serving rural communities and by the late 1980s, nearly 8000 of them were in place across rural areas of the state. Since then, the range of primary care services they deliver has gradually increased. The impact of this initiative on key health indicators has been clearly documented, for example through increased numbers of antenatal care visits and institutional deliveries in rural areas.

Bangladesh relied on a diverse mix of public and voluntary provision that complemented each other and ensured that isolated and disadvantaged groups were reached. Bangladesh now provides almost universal access to vaccination services, as measured by the percentage of children under 1 year of age who receive BCG (a vaccine against tuberculosis). This increased from 2% in 1985 to 99% in 2009. Ethiopia scaled up the innovative Health Extension Programme, seeking to reduce geographical barriers to care. As a result between 2004 and 2008, the percentage of births with a skilled attendant doubled, and the percentage of women receiving antenatal care and of infants fully immunized increased by over 50%.

Study countries have made efforts to move towards fair and sustainable financing. In Kyrgyzstan long term efforts to reduce out-of-pocket payments, especially informal ones, have started to show positive results, an unprecedented development in the former Soviet Union. Ethiopia recently moved to develop a system of Social Health Insurance for employees in the formal sector and a system of community health insurance.


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China, Costa Rica, Kerala and Sri Lanka – 25 years on

The original *Good health at low cost* countries, China, Costa Rica, Kerala (India) and Sri Lanka, had achieved notable health gains by the early 1980s. Factors contributing to good health at low cost included investment in financial and human resources for health, especially in primary care; political commitment; community involvement; equity of access and use; and policies beyond the health system which addressed many different determinants of health.

25 years on health has continued to improve in each of the 4 countries. There have been contextual changes, such as uneven economic growth, political and economic crises, changing international trade flows, the emergence of new technologies and migration. Our research examined how changes to their health systems and broad sociopolitical contexts may have influenced population health.

China

Since the 1970s China's health system has experienced a number of major reforms. The quality and affordability of health services suffered as a result of the removal of financial protection for many in rural areas and decreases in government funding. Economic liberalisation led to deepening inequalities between urban and rural areas and among income groups. But China's tremendous economic growth has recently allowed for reinvestment of this wealth into health. New health care centres were built and others renovated which improved efficiency and quality of care. The New Rural Cooperative Medical Care System (NRCMCS) and the Urban Resident Basic Medical Insurance (URBMI) scheme were introduced. The government made universal health insurance coverage a priority. By 2008 nearly 90% of rural residents were covered by the NRCMCS (accounting for 815 million people), and 65% of urban residents were covered by the URBMI. Universal coverage is well within reach.

Costa Rica

Costa Rica's reforms have involved taking its already successful state-driven model for the health system and introducing changes to improve equity and efficiency of the Costa Rican Social Security Fund (CCSS). The coverage and quality of primary care has been extended to address imbalances between rural and urban areas and is now universal. Management, financing, and delivery of medical services have also improved. In addition administrative decentralisation broadened community participation in setting priorities and performance targets for health. These reforms have collectively been associated with reductions of 8% in child mortality and 2% adult mortality. Costa Rica's life expectancy is now the second longest in the western hemisphere after Canada.

Kerala

Kerala's economy lagged behind much of the rest of the country in the past. But by 2000 its per capita income was 20% higher than the all-India figure, supported partly by remittances from Keralites working abroad. Infant mortality more than halved from 1981 to 2005–2006 with virtually no difference between rural and urban areas. Maternal mortality is around one third of the estimated rate for India as a whole. Success is due to Kerala's well-developed network of public health facilities which is the legacy of Kerala's prior investment in social welfare. But since the 1980s, as elsewhere in India, the private health sector has grown dramatically and now handles most of the caseload in the state. Reliance on the private sector has increased overall spending on health, most of which comes out-of-pocket, and has adverse implications for poor and marginalized groups in terms of equity. In addition, Kerala now has some of the highest rates of non-communicable disease mortality and morbidity in the country.

Sri Lanka

Despite nearly three decades of civil war, Sri Lanka has performed well economically for many years, experiencing steady growth in GDP since 1985. However, the country has had to cope with a series of challenges such as the 2004 tsunami and the poor health experienced by those most affected by the civil war. Nevertheless after decades of government investment in hospital infrastructure, today, most Sri Lankans live within three kilometres of a public facility where care is delivered free of charge. Most Sri Lankans also place a great deal of confidence in the quality of health services received in the public sector, particularly with respect to inpatient care. A private health sector has emerged, and has become an important source of service delivery in the country but tends to focus more on providing cheaper outpatient and ambulatory care, while the public sector delivers almost all inpatient care - providing relatively more protection from catastrophic health expenditure. However, health gains have not been equally distributed throughout the population. In the future decreasing government investment could affect service quality and drive increasing numbers of patients to seek care in the private sector, widening health inequalities and decreasing popular confidence in the public system.

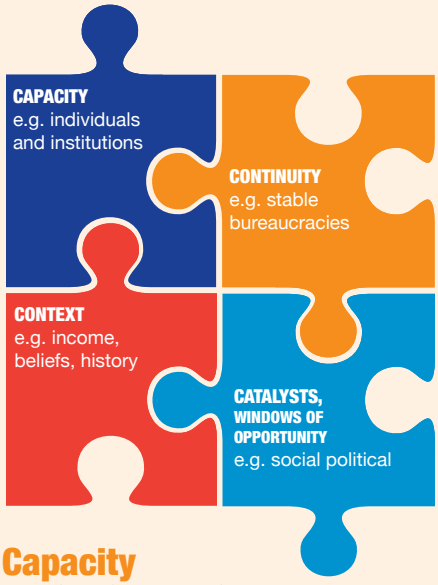
Lessons Learnt

Earlier investment in social welfare created virtuous cycles of human development that continues to work to improve health. There is a need to go beyond the provision of a basic level of care to also include higher levels of care and preventive services in order to adapt to changing health needs. The quality of services delivered in the public sector are crucial in maintaining equity of access because increasing consumer awareness plays an important role in shaping where people seek care and maintaining trust in the public sector. This trust, in turn, ensures that health remains a political priority, which encourages government to be responsive to health needs by implementing reforms that are appropriate for the context, sustainable, and pro-poor.

What other factors promoted health and access to services?

Factors beyond the health system were often instrumental in improving health and access to services. Health systems are embedded in larger social systems, at national and international levels. They are path dependent. They are influenced by their history and the histories of the countries in which they exist. In our study countries contexts – the policy environment, levels of wealth or geography – all determined the shape of the health system and the ability of the health system to promote good health. For example, countries with widely dispersed rural populations, such as Ethiopia, or with particularly isolated groups, such as Bangladesh and Thailand, have had to find innovative ways of deploying health workers with at least basic skills where they are needed most. Even where accessible and appropriate services exist, existing information and cultural barriers may hamper use.

Across the study countries, four interlinked underlying factors were found to be necessary for health systems to succeed. They are: Capacity (leaders and promoters of new ideas, and effective institutions able to implement them); Continuity (the stability required for reform to develop fully); Catalysts (ability to seize windows of opportunity); and Context (taking context into account when developing policies).



Capacity

In each study country there were strong individuals who had a vision of where they wanted the health system to be and the ability to inspire those around them to get the job done. This included charismatic political leaders, inspirational and influential health sector and health care professionals and talented and committed technocrats. Leadership and vision would not have been enough without strong institutions that were resilient in the face of political and societal changes and that retained institutional memory.

- In Kyrgyzstan inspirational national leaders, strong capacity in the Ministry of Health, relatively low turnover of staff and capacity building by donor agencies has been pivotal to successful health outcomes.
- Tamil Nadu's considerable progress in maternal and neonatal health is explained with a mix of a strong political commitment to health, irrespective of the party in power.

Continuity

Health systems are complex adaptive systems. They require resources that take time to produce (for example doctors and nurses), rely on institutions that take time to change and people who take time to learn (e.g. training or improving population knowledge of their entitlement). Path dependency determines the direction, pace and scale of change. Continuity, including stable, professionalised bureaucracies, is a staple ingredient in building effective health systems.

- Bangladesh's health policies have endured political change while constantly adapting to emerging issues. The country has demonstrated strong political commitment to health and despite rapid changes in the political landscape many health policies have been sustained for significant periods of time.
- The Manas and ManasTaalimi programmes in Kyrgyzstan covered a 15-year period. These programmes survived three major political upheavals as well as a series of economic shocks, providing continuity for the health system.

Catalysts

The ability to seize a window of opportunity has been a recurrent theme in the countries in this study. Economic and political shocks and other external events can also catalyse health systems change and lead to the creation of new capacities and learning. This ultimately promotes health system strengthening.

- Ethiopia seized the opportunity of increasing donor investment to undertake government-led intensive reforms in the health sector.
- Independence in Bangladesh in 1971, and later in Kyrgyzstan in 1991, catalysed a process of health sector reform. In Kyrgyzstan, the economic shocks felt after independence from the former Soviet Union brought the health system to a standstill, bringing into focus the urgency of radical health system reforms.

Context

Health systems and their operational contexts are inexorably linked. Financial resources are only a part of the answer, and investments in health which support access to essential services and equity are crucial. For example, an education system which results in a skilled health workforce and well informed patients, health strategies which suit population preferences and the geography of the country can all influence the achievement of better health outcomes.

- From 1965 to 1996, the Thai economy grew at a rate of 7.8% annually, with double-digit growth from 1986 to 1990. Despite the Asian crisis of 1996 the government continued to invest in health contributing to sustained long-term achievement.
- In Bangladesh non-health, poverty reduction initiatives have played an important part in health gains. A focus on women's education and empowerment through, for example, income-generating activities and improved communication and connectivity is an important strategy in improving the uptake of contraception and reducing maternal mortality. The expansion of electricity coverage, and road and mobile phone infrastructure has assisted the roll out of family planning and immunization programmes to rural areas.

Learning from the past, planning for the future

This study demonstrates that the findings of the original 1985 report remain valid. However, strong health systems are becoming much more important in improving health than ever before. New challenges, such as increasing urbanisation, a growing private sector and an upsurge in non-communicable diseases, suggest that both learning from the past and new thinking are required to adapt health systems. Findings from the case studies yield important observations: 1) the relationship between health and non-health systems factors is complex and challenging to trace; 2) there is no blueprint to explain how individual countries can obtain good health outcomes despite the relatively low level of resources; and 3) nevertheless, it is possible to carefully track the pathways along which individual countries have travelled in order to improve coverage of essential services despite facing multiple economic, political and social challenges. It is hoped that learning from the *Good health at low cost 25 years on* countries can provide useful lessons to other countries that are striving to improve health outcomes.

Further reading

'Good health at low cost' 25 years on. What makes an effective health system? Balabanova D, McKee M and Mills A (eds). London: London School of Hygiene & Tropical Medicine, 2011. Visit http://ghlc.lshtm.ac.uk to download your copy of the book, briefings and video footage from the study countries.

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