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Sri Lanka’s Health System – Achievements and Challenges

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Abbreviations

GDP	Gross Domestic Product
IHP	Institute for Health Policy
OECD	Organisation for Economic Cooperation and Development
SLFP	Sri Lanka Freedom Party
UNP	United National Party
WHO	World Health Organization

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Health systems, equity, health financing, Sri Lanka

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SRI LANKA'S HEALTH MIRACLE – ACHIEVEMENTS AND CHALLENGES

Introduction

In development terms, Sri Lanka's health gains compare with the income gains of the East Asian tigers, and deserve the epithet of a "health miracle". Although its continuing civil strife has in the past three decades overshadowed it, this health miracle has for a long time attracted the interest of others both in South Asia and elsewhere. Whilst the attention has been justified, Sri Lanka's experience has in practice neither been adequately understood both within and outside the country, nor, and this is probably not unconnected, has it led to widespread emulation in the region. At the same time, Sri Lanka is edging closer to a point when it needs to adjust its health strategies to maintain further progress.

Sri Lanka's health miracle

Achievement or serendipity?

Culture and geography partly explain the good health of Sri Lankans today, but Sri Lanka's good health conditions owe far more to public policy than anything else. If we go back to the early 1920s, these were quite similar to the rest of the region (Langford and Storey, 1993). Average life expectancy at birth in pre-partition British India was about 27 years. In British Ceylon, it was little better at 31 years, but was lower than in several Indian provinces, such as Madras (42), Punjab (33) and Bombay (35). Yet, starting in the 1930s, mortality rates have consistently fallen in Sri Lanka at a faster rate than the rest of the region. Life expectancy at birth is now 72 years in Sri Lanka compared with 61-65 in the rest of the region, and the infant mortality rate is less than 12 deaths per 1,000 live births compared with 60-85 elsewhere (WHO, 2005). Even though its infant mortality rate has reached such low levels, the percentage decline each year continues to outpace most of the developing world. At the same time, the number of children that the average Sri Lankan women bears has fallen from more than five to less than two, which implies that by 2030 Sri Lanka's population will stop growing and begin to shrink. All this was achieved whilst Sri Lanka was still a lower-income developing economy, and Sri Lanka's health performance in relation to its level of economic development continues to place it amongst the top performers in the world.

Sri Lanka in contemporary debates

In the public health community, Sri Lanka is often presented as the classic proof of the greater impact on mortality of public health and social interventions than curative medical care. This has its roots in two observations. First, Sri Lanka's initial rapid mortality decline during the 1940-50s coincided with the introduction of DDT spraying to control mosquitoes. This proved highly effective and reduced almost to zero deaths from what was then the number one killer in the island. Second, as in Kerala, health gains in Sri Lanka have been accompanied and promoted by other social policies, including provision of universal education and a basic nutritional floor through food subsidies, improvements in water and sanitation, and social emancipation of women. In contrast, many development economists have seen a basic dilemma at the heart of Sri Lanka's achievements. For them, the social gains and health miracle have come at too high a cost in terms of economic

development (Bhalla and Glewwe, 1986), although others, notably Amartya Sen (1999), have disagreed. The country is thought to have invested too much in terms of government spending to underpin these achievements, and this has fatally undermined economic growth.

Unfortunately, both perspectives obscure more than illuminate the key issues, and fail to identify the critical lessons of Sri Lanka's experience. Instead, most of Sri Lanka's health gains have come from the impact of curative medical care, and this has been achieved by spending rather little in terms of government budgets.

Establishment of Sri Lanka's health system

Undeniably, Sri Lanka enjoys a number of intrinsic advantages when it comes to health, many of which have their counterparts in Kerala (Caldwell, 1986). One is a greater level of female autonomy in traditional society and lack of cultural resistance to women's empowerment, which is a legacy of the island's Buddhist influences. These made it easier to introduce mass education of girls, and also facilitated women taking responsibility for looking after their own health and that of their children. The second is a tradition of state activism in social and health provision, which has its origins in the pre-colonial era when Sri Lankan kings constructed public hospitals and nursing homes (Uragoda, 1987). Relatedly, Sri Lankan society is much more state oriented in its mobilisation and organisation than others in the region. The third, which is connected with the plentiful rainfall and rivers in the island, has been a culture encouraging cleanliness and frequent bathing, which was noted even by Marco Polo.

These advantages were not by themselves enough to make a difference, since, as noted earlier, health indicators in Sri Lanka were in no way remarkable in the 1920s. What changed this were two critical advances in governance that occurred during the British occupation of the country. The first arose from the development of the colonial economy by the British. They introduced the large-scale plantation cultivation and export of tea, rubber and coconut, which required the importation of large numbers of indentured labour from India. It provided a motivation for the British to develop an efficient colonial administration to maintain the necessary infrastructure, and at the same time provided the occupation regime with a ready source of taxation in the form of export taxes to pay for it. As a consequence, by the early 20th Century the colonial state had unusual administrative capacity, as well as financial means. One reflection of this is that the bureaucracy was able to register almost all births and deaths as early as the 1930s. The second and related development was the introduction of democracy. In contrast to British India, British Ceylon had since the 18th Century been administered directly from London as a Crown Colony, with early establishment of relatively advanced features of governance such as independence of the judiciary, legislature and executive. This paved the way in 1931 for a radical attempt at social and constitutional engineering, when two decades before the rest of the region, the British granted self-rule in all domestic affairs to Sri Lankans on the basis of national elections held on the principle of universal franchise.

In 1927, the Constitutional Commissioners, who had been entrusted with recommending the impending constitutional changes, argued that giving women an equal vote and making the government accountable to the population were a necessity for improvement in social conditions and improvement of child health (Rannan-Eliya and de Mel, 1997). Almost certainly, they did not anticipate how prescient they were. Democracy in Sri Lanka was to fundamentally alter the dynamics of social policy in the island. It led to pressures on politicians to respond to social concerns, and chief amongst these at the time were roads, schools, healthcare and food. These pressures were to escalate in the subsequent decades as electoral competition between the two major political parties in Sri Lanka today, the UNP and SLFP, became established in the 1950s, and

as after 1956 successive governments experienced the power and willingness of the voters to turn out of office incumbent regimes.

Roots of unorthodoxy in health policy

The first elected government moved to rapidly expand into rural areas the existing network of urban schools and hospitals. It was able to fund this, because of the availability of plantation taxes. In doing this, the pressure was chiefly to respond to a demand for equity, with each electorate having to benefit. In this regard, the political pressures in Sri Lanka are far more concerned with issues related to local service provision than in India or Bangladesh, owing to the small size of electorates; in the 1930s, the typical Member of Parliament represented 10-40,000 voters. This was to structure Sri Lanka's current health system, which is characterised by a huge number of hospitals widely dispersed and readily accessible in rural areas. For example, by the time of independence in 1948, Sri Lanka's health ministry was operating more than 1,000 treatment facilities for a population of 7 million people, which is more than the total number today in Bangladesh. In 1951, access to health services was further extended, by abolishing all user charges for government medical services, a policy which continues.

In this milieu was to occur an event with profound influence on the future course of Sri Lanka's health policy. In 1934-35, the island was struck by the Ceylon Malaria Epidemic, which remains the most damaging natural disaster to strike the island in modern times (including the 2004 tsunami). Unusual climatic conditions resulted in an epidemic of malaria spreading to the non-malarial areas of the island where it infected almost the whole population, and killed more than 100,000. Rural areas were already impoverished in the midst of the 1930s Great Depression, and the malaria epidemic made things much worse. Other than the direct sickness caused by the illness, the biggest impact was on rural households, who suffered loss of incomes when their men were unable to tend to their crops, and suffered again when the rest of the family was forced to abandon their normal responsibilities to nurse the sick. In the face of this devastation, the conservative political elite of the day chose to do little, leaving the response to charitable and private action. Opposition leftist politicians organised well-publicized aide missions into rural areas to exploit this. In reality these were not that effective, but they caused considerable political anxiety. Following the epidemic, the government instituted an official inquiry, which made two important observations. First, it observed that the health crisis had impoverished large numbers and that private and charitable actions had proved totally inadequate. Second, it noted that there was a clear need for direct state intervention through provision of hospitals, which could care and feed the sick, so as to lift the burden on affected families.

Two important and distinctive features of Sri Lankan health policy thus emerged in the first two decades following the granting of universal franchise in 1931. The first was the emphasis on a highly dispersed rural health infrastructure, where almost all rural people lived within walking distance of some facility. The second was the early recognition, some six decades before WHO (2000) came to the same conclusion, that a major objective of health policy should not be to cure disease but to provide protection against financial impoverishment from serious illness.

Roles of preventive and curative health services

Sri Lanka does have a very effective and comprehensive system for delivering preventive services. Using a model developed in the 1920s, all areas of the country are covered by specialized teams of doctors, midwives and nurses who are responsible for monitoring their local communities, identifying and registering pregnant mothers, and then ensuring that these mothers and their children receive all indicated antenatal and postnatal services, as well as subsequent child

interventions such as immunization. This infrastructure enables it to achieve high levels of coverage with basic preventive services, has essentially eradicated all immunisable diseases, and reduced significantly maternal mortality (Pathmanathan *et al.*, 2003).

The undeniable success of its preventive services and the well-documented success of DDT-spraying in almost eliminating malaria in the 1940s might suggest that Sri Lanka's health achievements are largely a result of a focus emphasis on preventive care, much as many in the public health community would like to believe. However, this is not the case, and some of the key evidence for this concerns malaria.

The control of malaria with DDT in the late 1940s and early 1950s is one of the most studied episodes in public health (Gray, 1974). For a long-time, demographers believed that the reduction in malaria alone accounted for most of Sri Lanka's health gains during that period. However, recent research has debunked this idea. Meegama (1986) first pointed out that the mortality decline that occurred benefited both malarial and non-malarial parts of the island, so making malaria control an unlikely explanation. More recent analysis by Langford (1996) of district records confirm this. The best estimate is now that malaria control may have accounted for at most only a quarter of the health gains in that period.

This recent reinterpretation of the malaria story provides an important piece of evidence, which fits with others. It is now clear that the main reason why malarial areas benefited the most in health terms in the 1950s is not that they benefited the most from DDT-spraying, but instead that these areas were the ones which saw the biggest expansion in government curative health institutions in the 1930s-40s (Langford, 1996). This expansion did not have much of an impact before, because budgetary constraints and later wartime restrictions meant that most of these facilities were understaffed and under-stocked with medicines. It was only after 1947 that supplies improved, and this in turn was responsible for most of the subsequent health improvements.

The importance of curative services in preventing malaria deaths becomes clearer in later years. As DDT became less effective owing to resistance and other concerns, malaria made a massive resurgence in the 1960s, and continues today to cause more than a million cases each year. However, the difference is that today almost nobody in Sri Lanka actually dies of malaria. Annual deaths number a few hundreds, and most of these are in the conflict areas of the east and north where curative medical services are disrupted. The reason why more don't die is that today Sri Lankans who fall ill with malaria seek and receive effective curative treatment in government hospitals. It is this easy access to effective medical treatment and readiness of even poor Sri Lankans to use it that largely explains Sri Lanka's good health indicators, as has been confirmed in a range of other studies (Caldwell *et al.*, 1989; De Silva *et al.*, 2001). Moreover, the statistics also show that even when comparison is made with countries with similar educational indices, higher incomes, better sanitation access and lower levels of malnutrition, Sri Lankans still have better health outcomes. The crucial difference is that owing to the decades of government investment in an extensive health infrastructure, Sri Lankans can and do resort to medical care more often than almost any other lower-income developing country. As Table 1 shows, Sri Lankans not only benefit from levels of access to modern medical services seen only in developed countries, but were benefiting as early as 1948 from better access than most people in most South Asian countries today.

Table 1: Annual contacts per capita with modern providers during Sri Lanka's health transition compared with selected countries today

Country	Time period	Outpatient visits per capita	Inpatient admissions per 100 capita
Sri Lanka	1930	1	4
Sri Lanka	1948	2	9
Sri Lanka	2003	5	22
Indonesia	2000	1	1
Bangladesh	1996	1	2
Pakistan	1995	3	-
Thailand	1993	2	8
Malaysia	2000	4	10
USA	2000	9	12
United Kingdom	2000	5	15
Hong Kong	2000	14	18
Germany	2000	6	24

Source: World Bank HNP Stats Online Database (<http://devdata.worldbank.org/hnpstats>), OECD Health Data, official national statistics and IHP databases.

The prioritisation of government health spending

At first glance, Sri Lanka's strategy of providing developed country levels of access to free curative services, supported by effective preventive health services, seems financially exorbitant and unfeasible in the setting of a developing economy. This perception has contributed to a belief that Sri Lanka has been overspending on health at the expense of economic growth, and may have discouraged others in the region from emulating the Sri Lankan experience. However, these fears are misplaced. Remarkably, Sri Lanka's government has not been a high spender on health services. In recent years, government health spending has averaged 1.3-1.7% of GDP. Although this is modestly higher than the 1.0-1.2% of GDP spent by the other major countries of South Asia, it is actually less than the 2.0-3.0% of GDP that other countries at Sri Lanka's income level typically spend. In fact, for most of the period before 1990, Sri Lanka was spending less in per capita terms than the majority even of countries in Sub-Saharan Africa (Rannan-Eliya and de Mel, 1997). Moreover, as a share of national income, Sri Lanka spends less than 4% of its GDP, which is considerably less than India's 6% of GDP (WHO, 2005).

When Sri Lanka launched its massive expansion of government health services in the 1930s, it was able to finance it through plantation export taxes. By 1959, it reached the limits of this strategy, and economic difficulties forced the government to cut the health budget. However, during the same period the expansion in facilities resulted in massive surges in patient demand, of the order of 10-30% per annum. The health ministry was caught in a bind – it faced stringent budget constraints, was experiencing increasing and unprecedented demands for its services, and faced political pressures not to do anything that would restrict demand or access (Cumpston, 1950). How did Sri Lanka solve this contradiction? The answer to this has four parts. First, it relied on efficiency gains, second it prioritized curative services and hospital care in the government health budget, third it prioritized access for the poor over quality, and fourth the government has appropriately substituted for the private sector.

Efficiency gains

In the 1950s, doctors, nurses and hospitals were forced to treat ever more patients with existing resources and personnel, and to adapt without sacrificing basic quality or access of the poor to government hospitals. The ministry contributed by adapting its own regulations and hospital

designs to allow each facility to serve more patients. This approach was not only successful, but it created a public sector culture that became institutionalised. More than two-thirds of the expansion of government health services during the critical 1945-60 period was financed not by increased money, but productivity gains in the public sector. Since then, average productivity in the public sector has continued to increase at 1-2% per year. One of the consequences of this is that Sri Lanka as a middle-income economy can now produce many hospital services at a lower dollar cost than government hospitals in many parts of India and Bangladesh (Rannan-Eliya and Somanathan, 2003).

Prioritisation of spending on hospitals

Although the reputation of its preventive health services and the scale of the malaria control programme in the 1950s has made observers think otherwise, the government has always placed the greatest priority in its health budget elsewhere on hospitals. Since at least the 1950s, more than 75% of the recurrent budget has been spent on hospitals, and this share is not appreciably different today. This can be contrasted with the 45-50% spent in Bangladesh, 30-35% in Nepal and 29% in India (Data International, 2003; Institute of Policy Studies, 2003; Ministry of Health and Family Welfare, 2005). This high budgetary allocation assisted the country to maintain its extensive network of health facilities in rural areas. Evidently, this unorthodox budget allocation was primarily due to the political pressures made by voters, who have always preferred the government to increase this type of expenditure, but it has also been quite rational for two reasons. First, a key need of the rural poor has been protection against the financial impoverishment arising from sickness, officially recognised in the 1930s. This type of protection requires government spending on the most expensive inpatient care, and not primary or routine outpatient care, which many poor people can afford to and do pay for privately. In most parts of South Asia, sickness is a major cause of impoverishment of households, but in Sri Lanka this is quite rare (van Doorslaer *et al.*, Forthcoming). Second, once the preventive services have reached near universal levels of coverage (almost all children immunised, couples given contraception, mothers provided antenatal care), there is little to be gained from increasing preventive spending. The public sector preventive services have already reached this point, so further increases are not warranted.

Trade-off between access and quality

Despite all this, efficiency gains and prioritizing spending on hospitals were still not sufficient to meet the demand created by allowing free access to government services. At an early point, as in all healthcare systems, Sri Lanka faced a choice between maintaining quality or protecting access to services. This was most acute when in the 1950s, when there were often more than twice as many patients as there were beds in government hospitals. Yet when faced with this choice then and later, the unrelenting pressure of most voters has forced the public sector to sacrifice quality to preserve access. Overcrowding, under-equipped hospitals and overworked staff are often the consequence. For example, lower-level hospitals in Sri Lanka typically lack X-ray machines, a piece of equipment that is almost universal in comparable hospitals in Bangladesh. At the same time, it must be emphasized that the loss of quality has been felt most in the hotel or consumer aspects of care, and basic professional standards of treatment have been maintained.

Public-private mix

In retrospect, by adopting such a pro-active role in the provision and financing of hospital services, the health ministry at each stage chose the most appropriate role for the public sector. Prior to the

1930s-50s, there were essentially no qualified physicians working in rural areas. What the massive government expansion of free clinics and hospitals did was to wean rural people away from their traditional treatments to use the services of qualified professionals. Today, unlike elsewhere in the region, even poor Sri Lankans disdain from using traditional or unqualified doctors. Later as even the rural poor became accustomed to using qualified doctors and began to seek out private options, the government continued to focus on providing the expensive hospital care, which the private sector could not provide. Today, the public sector still continues to provide the bulk of inpatient care (<95%), but has ceded most outpatient provision to the private sector. Even then, it continues to be the predominant source of such care for the very poor, who cannot afford to see private doctors. This approach can be contrasted with other countries, where the public sector attempts to focus on providing primary care, whilst leaving hospital services to the private sector.

Prospects and challenges

The explanation presented here has highlighted many of the paradoxes and unorthodoxies of health policy in Sri Lanka. They did not develop as part of some grand design, but arose fortuitously as a result of political pressures that were generated in the context of a democratic system after 1931. Often key changes were not desired by the political leaders, or recommended by experts, but were forced upon them. These include the initial state involvement in rural health care, the policy of focusing spending on hospitals and curative care, the policy of not charging user fees, and the pursuit of efficiency in the public sector. Despite this and only after many decades, is it now possible to begin to engage in the necessary post-hoc rationalisation of what was a complex and dynamic process, and to understand why Sri Lanka's health strategies made sense.

The cycle of reform and non-reform

The reality that Sri Lanka's health strategy has been driven more by the preferences of voters, than the conscious deliberation of experts, is linked to current challenges and prospects for the health sector. A key element in this is that there is little understanding of why the system works so well. It represents a historical compromise between the demands of the rural poor for equitable access and risk protection, the interests of the middle-classes in better quality, the professional judgements of health planners, and the desire of the political and business elites to reduce social spending and cut taxes. As such it satisfies almost nobody important, except the poor majority who continue to report high levels of satisfaction in the system. It is nevertheless a stable compromise, and since the key features of Sri Lanka's health system were put in place in the 1950s, little has changed.

Characteristic of this lack of understanding has been a continuous cycle of attempts to reform the system, which inevitably end in failure with no changes being made. Typically, this starts with increasing demands from the middle-classes to improve quality or provide services that the public sector does not, and a growing belief of the usually cash-strapped government that the health sector is simply not efficient. It is often fed by the feeling that since the system hasn't changed in an unfashionably long time, it must somehow be reformed to keep up with the times. So reforms are proposed to restructure the public sector delivery system, and to bring in other forms of private financing to take the burden off the public sector. At this point the whole process typically stalls as the different stakeholders articulate opposition, and governments realise that any reforms are likely to be quite expensive, and that increases in private financing will undermine equity.

The current cycle started in 1996 with the appointment by President Kumaratunga of a Presidential Task Force to reform the health sector. This task force was convinced that the core problem was the health system's inefficiency and excessive centralisation, and proposed a range of restructuring initiatives, clearly inspired by international trends. Its report did not even reach formal publication owing to growing criticism by key groups and by the government's own international advisor (Hsiao and Associates, 2001). The subsequent administration of Prime Minister Wickremasinghe took a different tack by emphasising the need to increase private spending. In its Poverty Reduction Strategy Paper or PRSP (Government of Sri Lanka, 2002), prepared in agreement with the World Bank, it proposed a poverty-reduction strategy that would cut recurrent government health spending as a share of GDP and a shift away from hospitals to preventive care. However, even this explicitness did not take into account electoral realities, and the PRSP's targets were quietly ditched with the change in government in 2005.

Emerging challenges

Despite its stability and success, the Sri Lankan health system is nevertheless reaching a point when substantial reforms will become unavoidable. Two trends underlie this.

First, its very success in reducing deaths in children and mothers and from infectious disease means that future health gains require progress to be made in combating non-communicable and chronic diseases, such as heart disease, diabetes and strokes. Sri Lanka's population is rapidly ageing, and its disease profile resembles that of a developed country. There is increasing evidence that the system is failing to meet the challenge of providing the appropriate treatments for these diseases. A disturbing indicator of this is that male adult life expectancy has barely increased in the past thirty years. Effective responses will most likely involve spending more on treatment interventions, and modernising the current system of primary care to introduce family practitioners to manage chronic disease on a continuing basis. None of these are affordable with current levels of government spending.

Second, increasing consumer expectations for better quality and improved responsiveness healthcare facilities is leading more Sri Lankans to opt for the private sector. This is mostly still for outpatient care, but the small private hospital sector is growing rapidly. Already in the most developed Western Province, more than 62 percent of outpatient care is now obtained in the private sector (Central Bank of Sri Lanka, 2005). If this trend continues, it risks destabilizing the public sector if government doctors decide to leave for the private sector, and if the crucial middle-classes withdraw their political support for maintaining public sector services. Ultimately, improving the responsiveness of public sector services will require some degree of organisational reform, but such changes together with improvements in quality are not feasible without increases in government spending (Hsiao and Associates, 2001).

As implied, both these trends point to the need for substantially increased government spending. Sri Lanka has maintained its government health budget at 1.2-1.7% of GDP since the 1960s, but as a middle-income economy with an ageing and educated population this level is no longer adequate. Government health spending will need to increase to 2.0-3.0% of GDP in coming decades if quality of care, equity and consumer satisfaction are not to suffer. This conclusion is no longer that controversial, having been reaffirmed in the past five years by three different sets of international consultants tasked by the government with reviewing the health sector, and funded by the World Bank and the Government of Japan.

The critical and unanswered question is how this increase in spending will be afforded. Two options that have been identified are either to increase tax-funding for the health services, or to

introduce a universal health insurance system to supplement the tax-funding. The main argument against the first option is that the political leadership will find it very difficult to raise taxes to do this. On the other hand, the second option represents a major social and administrative challenge, for which Sri Lanka has no previous experience, and which has never been attempted in a country at Sri Lanka's level of development (in Asia the only previous examples are Japan, Taiwan and Korea).

It is unlikely that this question will be answered in the near future. Just as much as the current system has survived for five decades owing to the constraints imposed by the voters, any changes will not occur until there is sufficient political urgency to force the political leaders to choose one option or the other. Currently, these political pressures for change are not sufficient, and the system is likely to drift for at least five to seven more years. However, this scenario would quickly change in the unlikely event that the ongoing conflict is resolved soon, since the conflict has tended to push social issues off the political agenda.

Total of 5953 words including 621 words in bibliography and 346 words in introductory pages

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