

# The Sri Lankan Model of Public Hospital Governance

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## A Case Study

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## Abstract

The Sri Lankan model of hospital governance reflects decades of democratic and societal pressures, which forced health sector managers to resolve the challenge of how to reconcile the demand for open access to hospital care and adequate financial risk protection with the pressure of ever-increasing fiscal constraints.

The colonial system of highly centralized, bureaucratic, hospital administration was deemed early on as not fit-for-purpose, and was restructured in the 1950s on the advice of international experts. The reforms introduced the paradigm that decision-making authority should be delegated downwards as far as possible in keeping with other policy goals, and established the principle that hospital management should be entrusted to physicians with management expertise. The resulting system has largely persisted intact since the 1960s. The only major change was an adaptation to the introduction of devolved government in the 1990s, which placed most institutions under provincial authority. In this system, Ministry of Health (MOH) retains control over the allocation of most hospital inputs, including staff and supplies, defines the minimum service package that institutions must provide, and leaves no discretion for hospitals to set prices or retain revenues. At the same time, hospital directors are given considerable authority and operational autonomy in how they use their allocated inputs to deliver the expected services. This authority is real, and is backed by a supervisory structure of area managers and lines of reporting which most of the time acts in a supportive manner, focusing on outputs and providing continuous monitoring and feedback on performance. The ability of hospital directors to exploit their authority is critically enhanced by reforms that have professionalized their status and training in management. Although the system does not grant de jure hospital autonomy, this combination of central control of inputs, hierarchical accountability, local empowerment and professional authority has performed well in terms of delivering continuous improvements in cost efficiency, quality and service delivery innovation.

In many ways this approach confirms global findings that what matters in effective hospital reforms is not so much formal organizational structure, but instead getting overall macro-incentives right and ensuring managers have operational authority, with the competency, training, and support to translate that to deliver societal objectives.

# 1. Introduction

This paper describes the governance of public sector, secondary and tertiary hospitals in Sri Lanka. Secondary hospitals provide four basic specialties (medicine, surgery, paediatric, obstetrics and gynaecology) and manage patients needing specialist care that are not available in primary care hospitals, while tertiary hospitals provide added specialties. These are a subset of all public hospitals, but share a common system of administration, management and financing, and represent the backbone of the public delivery system in the country, treating more than half the public sector patient load. This makes a focus on them both appropriate as well as relevant for policy. These hospitals do not operate as formal, autonomous bodies, nor do they have supervisory boards. Governance is interpreted here to mean the systems that govern and influence the management and performance of these institutions, and hold them accountable to relevant interests.

In Sri Lanka as a whole, the Ministry of Health (MOH) and its counterpart provincial ministries of health (PMOHs) operated 592 hospitals in 2011. MOH categorizes these into different levels based on their function and available services, labelling the lower level facilities as primary care institutions. The hospitals of relevance in this paper consist specifically of the non-primary care categories, which comprise Teaching Hospitals, Provincial General Hospitals, District General Hospitals, and Base Hospitals (Type A and Type B), but excluding specialised tertiary hospitals, and numbered 98 in 2011.

Governance processes are described based primarily on secondary data collection and review of both government documents and the research literature. However, these provide only a limited description of hospital performance outcomes and formal processes, and shed little light on why hospital managers behave the way they do. This gap is filled by having focus group discussions and in-depth interviews with hospital managers and key informants (Dalpatadu et al. 2014). In addition a separate study of hospital managers further supported these findings (Wickramasinghe, Kugadas, and Dalpatadu 2013).

## 2. Country background

### Economic and population context

Sri Lanka is a country with a population of 20.5 million in 2013 (Department of Census and Statistics 2014), with the rural population (82%) overwhelmingly predominating over the urban (18%) (Department of Census and Statistics 2012). The economy has reached lower-middle income country (LMIC) status with a GDP per capita of US\$ 3,280 in 2013 (Central Bank of Sri Lanka 2014). However, an important feature of fiscal trends in Sri Lanka is a continuous reduction in tax mobilization since the late 1970s, which has seen government revenues fall from 27% of GDP in 1978 to 13% in 2013 (Central Bank of Sri Lanka 2014). This has resulted in large fiscal deficits of 6–8% of GDP, which have severely constrained the ability of the government to increase social sector spending, including health.

### Political context

Prior to independence in 1948, Sri Lanka was a British Crown Colony for over a century. This gave it a legacy of strong government institutions including a relatively competent civil service. Self-rule on the basis of universal suffrage was granted in 1931. Since then all governments have been elected, which has had a long lasting impact on social policy and the associated provision of health and education services (Jones 2004; Rannan-Eliya and Sikurajapathy 2009).

Politics plays a pervasive role in Sri Lankan society and in the functioning of state institutions. Electoral competition and a shift to proportional representation in elections since 1978, has forced politicians to be highly sensitive to voter concerns and maintain a free health care system delivered through the public sector based on the principle of universal access.

### Historical development of the healthcare system

The macro-framework of healthcare delivery and financing in Sri Lanka is the outcome of decades of political pressures and a historical legacy. These continue to tightly constrain what is feasible and are relevant to understand the governance of public hospitals.

During British colonial rule in the 19th Century, government supported modern medical services, primarily to maintain the health of a largely Indian migrant plantation workforce, and the largely expatriate military, business and administrative elites. Health institutions were established in major towns and in plantation districts, but largely bypassed the rural population who were left to rely on indigenous medicine. This created a significant sense of discrimination on the part of elected politicians (Jones 2004). In 1934–35, rural areas were devastated by a major malaria epidemic. This event led government officials to accept the need for inpatient institutions to nurse the sick, as a form of risk protection to prevent poverty in rural areas. With the advent of universal suffrage and regular elections in the 1930s, the confluence of official and public opinion led successive administrations to introduce and increase income taxation to finance expansion of social services, to expand public provision to all rural areas, bringing access up to the levels enjoyed in the plantation sector, and to give priority in the budget to building of hospitals. Much of this was also driven by a nationalist ethos in the health ministry that aimed to redress the perceived neglect of the rural “masses” by the British imperial authorities (Rannan-Eliya and Sikurajapathy 2009). By 1950, this created an extensive network ranging from hospitals to dispensaries that remains the nucleus of the present hospital system (Uragoda 1987).

Four critical features of this early formative phase remain highly relevant for understanding governance today. First, it hardwired into the health service and political culture the prioritization of free hospital care as a form of risk protection. Second, it forced health managers to give priority to physical and financial access over other health service goals. From the 1930s, electoral competition led politicians to exert strong pressures to increase access, including

firing medical personnel who used departmental regulations to prevent constituents being denied admission to public hospitals (Rannan-Eliya and Sikurajapathy 2009), and eliminating all hospital user charges against international advice (International Bank for Reconstruction and Development 1953). By 1948, ministers had mandated policy that any patient who sought admission could not be denied admission, unless there was clear evidence of malingering (Cumpston 1950), and by the 1950s, this resulted in a situation in which the population regarded it as a right to be admitted on demand (Hance 1956). Third, this formative phase imbued the health ministry with a strong public service mission ethos that persists in its organizational culture to the present day. The fourth critical feature relates to how the challenge of fiscal constraints is handled. Fiscal difficulties from the 1960s led to a refocus on controlling government spending and reductions in the health budget, but political competition and public expectations prevented any attempt to restrict access to health services. The challenge was resolved in two ways: (i) health policy-makers and managers were forced in to a never ending search for efficiency gains, which was embodied in the MOH organizational culture; and (ii) a tacit understanding developed that rich patients should be encouraged to seek care in the private sector to off-load pressure on public services (Rannan-Eliya and Sikurajapathy 2009).

## Current health care system

Sri Lanka has a mixed health care system, where public and private sectors operate alongside. Taxation provides the necessary revenue for the public services, while the private services are mainly financed through out-of-pocket spending. In 2010, total healthcare spending in Sri Lanka was 3.5% of GDP (Institute for Health Policy 2012a), of which 44% was public and the rest came through private financing. External donor funding has always been modest, accounting only 2.2% in the past decade (Institute for Health Policy 2012a). The pattern of hospital spending, by and large, had followed a similar trend since the 1950s, which amount to for 70 per cent of the government's recurrent health budget – one of the highest in the region (Rannan-Eliya 2008).

Public and private services operate in parallel, with limited interaction or exchange of funds, and no patient inter-referral mechanism. Most private sector provision involves ambulatory care and the pharmacy sale of medicines, with half of all ambulatory contacts in the private sector. However, the public sector predominates in the delivery of inpatient services. In 2010, there were 124 private hospitals, which operated approximately 4,200 beds (<6% of all hospital beds) and treated 4% of all inpatient admissions, although accounting for a much larger proportion (26%) of inpatient spending (Institute for Health Policy 2012b; Amarasinghe et al. 2013). However, private hospital provision is concentrated in the capital and surrounding Western Province (52% in 2010), with negligible provision in other provinces and rural areas (Amarasinghe et al. 2013).

An important feature of the Sri Lankan healthcare system is a high level of medicalization and high and equal rates of utilization, which match those seen in developed nations. The combination of good access to medical care and frequent resort to medical treatment play a central role in the country's exceptional health outcomes (Caldwell et al. 1989; De Silva et al. 2001). Sri Lankans on average visit physicians more than 5 times a year, and inpatient utilisation is over 270 discharges per 1,000 population, much higher than the OECD average (OECD/WHO 2012). Use of public outpatient services is modestly pro-poor, but use of private outpatient care is even more pro-rich, resulting in a modest pro-rich gradient in use of all outpatient services. In contrast, use of private inpatient services is strongly pro-rich (top income quintile accounts for half of all private admissions), but public inpatient care is modestly pro-poor, as is overall use of inpatient services<sup>1</sup>.

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<sup>1</sup> IHP analysis of Central Bank of Sri Lanka's Consumer Finances and Socio-economic Survey (CFS) 2003/04 and Department of Census and Statistics' Household Income and Expenditure Survey (HIES) 2009/10

## 3. The public hospital system

### 3.1 Organization and ownership

Two distinct functional sectors, namely curative and preventive, operate within the Government health service. These are managed by two parallel hierarchies of managers sitting alongside the same organizational structure. The preventive sector is responsible for the operation of a network of around 300 health units which are physician-led, dispersed across the length and breadth of the country, and provide preventive and routine maternal and child health (MCH) services. The curative services administer all the patient-care facilities that range from outpatient-only posts to tertiary and specialized hospitals. They form a hierarchical, pyramidal network, where higher-level facilities act as referral centres for lower level ones. Table 1 depicts the types of curative care facilities, including the secondary and tertiary hospitals that are the focus of this paper.

**Table 1: Profile of curative care facilities by category, 2010**

Category	Level	Typical staffing	Public Sector Share (%)			
			Number	Beds	Outpatients	Inpatients
Hospitals that are focus of paper						
Teaching Hospitals	Tertiary	15–80 specialists, 135–500 MOs, 425–1,100 nurses	11	20.5	7.6	21.0
Provincial General Hospitals	Tertiary	35–55 specialists, 180–410 MOs, 575–1,250 nurses	3	5.6	1.8	6.6
District General Hospitals	Tertiary	10–20 medical specialists, 70–150 MOs, 175–400 nurses	18	13.1	8.5	16.7
Base Hospitals – Type A	Secondary	3–11 medical specialists, 45–100 MOs, 110–200 nurses	21	9.6	7.9	13.6
Base Hospitals – Type B	Secondary	1–4 medical specialists, 10–40 MOs, 25–65 nurses	45	9.6	10.4	9.9
Other facilities						
Specialised hospitals	Tertiary	10–30 medical specialists, 100–300 MOs, 150–300 nurses	11	9.0	3.0	4.8
Divisional hospitals/ Primary Medical Care Units	Primary	n.a.	924	32.6	60.8	27.5
Total			1,033	100%	100%	100%

n.a. not available

MO = medical officer

Source: Medical Statistics Unit (data obtained in 2014), Ministry of Health, 2014.



## 3.2 Resources and service delivery

The MOH stipulates the categories of staff, equipment and mix of services deliverable for each level and type of institution under its administration (Ministry of Health 1995, 2002), although services may often fall short owing to gaps in available staffing or equipment. With the exception of some specialized hospitals, all facilities must provide outpatient care, MCH, and family planning (FP) services. Secondary level facilities must also provide radiology and comprehensive pathology services, surgical theatres, intensive care units (ICUs), and specialist care in medicine, paediatrics, surgery, and obstetrics and gynaecology. Base Hospitals are categorized as Type A or Type B, according to the availability of other specialist services, such as ENT, eye, dermatology, and psychiatry. Higher-level facilities provide more extensive specialist services, with teaching hospitals providing the most comprehensive range.

Although the hierarchical arrangement of facilities is based on the logic of a referral system and this is mandated in official regulations, it is not implemented in practice. Patients can obtain first contact care from any curative care institution anywhere in the island, and in practice public facilities cannot deny services to those who turn up. Consequently, all facilities are expected to and actually do deliver primary care, including the apex teaching hospitals. In the case of secondary and tertiary level hospitals, this is through walk-in primary care at general outpatient departments (GOPDs), whilst providing specialist services is only via referral by GOPDs to specialist outpatient departments (SOPDs). With the exception of some MCH services that are delivered through the preventive service facilities, at least one third of all primary care is delivered at secondary and tertiary level hospitals. There is also a notable trend of patients shifting demand to higher-level facilities as mobility and expectations have increased (e.g., majority of mothers now choose to deliver at base hospitals and above under the care of specialists). Furthermore, because patients understand that access to specialist clinics is via referral, they often opt to seek first contact care from GOPDs at secondary and tertiary level hospitals, which can facilitate referral to specialists.

Many healthcare workers regard this phenomenon of patient freedom of choice of provider as undesirable, and frequently attempt to solve what is described as the problem of bypassing of lower-tier facilities. However, this has never made headway, given that strong political pressures support the de facto principle of access on demand. In the absence of funding to support a public network of family practitioners, who could act as gatekeepers, and to adequately resource all levels of the system to provide comprehensive services, voters, and politicians who act as their agents, have insisted on open access being maintained at all levels of the system (Rannan-Eliya and Sikurajapathy 2009).

Faced with these demand-side pressures, MOH has continuously shifted resources to higher-level hospitals (Table 2), with recent policy decisions to upgrade a hospital in every district to a tertiary care district general hospital. These responses reflect the reality that the Sri Lankan healthcare system prioritizes two strategic goals above all else: (i) universal access for all citizens, and (ii) effective financial risk protection.

**Table 2: Changes in distribution of budgetary spending and patient demand at secondary and tertiary level public hospitals, 1990–2009**

	1990	1995	2000	2005	2009
Recurrent expenditure as % of total public recurrent expenditure	38	50	53	63	63
Hospital beds as % of total public beds	54	56	58	66	68
Inpatients as % of total public inpatients	53	56	59	64	68
Outpatients as % of total public outpatients	28	33	37	35	41

*Note:* Includes recurrent expenditure, bed numbers, inpatients, and outpatients for the specialised tertiary hospitals.

*Source:* Ministry of Health 1990–2011, Medical Statistics Unit 1990–2012, Institute for Health Policy 2012a.

## 4. Macro-organization of hospital governance

### 4.1 Major structural changes

The Sri Lankan public hospital system was established by the colonial state as a relatively small, highly centralized, civil service run delivery system, administered as one arm of the Ministry of Local Government. Since the advent of democracy in the 1930s, it has faced two consistent challenges: (i) how to maintain and expand access to services whilst living within ever tightening fiscal constraints, and (ii) how to balance the respective roles of the professional staff and elected political representatives in overall oversight. The management and governance of public hospitals have had to respond to these challenges, whilst adapting to changes in the broader constitutional context. Mostly changes have been incremental and evolutionary, with two periods of major change – in the early 1950s and then in the late 1980s, which have delineated the overall macro-structure of hospital administration.

#### **1950s – The decentralization and medicalization of hospital management**

In the late 1940s, the general assessment in government was that the public hospital system was excessively bureaucratic and unresponsive, ossified with management no longer in keeping with modern approaches, and inefficient and poor in its performance. All public hospitals were administered directly by the ministry, with hospital directors reporting to a small team of officials in the ministry's Central Office. This Central Office was highly inefficient in its management: there was almost no delegation of authority with the smallest administrative decisions requiring its decision; decision-making was consumed by paperwork and constant delays; all accounting of spending at individual hospitals was centralized and chaotic, with the ministry unable to comply with basic audit requirements; and much of the time of the small number of medical staff in hospitals was spent on administrative duties. This environment was observed to be oppressive and stifling of any initiative on the part of hospital managers (Cumpston 1950).

Following numerous critical official reports, the government commissioned two international experts to review the system and make recommendations. The reports by Dr. J. H. L. Cumpston (Cumpston 1950), the former Director-General of Health Services of Australia, and Dr. B. Hance (Hance 1956), the former Director-General of the Indian Medical Service, resulted in a number of fundamental changes in the accountability structure of hospital services during the 1950s, which largely remain, and which provided the framework that allowed subsequent incremental evolution. There were five major elements in these changes:

- (i) The transfer of the Department of Health (DOH) to its own separate line ministry, recognizing the unique management issues posed by health institutions.
- (ii) Transferring the administration and management of hospitals and health services at all levels from civil servants with no medical training to civil servants who were physicians with experience of administration.
- (iii) Decentralizing the administration of government hospitals and health services, initially to ten districts or regions, with their own offices and management teams.
- (iv) Delegating downwards as far as possible to the level of institutions or regional offices authority and responsibility for operational administration, including maintenance of accounting records.
- (v) Introducing a clear separation between the staffing and management of the preventive and curative services (i.e., hospitals), whilst providing for unified management by regional health directors at the level of districts.

Consistent with this, the DOH was placed under a new Director of Health Services (D/HS), who was required to be a physician with administration experience recruited from within the department, and given executive authority over all health services. This was unique where general recruits to the Civil Service filled all other administrative positions in government. The D/HS was subordinate to the civil service position of Secretary of Health, filled by Cabinet and reporting to the Minister of Health, to ensure that the political system could retain control of

overall strategic guidance and policy. Beneath and reporting ultimately to the D/HS, the entire line of command down to hospital directors was shifted to physicians, with priority given to those with administration experience and or training in public health.

This was not simply medicalization of administration. It also established the idea that specific knowledge and competencies beyond the holding of a medical degree was needed to run hospitals and health facilities, since preference in appointments to management positions was to be given to doctors with experience in administration. There was no further requirement that these doctors be qualified in administration or management, since at the time such qualifications did not exist. The revolutionary nature of this idea is illustrated by the fact that in India, the same concept of trained hospital administrators was only proposed in 2011 (High Level Expert Group for Universal Health Coverage 2011).

Two major expert recommendations that were not accepted are noted. The first was to create Hospital Boards to own and administer hospitals in each region (similar to the system in the then British National Health Service). This would have given hospital boards the right to set and charge patient fees, determine admissions policies, earn and retain revenues, and recruit and set conditions for staff. It appears to have been rejected by Treasury and Cabinet, owing to fears that this would undermine overall budget control by destabilizing the system of public sector wages, and potentially encroach on the political principle of free and unlimited access to public health facilities. The second rejected proposal was to decentralize the purchasing and logistics responsibilities of the central medical stores to regional units. Here again an over-riding concern with cost control is apparent, with a belief that the small size of the country disallowed economies of scale at the lower level (Hance 1956).

### **1990s – Devolution**

As a result of external pressure in 1987, the 13th Amendment to the Sri Lankan Constitution devolved substantial government powers to nine provinces (Hsiao and Associates 2000). Each became a new unit of administration, with their own elected assemblies – Provincial Councils, which have substantial *de jure* autonomy and primary authority in a number of areas, including provision of basic health services. To implement this, the ownership and administration of public health institutions was split between MOH and the Provincial Councils and their PMOHs. However, this largely reproduced the original national structure at the provincial level, creating two parallel but interlinked systems, with the provincial equivalent of the D/HS managing service delivery in each province. The following sections describe in more detail the resulting and current system of hospital governance.

## **4.2 Strategic direction**

MOH has sole responsibility for formulating national health policies and strategies according to the Constitution, and can provide operational guidelines for policy implementation. Although provinces can set their own policies and draft their own legislation, these must conform to national policy and related guidelines. In practice, most operational guidelines that apply to hospitals are produced by MOH, so MOH retains substantial control even at provincial hospitals, and major changes in hospital management are in practice initiated centrally. Factors which contribute to this continuing central dominance include control of critical financial levers by MOH and Treasury, organization of the medical workforce as a single national service (discussed later), minimal capacity of provincial health departments to initiate changes themselves, and the frequent concurrent control of the central and most provincial administrations by the same political parties.

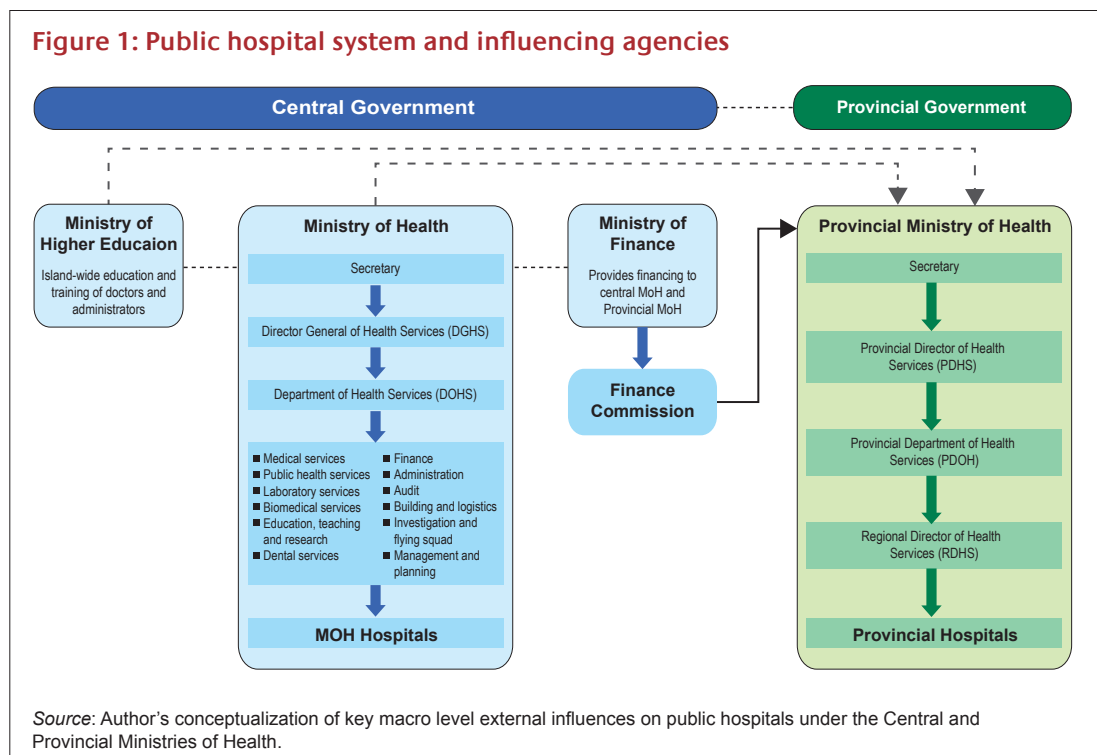
## **4.3 Administrative accountability and supervision**

Of the hospitals of interest to this paper, in 2011, one third were owned and managed by MOH (all Teaching and Provincial General and some District General and Base Hospitals), and the rest by the provincial health departments (Ministry of Health 2011).

All MOH hospitals report to the Department of Health Services (DOHS), led by the Director-General of Health Services (DGHS), formerly D/HS, with an equivalent system for provincial hospitals in each province. The DGHS reports to the Secretary of Health, who is the senior most official below the Minister. The Minister is an MP, and formally is responsible only for setting overall policy, but in practice can exert much wider influence and patronage. The DGHS is a physician, recruited on the basis of qualifications, experience, and seniority from within the government health sector following advertisement, subject to approval by the Public Service Commission. The DGHS typically has personal experience as a hospital director. Technically, the Health Secretary is a Cabinet appointment and does not have to be a physician or from the department, but frequently the President makes the selection from within the medical bureaucracy, and most recent appointments have been physicians. Within DOHS, two Deputy Director-Generals – Medical Services (DDG/MS) I and II, supervise MOH hospitals, reporting directly to DGHS.

In the provinces, a parallel system exists (Figure 1). The Provincial Director of Health Services (PDHS) along with the provincial department of health services (PDOHs) is responsible for management of provincial hospitals, officially reporting to the Provincial Secretary of Health, who is supervised by the Provincial Health Minister (elected member of the Provincial Council). Administration and supervision is further decentralized to Regional Directors of Health Services (RDHSs) who manage all provincial hospitals in each district.

In practice, the provincial system continues to incorporate significant elements of informal control by the national government. In 1999, public sector doctors successfully agitated to have all doctors transferred to an all island-service, and all provincial medical appointments including that of the PDHSs are determined by MOH and the Public Service Commission, subject to the approval by the province. This creates in effect a dual hierarchy in the system: doctors have a single national career track, creating informal lines of influence and authority which link all doctors, including hospital directors, to the key medical bureaucrats in the DOHS, regardless of the formal authority that Provincial Councils have over them.



## 4.4 Financing

All public sector health institutions are essentially funded by the central government from general taxation, even though the provinces are responsible for funding hospitals that come under their purview. This is because revenue generation through taxation by the provincial councils is limited and in reality amount to less than 26% (2007-2010) of their budgets (The Finance Commission 2012), thus making them dependent on central government transfers. These revenue constraints and other features in practice limit the capacity of PDOHs to unilaterally modify the funding and resource requirements of the hospitals within the provinces. While the hospital capital budget allocation and disbursement remains a domain of the MOH, the PMOHs retain some power in procuring hospital equipment. Although the provinces have authority to set the levels and composition of their own recurrent budgets, this has been hampered largely for the following reasons. First, the setting of salary structures and job descriptions of staff remains a responsibility of the centre. Second, the appointment of doctors to hospitals across the country too remains a function of the centre, with the provincial budgets bearing the cost of their wages. Third, while provinces continue to receive monetary transfers from the centre as block grants, as they are computed on the basis of number and salary grades of the workers, this severely limits the freedom of the provincial authorities to change the staffing structures within their provinces. Fourth, purchase of medicines and supplies and their distribution continues to be a role of the centre, with only secondary and tertiary hospitals having limited autonomy for self-purchasing.

## 5. Hospital management

### 5.1 Management authority and autonomy

MOH-appointed hospital directors manage all public secondary and tertiary hospitals. They are all physicians who have elected to pursue a career in medical administration. Most have some prior training in administration and public health, with this being almost universal in the largest hospitals. Hospital directors have little or no authority to make decisions regarding the core services provided by their hospital, prices to be charged, or the choice of patients they serve. Almost all inputs are controlled and provided by central or provincial authorities. The formal hospital budget allocated to each hospital is developed on a historical basis largely, taking into account the hospital type, available facilities and staffing levels. However, directors do have considerable authority over use and allocation of provided inputs to deliver services.

#### Staffing

All doctors, nurses and other health workers are assigned to the hospital by MOH (or by PDOHs in case of provincial nursing and other paramedical staff). Hospital directors have only limited authority over human resources, comprising mainly the following:

- Initiating disciplinary proceedings against hospital staff, but not the power to terminate employment, which lies in the hands of MOH, PDOHs and the Public Service Commission.
- Assigning duties and duty stations within the hospital to staff who have not been assigned a job description by higher authorities – for the most part these are only mid and low-level employees, including junior doctors.
- Approving staff increments, but not setting overall wages and conditions or making any incentive payments beyond prescribed overtime allowances.
- Conducting in-service training for staff.
- Recruiting casual workers for temporary purposes, principally labourers.

Frustration over limited power to take disciplinary action against the misdemeanours carried out by the staff under them was a concern among hospital directors (Wickramasinghe, Kugadas, and Dalpatadu 2013). Some even saw this as a factor that impedes their performance. However, the hospital directors are equipped with other approaches, such as persuasion-based methods to reduce negative behaviour in staff, and conducting in-service training programmes with the aim of promoting positive staff attitudes to manage staff under them and resolve in-house disputes amicably. They also identified the value of specialist training in medical administration contributing towards empowering them with such strategies.

#### Medicines and supplies

Although a budget for medicines and supplies is assigned to each hospital, control of these funds is by the MOH Medical Supplies Division (MSD). The MSD has full responsibility to purchase and distribute all items to individual facilities, based on stock availability and its approval of hospital requisitions. Set percentages (10% or less) of these medicines and supplies budget are allocated to secondary and tertiary hospitals for local purchasing, under which hospital directors can purchase needed medicines and supplies from vendors, subject to stringent guidelines designed to prevent excessive costs (Ministry of Health 2008). MOH retains control over this local purchasing, requiring that vendors be paid by MSD, which retains the actual funds in its account.

#### Other budget items

Excluding wages, medicines and supplies, which on average account for 80–85% of hospital recurrent budgets (Institute for Health Policy 2012a), directors have considerable flexibility in how the rest of their assigned budgets are used. Directors have authority over how other major line items are spent, and can allocate resources within the hospital. In addition, directors have the discretionary use of a daily petty cash fund for emergency expenses.

### Capital investment

Directors have no authority to make capital expenditures, but can propose medium term hospital development plans for approval and funding by MOH. Approval is subject to availability of funds and national plans, allowing some room for directors to compete in terms of funding proposals. MOH approval is also required for capital improvement projects that are funded by philanthropic sponsors. These tend to be approved if they involve no requirement for MOH funding. However, there is no systematic process to take into account the potential recurrent cost implications of new equipment or plant acquired in this way.

### Clinical services

Hospital directors have discretion to develop new clinical services and interventions. In practice their capacity to do so is constrained by the need to use only available resources including assigned doctors, since new clinical interventions often require new specialist expertise. They are further constrained by the requirement to ensure the provision of the minimum service package defined for their institution by national policies in a context of limited resources.

Despite the difficulty of offering new services not prescribed by national policy, hospitals do evidence considerable capacity to develop new approaches to packaging service delivery or finding new uses for existing staff, which belies the apparent constraints on expanding clinical services. Often such innovations if proved successful will be picked up by other hospitals and diffuse through the system, and eventually be picked up by MOH policy-makers for nationwide adoption. Indeed, the system of area managers and frequent reviews by groups of managers helps such diffusion. One old and two new examples illustrate this.

- (i) Development of the GOPD: This was one of the first innovations that resulted from the Cumpston reforms to delegate management authority to regional offices and hospital directors. As noted by Hance (1956), the first Colombo hospital management group developed the idea of outpatient units to review and triage outpatients, channelling only appropriate cases for specialist care and the rest for management by junior doctors, thus dealing with the problem of excessive demands on specialists. This was adopted as standard operating procedures in all hospitals.
- (ii) Development of the preliminary care unit (PCU): Despite its introduction, the GOPD continues to pose challenges for hospitals, with pressure of numbers often resulting in excessive patient admissions and overcrowding of wards. In response, one hospital director set up a short-stay (up to 4 hours) 20-bed preliminary care unit in the outpatient department for triaging, and patient assessment, treatment, and observation to avoid unnecessary admissions, which reduced overcrowding in the wards by more than 50%. This success led to an on-going drive by MOH to set up PCUs in all secondary and tertiary hospitals. (Ministry of Health 2012).
- (iii) Development of NCD clinics: In response to the increasing numbers of chronic NCD patients seeking care in SOPDs, several hospitals independently reorganized their services to register such patients at NCD clinics, which focus on providing long-term management of NCD patients, typically IHD, diabetes and asthma cases. In many cases, these have evolved to provide long-term care, such as secondary prevention of IHD, which was not available in primary care facilities owing to lack of relevant medicines or diagnostic services. This approach has become common, and has enabled MOH to substantially improve access in the past decade to IHD and diabetes secondary prevention, which the rest of the system is not yet re-designed to provide.

### Patients and pricing

Hospitals have no discretion to select or turn away patients, for historical reasons previously discussed. Hospitals have also no authority to set prices or retain revenues from user charges, because of political fears about the threat to access. In practice, prices are zero, except for centrally set prices for pay-beds maintained by some higher-level hospitals for patients who wish to pay for a higher level of amenities and privacy. As these prices are typically well below the cost of operating these pay-beds and since all revenues must be returned to Treasury, hospitals have no incentives to expand or provide such services.

**Overall authority**

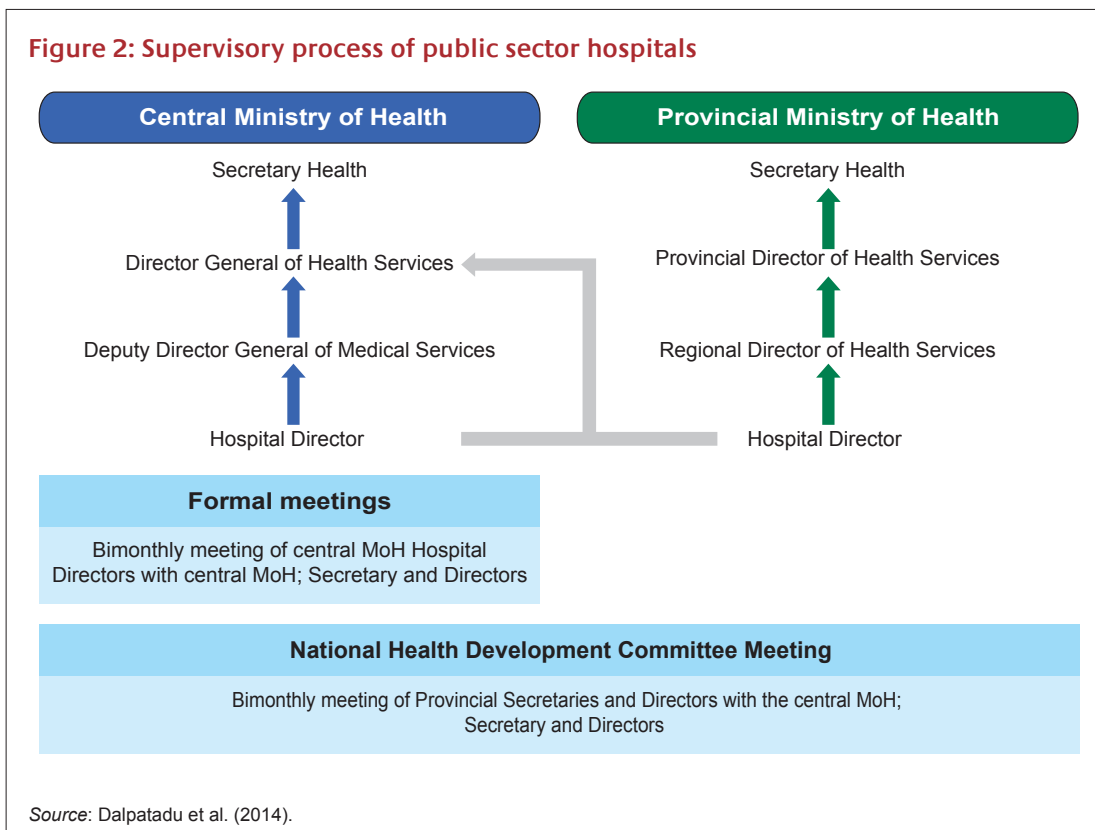
Despite limited authority over inputs (financial, human or material) and revenues, hospital directors in Sri Lanka enjoy considerable power over how inputs are used, and status within the hospital and the local community. Directors indicate that they have full authority in practice over the areas they have discretion in, and although they often must consult internal hospital committees, decision-making power lies ultimately with them (Dalpatadu et al. 2014). Since this system focuses on controlling inputs and a minimum level of outputs, but gives directors complete authority in areas that do not conflict with these constraints, the net effect is to empower directors to focus on more efficient service delivery and better managing available inputs to patient demand, to the extent that their own competency and training allows. To a large extent this aligns with the primary goal of the overall governance arrangements, which is to ensure efficient delivery of services and managerial flexibility, whilst maintaining universal access and overall cost control.

**5.2 Accountability and supervision**

Formal managerial and financial accountability lies with the MOH and PDOH line managers (Figure 2). MOH hospital directors report directly to MOH and the assigned DDG/MS, and provincial hospital directors report directly to PDOHs, via the RDHS. However, hospital directors can bypass the chain of command and directly contact the DGHS for advice and support if needed, a flexibility that is appreciated.

Accountability to line managers is achieved by a mix of routine reporting and review of hospital performance, frequent team meetings of line managers and their supervised hospital directors, and clear guidance on what MOH expects of hospital directors. All hospital directors must submit monthly expenditure reports to assess and monitor the financial status of hospitals, and the quarterly Indoor Morbidity and Mortality Schedule (IMMS) which provides detailed information on patient turnover, mortality and operations. This reporting has been augmented in recent years by an additional mechanism to track quality and safety conditions. MOH has

**Figure 2: Supervisory process of public sector hospitals**





mandated the establishment of quality and safety units in each hospital, and these conduct performance reviews on a quarterly basis, under the guidance of the MOH Directorate of Healthcare Safety and Quality.

The line managers hold regular meetings with their subordinate hospital directors to review performance, discuss ongoing issues and to ensure action on routine reports. The MOH routine calendar entertains two important bi-monthly events, namely the National Health Development Committee (NHDC) meeting and the meeting of MOH medical administrators, where a useful interactive platform for the health managers is provided to share experiences and discuss performance and operational problems. While the MOH medical administrators meeting is an in-house proceeding limited to the central ministry's health managers, the NHDC brings together the provincial and regional directors of health from all parts of the country as well. In these meetings the MOH hospital directors present updates on the performance of their hospitals on a rotational basis. The NHDC meetings, in addition, will provide an opportunity for the provincial directors to apprise the senior health managers in the country on the issues and performance of the hospitals within their purview.

These review activities could further permeate to district levels, where the RDHSs hold monthly meetings with the hospital directors within the district, although holding of such meeting is not obligatory. Such a scrupulous mechanism put in place in a district has promoted cooperation and networking among hospitals within its bounds as well as sharing of resources, information and experiences while holding RDHS accountable for the smooth functioning of hospitals within his overall command.

In addition to mechanisms for monitoring hospital performance and providing feedback to managers, MOH provides formal guidance on its explicit expectations of hospital directors in the form of a printed manual defining their roles and responsibilities (Ministry of Health 1995). Although the circulation of this manual is limited, 73% of hospital directors agreed that clear guidelines on roles, responsibilities, and how they are expected to achieve had been provided to them (Wickramasinghe, Kugadas, and Dalpatadu 2013).

Whilst these management mechanisms provide regular and frequent higher-level review and feedback on hospital performance and clear expectations against which hospital directors are assessed, there is very little scrutiny of how hospital directors manage the day-to-day operations of each hospital to achieve performance. Furthermore, regular hospital inspection visits by MOH appear to have declined in the recent past. Nevertheless, this appears to achieve an optimal balance between intrusive accountability and empowering hospital directors to use their allowed autonomy to manage and take responsibility. The approach may also help mitigate the potential disempowering impacts of Sri Lankan cultural norms, which observers have noted lends to exceptionally high levels of hierarchical management in organizations (Dore 1987). Hospital directors reveal that they feel a sense of teamwork and encouragement from line managers rather than strict supervision (Dalpatadu et al. 2014).

In contrast to this focus on managerial indicators and clinical service outputs, there is limited accountability to patients at the hospital level, as there are no formal mechanisms for complaint and redress, nor any systematic procedures to assess patient satisfaction. However, the overall system is still susceptible to patient opinion, which is transmitted via politicians who can and do lobby and pressure individual hospital directors and MOH and PDOH officials on behalf of constituents. In practice, this and the knowledge managers have of the risk of political lobbying does have some impact, with most surveys consistently finding high levels of patient satisfaction with hospital services and especially inpatient care (Rannan-Eliya and de Mel 1997; Ministry of Health 2003).

### 5.3 Competency and training

The formal system of governance and supervision focuses on providing clear output measures, and mechanisms to provide feedback to individual hospital directors. As noted, within the

overall constraints placed on hospitals, these directors do in practice have considerable autonomy to use available resources as they see fit. This was of course the intent of the Cumpston-Hance reform proposals, which was to delegate downwards as much responsibility and power as feasible to technical managers. However, explicit in those proposals and implicit in the current system is the idea that managers need specific competencies to exercise that autonomy well, and that whilst being a physician is necessary, it is not sufficient. To further realize this, over several decades MOH has continuously reinforced a clear career pathway to support physicians who wish to specialize in hospital management, and has instituted reforms to professionalize hospital management training.

### **Career pathway of hospital managers**

Positions as directors of secondary and tertiary hospitals are now further restricted to members of the medical administrator cadre. These physicians are all recruited and managed centrally, with no distinction made between central ministry and provincial administrators. Directors are appointed to four-year terms in a hospital, after which they are re-assigned by MOH to another position either at provincial or central level, based largely on their seniority, although a poor performance record can sometimes be taken into account.

Hospital directors identify the system of promotion as a major factor encouraging diligence and continued effort, as it guarantees transparency in the procedure for promotion if directors work hard, as well as providing a sense of security (Dalpatadu et al. 2014). In addition, the system creates a credible incentive for all hospital managers that by working diligently they can reach the top levels of the MOH management.

### **Management training of physicians**

The 1950s reforms required that management of secondary and tertiary hospitals be given to physicians with some experience in public health or administration, but no requirement for specific qualifications in management was mandated. In the 1980s, the Post-Graduate Institute of Medicine (PGIM) – the specialist training agency under the Ministry of Higher Education – started MSc and MD<sup>2</sup> programmes in Community Medicine, and many aspiring and existing physician managers started to obtain these – reflecting the high degree of motivation, despite MOH not making this a requirement for hospital management posts. However, recognizing that more focused training was needed, as well as raising the professional status of hospital directors within the medical profession to attract better calibre individuals, several leading MOH administrators approached PGIM to develop a specific training option for physician managers. The PGIM agreed to develop a new MSc and MD program in Medical Administration, provided a College of Medical Administrators was established to provide board certification. This was done, and the new training programs launched in 1994. The MSc program provides one year (full time) of mostly theoretical training to physicians, whilst the MD qualification requires four years of organized study and practice exposure, including an internship abroad in order to expose trainees to international trends. The length of the MD training and its requirement for international training put it on par with board certification programs for other medical specialists in Sri Lanka, including surgeons and physicians, which contributes significantly to raising the status and recognition of medical administrators within the broader medical profession.

In its 2007 Medical Services Minute, MOH (2007a) gave formal recognition to these qualifications by mandating that new medical administrators must hold a postgraduate qualification in either medical administration or community medicine. It is likely that eventually the requirement for post-graduate qualifications in administration will be made mandatory for most hospital and senior level management positions in MOH. In 2013, the majority (55%) of hospital directors already had an MSc or MD specifically in medical administration (Wickramasinghe, Kugadas, and Dalpatadu 2013). There is insufficient information readily available to assess the impact of this training on actual hospital performance. However, one study in the late 1990s found that higher-level hospitals which employed performance evaluation systems to monitor doctors and nurses, a probable outcome of management training of the hospital manager, had significantly lower unit costs (Somanathan et al. 2000).

<sup>2</sup> The MD degree is a post-graduate specialist qualification, involving four years of post-residency training, and equivalent to the specialist qualifications in the UK or specialist board certification in the USA.

### **Physicians versus non-physicians as hospital managers**

The insistence on physicians to manage public hospitals differs from practices in many other regional countries, and has only once been given serious reconsideration. In the late 1980s, due to a shortage of physician medical administrators, MOH took the decision to recruit non-physician administrators from the Sri Lanka Administrative Service (SLAS). Even then, SLAS administrators were only given positions of RDHS and not hospital managers as the SLAS administrators felt intimidated in the hospital environment. Due to the poor performance of SLAS administrators, and as more physicians came into administration, recruitment of SLAS administrators was phased out from these positions in the early 1990s.

Hospital directors indicate several advantages from this approach. Hospital directors report that their clinical knowledge is frequently critical in making effective budgetary decisions (Wickramasinghe, Kugadas, and Dalpatadu 2013; Dalpatadu et al. 2014). As qualified physicians, there is a sense of belonging to a profession, which in the view of interviewees facilitates better cooperation and understanding between hospital directors and physicians (Dalpatadu et al. 2014). Furthermore, training in medical administration is invaluable for improving directors' leadership skills and management practices, and in particular their ability to manage hospital staff and operations. The contribution of postgraduate qualifications in medical administration to enhance professional status was noted as important, especially when managing clinical specialists.

## **5.4 Contextual influences**

The impact of the formal systems on hospital governance is strongly influenced by other significant cultural and environmental factors. The most important of these are the intrinsic motivation of hospital directors, and political interference.

### **Intrinsic motivation**

In keeping with the overall approach of the public healthcare system in Sri Lanka, no financial incentives are used to motivate the performance of hospital directors or hospitals as organizations. In this context, the system relies heavily on intrinsic motivation to ensure that hospital managers maximize performance given their resources and capabilities. In this respect the organizational culture of the Sri Lankan health ministry is relevant. Since its formative days when it was the first government department that was indigenized during colonial rule and its rapid expansion following the granting of self-rule by local elected politicians, it has been imbued with a strong public mission ethos, which has survived more or less intact (Rannan-Eliya and Sikurajapathy 2009).

A study of hospital directors indicate high levels of personal commitment and motivation amongst most hospital directors (Wickramasinghe, Kugadas, and Dalpatadu 2013). Hospital directors also report that the high status, recognition and respect that they receive from local communities, which is greater than that given to other public officials, acts to motivate them to work hard to maintain these values and relationships with their communities. This study also suggested that most directors were driven by a sense of serving the public interest, consistent with the strong public mission ethos mentioned earlier. Another implication of this public service orientation is that it ensures some sense of community accountability, despite all the formal accountability being only to higher level managers.

### **Influences of politicians and other stakeholders**

Political interference is a pervasive feature of the public sector in Sri Lanka, having grown incrementally since the 1960s. Interference particularly targets resource allocation, and the recruitment, promotion and placement of public servants. Most independent observers cite this interference as being the key factor behind the perceived deterioration in public sector performance in Sri Lanka since the 1960s.

Although political interference is least in the public health sector, because of strong trade unions, which resist political interference in decision-making, it is still a reality for hospital managers. The central recruitment and placement of hospital directors by the MOH appears to provide some protection for individual directors, local politicians are still able to wield their influence over hospital management through the highly politicised hospital committees, which are mandated to work together with directors to ensure community needs are met (Dalpatadu et al. 2014). The committees made up of local community representatives, are often not knowledgeable about the healthcare system and work to serve particular political interests. Nevertheless, directors also indicate that they have some capacity to resist interference of these committees, taking advantage of social respect for their status. Having greater impact is the efforts of local politicians to exert patronage over appointments of minor staff at hospitals. These employees could be challenging to manage, and sometimes undermine the authority of hospital directors (Dalpatadu et al. 2014).

Trade unions present a different challenge. At the hospital level, they can limit the authority of directors, and industrial disputes can become a significant source of friction, even in rare cases threatening the functioning of the institution. However, directors indicate that these issues can be handled much of the time with appropriate management, for which prior management training often helps, although several mentioned the need for a separate human resource management unit at the Ministry level, which could deal with pressures from different trade unions (Dalpatadu et al. 2014). At the same time, the main doctors union (Government Medical Officers Association (GMOA)) does play a positive role at the national level in exerting constant pressure on MOH to follow personnel regulations and to ignore political pressures.

## 6. Performance

The performance of secondary and tertiary public hospital management in Sri Lanka has to be assessed in relation to the goals and outputs that overall policy and policy-makers set. For reasons previously mentioned, these can be described as follows:

- (i) Cost and technical efficiency – Maximizing patient service delivery for the given level of inputs and financial resources provided to the hospitals.
- (ii) Productivity improvement – Delivering continuous improvements in technical efficiency.
- (iii) Quality improvement – Improving quality of care and the range of clinical services provided to patients.
- (iv) Universal access – Ensuring universal access to services by minimizing financial and non-financial barriers faced by patients.
- (v) Financial risk protection – Providing financial risk protection to the population.

Although most of these goals apply to all public medical institutions, because the secondary and tertiary hospitals account for the bulk – and an increasing share – of resources invested in the curative sector (Table 2), their performance is critical to achieving overall sector goals. However, assessing their performance is constrained by significant limitations in the available information. In particular, there is no routine analysis of variations in individual hospital performance using hospital level data on costs, inputs, outputs and quality outcomes. Although data are generated at the hospital level, the current health information system does not support easy access to the detailed data, much of which is aggregated at lower levels before being collated by MOH. Nevertheless, a significant amount of data is available on long-term trends in all or groups of hospitals, as well as data from occasional research studies. The evidence from these is summarised below.

### 6.1 Cost and technical efficiency

#### System level

At a system level, the hospital-centric, Sri Lankan public sector delivery system, clearly achieves value for money. For its income level, Sri Lanka is a low spender in terms of government spending on health, which was only 1.4% of GDP in 2011 (Institute for Health Policy 2012a). Despite this, the system achieves above-average health outcomes, and levels of hospital delivery that surpass upper-middle income countries, such as Brazil and Mexico, and match those in the OECD. Public hospitals are responsible for more than 5.5 million inpatient admissions annually. The rate of 287 admissions per 1,000 population in 2012 (Medical Statistics Unit 2012) compares favourably with international benchmarks; in 2012 the mean for OECD countries was 163, and for the upper quartile of these countries it was 220 (OECD 2014). Receiving the major proportion (73%) of government hospital financing (Institute for Health Policy 2012a), the secondary and tertiary hospitals account for 68% (3.8 million) of these admissions in 2010. In addition, these hospitals provide more than 36% (18 million) of all MOH outpatient consultations, and almost all the specialist outpatient care within that (Medical Statistics Unit 2014).

#### Hospital-level

Relative efficiency can be examined using econometric methods, such as data envelopment analysis (DEA). Unfortunately, no DEA type analysis has been published for Sri Lankan public hospitals. One unpublished analysis (Hanson, Somanathan, and Valdmanis 2003), did find an overall technical efficiency score of 0.57 (indicating considerable room for improvements in many facilities), arising from a low level of internal technical efficiency (score=0.65) and a high level of scale efficiency (score=0.86). The authors also concluded that the DEA type analysis did not add much value to what could be observed from using standard accounting and cost-efficiency indicators. However, benchmarking can be a useful complement or alternative, and in the case of Sri Lanka this can be done using four commonly used indicators (La Forgia and Couttolenc 2008): bed turnover, occupancy rates, average length of stay, and personnel per bed, and benchmarked using OECD statistics.

The bed turnover rate (BTR), the ratio of annual patient discharges to beds, is an indicator of the efficiency of physical resource use. In 2009, the average BTR was 91 in all MOH secondary and tertiary hospitals (Table 3). This was much higher than the OECD average of 41.5, and also higher than the most comparable public hospital systems in Hong Kong and Malaysia. The relatively high rate in Sri Lanka suggests that these hospitals may be relatively efficient, even taking into account the younger population and less chronic disease-intensive case mix in Sri Lanka compared to these other countries.

The bed occupancy rate – the percentage of total bed-days in which beds are in use – is another common performance indicator that captures the degree of utilization of existing physical resources. A bed occupancy rate between 75% and 85% of capacity is often considered desirable, although this is not based on systematic evidence. Occupancy rates range from around 55% in base hospitals (Type B) to 82% in provincial general hospitals, with 72% in all secondary and tertiary hospitals. These rates are comparable to those in OECD countries and other good performing health systems in the region, such as Hong Kong and Malaysia, and represent a decline from levels of excessive overcrowding that used to be the norm in the 1990s.

**Table 3: Hospital performance indicators, Sri Lanka compared to OECD and selected other countries, 2009**

Type	Bed turnover rate	Bed occupancy rate (%)	ALOS (days)	Staff per bed
Sri Lanka public				
Tertiary	86.4	76.5	3.2	1.6
Secondary	100.3	62.1	2.3	1.1
Tertiary & Secondary	91.0	71.8	2.9	1.4
Hong Kong	39.0	82.2	7.7	2.1
Malaysia	55.6	65.5	4.3	n.a.
Brazil	50.4	37.0	2.9	3.0
OECD	41.5	76.1	6.7	n.a.

n.a. = not available

Notes:

(a) Statistics for Malaysia are for all public sector hospitals, Hospital Authority Hospitals for Hong Kong, and all acute hospitals for OECD.

(b) Statistics for Brazil are for 2002, and staff per bed for Sri Lanka is for 2014.

Sources: Ministry of Health Malaysia 2009, Hospital Authority Hong Kong 2011, OECD Health Statistics 2014, and Medical Statistics Unit (data obtained in 2014) and Ministry of Health 2014.

The average length of stay (ALOS) – the average number of days patients occupy a bed during a hospital stay – is a key indicator of efficiency of resource use. It should increase with case severity, and is also affected by quality of care and efficiency of clinical management, with technical inefficiencies contributing to high ALOS. ALOS in secondary and tertiary hospitals in Sri Lanka is only 2.9 (Table 3), significantly lower than in OECD, Malaysia and Hong Kong (where the patient mix is older and more chronic cases), but comparable to Brazil. These suggest that these hospitals efficiently manage patient episodes. It is not possible to completely adjust for case mix, but Perera et al. (2009) compares ALOS for several conditions (acute myocardial infarction, asthma, diabetes, diarrhoea, normal child birth) in Sri Lankan public hospitals with those in Australia, UK, France and USA, and found that ALOS were very similar and within the range for these OECD countries, which indicates that hospitals in Sri Lanka manage patients with similar levels of efficiency.

Staffing per bed ratios are proxy measures of allocative efficiency because they are an indication of the use of a major input in the production of hospital care. However, there are no international norms to guide the establishment of optimal or target benchmarks, although comparisons among similar hospitals can provide insights into potential inefficiencies (La

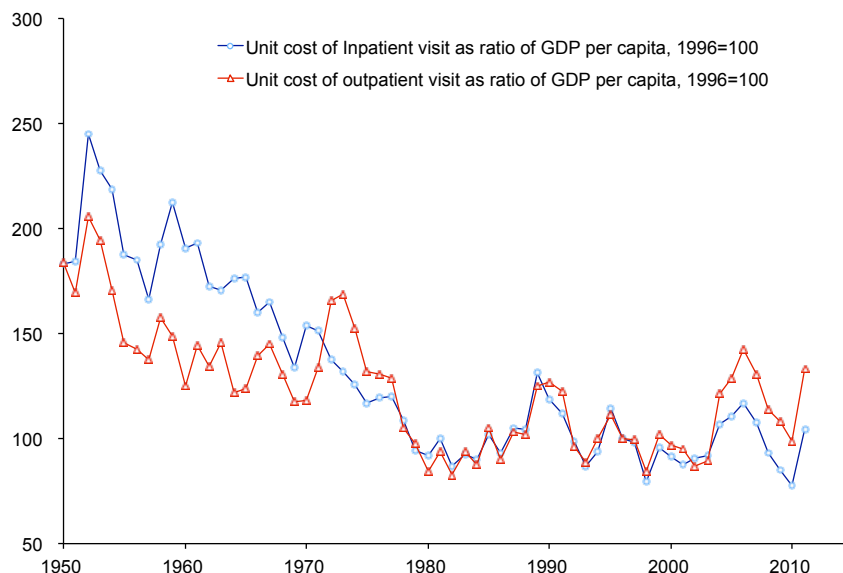
Forgia and Couttolenc 2008). Overall staffing in Sri Lankan secondary and tertiary hospitals is relatively low, with a ratio of 1.4, indicating efficient use of available staff, especially in comparison with for example Brazil (Table 3).

## 6.2 Productivity improvement

Whilst the comparison of recent statistics indicates that secondary and tertiary public hospitals in Sri Lanka are efficient, from the perspective of Sri Lankan policy-makers the ability to continuously improve productivity is as or more critical, given the need to balance the growth inpatient demand with much slower improvement in available fiscal resources.

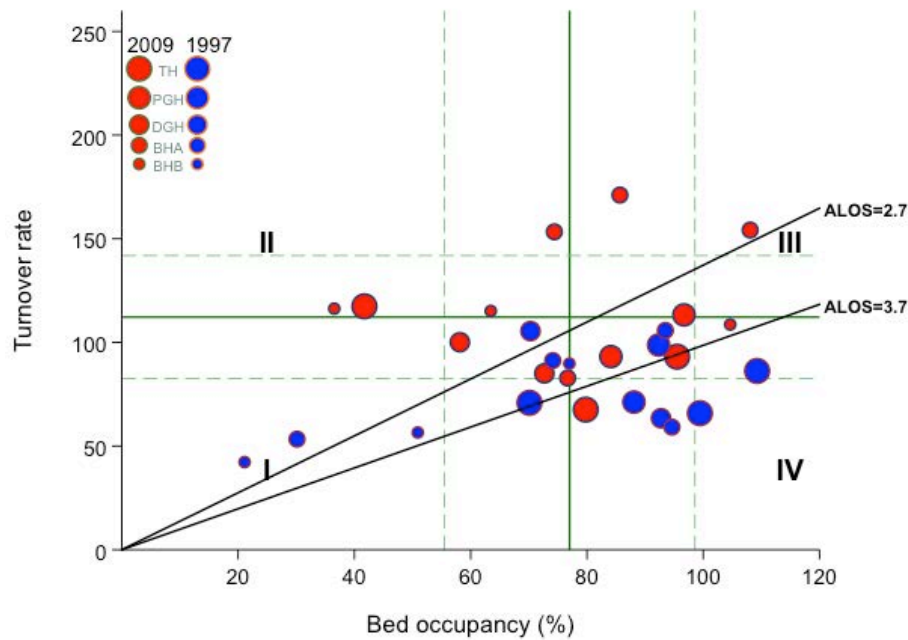
Analysis of long-term historical aggregate data for all Sri Lankan public hospitals indicates exceptional annual improvements in efficiency. In a cross-country study of 23 countries from all regions, Rannan-Eliya (2009) found that the annual rate of productivity (cost-reducing) improvement in Sri Lankan public hospitals averaged 1.9% during 1946–1999, more than double the sample average of 0.8%, and placing these hospitals in the upper tertile of performance. A similar analysis of unit costs shows that in the three decades following the Cumpston-Hance reforms, there was a particularly rapid reduction in hospital unit costs, more than halving them in real terms (Figure 3), suggesting that the establishment of the current governance structure provided space for sustained long-term reductions in unit costs in public sector delivery. However, since the 1980s, unit costs have largely plateaued, but this is probably because the secondary and tertiary hospitals as a whole have reached such levels of cost-efficiency there is minimal room for further improvement, with policy-makers now placing greater emphasis on improvements in quality which inevitably requires more resources to be invested. A similar trend has been noted in Malaysia (Health Policy Research Associates and Institute for Health Systems Research 2013).

**Figure 3: Estimated average unit costs of public sector inpatient admissions and outpatient visits, 1950-2011**



Source: Rannan-Eliya, 2008, and extended to include years 2004-2011.

**Figure 4: Pabon Lasso diagram showing changes in hospital performance from 1997 to 2009**



Note: Chart shows data for 14 total hospitals for which data were available in both years, including 3 Teaching (TH), 2 Provincial General (PGH), 2 District General (DGH) and 7 Base Hospitals (BH).  
Source: Author's analysis of Public Hospital Inpatient Discharge Survey 1997, Medical Statistics Unit (data obtained in 2014).

The findings from studies of aggregate data are confirmed by analysis of recent trends using hospital-level data. In a sample of 14 secondary and tertiary hospitals for which data were available in both 1997 and 2009, all efficiency indicators showed significant improvements. Figure 4 illustrates this with a Pabon Lasso chart that shows changes in bed occupancy and turnover rates in these hospitals. Overall patient throughput went up, but despite this bed occupancy fell as a result of reductions in ALOS. The net effect was to shift more of the hospitals to an optimal range of occupancy rates.

### 6.3 Quality improvement

Clearly the overriding concern of Sri Lankan policy-makers to maintain costs at government hospitals could be at the expense of quality of care, although evidence from other countries indicates that high levels of cost efficiency do not have to be associated with any impairment of quality (La Forgia and Couttolenc 2008). Systematic assessment of quality of care in the secondary and tertiary hospitals has not been done, and efforts at routine quality monitoring were only initiated by MOH in the past decade, so data to assess levels of quality and trends in these hospitals are limited. However, a recent national study that used methods similar to the RAND approach for quality of care assessment (Kerr et al. 2000; McGlynn et al. 2000), which is the gold standard in developed countries, found that quality of care in these hospitals was generally good, and modestly better than in equivalent private hospitals in Sri Lanka, which spend typically five to ten times as much per patient (Rannan-Eliya et al. 2014a). Other analyses of data from this study found that for a set of quality indicators that were comparable, quality of care was similar to that in hospitals in USA (Table 4), whilst comparison of relevant quality indicators for inpatient care with earlier Sri Lankan data reveal significant improvements in quality of care in these hospitals for many major conditions between 2005 and 2011 (Table 5).



**Table 4: Comparison of quality of care in Sri Lankan secondary and tertiary public hospitals with hospitals in USA**

Hospital category	Sri Lanka 2005			USA 2003
	Indicators n	Quality instances N	Score (95% CI) %	Score (95% CI) %
Secondary	18	193	59.2 (52.5-65.8)	
Tertiary	18	354	71.9 (58.2-85.6)	
Both types	18	548	67.4 (58.1-76.8)	61.9 (46.4-77.5)

*Notes:*

(a) Comparisons are made only using a common set of 18 indicators that were common to both studies, and covering both inpatient and outpatient care. Sri Lanka data are from the study by Rannan-Eliya et al. (2014a, 2014b), and data for the USA are from McGlynn et al. (2003).

(b) The aggregated scores have been weighted so that the distribution of quality instances matched the overall distribution of quality instances in the Sri Lankan dataset.

**Table 5: Comparison of quality of inpatient care in secondary and tertiary public hospitals in 2011 with levels in 2005**

Hospital category	2005			2011		Difference in scores (95% CI)	P-value
	Indicators n	Quality instances n	Score (95% CI) %	Quality instances n	Score (95% CI) %		
Secondary	26	531	56.1 (50.7-61.5)	164	82.6 (72.1-93.1)	26.5 (19.3-33.7)	<0.001
Tertiary	26	806	73.8 (68.7-79.0)	686	78.0 (75.1-80.8)	4.2 (-0.1-8.54)	0.059

*Note:* Sri Lanka 2005 and 2011 comparisons were done using 26 quality indicators common to the two datasets. Hospital sample consisted of Teaching (tertiary) and Base Hospitals (secondary) in the Colombo district.

## 7. Recent initiatives to improve hospital performance

### 7.1 Failed efforts to restructure hospital governance, 1997-2007

The governance framework for public hospitals has largely persisted for five decades. Sri Lankan policy-makers and stakeholders are certainly aware of global trends to apply new public management (NPM) in the health sector. All specialists must obtain one year of international training, so most senior physicians have personal exposure to the post-1989 reforms in the UK NHS. Despite this, national debates about alternative approaches have failed to achieve consensus about change.

The Presidential Task Force on Health Policy established in 1997 initiated the most concerted effort at paradigm change, developing recommendations to introduce a separation of financing and provision in hospital services, and making higher-level hospitals autonomous bodies with the goal of improving efficiency. However, the recommendations provoked considerable opposition and criticism by the GMOA and medical administrators, who felt that the proposals reflected an inadequate analysis of the strengths and weaknesses of the existing system. Stymied by the opposition, the government through the World Bank commissioned a review by a leading international expert, Professor William Hsiao of Harvard University, with the expectation of external validation of its proposals. This failed to happen, with the resulting report instead arguing that the prevailing system was efficient in its use of resources, and warning stakeholders that without significant additional public funding, any structural changes carried a significant risk of undermining and damaging both the efficiency and equity of the system (Hsiao and Associates 2000).

Following the Hsiao report, the Task Force report was never officially published. The effort stalled, but four years later a Japanese-funded project to develop a Health Master Plan made similar recommendations to introduce autonomous hospitals, other NPM concepts and to allow hospitals to raise and retain revenues, despite the projects' own analyses finding that the existing autonomous public hospitals in the country were inefficient. In face of threats of a national strike by the GMOA, this report was withdrawn, and revised in consultation with stakeholders, before being released with all the controversial elements removed (Ministry of Health 2007b).

The consistent thread in these failed proposals for reform over almost two decades was a recurrent, misplaced belief that because the system lacked many features of NPM and changes popularized globally, that it must be inefficient, and a failure to understand how key stakeholders might strongly and legitimately believe otherwise. Underlying this has been the lack of a paradigm for local stakeholders to explain why the system might be efficient.

### 7.2 Successful initiatives to improve hospital performance

Lack of structural change has not stopped efforts to improve hospital performance and delivery within the prevailing framework. Two recent examples include a national effort to improve hospital productivity and quality through application of Japanese 5S methods and the evolution of hospital-based services to improve ambulatory care for NCD patients.

#### **The adoption of 5S methods to improve hospital productivity**

5S is an approach to implementing total quality management (TQM) originally developed by Japanese manufacturers, drawing on work by both Japanese and American researchers, but adopted in a range of other industries around the world. 5S stresses the efficient organization of the workspace and workflow through worker collaboration and analysis. It was first implemented in Sri Lankan hospitals in 2000, when it was adopted by managers at one MOH teaching hospital, and succeeded in achieving their goals of improving efficiency and reducing maternal deaths (Kaluarachchi 2009; Withanachchi, Karandagoda, and Handa 2004). Recognition of the success of the model – which also won several national and international productivity

awards, led to widening adoption of the approach. The newly established MOH Directorate of Healthcare Quality and Safety has mandated its adoption by all public hospitals, as part of MOH's own productivity improvement initiative, by establishing Quality and Safety Units in every secondary and tertiary care hospital during 2012–2013.

The adoption and initial implementation of 5S by individual hospitals reveals critical aspects of the current governance approach. Although there is rigid central control of resource inputs, pricing and services of high-level hospitals, directors have considerable autonomy to manage the internal workings of their institutions. At first glance, Sri Lankan public hospitals would also not seem a fertile ground for acceptance of 5S. Sri Lankan culture is highly hierarchical and its public sector highly politicized, which makes the Sri Lankan public sector a difficult environment to introduce the methods of NPM (Samaratunge and Bennington 2004). In apparent contrast, the implementation of 5S requires teamwork and collaborative and participatory management. The explanation appears to be that whilst organizational culture is as hierarchical as in Japan or more, such hierarchy and culture may be consistent with and facilitate workplace environments in which managers and workers can cooperate easily (Dore 1987). Studies have found that this was facilitated by underlying organizational culture and values in the hospitals, which included low authority gaps between seniors and juniors, a high degree of collectivism in values versus individualism, and a low level of masculinity in gender relations. Despite the imposition of rigid MOH regulations, hospital staff are willing to tolerate high levels of uncertainty, which is conducive to flexibility and openness to changes in work processes (Kaluarachchi 2010).

#### **The evolution of NCD clinics for managing ambulatory care**

Sri Lanka's public hospitals were mostly established when the primary health systems challenge was treating episodic and acute, infectious, maternal and child health conditions. In the absence of major changes in the primary care network, the burden of managing an increasing burden of chronic, NCD care has fallen to secondary and tertiary hospitals by default, even though MOH official strategy is to manage NCDs at the primary care level. A notable improvement in care in the past decade is the establishment of NCD-focused clinics in secondary and tertiary hospitals to provide long-term management of patients with major NCDs by physician-nurse teams. Developed by individual hospitals, and not mandated or proposed by MOH, this hospital level innovation has diffused through the system, with positive impacts both on quality of care, as well as NCD mortality at the population level. The innovation and its rapid diffusion are a reflection of the autonomy that does exist within the system, as well as the benefits of hospital managers with clinical training.

## 8. Reflections and conclusions

The previous sections have described some of the key features of the Sri Lankan model of hospital governance. As explained, the overall framework and evolution of governance has been determined by politics and influenced by societal pressures. The consistent thread in this dynamic has been the competing goals of politicians and Treasury wanting to keep tight control of fiscal costs and reduce taxation, and the political necessity to satisfy high social expectations about open access to hospital services and to provide effective financial risk protection in health. It was never possible for one side of these pressures to dominate the other, and so the end result was that the hospital system was restructured and forced to deliver both services and access within a tight budget constraint and eschew any resource mobilization measures that might impose charges on patients.

Two distinctive elements of the Sri Lankan context have influenced how this was done. First, the Sri Lankan health ministry developed early on during the colonial period exceptional levels of public service mission orientation and of local professional capability. Second, a small but cohesive medical profession, to which all hospital managers and senior administrators belong, has maintained an informal, national hierarchy and lines of influence and power that have given senior managers channels of influence over hospital managers, notwithstanding official bureaucratic structures. These have persisted with positive implications for organizational culture, the interaction of the health system with the political system, and the receptiveness of those in the system to new ideas. This has mattered because they facilitated the particular approach to governance that was chosen, which depends heavily on intrinsic motivations and competencies of hospital managers to make up for a lack of explicit incentives and often limited resources.

In the early 1950s as patient demand surged, the system of public hospital governance was deemed excessively bureaucratic and centralized, more administration than management, and unable to meet the political and social goals of cost control, access and financial protection. Drawing on international expertise of hospital management in two OECD economies – Australia and UK, it was restructured. The critical changes in the new model were: (i) the delegation of operating authority as far downwards as possible to regional offices or hospital directors, and (ii) the adoption of the paradigm that the management of healthcare delivery should be given preference to physicians with management training or experience. These created a three level model in which individual directors manage hospitals, and report to fellow professionals functioning as area managers and national administrators, who in turn report to political leaders and their direct appointments.

The current system can be best described as a form of “quasi-autonomy” (Magnussen 2011), which combines considerable central powers and a command and control approach to administration with substantial operational autonomy for hospital directors and their area managers. Inherent to this approach is a dilemma of how to balance central ownership and control with decentralized management by professionals. The Sri Lankan model has chosen to do this by retaining to the centre those powers that policy-makers feel determine overall costs, equity of access, and the nature of the service package. These include control over allocation of key inputs to hospitals or regions – doctors, nurses, other paramedical staff, medicines and supplies, capital investment, as well as setting of wages and conditions at the national level. The bureaucratic allocation of scarce resources deliberately prevents market pressures raising the price of key inputs, and ensures that planning can maximize equity in national resource allocation. The lack of staff financial incentives not only controls costs, but also avoids the potential of such incentives to undermine organizational culture and intrinsic motivation of staff (Le Grand 2003), which underpin the Sri Lankan model.

At the same time, hospital managers have considerable autonomy at the operational level, and in the actual use of the inputs given to them. Combined with the lack of flexibility in the outputs expected of hospitals this has encouraged a focus on improving internal operations

and performance, and willingness to innovate towards the goals set for them. This motivation has greater impact, because the system also makes considerable efforts to provide hospital directors with professional training as managers, effective peer support and supervision, and ensuring that they are professionals who will be taken credibly by the clinicians delivering patient care. The key reporting systems and involvement of physicians at all levels also ensure a focus on accountability for outputs rather than inputs.

In a formal sense, this system has proved rather stable with little apparent change. However, the lack of overt structural change does not imply stasis in performance. Objective performance indicators reveal a continuous improvement in service efficiency and quality since the 1950s, at rates faster than many countries, allowing the system to deliver exceptional levels of performance and cost. Hospitals have showed capacity for reorganization of their internal structure and processes in the search for improvement and in adaptation to changing demand. This sustained improvement reflects a system that has been able to retain and update organizational knowledge, the foundation for any learning-by-doing, and to readily absorb new ideas and methods consistent with the overall framework.

Although in the Sri Lankan model hospitals are not given formal autonomy, it does exhibit at the operational level many of the key elements that have been found to be critical for successful outcomes with hospital reform and hospital autonomy. In a review of global experience during 1980–2009, the World Bank (World Bank 2011) identified these as:

- 1) A credible budget constraint for the hospital.
- 2) Merit-based hiring and promotion of managers based on qualifications and record.
- 3) Hospital management training.
- 4) Good information systems for clinical and financial management and reporting.
- 5) Complementary reform to strengthen accountability of managers for the performance of the hospital, particularly in relation to the objectives of equity and cost effectiveness - through creation of a board of external directors or trustees or a hospital authority to supervise the manager.
- 6) Increased managerial authority with freedom to recruit, promote, set tasks and work hours, and decide on performance rewards and sanctions.

The Sri Lankan model incorporates all these six features, with only two deviations. The first is that accountability is not via a hospital-level board or agency, but instead to regional and national administrators in the DOHS and provincial counterparts. The second is that hospital managers have no authority to recruit, promote or apply financial incentives to staff, but as noted there are areas where the Sri Lankan model puts the onus on cost control and equity, plus eschewing external incentives in favour of intrinsic motivations.

The general success of the Sri Lankan model of hospital management in delivering efficiency and equity of access at low cost suggests that what matters in hospital reform is not so much the formal organizational structures, but instead getting overall macro-incentives right, and ensuring managers have relevant operational authority, and the competency, training, and support to translate that authority to deliver societal objectives.

All this is not to conclude that the current model does not have problems in achieving the goals set by policy-makers. Operational issues have and continue to exist. Nevertheless, the record of the system in improving performance, innovation and adaptation would suggest that in the absence of a lifting of the financial constraints that the system faces, alternative paradigms that offer significant improvements will come with high risks of failure.

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