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The Remarkable Healthcare Performance in Singapore

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Introduction

Singapore's healthcare system ranks among the best in the world in terms of various commonly used criteria such as infant and maternal mortality rates, life expectancy, and disability adjusted years, prompting *Business Week* magazine to rank it as the healthiest country on the planet. What is even more remarkable is that the fine outcomes are accomplished at less than half the costs in comparable countries. Policy reformers around the world have taken note of its achievements in recent years and have explored emulating it, though most observers admit that the social and political conditions in the island state are too different to allow emulation. Yet there are lessons to be drawn from the case that would be relevant to most countries.

While the specific factors underlying the achievement of high healthcare outcomes at relatively low costs in Singapore are rooted in the country's rather unique economy and politics, it is undeniable that the government has been the main architect of the system and a key driver of the reforms. In this chapter, we will chronicle and analyse the evolution of the policy measures and their performance since Independence. For the sake of simplicity, we will classify the vast and diverse range of factors that shape the performance of the healthcare sector under three categories: socio-economic development, policy tools, and political conditions.

As will see in the chapter, there is no grand health 'policy' in Singapore. Rather, there are a range of policy tools targeting specific problems that work in tandem and need constant fine-tuning in response to policy learning and technological, demographic, and economic changes. The constant changes of varying magnitude are possible due to clarity of purpose on the part of the government, backed by strong political and administrative commitment, and the absence of a credible political opposition. Policy-makers and implementers know what they want and constantly experiment and fine-tune measures in order to achieve them. A range of heterodox policy tools working in concert, learning and being willing to change course, unhindered by political opposition, are what contribute to Singapore's health success.

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In terms of assessing different dimensions of Singapore's health policy success (see Chindarkar et al. 2017; Bali et al. 2019), our analysis suggests that the government enjoys considerable success across *programmatic* and *political* dimensions. Sustained policy performance, political legitimacy, and the electoral dominance of the ruling party allowed the government to remain indifferent to *process* outcomes or inequities in the delivery of policy. For instance, Singapore stands out as one of the few high-income societies where historically more than 50 per cent of healthcare expenditure was financed without any societal risk-pooling (Table 3.1). However, increasing democratization, economic and social contestability, and a rapidly ageing population will make the ruling government sensitive to such inequities.

Anatomy of Healthcare Success in Singapore

Ongoing debates on healthcare in many countries, particularly the United States, have precipitated unprecedented interest in Singapore's healthcare system and the reasons behind its admirable performance (Carroll and Frakt 2017; Ehrenfel 2018). This is unsurprising given its impressive headline numbers regarding healthcare. Singapore's infant mortality rate of 2.1 per 1,000 live births in 2015 ranks sixth best in the world (behind Iceland, Slovenia, Finland, Japan, and Luxembourg) while its life expectancy (83 years at birth) ranks the ninth highest in the world (behind Hong Kong, Japan, Macao, Italy, Spain, Switzerland, Iceland, and France) (World Bank 2018). Between 2003 and 2013, life expectancy increased by 3.5 years for males and 2.9 years for females, compared to the average increase of 2.5 and 2.0 years respectively for OECD countries (MOH Singapore 2016). The gain in life expectancy has been driven by declining mortality rates in cardiovascular diseases among those aged 50 years and above.

Singaporeans are not just living longer, but are also enjoying healthier life, as evident from the city's rising Healthy Life Expectancy (HALE). According to the 2013 Global Burden of Disease (GBD) study covering 188 countries, males (females) in Singapore spend the equivalent of 70.75 (73.35) years of their life free of disease and/or injury, which is the second (third) highest in the world (Murray et al. 2015).

While Singapore's health status indicators are good, it is the low cost at which they have been achieved that stands out among other high performing countries. As Table 3.1 shows, its total healthcare spending—5 per cent of GDP—is less than half of the average for high-income countries and the European Union. Another remarkable feature is the small share of the total formed by public spending: 42 per cent, compared to the average of 62 per cent for high-income countries. Not only is the private share of spending large, 55 per cent of it comes from out-of-pocket (OOP) and not private insurance. While the low total spending is

Table 3.1 Healthcare expenditures in selected countries

		1995	2000	2005	2010	2014
Health expenditure, total (% of GDP)	European Union	8	8	9	10	10
	High income	9	10	11	12	12
	Japan	7	8	8	10	10
	Singapore	**3**	**3**	**4**	**4**	**5**
Health expenditure, public (% of total)	European Union	78	77	76	78	78
	High income	63	59	60	63	62
	Japan	82	81	81	82	84
	Singapore	**50**	**45**	**27**	**35**	**42**
Out-of-pocket health expenditure (% of total expenditure on health)	European Union	14	15	14	14	14
	High income	15	16	15	14	13
	Japan	14	16	16	14	14
	Singapore	**49**	**53**	**69**	**61**	**55**

desirable, the large share of OOP is a matter of ongoing concern, as we shall later in the chapter.

The international community first took notice of Singapore's high outcomes at low cost in 2000 when the World Health Organization (WHO) ranked it sixth out of 191 countries for 'overall health system performance' (WHO 2000). Such accolades became more frequent in the following decade. The Bloomberg Health-Care Efficiency Index 2014 ranked Singapore second out of fifty-five countries (Hong Kong was first). The index is a composite of 'Relative health expenditure' (total health expenditures as percentage of GDP), 'Absolute health expenditure', and 'Life expectancy' (which accounted for 60 per cent of the index). Similarly, according to the Economist Intelligence Unit's study of 166 countries, Singapore ranked second in healthcare outcomes (behind Japan) but achieved its outcomes at considerably lower costs (Economist Intelligence Unit 2014). We now turn to describing the evolution of health policy in Singapore followed by an examination of the reasons for its performance.

Policy History: Incremental Reforms

The healthcare system in Singapore is rooted in Great Britain which ruled the island until 1959. Healthcare was a low priority for the colonial government and it built only a basic health system. In the final years of colonial rule, however, the government became increasingly involved in the provision of free inpatient care through public hospitals, partly reflecting the development of the National Health Service in Britain. The People's Action Party (PAP) government that took office in 1959 retained and gradually expanded the arrangements while introducing modest reforms. The expanding role of the government was reflected in its

spending: public expenditures on healthcare formed 50 per cent of total spending on health in 1965 (Lim and Lee 2012).

During the 1960s and 1970s, the government expanded public health clinics (called 'polyclinics')—entirely owned and operated by the government and providing basic outpatient services—throughout the island. It also expanded School Health Services and compulsory free immunization against a range of diseases. At a broader level, the government worked on improving sanitation, housing, and education which together with expanded public health measures played a major role in improving the population's health.

The financial implications of publicly provided healthcare nearly free of charge became increasingly apparent as trends of population ageing and epidemiological transition emerged, prompting the government to search for alternative mechanisms for providing and financing healthcare (Aw and Low 1997). It was within the context of these broader changes that the government announced the National Health Care Plan in 1983 outlining a strategy for meeting the demands of a growing, ageing, and increasingly affluent population.

The 1983 plan rejected social insurance for financing on the grounds that third-party payment would lead to over-supply by producers and over-use by consumers. It instead proposed a range measures to improve the efficiency of hospitals coupled with higher user charges for patients. In 1984, the government initiated efforts to make public hospitals more efficient. Reflecting the privatization trend sweeping the world at the time, it 'corporatized' public hospitals as private legal entities—though fully owned by the government—and encouraged them to compete for paying patients. To enable them to compete, it granted them full autonomy in strategic and operational matters. The enhanced competition was expected to lead to greater efficiency, lower costs, and higher service quality, though in reality these effects remained elusive (Ramesh 2008).

Medisave, established in 1984, was the first of many new healthcare funding initiatives to be launched during the period. The compulsory scheme covers the entire resident workforce and requires saving between 6 and 8 per cent of individual monthly income (subject to a wage ceiling) to be used to pay for hospital care of the account-holder and their immediate family. However, it limits the range of services and the total amount that can be spent. The exclusions and ceilings are intended to allow accumulation of funds to pay for expensive inpatient care when needed. Since savings in Medisave accounts are individuals' own money, the government expected that people would spend it cautiously.

In 1990, the government established a publicly organized but privately financed voluntary health insurance scheme called MediShield. It covered hospitalization expenses for surgery and outpatient treatment for specified 'serious' illnesses. Its establishment, despite the government's opposition to social insurance, was in response to the realization that most Medisave accounts were insufficient for treatment of major illnesses. Premiums were kept low by imposing a large number

of exclusions and a cost-sharing requirement to avoid the moral hazards associated with insurance. As a result, MediShield typically paid only for a small part of the hospital bills, with the remainder paid out of pocket.

The realization that there was a segment of the population that could not afford even highly subsidized healthcare led the government to establish a public assistance scheme called the Medifund in 1993. It is an endowment trust fund built on an initial US$59 million contribution from the government. To prevent depletion of the fund, only income from the fund is used to pay bills of those unable to afford hospital care. Under the scheme, patients in the lowest class wards at public hospitals and outpatients needing expensive services may apply for complete or partial waiver of their bills. Medifund accounts for a negligible share of total healthcare expenditure as citizens have to pass a stringent means test to receive any benefits. In 2014, S$133 million were distributed amongst 766,000 applicants, an average of about S$170 per applicant.

The results of the reforms—increased autonomy and competition among hospitals, and establishment of Medisave, MediShield, and Medifund—were not what government had expected. While the service quality improved, costs and fees increased rapidly. It also came to realize that Medisave, MediShield, and Medifund—collectively described as 3M—even together paid for less than 10 per cent of total health expenditure, imposing a significant burden on household finance (Asher and Nandy 2006). The government eventually established a high-level Ministerial Committee which published its report *Affordable Health Care: A White Paper* in 1993. The report stated five operating principles, of which three were notable:

- Promote *individual responsibility* for one's own health and avoid overreliance on state welfare or third-party medical insurance.
- Engage *competition and market forces* to improve service and raise efficiency.
- *Intervene directly* in the healthcare sector when necessary, where the market fails to keep healthcare costs down.

The combination of market competition and enhanced state intervention spelled out in the White Paper was audacious and counter-intuitive but displayed remarkable astuteness in recognizing the challenges that characterize the sector. Contrary to the dominant thinking in favour of the market at the time, it asserted that competition should be promoted under government stewardship, arguing that market forces alone would not suffice to hold down medical costs to the minimum and that the government had to intervene directly to structure and regulate the health system (MOH Singapore 1993: 3). It called for direct measures to control costs while promoting competition. In the following years, the government imposed controls on introducing new technology and specialist disciplines in government hospitals, introduced price caps, excluded expensive treatments from public hospitals, and tightened overall supply of doctors (Barr 2001: 714).

The direction set by the White Paper continues to frame the government's policy to this date, with reforms consisting largely of changing the specific combinations of market and state control.

While the government began to actively manage the health sector in the 1990s, senior cabinet ministers of the government routinely reminded citizens that it had no intentions of setting up a publicly funded health system or even elaborate welfare programmes. The 1998 Budget stated bluntly: 'We believe that extensive welfare programmes damage the fabric of our society as they discourage individual responsibility, self-reliance, community support and the work ethic' (cited in Tang 2000: 42). Unsurprisingly, most healthcare continued to be paid through OOP payments and yet the government was under constant political pressure to increase public spending and expand the 3M programmes.

The government was forced to act after the 2011 general elections in which the long-serving PAP received its lowest share of votes cast. It dramatically expanded the scope of MediShield, renaming it MediShield Life (ML). The revised programme is mandatory and covers all pre-existing illnesses and has no age-limit. The government has also increased public funding for hospitals, offers subsidies to cover the premiums of MediShield, and injected S$3 billion into the Medifund endowment fund.

Socio-Economic Context

Healthcare outcomes are not solely determined by health policy. They are also fundamentally shaped by conditions and actions outside the sector. Indeed, income levels, sanitation, education, and housing are important determinants. In this regard, health policy in Singapore has benefited greatly from a number of favourable conditions that promoted improvements in health status. Singapore's GDP per capita in 1960 was US$430, which was a third of that of OECD economies, but in recent years it has been over US$55,000 which is 50 per cent higher than the OECD average. The higher income allowed households to take better care of their health.

This economic success is in part attributed to a growth strategy has relied on attracting foreign firms and portfolio investors and utilizing foreign workers across the skill spectrum (Asher et al. 2015). The overarching policy goal was to ensure that Singapore remained internationally attractive for businesses which meant keeping income taxes low. Such a growth strategy required an inflow of foreign workers, and a tolerance of a high level of income inequality.[1] Lacking political voice, it has been easy to ignore the social welfare needs of foreign workers. The government maintains a significant presence in the economy by direct participation, state-led planning, and the use of interventionist policies (Lim 2016). Government-linked and government-owned companies, and statutory

boards, play a strong role in Singapore's approach to economic management. These are pervasive across most areas of service delivery including health, education, waste management, transportation, infrastructure, etc.

While Singapore's population is ageing rapidly, the city-state has had a relatively young population for a high-income economy. For example, in the 1960s when its per capita income was about four times that of middle-income countries, its population above 65 years of age was substantially lower. More recently, its population above age 65 (11 per cent) is much lower than the average in OECD economies (17 per cent) (World Bank 2018). This is changing, however, and the population is ageing rapidly due to declining fertility rates coupled with sustained increases in longevity. This in turn has implications for health spending as consumption increases disproportionately with age.

In addition to a relatively young population, Singapore has benefited from concomitant policy efforts in housing and education. Just after a year of coming to power in 1959, the PAP set up the Housing and Development Board, a statutory body with comprehensive responsibility for public housing and urban development. In the early 1960s only 10 per cent of Singaporeans lived in public housing. In 1964 the government announced its goal of creating a 'home-owning democracy' in which 90 per cent of the population would live in homes they owned. The objective of 90 per cent home-ownership was reached in the late 1980s through subsidies, grants, and the large-scale public provision and financing of homes (Ramesh 2004). Similarly, Singapore has made significant advances in education attainment. In 1980 more than four-fifths of residents had not completed any secondary education and only 3 per cent had a university degree (Pang and Lim 2015). The highest qualification attained has since improved significantly with more than half the resident population having completed a university degree, diploma, or a professional qualification by 2015 (Waring et al. 2018).

The combined impact of a relatively young population, and conducive complementary policies—focused on improving education attainment, home ownership, and public amenities such as clean drinking water, solid waste disposal, and management systems—has shaped Singapore's public health outcomes. For instance, public housing with clean drinking water allowed the government to contain the widespread of malaria and tuberculosis (Phua 1987). Singapore's housing policy gradually transitioned households that lived in 'overcrowded pre-war shophouses, slums or tenements' in the 1950s to public housing with access to electricity, gas, clean water, and toilets, which in turn helped manage water-borne and other infectious diseases that confront most societies in their economic and epidemiological transitions (Phang and Kim 2013). In turn, Singapore's sustained economic prosperity and growth in real incomes (except for the bottom deciles of the distribution) tempered the impact of high OOP payments (the dominant instrument to finance healthcare).

Policy Tools: Multiple Tools, Concerted Use

Conducive as the socio-economic conditions were in Singapore to improvements in health outcomes, their potential would have remained unrealized in the absence of appropriate government policy. Singapore's health policy is characterized by a range of policy tools targeting specific problems while keeping an eye on the linkages among them. To make the combination of tools work effectively, the government has had to target and guide behaviour of all key stakeholders: providers, payers, and users (Wu and Ramesh 2014; Bali and Ramesh 2017). Using Christopher Hood's NATO schema, we classify the tools into four groups as shown in Table 3.2.

O*rganizational* tools work by establishing new organizations or altering existing organizations to achieve desired outcomes. Thus, instead of regulating or financing healthcare, governments can establish a new public hospital to provide desired services or, conversely, privatize an existing private facility. The purpose of *authority tools* is for the state to employ its sovereign authority to prohibit undesired behaviour and, conversely, require desired behaviour. *Treasure tools* come in a variety of forms, including direct transfers to providers or users, subsidies to the insured directly or through their insurers, tax incentives, and tax penalties. The most common fiscal tools in healthcare are fiscal transfers to providers (public or private) or the insurers or insured individuals as well as mandated savings for healthcare and retirement income. The core purpose of *nodality tools* is to reduce the information asymmetries and especially the ability of any particular agent to exploit its information advantage. The tool is particularly useful for empowering users and third-party payers vis-à-vis providers who are in an advantageous position in the presence of information asymmetry.

Not only are there a large number of policy tools available for use in healthcare, but they also need to be used coherently if they are to address complex

Table 3.2 Policy tools in Singapore's healthcare system

Organization tools	**Treasure tools**
Public ownership of hospitals and polyclinics	Subsidy to public hospitals
Incorporation of public facilities as private companies	Medisave, Medifund, and MediShield
Regional clusters of hospitals	Out-of-pocket payments
	Fee for Service and Casemix payments
Authority tools	**Nodality tools**
Certification of all healthcare professionals	Public health campaigns
Regulation of all significant aspects of providers' and insurers' operations	Publication of median bill sizes and clinical outcomes
Regulations of drug supplies	Collection and dissemination of information on healthcare utilization

problems. Overcoming the conflicting goals and divergent interests among stakeholders amidst vast information asymmetry in the sector requires an appropriate combination of these tools. The challenge, however, remains how to harness synergies and complementarities in using these tools. Far too many reform efforts in healthcare have resulted in failures or caused more harm than good due to the inadequate or contradictory use, not to mention misuse, of these tools (Blumenthal and Hsiao 2005; Bali and Ramesh 2015; Nguyen et al. 2015; Powell-Jackson et al. 2015). In Singapore, however, the government met this challenge, and was able to develop a policy mix of tools that harnessed these synergies and complementarities (Howlett et al. 2015).

Organizational Tools

Singapore has many of the same tools as most other countries, with certain interesting twists. Prominent agencies are discussed here. The Ministry of Health (MOH) has overall responsibility for healthcare, including needs assessment, services planning, manpower planning, system governance and financing, fee-setting, cost control, and health information technology (Liu and Haseltine 2015). The Health Promotion Board is responsible for promoting public health awareness and practices. To realize economy of scale and higher price bargaining capacity, there is the Group Purchasing Office to consolidate purchases of drugs, medical supplies, equipment, and IT services at the national level. To further enhance information effectiveness, the Agency for Care Effectiveness (ACE) was set up in 2015 to conduct research on treatments that provide the best value for money.

A unique entity in Singapore is MOH Holdings Private Limited (MOHH) which is registered as a private company though fully owned by MOH. As suggested by its name, it is a holding company which owns all of the government's healthcare assets, including all public hospitals which are also registered as separate private companies with their own separate management and CEO. As an owner of all government healthcare assets, MOHH provides systems-level strategizing and coordination, and facilitates collaboration across healthcare clusters and institutions.

A distinct feature of Singapore's health system is the extensive government ownership of hospitals and how it manages them. Public hospitals account for nearly three-quarters of all hospital beds in the country and employ three-fifths of all specialists (Lim and Lee 2012). However, public hospitals in Singapore are exposed to market competition and hospital managers are given broad autonomy in operational matters. Public ownership of what are legally private firms allows hospitals the autonomy they need to operate in a competitive environment while remaining within the government's direct reach (Ramesh 2008). As an owner, the government can shape hospitals' behaviour without having to resort to onerous

regulations or purchase negotiations that would be necessary if they were truly private firms. This has been particularly useful for controlling user charges, physicians' remunerations, and the number of hospital beds in different ward classes, for instance.

Unlike hospital care, primary care in Singapore is mostly delivered at private clinics that account for 80 per cent of outpatient visits while the remaining 20 per cent is provided by eighteen public polyclinics that provide subsidized services especially for low-income residents and the elderly. Similar to many countries, the public healthcare system in Singapore is divided into regions which have changed over the years. In 1999 two similarly sized 'clusters' of vertically integrated public hospitals and clinics were established with the purpose of promoting economy of scale, coordination and planning of resources, integration of inpatient and outpatient services, and a more effective patient referral system within each cluster. Inspired by the success of two competing clusters, and seeking to further enhance competition, in 2015 all public hospitals and associated polyclinics were reorganized as six regional clusters spread across the island. As of 2018, the six clusters were reorganized into three clusters to enhance economy of scale while maintaining regional access. MOH conducts annual surveys of patient satisfaction and expectations which indicate high favourability rating: the 2012 survey showed that 77 per cent of respondents were satisfied with services at public facilities (Liu and Haseltine 2015). The government has established a Public Acute Hospital Scorecard system for assessing performance of polyclinics and community hospitals.

Financial Tools

Singapore is unique in its heavy reliance on OOP expenditure, which forms 55 per cent of total health expenditure, compared to the average of 13 per cent for high-income countries (Table 3.1). This is the result of a deliberate policy choice inspired by the thinking that households must bear the primary responsibility for healthcare expenditures (Barr 2001;Asher and Nandy 2006). The adverse effects of OOP are in part mitigated by low levels of total spending, and lower prices at public hospitals and polyclinics which receive government subsidies and offer frugal cost-effective services. Government financing accounts for 42 per cent of total health spending in Singapore, mostly in the form of subsidies to public hospitals. Subsidies are based on the number of patients admitted to different wards. There are five classes of wards in public hospitals—A, B1, B2+, B2, and C—providing different levels of privacy, amenities, and choice. Patients in C-class wards are subsidized up to 80 per cent of the costs while those in A-class wards receive no subsidy.

There are also other schemes financed from the government's general budget. The Community Health Assistant Scheme, for instance, is an income-tested

scheme that offers additional grants to low-income households (below S$1,800 per capita per month) for outpatient treatment. Similarly, the Pioneer Generation and Merdeka subsidies reduce insurance premiums and co-payments for select cohorts of elderly Singaporeans. There are also extensive public health campaigns fully financed by the government.

In addition to the 3M schemes—Medisave, MediShield, and Medifund (described earlier)—there are subsidies provided to hospitals. The arrangements for paying providers have also changed over the years, moving increasingly in the direction of capped payments. Until the 1980s, public hospitals had been paid a block grant based on historical precedence. In the 1990s the payment formula was changed to reflect the volume of services they provided, consistent with the fee-for-service they charged patients. Predictably, hospitals increased the quantity of services they provided. To curb rising expenditures, in 1999 the government introduced case-mix funding which paid a fixed amount depending on the illness. To prevent under-servicing—a problem that is endemic to case-mix because providers are paid a fixed amount per case regardless of the treatment costs—there is a payment component that includes the volume of services provided.

Regulatory Tools

The use of organizational and fiscal tools in Singapore is supplemented and complemented by extensive regulations. The MOH, for example, regulates licensing of healthcare institutions, provision of unsafe or undesirable services, and advertising and marketing of healthcare products and services.

Self-regulation also exists in the form of practice guidelines and codes of ethics and conduct by professional bodies, such as the Singapore Medical Council, Singapore Dental Council, Singapore Nursing Board, and Singapore Pharmacy Board. The councils play an active role in ensuring that costs are 'competitively priced' and in the stewardship of the sector. There have been instances where the Medical Council has censured providers for 'over-charging' patients (Straits Times 2017). Such controls on provider behaviour reduce their monopoly power in the health sector, and reduce room to engage in maleficent behaviour.

The Health Sciences Authority regulates the manufacture, import, supply, presentation, and advertisement of modern and traditional medicines, health supplements, cosmetic products, medical devices, and medicinal therapies for clinical trials. The insurance industry is regulated by the Monetary Authority of Singapore as part of its financial regulatory role (Liu and Haseltine 2015). The extent of government controls over providers is higher than what is suggested by regulations. The complete ownership of public hospitals allows MOH to direct all significant aspects of their operations: the types and volume of specialized clinical services they provide, the fees they charge, the salaries they pay, and the expensive

equipment they purchase. Controls on providers are paralleled by similar curbs on users, who are subject to co-payments, deductibles, and restrictions on the use of Medisave and MediShield for consultations, treatments, and procedures. These controls discourage unnecessary doctor visits, tests, and treatments, resulting in more careful use of health system resources (Liu and Haseltine 2015).

There are also regulation-like controls exercised through fiscal tools. For instance, ML covers hospitalization only in basic hospital wards, as subsidies decline with the ward class, being zero for the highest A-class ward. Similarly, access to advanced tertiary care or diagnostic tests is rationed by waiting times if treatment is to be reimbursed by Medisave and ML. While patients have immediate access to tertiary hospitals and specialists, they do not receive subsidized prices in the absence of referrals. Restrictions on the use of Medisave as well as ceilings on the maximum amount that providers can be paid from an individual's Medisave account reduce scope for moral hazard. The MOH is known to closely monitor billing practices of hospitals and raise alarm when anomalies or excessive treatment are observed.

The government exercises light regulatory touch on private providers in order to maintain their competitiveness vis-à-vis an otherwise robust public system in the country. Private providers are seen as crucial to the objective of attracting medical tourists to the country and enhancing the quality of public hospitals by posing competition to them. Thus, public providers receive substantial subsidies from the government but are also subject to strict controls regarding the number of hospital beds and their distribution by wards, fees they charge, acquisition of technology, and expansion of specialities. Private providers, on the other hand, are lightly regulated but receive no or little subsidy. Through different regulatory regimes for public and private providers, the government is able to pursue a diverse range of goals.

Information Tools

One of the steepest challenges faced by healthcare policy-makers is the deep information asymmetries that characterize the sector, allowing providers to be in a dominant position vis-à-vis third-party payers and users (Bali and Ramesh 2015). It is only recently that advances in information and management technologies have allowed development of tools to bridge the asymmetries by empowering users and third-party payers.

An innovative information tool the Singapore government has employed to improve service quality and lower prices is to acquire and disseminate information on hospital charges and clinical outcomes. As the Minister of Health put it:

> For economics and markets to work, we must make sure that the conditions for market competition exist. That is why I published the bill sizes for the common medical treatments . . . When competition is brought to bear on these services, we

> will then have the right incentives for the healthcare providers to do the right thing, to raise standards even as they reduce cost. (Khaw 2005)

Since 2003, public hospitals have been required to publish their average bill sizes and the distribution along the mean (which includes charges for room, treatment, surgery, laboratory test, etc.) for different common conditions and procedures. The collated data is subsequently published on the MOH's webpage. The hospital managers were understandably resistant to disclosing information on their charges and clinical outcomes but the government eventually prevailed over them. Private hospitals were more successful at resisting participation, but they too eventually complied due to pressures from the government and users. This exercise culminated in the MOH introducing benchmarks for medical fees jointly developed by doctors, hospitals, and other stakeholders in 2018. Such benchmarks are expected to give doctors a yardstick against which to measure their prices while giving patients a clearer idea of comparative costs.

Given the volume of data collected over the years, the MOH now maintains online calculators, which are synchronized with Medisave and ML limits. It is likely that the information made available on the webpage is used more widely by hospitals (rather than patients) who use the informative to benchmark their prices and outcomes against their competitors'. To take advantage of modern information technologies available for hospital management, the government has for more than a decade tried to make hospitals harmonize their financial, clinical, administrative, and diagnostic processes through integrated information systems. The National Electronic Health Records (NEHR) platform was established in 2011 for capturing relevant information from all providers. While public providers have participated in the platform, private hospitals and especially private clinics have resisted it for a variety of reasons. This changed in 2018 when participation in NEHR became mandatory. Providers must now contribute data regarding admission, visit history and hospital discharge; laboratory test and radiology results; history of medication, surgeries, and procedures; allergies and adverse drug reactions; immunizations; etc.

The diverse range of policy tools deployed illustrates the government's governance and managerial approach to the sector. Moreover, it has not shied away from retracing its steps and experimenting with a newer combination of tools to address a given policy goal such as reducing information asymmetry or managing moral hazard.

Political Conditions: Continuity and Unity of Purpose

It is broadly acknowledged that healthcare is one of the most difficult areas for policy reform due to the diverse, powerful, and entrenched interests that constitute the sector. This general description of the politics of health applies only

partially to Singapore, however, as the government has been able to take drastic and even unpopular measures to implement policies it thinks are right. This has been possible due to the rare degree of policy autonomy that it enjoys as a result of its overwhelming dominance of politics. It is improbable that a more contested political system would allow the space necessary for comprehensive and coherent policy of the sort in Singapore.

Singapore is essentially a one-party state with a single party in power since 1959, despite free though arguably not entirely fair elections (Tan and Grofman 2016; Bertelsmann Transformation Index 2014). The PAP has won 95–100 per cent of all seats and more than 65 per cent of the votes in all elections since Independence (Tan and Grofman 2016). The reason behind its long-term dominance is not as simple or as pernicious as some critics allege. Freedom House designates Singapore elections as 'free from irregularities and vote rigging' (2015), though it also notes that 'the opposition is hamstrung by a ban on political films and television programs, the threat of libel suits, strict regulations on political associations, and the PAP's influence on the media and the courts'. While one can rightly speculate on the outcomes in the absence of the hurdles faced by opposition parties in Singapore, there is no doubt that the PAP enjoys widespread support and puts up a vigorous fight at elections.

The PAP's electoral appeal is built on the reputation of the government in bringing peace and prosperity to the island, raising the country from 'the third world to the first' in one generation. For three decades since the early 1970s, Singapore enjoyed one of the fastest economic growth rates in the world, with corresponding improvements in education, healthcare, and other public services. The tangible improvements in people's lives afforded the government, and by extension the PAP, high levels of performance legitimacy (Barr 2014). According to the Global Barometer Survey, the Prime Minister and National Government in Singapore are tied for the third most trusted institutions (behind police and military) in the country. Caplan (2009) concludes that the secret to the PAP's success seems to lie in its electorate's preference for a ruling party that happens to take economic reasoning seriously and that party preferences in favour of the PAP give it enough slack to impose policies that would not survive a direct popular vote.

With such a comprehensive appeal and political dominance in place throughout the history of Singapore, the government has been able to pursue policies without fear of political repercussions of unpopular choices. As Haseltine (2013: 1–2) summarizes: 'The People's Action Party (PAP) has been in power since independence, resulting in sustained political stability. Along with stability has come a unity and constancy of purpose and action throughout the government . . . That continuity of philosophy and approach, I believe, has made possible the ability to plan and execute over a long period of time.'

Backed by vast policy autonomy based on performance legitimacy and lack of opposition, the PAP enjoys a largely free hand in implementing its core

beliefs, which comprise a mixture of individualism and strong state intervention, characteristically reflected in its healthcare policy. As is frequently noted, Singapore's healthcare system is built on the political philosophy of individual responsibility and 'many helping hands', with the state as only one of the hands. PAP leaders routinely call upon the population—though in more muted tones in recent years—to stay clear of 'welfare state mentality' and instead look after themselves and their family. Medisave, and the principles of compulsory and individual savings on which it is built, is the clearest example of this line of thinking. Government subsidies are meant for worthy causes such as education and housing while welfare payments and subsidized healthcare are only for those in genuine need.

Healthcare subsidies in Singapore are not only meant for the needy, but also for treatments that are 'cost-effective and of proven value'. The government sees demand for healthcare as almost endless, necessitating proactive controls. As one health minister put it, 'I prefer to slightly under-supply than to over-supply as this will put pressure on ourselves to intensify usage and minimize over-consumption' (quoted in Lim and Lee 2012). The government justifies the approach on pragmatic grounds. Indeed, the government claims 'pragmatism' as its ideology. In an interview shortly before his death, Lee Kuan Yew stated: 'We don't stick to any ideology. Does it work? Let's try it and if it does work, fine, let's continue it. If it doesn't work, toss it out, try another one. We are not enamoured with any ideology' (New York Times 2016). This approach is certainly evident in the country's health policy, which is changed constantly and displays no particular pro- or anti-state ideology.

In healthcare, pragmatism has meant extracting maximum value from a given expenditure. The government explicitly states that public hospitals and government clinics provide only a basic medical package that is cost-effective and of proven value. 'But it will not provide the latest and best of everything,' it warns (quoted in Lim and Lee 2012). The MOH at one point even described its mission as building the 'World's Most Cost-Effective Health System'. Driven by cost-effectiveness, it has not shied away from making tough decisions such as denying subsidies for expensive medicines. Prescription of subsidized drugs in public hospitals is restricted to 'clinically relevant and cost-effective drugs considered as basic therapies that are essential for the management of common diseases afflicting the majority of our population' (Pwee 2009).

But even the Singapore government has not always had its own way, at least not as quickly as one would think. It took more than a decade for the government to make private hospitals disclose the size of their average bills and clinical outcomes. Similarly, it has taken more than a decade to make private general clinics contribute to the National Electronic Medical Records. While the government eventually got its way in both instances, it was not without protracted resistance, showing the power of vested interests in the healthcare sector.

Singapore's policy-makers are acutely aware of the politics of healthcare in other countries and constantly warn the population not to fall for promises of free healthcare. As a minister recently warned:

> Looking around at the world, it is clear that the more politicians play with healthcare, the worse the health of the nation, because short-term popular political interests overthrow the long-term outcomes and the deep issues. Will we do the right thing or go down the route laid out for us by many other advanced economies, where the key issues in healthcare are increasingly polarised and politicised? (Puthucheary 2018)

In a similar vein, Deputy Prime Minister Tharman explained:

> There is no way of giving something to everyone . . . The free social services that we all like the idea of, you must realise that it is not free. The average citizen is paying for it, and paying for it big time. (Ho 2015)

More recently, Prime Minister Lee Hsien Leong stated:

> It is important for the Government to present people with the full facts and the trade-offs because every dollar that we spend on healthcare is one dollar taken from taxpayers and one dollar less to be spent somewhere, whether it's on education . . . on housing, on defence or on the personal needs of our people. (En 2018)

The government is aware of the population's rising expectations and is doing its best to contain them. It is particularly concerned about voters turning to opposition parties offering 'free' or highly subsidized healthcare. It is convinced that this would be a policy disaster in the context of an ageing population.

A Health Policy Success? Assessment

Singapore's healthcare system has been a subject of global attention since 2000, when the WHO ranked it as the sixth best healthcare system in the world. Most observers, both within and outside the country, focus on the country's medical savings account (Medisave) to explain the system's superior performance. While Medisave is indeed unique in being the only compulsory such scheme in the world, the actual role it plays in financial protection is rather marginal. It serves more of a symbolic purpose in highlighting the government's belief in individual responsibility for healthcare. Similarly, MediShield is designed to minimize moral hazard even though the restrictive conditions limit the scheme's usefulness as an insurance mechanism. In this chapter we have argued that Singapore's healthcare success is explained by three broad factors: its unique socio-economic environment; a diverse range of policy tools addressing different health policy challenges capably and in concert; and the sustained political legitimacy of Singapore's long-

serving regime. In this concluding section, we assess Singapore's health policy success using the four dimensions of success introduced in this book.

A *programmatic* assessment of Singapore's health policy suggests that the government was able to convincingly deliver value in healthcare: attaining excellent health outcomes at relatively low levels of societal spending. Cost containment and affordability are primary considerations that affect all aspects of Singapore's health policy. To accomplish this the government plays an active role in stewardship and marshals a diverse range of policy tools that address a range of challenges that beset the sector such as information asymmetry, moral hazard, etc. While cost containment is an overarching policy goal, the government is largely agnostic to different modes of governance or instrument preferences. The approach is buttressed by willingness to take risk with new tools and reversing choices when the effects are found to be undesirable. This is experimental governance—typically a forte of local governments (Sabel and Zeitlin 2012)—writ large at the national level. Similarly, it is politically unwedded to any distinct policy style. For instance, while earlier policy documents and government rhetoric emphasized individual responsibility and anathematic attitudes towards societal risk-pooling to pay for healthcare, the government was quick to retrace its steps and introduce social risk-pooling (through MediShield Life) in the wake of increased political competition.

As a large part of health expenditure in Singapore is financed through OOP payments, analysts argue that there are inequities in how health benefits and costs are distributed across the society (Asher and Nandy 2006). However, recent reforms have introduced principles of universalism in the policy design and are poised to increase the share of expenditure that is financed through societal risk-pooling. Moreover, issues relating to the equity of how healthcare benefits and costs are distributed across society must account for the country's public financial management practices, especially how (much) revenue is raised and what it is spent on (Blomqvist 2011; Bali 2016). Total government revenues and expenditures are relatively low in Singapore, especially when compared to other high-income societies (Asher et al. 2015).

In terms of *process* assessment, health policymaking is largely hierarchical in Singapore and there are limited mechanisms for public representation, deliberation, and inclusion (Rodan 2018). During key policy changes, the government does conduct extensive public stakeholder consultations but there is limited evidence to suggest that these exercises have shaped policy. As this chapter has catalogued, the government frequently took unpopular decisions and prioritized policy goals. Its managerial approach to health policy with many and moving parts, requires firm stewardship, a range of policy skills, and deft micromanagement. Singapore's public service is widely recognized to enjoy such capabilities (Neo and Chen 2007). The capability of its bureaucracy to learn from experience and adjust accordingly is another reason why the government is able to carry out its policy intentions.

In terms of *political* assessment, there is large societal acceptance and support for Singapore's health policy. This is fuelled by the high degree of trust that the Singapore government enjoys. Moreover, the government has enjoyed an unparalleled conducive political environment that allowed it to overcome all political opposition in pursuit of measures it believes are necessary for the larger good. The absence of opposition parties that could credibly challenge the government allowed it to take tough and, if necessary, unpopular decisions without significant political risks. However, recent political trends and increasing electoral competition are stymying the government's magisterial approach. In the lead up to the 2011 general elections, issues surrounding the affordability of healthcare especially for the elderly were brought to the fore. This was amplified in the following years, and prior to the 2014 general elections the government announced extensive health subsidies for a *select* cohort of retirees. Similarly, another round of health subsidies that target a slightly younger cohort of retirees was announced in 2018. This suggests that the government will have fewer degrees of freedom, politically, in its approach to health policy.

On the *temporal* dimension, Singapore's health policy has enjoyed success. However, the unique economic and especially administrative and political conditions and capacities that exist in Singapore make it unlikely that any other country would be able to pursue goals in the manner the Singapore government does. Indeed, it is uncertain if Singapore itself will be able to continue on its current policy path. As Singapore's population ages, the government will be under increasing pressure to relax restrictions and spend more on healthcare. Indeed, following the setbacks the ruling party experienced in the 2011 general elections, the government rapidly increased the health budget (by 250 per cent over seven years) and substantially expanded the scope and depth of protection afforded by Medisave and especially MediShield. This is a far cry from the government's austere health policy stance of the past. In fact, the government leaders have themselves admitted that they expect expenditures to rise dramatically in the future.

Additional version of this case

The case study outlined in this chapter is accompanied by a corresponding case study from the Centre for Public Impact's (CPI) Public Impact Observatory—an international repository of public policies assessed for their impact using CPI's Public Impact Fundamentals framework. CPI's framework provides a way for those who work in or with government to assess public policies, to understand why they were successful, so key lessons can be drawn out for future policy work. The case can be easily located in the CPI repository at www.centreforpublicimpact.org/observatory.

Note

1. For instance at the end of 2017 nearly 40 per cent of Singapore's labour force comprised foreign workers. Between 2010 and 2016, the Gini coefficient varied between 0.458 and 0.478, and 0.402 and 0.425 after accounting for government transfers and taxes (Department of Statistics, 2018: Table 3.8).

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