Singapore: Health Care System Overview and SWOT Analysis

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Abstract

This is the third article of the International Health Care Systems series. The first part of the article provides an overview of Singapore's health care system, including its historical evolution, health financing, service delivery, and aspects like equity, cost-control, and health technology. The second part analyses the strengths, weaknesses, opportunities, and threats for Singapore's health care system.

Keywords: Singapore health care system, Medisave, MediShield, Medifund, SWOT analysis

An Overview of the Singapore Health Care System

Singapore is hailed as one of the best health care systems in the world, achieving remarkable health indicators at expenditures that are among the lowest among high-income countries - making it an exemplar of "good health at low cost", albeit one that is achieved through somewhat unorthodox ways. In 2017, health spending amounted to 4.4% of GDP, [1] and government spending for FY17 stood at 2.1%. [2]

Prior to independence from the British in 1965, Singapore had a British NHS-like health care system based on predominantly public provision of free health care, though it was meant mainly for the British colonizers.[3,4] As Haseltine[5] notes, the first prime minister Lee Kuan Yew envisioned personal responsibility as the foundational principle of the new health care system, reckoning that an excessive role of the government could be detrimental to the population's "desire to achieve and succeed".[5] While healthcare wasn't among the foremost priorities for the newly independent nation, there was pronounced emphasis on public health measures, like sanitation and infectious disease control, and on addressing social determinants of health through multisectoral action. Subsequently, primary care was strengthened through a network of outpatient clinics, and pre-existing public hospital infrastructure was expanded on and strengthened. Rapid economic growth post-independence supported the promulgation of the 1st National Health Plan in 1983 - which laid comprehensive strategies for the health sector, including restructuring of public hospitals and addressing the shift towards chronic diseases. Owing to rapid increase in costs, the White Paper on "Affordable Health Care" was released in 1993.[5] These remain, till date, the two landmark documents in the history of Singapore's health care.

Healthcare financing has 4 main components viz. Public subsidies, Medisave, MediShield, and Medifund, often summarised as 'subsidies+3M'.[3] Subsidies are available at government polyclinics for primary care, with certain sections including senior citizens, school/junior college students, and children receiving subsidies upto 75%. Specialist consultations in public hospitals are subsidized on referral by polyclinics.[6] Inpatient care subsidies in public hospitals range from 20% to 80% of the cost of treatment (depending on ward categories).[4] Subsidies are also provided to private players and voluntary welfare organizations for providing intermediate and long-term care, particularly for the disabled and the elderly. [6]

Medisave (est'd. 1984) is a compulsory individual medical savings program to support expenses on hospitalization, day surgery, select outpatient care, and old-age health care needs. It is based on contributions

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by individuals (contributions increase with age) and covers the individual and their approved dependents. [7] Health Ministry guidelines dictate the conditions of Medisave usage and set daily/annual limits on withdrawal.[3,8]

MediShield (est'd. 1990, replaced by mandatory MediShield Life in 2015) is a basic health insurance plan to cover for catastrophic hospital- and select outpatient care expenses for which Medisave is unsuitable.[8,9] Proportion of costs covered by MediShield depends on ward category, being pegged to B2/C type wards in public hospitals.[9] Premiums increase with age and can be paid from Medisave accounts. There is considerable patient cost-sharing in the form of deductibles and coinsurance payments, and coverage is available only for a select range of conditions upto a maximum claim limit.[3,8]

Medifund (est'd. 1993) is a financial assistance program designed with equity considerations in mind, and caters for those unable to meet health care expenses through out-of-pocket (OOP) costs, Medisave, and MediShield.[3] Medifund has stringent eligibility requirements and accounts for a very small share of total health spending.[3,8] In 2015, Medisave and MediShield accounted for 10% and 5% of total health spending.[8] OOP payments are pervasive across the range of public and private health care establishments, and together with third-party insurers constituted 60% of total health spending in 2015. [3]

Supplemental private insurance is available for more generous coverage, and may be employer-sponsored. ElderShield (est'd. 2002) provides financial protection for long-term care of the severely disabled, especially in old age. [10]

The Ministry of Health (MOH) is the apex regulatory body. The Health Sciences Authority monitors and regulates health-related products; the Health Promotion Board is responsible for national prevention and promotion initiatives; the Central Provident Fund board administers Medisave and MediShield Life.[6,11] The MOH owns public health care institutions through MOH Holdings Private Limited, which also provides stewardship and strategic direction.[6] Public health care establishments are divided into 6 regional clusters to facilitate competition, vertical integration of care, and economies of scale, especially in view of growing chronic care needs.[6,8] Nearly 80% of outpatient care is provided by the private sector, which is paid predominantly on a fee for service basis. Contrarily, 80% of inpatient care is provided by the public sector, which comprises regional and general hospitals, national specialty centres, and medical college-hospitals.[6] Public hospitals are paid through DRGs and block grants, and possess operational autonomy despite being under government regulation and ownership.[8] Chronic sick hospitals, community hospitals, and nursing homes provide intermediate- and long-care care with a range of home- and community-based options. [4,6]

Public subsidies and endowment funds like Medifund are directed at upholding equity. Medifund Silver (est'd. 2007) provides a safety net for the poor elderly.[12] The Community Health Assist Scheme provides subsidized outpatient care through networks of private providers and is targeted at low-income groups.[6] The Pioneer Generation package includes benefits like subsidized outpatient care, MediShield premium subsidies, and Medisave top-ups for the elderly 'pioneer' generation. [13]

Cost-consciousness and effective competition along with supply-sided controls have been the prime modalities of achieving cost-control and efficiency.[3,8] Patient cost-sharing and limits on withdrawals deter moral hazard and foster cost consciousness among patients. Regional clusters of public institutions foster competition within the public sector. A strong and efficient public sector also promotes healthy public-private competition, which holds down prices in the private sector. Despite operational autonomy, government ownership of public hospitals permits monitoring and intervention into various functional aspects like prices and volume of services. The MOH also publishes information on hospital charges and clinical outcomes, which upholds competition and promotes care quality.[8]

The National Electronic Health Record was started in 2011 for both public and private institutions to facilitate integration and easy sharing of patient data across the spectrum of care providers. It is managed by the Integrated Health Information Systems.[14] Hospital clusters have been encouraged to use integrated information systems to harmonize processes.[8] The Agency for Care Effectiveness (ACE, est'd. 2015) is the national agency for HTA, which evaluates health technologies to inform policy. It also publishes ACE Clinical Guidelines (ACGs), which are evidence based recommendations to guide clinical practice. [15]

Challenges associated with an aging population and rising chronic diseases have inspired a number of recent measures. A large-scale expansion of eldercare facilities over the subsequent five years was planned in 2012. A ministerial committee on aging was established in 2007 for coordinating aging matters across

government ministries.[12] The Agency for Integrated Care (est'd. 2009), which coordinates care across acute, intermediate- and long-term levels, also coordinates delivery of aged-care services since 2018.[11,12] The emphasis has been on creating more regional and integrated care systems, and strengthening community-based care for elderly individuals. [12]

SWOT Analysis

Strengths

The Economist Intelligence Unit, 2014 and the Bloomberg Health-Care Efficiency Index, 2017 ranked Singapore's health system as the second best among 166 and 55 countries respectively.[8] Singapore has among the best health indicators even among high income countries, a few of which are presented in Table 1.

Table 1: Some health indicators of Singapore

Indicator	Value	Year
Infant Mortality Rate	1.7 per 1000 live births [16]	2019
Under-Five Mortality Rate	2.5 per 1000 live births [16]	2019
Maternal Mortality Ratio	3 per 100000 live births and still births [16]	2019
Life-Expectancy at Birth	83.6 years [16]	2019
Universal Health Coverage-Service Coverage Index	86 [17]	2017

It is even more interesting to note that these have been accomplished at a rather modest doctor-population ratio (2.3 doctors per 1000 in 2016 as per World Bank Data).

There has been a strong tradition of health promotion, disease prevention, and focusing on the social determinants of health.[5] Even in the early days after independence when health care wasn't a top priority, emphasis was given to housing, clean water, and sanitation along with infectious diseases control, vaccination, and access to basic medicines. Health has been entrenched as a fundamental part of planning and development. There has been remarkable collaboration between ministries, and political stability has been instrumental in achieving uninterrupted development. Singapore has also in the forefront of women's education, including health education, and recorded great strides in public housing. [5]

Costs have been controlled without disastrous consequences for affordability and access. Patient cost-sharing, a strong and effective public sector, and strong stewardship role of the government has fostered healthy competition between and within public and private sectors, while deterring moral hazard. The government has also encouraged insurance schemes with co-payment features so as to deter over-reliance on free care and excessive use of services.[5] Rationing of care and long waiting times for procedures have been largely avoided despite low spending, and care is readily available, even if at higher rates. Different levels of care have been integrated to ensure care continuity, and economies of scale have been achieved in the public sector, which has indirectly helped reduce private sector prices. [8]

Weaknesses

OOP expenditures, considered as an inefficient and regressive way of financing healthcare, account for the major share of total spending. Risk pooling occurs predominantly at the family level and there is limited cross-subsidization. Lack of large-scale risk pooling has been held as inefficient, since the same is deemed essential to avoid adverse selection and other market failures.[3] Access to care becomes largely dependent on income and savings, which is a recipe for inequity.

Medisave balances tend to accumulate on one hand due to restrictions - while many fail to meet the minimum level of savings on the other.[3,8] MediShield has high deductibles and coinsurance payments. Private insurance could be unaffordable for many, especially high-risk persons. Medifund has stringent eligibility requirements. Due to low government spending, overall subsidies for care are limited. All of this predisposes to financial barriers to accessing care, especially for large bills.[18] It also leads to forced savings by individuals for meeting health care expenses by curtailing on current consumption and well-being. [3]

This is exacerbated by the shortage of emergency beds in public hospitals. The total number of hospital beds rose only by 2.8% between 2001 and 2016, while the population rose by 37% during the same period. Also, Medisave contributions as a share of worker's wages could be as high as 10.5%, considerably exceeding the average for high-income countries. [18]

Opportunities

The generation of seniors has been held as a politically and socially influential clan, and an important consumer group for the segment of the market catering for the elderly. [12]

While there has been only one political party in power since independence, politics has been largely responsive to public demands and aspirations. This has reflected in the recent budgetary increases for health-

care and expansion of services mainly targeted at elder-care needs.[5] Such political will and responsiveness favorably disposes Singapore towards meeting future health care challenges. A general lack of public expectation with regards to generous state benefits and a lasting trust in the government are also important in this direction. [3]

Singapore has also effectively tackled its doctor shortage problem through a number of measures including importation of physicians,[19] which is reflective of political resourcefulness when faced with challenges.

Threats

Population aging, rising chronic diseases, and concomitant increases in health care demands is the major threat. 20% of the population is expected to be above 65 by 2030.[12] Apart from straining the state budget, this may create sustainability challenges for the healthcare financing system particularly as widespread risk pooling and redistribution remains absent. It also threatens of health inequities and exacerbating income inequalities, since more affluent households will be better positioned to take care of the health care needs of their elderly. Income inequality could also threaten inter-generational social mobility among Singaporeans. [3]

The COVID-19 pandemic has also presented a short- and medium-term threat in the form of economic recession, which has been deemed to be the biggest in Singapore's history, and rising unemployment. [20]

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