

Healthcare in Singapore: Challenges and management

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Singapore Healthcare System

Singapore, a city-state with a land area of 707.1 square kilometres,¹ is located 137 kilometres north of the equator at the southern tip of the Malay Peninsula. The Republic has a total population size of 4.59 million,¹ and a population density of 6,489 persons per square kilometre.¹ As at 31 December 2007, there were a total of 7,348 registered medical practitioners, out of which 2,781 (37.6%) were trained specialists in 35 recognised specialties.² The doctor-to-population ratio is 1:620,² and there are about 2.6 hospital beds per 1,000 total population.³

Primary healthcare is easily accessible through an extensive network of 2,000 private medical practitioners' clinics, which provide 80% of primary healthcare services, as well as 18 government polyclinics, which provide the remaining 20%.³ In contrast, the public sector accounts for 80% of tertiary hospital care via 7 public hospitals and 6 national specialty centres, with 16 private hospitals accounting for the remaining 20%.³ Patients are free to choose their healthcare providers within this dual healthcare delivery model. The average length of stay in acute care hospitals is 4.7 days,³ and the average waiting time for elective surgery is 1 week.⁴

In 2007, our Life Expectancy at Birth was 80.6 years (78.2 years for males; 82.9 years for females).¹ Total Fertility Rate was 1.29 per female, while Infant Mortality Rate was 2.1 per 1,000 live-births.¹ The Crude Birth Rate was 10.3 per 1,000 population, and Crude Death Rate was 4.5 per 1,000 population.¹

Challenges Facing Singapore Healthcare

The major challenges facing healthcare in Singapore are:

- a) Healthcare Financing
- b) An Ageing Population and Management of Chronic Diseases
- c) Healthcare Manpower Issues
- d) Hospital Infrastructure
- e) Communicable Disease Control

Healthcare financing

The overall healthcare financing philosophy of Singapore includes the following:

- a) Everyone assumes key responsibility for his own health
- b) Healthcare is an example of market failure
- c) Savings play a predominant role while insurance plays a secondary role
- d) The government will only provide subsidies for basic medical care
- e) There should be no inter-generational transfer of liabilities. In other words, every generation pays for itself and each generation cannot expect the next generation to shoulder the burden of paying for healthcare

Singapore's healthcare financing framework is formed by the "3M" system—Medisave, Medishield and Medifund.

Medisave

Medisave is a state-run compulsory medical savings scheme introduced in 1984, under which every working employee contributes 6.5% to 9.0%³ of his monthly income to a personal Medisave account. The savings can be withdrawn either to pay his own hospital bills, or those of

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his immediate family members.

Medishield

Medishield is a medical insurance scheme introduced in 1990 to help members cover medical expenses and protect against financial ruin from major illnesses. Premiums for Medishield can be paid for by savings under the Medisave account. Medishield covers approximately 80% of the Singaporean population today.³

Medifund

Medifund is an endowment fund set up in 1993 for needy patients who have exhausted all other means and cannot afford their medical expenses. Starting with an initial capital of S\$200 million^{*3} in 1993,³ additional capital injections are made during budget surpluses. Only the interest income from the capital sum, which currently stands at S\$1.66 billion,³ is utilised. Medifund ensures that no Singaporean is denied access to the healthcare system due to an inability to pay.

In 2005, Singapore spent a total of S\$7.6 billion, the equivalent of 3.8% Gross Domestic Product (GDP), on healthcare.³ The amount of government healthcare expenditure made up S\$1.8 billion (0.9% of GDP).³

Means testing

Healthcare is ultimately a balance between affordability, accessibility and quality. Universal access to healthcare needs two conditions: compunction and subsidisation. That is, subsidies are allocated to those who truly cannot afford healthcare; and those who can be compelled to pay what they can afford and thus not use public funds unnecessarily. At least 65% of hospital beds in Singapore public hospitals are heavily subsidised. As a measure to ensure that there is universal access to quality healthcare for Singaporeans without excessive compromise on quality, means testing will be introduced with effect from 2009 for inpatients.

An ageing population and management of chronic diseases

Singapore has one of the lowest fertility rates in the world (TFR for 2007: 1.27) and one of the fastest ageing populations. In 2007, 8.5% of the population was aged 65 years and older. By 2030, this figure will rise to 18.7%.⁵ This situation is similar to other East Asian countries such as Japan and South Korea. With longer life expect-

ancies and an ageing population, chronic diseases become more common and thus receive more focus. The prevalence rates for hypertension, diabetes mellitus and dyslipidemia are 24.9%, 8.2% and 18.7% respectively.⁶ In 2007, the three most common causes of deaths were cancer, cardiovascular events and pneumonia.¹

The challenges posed by the demographic and epidemiological shifts have been studied in many countries and are well known. As such, the shift from episodic care to long-term care, community-based disease prevention, and treatment of chronic diseases are necessary.

Some of these initiatives include:

Family medicine and chronic disease management

General practice and long-term care are gaining or regaining prominence. The government is actively engaging family physicians and long-term care givers to play a more important role. For example, Medisave use has been liberalised such that Medisave withdrawals can now be made for outpatient treatment of 4 chronic diseases (hypertension, stroke, diabetes mellitus and dyslipidaemia) under the Chronic Disease Management Programme (CMDP) framework.

Primary Care Partnership Scheme (Chronic)

Recently, the government has announced that it will also subsidise treatment of chronic diseases of needy means-tested patients, under the Primary Care Partnership Scheme (PCPS) Chronic.

Eldershield

Eldershield is an insurance scheme that was instituted by the government for the coverage of patients with long-term significant disabilities.

Healthcare manpower issues

Singapore currently suffers from a manpower shortage for specialist medical manpower (specialist-to-population ratio 1:1740) and nurses (nurse-to-population ratio 1:2307). To address nursing shortages, the country actively recruits nurses and nursing trainees from several overseas countries, including Philippines and China.

The country also suffers from insufficient specialist manpower. It currently has 2,781 specialists, with 58% working in the public sector. To make it easier to attract foreign specialists or specialty trainees, the Singapore Medical Council (SMC), the statutory body that registers doctors

*3 Singapore dollar/US dollar exchange rate: 1 US dollar = 1.5 S dollar.

in Singapore, has steadily increased the number of medical schools it recognises. At the end of 2007, 159 medical schools were recognised by the SMC—an increase of 39 from the previous year.²

Hospital infrastructure

Singapore's acute hospital beds-to-population ratio is 2.6 per 1,000 total population.³ As the population ages, there is more demand for hospital beds. To address this issue, the government is actively building more public hospitals and has released more land for private hospital development. Two public hospitals are slated to be completed in the next few years yielding 1,000 beds while the private hospital sector will increase by another 500 beds.

Communicable disease control

SARS

The SARS outbreak in 2003 in Singapore imparted many painfully important lessons. Infection control measures have heightened since then. Epidemiologic capabilities have also been strengthened in hospitals.

Chikungunya

Chikungunya fever, a mosquito-borne disease first recognised in Eastern Africa in the 1950s is endemic in many parts of the tropics and Southeast Asia. In 2007, 10 cases of Chikungunya fever had been reported in Singapore, all of which were imported. This year, a total of 200 cases were reported as at 11 September 2008. Of these, 97 were imported cases while the remaining 103 were locally acquired infections. By virtue of our geographical location, Singapore remains vulnerable to the introduction of Chikungunya outbreaks. Precautionary measures against mosquitoes and measures to eliminate their breeding sites have been put in place.

Flu pandemic

Singapore anticipates that a flu pandemic will soon occur. The Singapore Medical Association (SMA) is actively involved in the efforts of the

Ministry of Health to prepare for the next flu pandemic. Contingency plans have been drawn up to address the pandemic should it happen. These include running courses for community doctors as well as mock drills and exercises.

Dengue

Dengue fever is endemic in Singapore. In 2007, 188 local cases of dengue fever per 100,000 population⁸ were reported. Similar to Chikungunya fever, the focus of control is aimed at the vector. The community is educated on simple principles of vector control. The National Environment Agency also tackles dengue outbreaks by epidemiologic investigations, vector breeding searches and fogging.⁹

Singapore Medical Association

The SMA is the national body for the medical profession. It is a voluntary non-governmental organisation (NGO) with 4,917 members, or about 64% of all registered medical practitioners in Singapore (as at 31 August 2008). The membership make-up reflects the medical profession in Singapore, with about 30% who are general practitioners, 31% who are specialists, and the remainder being doctors-in-training. This makes the SMA the largest voluntary organisation for doctors in both the private and public sectors in Singapore.

The SMA was formed in 1959 when the Malayan Branch of the British Medical Association split to form the Malaysian Medical Association and the SMA. Some of the core activities of the SMA include promoting ethics and professionalism, publishing the monthly Singapore Medical Journal and SMA Newsletter, dealing with professional practice issues, and organising medical talks/workshops for doctors. The SMA is also the secretariat for Medical Associations in South East Asian Nations (MASEAN), as well as a member of the World Medical Association (WMA) and Confederation of Medical Associations in Asia and Oceania (CMAAO).

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