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Singapore's Healthcare Industry

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This case was written by Professor Narayan Pant with the assistance of Kavitha Hariharan. It is intended to be used as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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Introduction

Dr. Lim Cheok Peng had reason to be pleased. As Managing Director of Parkway Group Healthcare, Asia's second-largest listed hospital operator, he and his new Chairman, Richard Seow, had just concluded a highly successful shareholders' meeting. Results for 2005 showed revenues growing (35%) to over half a billion Singapore dollars[1] and profits growing (23%) to almost S$62 million. Following years of languishing in the doldrums, Parkway's share price, too, had risen to a healthy S$2.30, one of the highest levels the share had seen in several years.

On the governance side, after many years of strategic, if genteel, tussles with the erstwhile principal shareholder, Symphony Asia Capital Partners Limited, Parkway had a new principal shareholder. Newbridge Capital, a US-based private equity group, had purchased the shares of the founding families of the Parkway Group, giving them 26% of the shares of the group. Newbridge had several global investments in the healthcare sector including investments in Quintiles Transnational, Matrix Laboratories, and Oxford Health Plans, among others. This gave Cheok Peng greater confidence that his perspectives on growth would be understood and supported by his principal shareholder.

It was now time for Parkway to look toward the future. Parkway's Singapore hospitals contributed 87% of the revenues of the Parkway Group in 2005. Parkway's fortunes, therefore, would be closely linked to the fortunes of the healthcare industry in Singapore for the immediate future. Given the relatively small size of Singapore's economy, significant growth would have to come from further afield. Moreover, what could Parkway expect from its large Singapore investments? Was there anything that they could do now to improve the quality of their returns from this industry?

Healthcare in Singapore – An Overview

Good Health at Low Cost

In slightly over a generation, Singapore had developed a reputation for world-class healthcare. The World Health Organisation ranked Singapore's health system the best in Asia, ahead of Japan and, globally, ahead of the United States. The Joint Commission International, the overseas arm of the United States' main medical accreditation agency, rated many Singapore hospitals on a par with international standards in 2003.[2] Expatriates in Asia, an important internationally mobile user group, rated health care in Singapore third in the world behind the United States and Australia.

The country's health indicators justified its reputation: within the space of a generation, Singapore jumped from third-world to first-world standards in health outcomes. In 2004, its 3.5 million residents enjoyed an average life expectancy of 79.3 years,[3] one of the highest in

1 1 Singapore dollar is approximately US$ 0.625 at the time of writing (April, 2006).

2 Political and Economic Risk Consultancy, 2003.

3 Singapore Department of Statistics, 2005 (www.singstat.gov.sg/pdtsvc/pubn/population.html)

the world, up from 63 years in 1960.[4] The country also has the world's lowest infant mortality rate at 2.2 per 1,000 live births.[5]

Singapore achieved these excellent outcomes in public health despite spending relatively less on health care compared to other developed countries. Singapore spent around 4% of its GDP on healthcare,[6] with an aggregate expenditure of S$5 billion in 2001.[7]

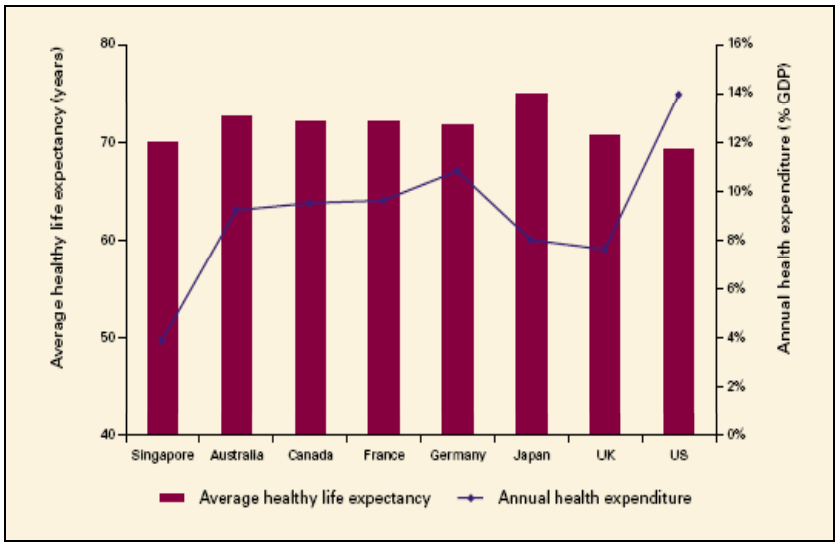

Figure 1: *Health Outcomes and Cost (*Source: WHO*)*

A Public/Private Healthcare System

Singapore has a two-tier healthcare system; the private sector provides most primary services and the public sector dominates tertiary care.[8]

Private practitioners provide 80% of all primary care, delivered through almost 1,900 clinics spread across the island.[9] While a few branded chains of clinics have emerged – the Raffles Group, Parkway Shenton, etc., – the vast majority are independent clinics run mostly by one (sometimes more than one) doctor.

4 World Bank Public Policy Journal, 2003 (rru.worldbank.org/PublicPolicyJournal/Summary.aspx?id=261)
5 World Bank Public Policy Journal, 2003.
6 Galen Institute, 2003 (www.galen.org/ccbdocs.asp?docID=740)
7 Seng Lee Huang, "Factors influencing health care spending in Singapore", International Journal of the Computer, the Internet and Management, Vol. 12, No.3 (September-December 2004), pp. 51-62.
8 Primary Care is defined as basic or general healthcare traditionally provided by doctors trained in family practice, paediatrics, internal medicine, etc.
Secondary Care is defined as care provided by a physician who acts as a consultant at the request of the primary physician.
Tertiary Care is defined as specialized consultative care, usually on referral from primary or secondary care personnel, by specialists working in a center that has personnel and facilities for special investigation and treatment.
9 Singapore Ministry of Health (www.moh.gov.sg/corp/systems/our/availableserv.do)

The public sector provides about 20% of the volume of care through 18 subsidized outpatient polyclinics that provide a wide range of primary and secondary care. These polyclinics are divided equally between the two large Integrated Delivery Networks or IDNs that offer public care in Singapore. These two IDNs – Singhealth and the National Healthcare Group (NHG) – are each a collection of tertiary hospitals, community hospitals, specialty care centers, and polyclinics (multi-purpose primary care centers with some diagnostics).

Secondary care in Singapore comprises hospices and long-stay nursing homes that are run predominantly by voluntary organizations and some private entities, supplemented by government funding. The implicit presumption has been that families will look after patients needing chronic or long-term care. Those disadvantaged few who cannot rely on their families in these circumstances, must rely on charitable institutions to look after them.

Eighty percent of tertiary care in Singapore is provided by the public sector, whose 13 hospitals and specialty centers account for 74% of the 11,795 hospital beds in Singapore.[10] However, these hospitals are divided into the two IDNs mentioned above. Singhealth has the largest hospital in Singapore, the Singapore General Hospital (SGH), along with Changi General and KK Women's and Children's Hospitals, several specialist clinics such as the National Cancer Centre, Singapore National Eye Centre and others. NHG has Singapore's first and largest teaching hospital, the National University Hospital (NUH), along with Alexandra, Tan Tock Seng and Woodbridge Hospitals and the National Skin Centre.

There are several players in the private tertiary hospital space in Singapore, including Raffles Medical Group and HMI, but the only true contender with the public general hospitals is the Parkway Group with its Gleneagles and Mount Elizabeth hospitals. Along with SGH and NUH, Gleneagles and Mount Elizabeth are the serious tertiary healthcare offering to Singapore and the region.

As can be seen from Figures 2 and 3 below, the private sector's share of tertiary healthcare has been falling steadily since 1999. In volume terms, public sector hospitals handled nearly 84% of all inpatient discharges and day surgeries performed in Singapore. However, their share of revenue is lower, at 64%, indicating the lower average revenue received by the public sector.[11]

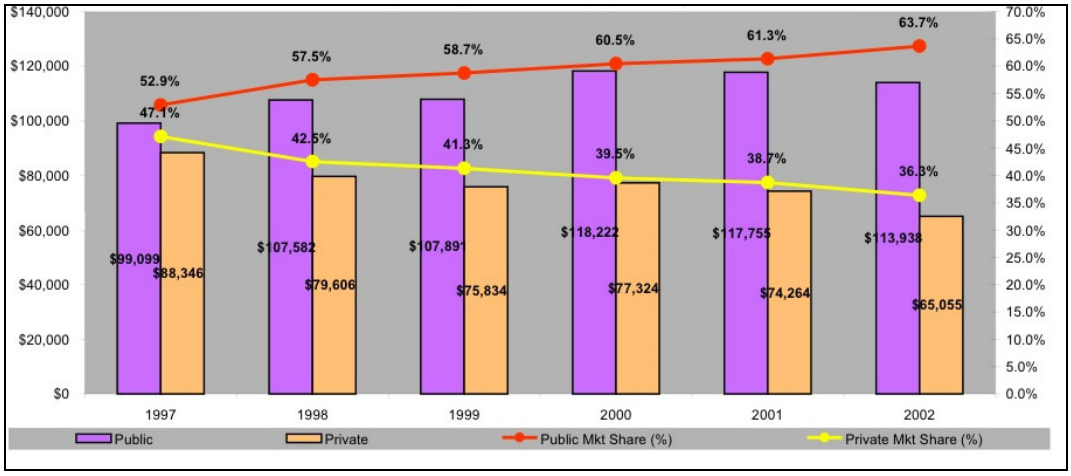

Figure 2: *Inpatient Revenue per 1,000 Population* (Source: Singapore Ministry of Health)

10 Singapore Ministry of Health (www.moh.gov.sg/corp/systems/our/availableserv.do)

11 Leslie Khoo: "Singapore healthcare market analysis", Singapore Ministry of Health Information Paper: 2003/02.

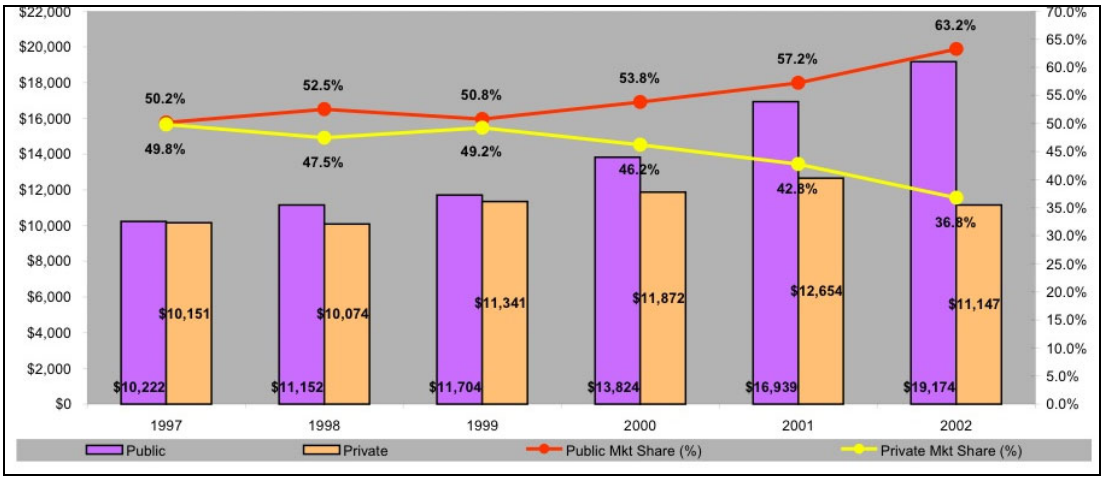

Figure 3: *Day Surgery Revenue per 1,000 Population* (Source: Singapore Ministry of Health)

Subsidies Influence Location of Care Delivery

Health expenditures in Singapore are financed by a combination of taxes, employee medical benefits, compulsory medical savings, insurance, and out-of-pocket payments. Primary health care in Singapore is mostly funded by private expenditures, but the state pays a greater proportion of tertiary care. According to the WHO, the Singapore government pays approximately 35% of the total healthcare bill.[12] Patients, consequently, expect to pay some part of all medical expenses.

Singapore citizens and residents maintain compulsory medical savings (Medisave) accounts, which they can use to pay for eligible outpatient or hospital expenses. Over 90% of the population is covered under a catastrophic health insurance scheme called "Medishield" that covers key major and prolonged illnesses.[13] Finally, an increasing number of people are purchasing either hospitalization cover or other forms of medical insurance.

The government subsidises both primary and tertiary healthcare, principally through public polyclinics and hospitals. Rates at private clinics and hospitals are unregulated, although the Ministry of Health does provide guidelines for visitation fees. In public hospitals, patients can opt for varying service levels with correspondingly different amounts of subsidy as outlined in Table 1.[14] C-class wards are non-air conditioned wards with a relatively large number of beds in each ward. A-class wards are single-bedded air conditioned rooms, and the B class wards are air conditioned wards with varying numbers of beds in each room.

The subsidy percentage applies not just to room costs but all costs including those of associated surgeries and medication. The appropriate level of subsidy is applied depending on the class of ward a patient applies for at the outset of a medical episode. There is, at this moment, no other means by which an individual's eligibility for a particular ward is evaluated. The choice of subsidy level is made entirely based on patient selection.

12 WHO World Health Report, 2006.
13 Singapore Ministry of Health (http://app.feedback.gov.sg/asp/let/let01b.asp?replyId=127)
14 Government of Singapore eCitizen portal.

Table 1: *Subsidies in Public Hospitals*

Class of Ward	Government Subsidy
C	80%
B2	65%
B2+	50%
B1	20%
A	0%

A subsidy system driven entirely by patient choice has meant that demand for public services rose during bad times. Singaporeans wanting to save money during tough economic circumstances needed only to opt for more subsidized levels of care, forgoing the benefits of added facilities in the less subsidized wards. A recent study by Singapore's Ministry of Health confirmed that during, and immediately after, the Asian financial crisis of 1997, the public sector's workload rose sharply while demand for private sector services fell.[15]

In primary care, subsidized public polyclinics limit private GPs' competitive options. For instance, when patients need chronic care, GPs have advised them to go to polyclinics to save money. This prompted one government body to propose that government subsidies also be extended to GPs who offer chronic care.[16]

Demand for polyclinic services is limited by fixing the total number of polyclinics. Initially, polyclinics attempted to innovate by offering more customer-focused services such as 24-hour care. However, GPs protested, saying that this ate into the already meagre pickings available to independent practitioners whose only hope of survival lay in offering services that the polyclinics would not.

Players and Conditions at Different Levels of Care

The school of medicine at the National University of Singapore is currently the only medical school in the country, producing about 230 doctors a year.[17] From 2007, the Duke-NUS Graduate Medical School will train 25 students.[18] Beyond this annual addition to the pool of physicians, the Singapore Medical Council and Ministry of Health allow graduates of 71 foreign medical schools (to be raised to 100) to practice in Singapore. This list includes schools from Australia, Canada, Hong Kong, Ireland, New Zealand, the United Kingdom and the United States.

Physicians are often seen as the key resource in any healthcare system. Not surprisingly, being a key resource, have considerable bargaining power in the industry. However, as many healthcare systems around the world demonstrate, and as physicians themselves will argue, their bargaining position varies considerably.

15 Leslie Khoo: "Singapore healthcare market analysis", Singapore Ministry of Health Information Paper: 2003/02.
16 Salma Khalik, "Shift focus back to primary health car"', The Straits Times, 25 January 2005.
17 Yong Loo Lin School of Medicine, National University of Singapore.
18 National University of Singapore (http://newshub.nus.edu.sg/pressrel/0504/050414.htm)

Primary Healthcare: Fierce Competition among GPs

Physicians in primary care in Singapore bemoan their straitened circumstances. Strong rivalry between the 1,800-odd private GPs forces them to compete on cost, constraining them from charging anything other than the recommended fee. This competitive intensity does not seem likely to abate in the near future, as the default condition for a new physician is to start as a GP.

One option for GPs is to differentiate themselves from one another in some way. Differentiation could happen by location – with pricier locations possibly attracting well-heeled patients – or by building branded clinics. However, the Raffles Medical Group's experience (Table 2) suggests that branding may not allow GPs to raise prices for providing primary care services.

Table 2: *Branding has no Effect on Fees at Private Clinics*

Type of consultation	Fees chargeable (in SGD)		
	Polyclinics	Unbranded private clinics	Branded Raffles Medical clinics
GP consultation for adults	$8	$18 - $26	$12 - $30
GP consultation for children up to age 18	$4	$18 - $26	$12 - $30
GP consultation for Singapore citizens above 64	$4	$18 - $26	$12 - $30

Secondary Healthcare: Room for More

The secondary care sector in Singapore is poorly developed; most chronic and long-term care is provided by voluntary hospitals. Low-cost community hospitals, set up by the government, undertake intermediate, non-acute, longer inpatient care for the convalescent sick and the aged. "Chronic sick" hospitals admit long-stay patients who have no rehabilitation potential, but require medical and nursing care. Government-funded Voluntary Welfare Organisations (VWOs) provide healthcare for the elderly. Much of the remaining secondary care is offered in acute hospitals with geriatric units or departments.[19]

Observers note that there is a shortage in the provision of secondary care services, especially for the elderly. Philip Choo, Chairman of the Medical Board of Tan Tock Seng Hospital, has asked for more step-down facilities such as community hospitals or nursing homes. These could take over the care of recovering patients, and ease pressure on acute hospitals like Tan Tock Seng, which now runs out of beds regularly for more seriously ill or injured patients.[20]

But more community hospitals seem unlikely in the near future. Singapore's Health Minister, Khaw Boon Wan, disputed the shortage of secondary hospitals and expected the government to build more, only once the bulge of the population (Figure 4) hits the healthcare system.[21] In the meantime, the government aims to divert aging and chronically ill patients from tertiary hospitals to primary care. By 2007, all GP clinics are expected to house at least one GP trained to treat chronic diseases,[22] although how this is to be enforced is yet unclear.

19 Singapore Ministry of Health (www.moh.gov.sg/corp/systems/our/availableserv.do)
20 Salma Khalik, "Big squeeze at Tan Tock Seng Hospital", The Straits Times, 22 February 2005.
21 Salma Khalik, "New community hospitals? Not yet", The Straits Times, 8 March 2004.
22 Salma Khalik: "Tighter rules for new GP clinics", The Straits Times, 2 October 2005.

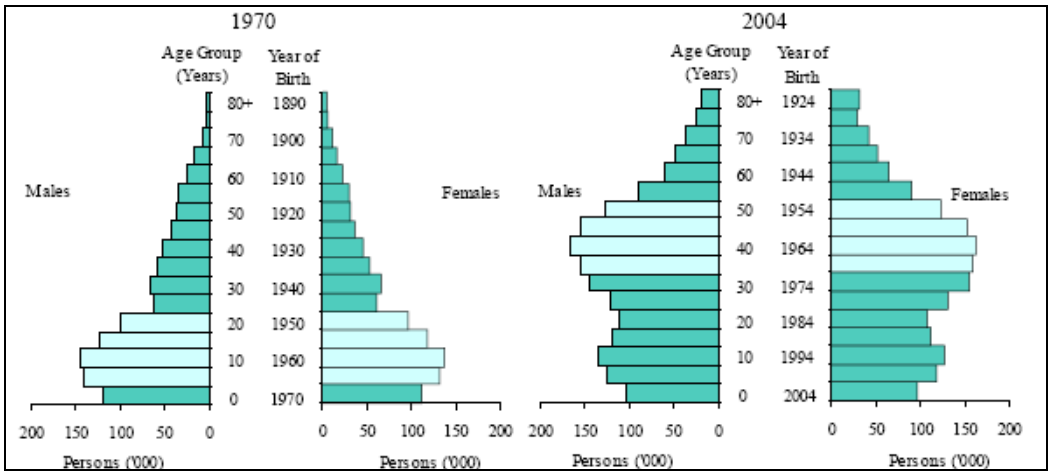

Figure 4: *Age Pyramid of Resident Population in Singapore*
(Source: Singapore Department of Statistics, Population trends 2005)

Tertiary Healthcare: Physicians Gain Power over Time

Traditionally, physicians in the tertiary sectors have been the most powerful. Their levels of specialization and expertise imply that the most experienced and accomplished among them cannot be replaced easily. But this power too, seems to have been moderated in the Singapore context.

All medical graduates in Singapore have to begin work as "housemen" in hospitals. Only the best among them – 36% of all 6,492 practicing doctors in 2004[23] – become specialists with postgraduate medical degrees and advanced specialty training; the rest practice as GPs.

Once they specialize, all doctors must practice in public-sector hospitals. At an average doctor-to-population ratio of 1:650, and 60% of all doctors in the public sector,[24] the new physicians work extremely hard, with high caseloads. This mandatory beginning in the public sector leaves new physicians little bargaining power, and is, in part, responsible for controlling the costs of tertiary care.

Once physicians establish themselves as consultants and develop a reputation and practice, they may leave the public sector and establish practices in private hospitals. When the economy thrives, more physicians tend to make this change, compared to when the economy slows down. For example, 162 and 243 doctors left the public sector in 1999 and 2000, respectively, good years for the local economy[25] Even if they don't actually move, the credible threat to leave the public sector makes senior consultants relatively powerful,

23 World Health Organisation, Country Health Information Profile: Singapore (http://www.wpro.who.int/NR/rdonlyres/CA574C92-336F-40F7-B056-9862FD5AD515/0/sin.pdf)
24 Ibid.
25 Salma Khalik, The Straits Times, 14 February 2002.

allowing them to command salary premiums, better working conditions, and training opportunities.[26]

Competitive Rivalry in the Healthcare Sector

Price competition occurs most keenly perhaps, in primary care, with large numbers of independent physicians competing among themselves, and with the polyclinics. With a few notable exceptions, such as the Raffles Medical Group, Parkway Shenton Clinics, and Pacific Health Care, most GPs do not compete on brand. Some rare GPs develop reputations that allow them to avoid price competition, but they, too, cannot afford to raise prices significantly over market averages.

The situation is more confused in secondary care. On the one hand, if indeed there is a shortage of long-term and chronic care beds, we should see a steady flow of new hospital entrants seeking to fill the gap, but we do not. This simple dynamic is probably confused by the prevalent belief that patients needing long-term and chronic care should be provided care by their families. This means that only poor patients with no families capable of looking after them choose the option of institutional care.

Changing social mores will continue to raise demand in this sector. Commentators note that younger Singaporeans will display growing reluctance to care for their aged or invalid family members, thereby raising the need for more chronic care facilities in the future.

But relative costs of the various kinds of care could mitigate any rapid growth in demand for institutional secondary care. An alternative to institutional care would be for patients and their families to hire a domestic helper to provide care – full-time – at rates starting from S$ 500 per month. The downside of such a solution is that it would have little medical content; but costs substantially lower than institutional costs might overcome concerns on this count.

Dr. Lim and others in the private sector believe that private hospitals are cost-competitive in tertiary care with public hospitals, but under current market conditions, this is almost irrelevant. Given the subsidies available in the public hospitals, private providers find it impossible to compete for the mass market. There are, in reality, only four major players for advanced tertiary or quaternary care in Singapore. These are the National University Hospital (the only teaching hospital in Singapore), Singapore General Hospital (the biggest hospital), and two major private hospitals, Gleneagles and Mount Elizabeth, both owned by Parkway.

Private hospitals are price-competitive in several basic and elective procedures. Both private and public hospitals compete fiercely for obstetrics and gynaecology, ‘lasik’ eye treatment, and hip replacement surgery. A price war in 2004 led to Singapore National Eye Centre and The Eye Institute, both public specialist centers, drastically cutting their “lasik” package prices to compete with Mount Elizabeth hospital.[27] Appendix B compares bill sizes for basic and elective procedures at public and private hospitals in Singapore, as well as hospitals in India and Thailand.

26 Salma Khalik, “Private clinics in hospitals by year-end”, The Straits Times, 28 March 2005.
27 The Straits Times, “The lure of lasik”, 25 October 2004.

Even if they could not compete for the mass market of patients in Singapore, private hospitals could compete effectively for foreign patients. As a group, Parkway's hospitals drew in 42% of their revenues from foreign patients in 2005, up from 37% the previous year.[28] However, the public hospitals too, are no slouches when it comes to attracting foreign patients. Thanks to lower prices, in some cases better equipment, and the range of procedures offered, public hospitals, too, are seeing a growing stream of overseas visitors. The SingHealth cluster, comprising three acute care hospitals and five specialty centers, reported double-digit growth in the number of foreign patients in 2005.[36]

Foreign patients come mainly from south-east Asian countries such as Malaysia, Indonesia and the Philippines, seeking treatment for fertility problems, cancer, eye disorders or tropical diseases. Tertiary care providers in Singapore now aim to tap patients from Japan, South Asia, the Middle-East and Greater China, with procedures in cosmetic surgery and weight loss interventions.[36]

How do hospitals compete for private patients? Much of their competitive edge seems to lie in their research reputation, where the private sector may have an edge. A major reason that senior specialists cite for switching to private practice is the desire to pursue research and pioneering work.[29] But public hospitals like the Singapore General Hospital (SGH) and the National University Hospital (NUH) are reinforcing their reputation for teaching and research excellence. SGH's pioneering transplant and surgical procedures are drawing in local and foreign patients,[30] and NUH plans to collaborate with the National University of Singapore on biomedical and oncology research, besides investing S$150 million in infrastructure.[31]

To compete with the two large public players, other public and private hospitals are building therapeutic centers for eyes, skin and cancer, which aim to pursue cutting-edge research in their chosen fields. To boost their research expertise and reputation, the therapeutic centers frequently collaborate with foreign institutions: the Singapore National Eye Centre intends to work with India-based Aravind Eye Care System on research and treatment of glaucoma.[32]

Users and Buyers

Buyers' Interests and Perceptions

In Singapore, all end-users are also buyers of healthcare because they co-pay at the very least to purchase healthcare services. From another perspective, the government is the most significant buyer of healthcare in its role as the provider of subsidized services for Singaporeans.

The government has a dual interest as a buyer: to ensure that everyone has access to basic care and to keep costs down. Singapore currently spends 3.8% of its GDP[33] on healthcare, and its

28 Business Times Singapore, "S'pore sees more medical tourists", 3 January 2006.
29 Salma Khalik, "Loss of top doctors troubles minister", The Straits Times, 28 March 2005.
30 Middle East Company News, "Singapore and United Arab Emirates set to extend medical partnership", 23 January 2006.
31 Salma Khalik, "$150m expansion plan for NUS medical faculty", The Straits Times, 23 November 2005.
32 Salma Khalik, "Eye centre scores with surgery telecast", The Straits Times, 12 November 2005.
33 Singapore Ministry of Health.

subsidy of the healthcare system is equivalent to around 1% of GDP.[34] To cap healthcare costs, the government is promoting competition between the various healthcare clusters and providers, limiting payouts though co-payment schemes, moving to a block payment system, and introducing means testing for subsidies in nursing homes and community hospitals.

For private hospitals that mostly provide acute care, ward-based subsidies in public hospitals continue to pose a stiff barrier to attracting patients. Given residents' perception that some elective procedures are expensive even at subsidized levels or are crippled by a painful subsidy-approval process, there is little political will to switch to a means-tested subsidy system in public hospitals. Pitched price wars by public hospitals, such as the recent competition on "lasik" eye surgery, could gain them further ground at the expense of the private players. However, foreign patients might respond well to cutting-edge research initiatives by the private players, since both the patient and the procedure are not entitled to public-sector subsidies.

Possible Changes in the Future

Like governments all over the world, the Singapore government is concerned about escalation in public and private healthcare costs. This concern could prompt changes in the governing regulations of healthcare.

Greater Competition

The government of Singapore believes in fostering competition to generate efficiency. In healthcare, they have created two IDNs in the public sector to allow them to "compete" for patients by offering improved services or lower costs. Although past ministers of health have said it would never happen, it is conceivable that they could see the need to allow the private sector into this competition.

In fact, feedback groups,[35] private health care providers[36] and industry observers[37] have called for changes in the current subsidy system to one where subsidies follow the patients. In other words, fixed amounts would be paid for particular diseases or illnesses, according to pre-established rules. The government would be indifferent to the site at which the treatment was delivered – which could be either a public or a private hospital. This would further increase competition among the various healthcare providers.

Means of Compensation in the Public Sector

In the past, the government has functioned as the payer of the last resort in healthcare. This meant that whatever costs were incurred by a subsidized patient in a public hospital, the government would reimburse the hospital for the subsidized amount. However, this felt too much like giving hospitals a blank check, so that any treatment or diagnostics that were provided would have to be reimbursed.

34 Economist Intelligence Unit, "Singapore: Healthcare and pharmaceuticals forecast", 6 June 2005.
35 Salma Khalik, "Be careful how means testing is applied to hospital care", The Straits Times, 15 January 2004.
36 The New Paper, "If I were Health Minister, I would", 3 July 2005.
37 Salma Khalik, "Cut waste in system, not corners", The Straits Times, 28 December 2004.

So the government moved to a system of payment that was based on a standard pathway for treatment for each disease. This mode of compensation, known as DRG, or Diagnosis-Related Group reimbursement, paid hospitals prospectively based on the DRG to which a patient belonged. This offered incentives for hospitals to lower costs, on average, below the DRG compensation, thereby improving efficiency. But even such a system was seen to be a "piece-rate" system, whereby hospitals could increase costs by increasing supply. So eventually, the ministry is combining aspects of the DRG-based reimbursement system with elements of a block budget which is fixed with relation to some benchmark such as GDP, thereby having a firm grip on overall healthcare costs.

Means Testing

Perhaps the most contentious of all possible changes involves metering the amount of subsidy to an individual patient's ability to pay. On the one hand, it is fairly non-controversial to argue that a system where people affect their cost of care by choosing the ward in which they are treated, has its drawbacks. It also seems fair that people who are better off should pay more for the same treatment than those who are poor. Here, the agreement stops. Many commentators have warned that means testing cannot determine accurately a family's true standard of living, and should not be used in isolation.[38]

Singapore's Health Minister, Khaw Boon Wan, has admitted that subsidies based on patients' choice of hospital wards may be misguided, and could have "distort[ed] the subsidization practice,"[39] but he has been careful not to suggest that this would change soon. Reasoning that "the principle [of means testing] is simple, the implementation not,"[40] he has instead reformed the national catastrophic medical insurance to widen coverage. He intends to re-visit the idea of means testing after studying the impact of the reform.

In short, there are several possible changes looming on the horizon in the healthcare environment in Singapore. Several of these could indeed work in Parkway's favor, should they come about.

What Does the Future Look Like for Parkway?

Dr. Lim was thinking that perhaps the time was right for another meeting with Narayan Pant, a Professor at INSEAD. The two would meet once in a while to talk about healthcare, government policy, and the challenges of the future, while sampling a bottle of wine from Dr. Lim's excellent collection. Now seemed like a good time to meet, as there were some key questions that were uppermost in Dr. Lim's mind.

Although Parkway had made considerable headway in expanding their operations outside Singapore, most of their revenues (and reputation) still came from Singapore. Besides, expansion was not an easy answer – Parkway knew this from experience.

So what were the prospects for the Singapore market? What key changes, if any, could Parkway make that might improve their prospects as the major private tertiary player in that

38 The Straits Times Forum, "Don't judge a family solely via means testing", 17 January 2006.
39 Salma Khalik, "Cut waste in system, not corners", The Straits Times, 28 December 2004.
40 Salma Khalik, "Medical bills not a problem for most with changes", Straits Times, 9 March 2005.

market? Should they expand their existing hospitals to attract foreign patients? Should they enter a new segment of the market – if so, which? What other features were they not considering that could improve the quality (and quantity) of their revenues from this market.

Having read the foregoing case, you know as much as Narayan. How would you advise Dr. Lim?

Appendix A

Estimated Fees Charged

The following are estimates or recommendations from the Singapore Medical Council, on fees charged by polyclinics, private clinics, specialist outpatient clinics (public), private specialist clinics and hospitals:

Charges at Polyclinics

Type of consultation	Fees chargeable (in SGD)
Consultation for adults	$8
Consultation for children up to age 18	$4
Consultation for Singapore citizens above 64	$4
Medication for adults (a week's supply)	$1.40 (per item per week)
Medication for school children and senior citizens (a week's supply)	$0.70 (per item per week)

Charges at Private Clinics

Type of consultation	Fees chargeable (in SGD)
In-office short consultation (routine, for relatively simple medical cases)	$18 - $26
In-office long consultation (more complex, more time and expertise required)	$25 - $55
Extended consultation (per 15-minute block)	$20 - $25
Non-emergency house call	$100 - $150
Emergency house call	$150 - $200

Consultation Fees at Restructured Hospital Specialist Outpatient Clinics

Consultant	First visit	Subsequent visit
Senior consultant	$65 - $100	$30 - $70
Consultant	$50 - $80	$25 - $55
Senior registrar	$41 - $60	$23 - $40

Consultation Fees at Private Specialist Clinics

Type of consultation	Fees chargeable (in SGD)
Office consultation (short)	$45 - $85
Office consultation (long)	$70 - $130
Extended consultation (per 15-minute block)	$40 - $50
Non-emergency consultation	$150 - $200
Emergency consultation	$200 - $300

Hospital Charges per Day

Ward / class	Public hospitals	Private hospitals
A1 (Single bed)	$206 - $450	$290 upwards
A2 (Two-bedded)	$195 - $215	$200 upwards
B1 (Four-bedded)	$135 - $170	$80 upwards
B2+ (Five-bedded)	$60 - $105	–
B2 (6 to 12 beds)	$28 - $50	–
C (Open ward)	$16 - $25	–

Appendix B

Comparison of Bill Sizes

Procedure (All prices in USD)	Singapore General Hospital	National Healthcare Group	Parkway Group Healthcare	Apollo Hospitals (India)	Bumrungrad Hospital (Thailand)
Simple hip replacement	6,150[41]	N/A	10,600[42]	5,000[43]	9,670[44]
Simple cataract surgery	1,707[1]	1,566[1]	2,267[45]	500[46]	500[6]
Coronary artery bypass graft	10,600[7]	11,750[7]	18,800[47]	6,500[48]	8,000 – 15,000[6]

41 Singapore Ministry of Health www.moh.gov.sg, website accessed 12 Nov 2005.
42 Actual patient bill.
43 PCIP & ORF Joint Task Force report.
44 Internet quote by Bumrungrad Hospital.
45 Gleneagles Hospital www.gleneagles.com.sg, website accessed 12 Nov 2005.
46 Planethospital.com
47 Singapore National Heart Centre.
48 India Profile www.indiaprofile.com/medical-tourism/apollo-cardiac-center.html, website accessed 20 February 2006.