

Singapore Healthcare Sector

SECTOR REVIEW

Research Analysts
Dawei Lee
65 6212 3004
dawei.lee@credit-suisse.com

Moving beyond healthcare to health

Figure 1: Healthcare pyramid of success



Source: Credit Suisse

- **Focus has shifted upstream.** At the Committee of Supply Debate 2017, Minister for Health Mr Gan Kim Yong highlighted three key shifts to prepare for the future. Besides advocating health promotion, the focus has shifted even more upstream to target Singaporeans as young as possible, and to empower individuals to take good care of their health, arrest the causes of ill health early and reduce the progression of chronic diseases.
- **Implications on private healthcare players.** We think that the population will become healthier albeit older – potentially resulting in lower revenue intensity for the private healthcare operators. Using IHH Singapore’s operations as a proxy, we noted that the revenue intensity growth has slowed over the last 1-2 years (1.5% YoY in 4Q16). We also expect pricing to become more competitive with the potential introduction of fee benchmarks as suggested by the Health Insurance Task Force (HITF). However, we expect local patient pool for the Singapore private healthcare players to remain steady. Based on our proprietary analysis of the hospital bed supply and demand, we expect overall bed supply to fall short of demand despite the expansion plans undertaken by the public sector.
- **Upstream healthcare services to be potential beneficiary.** With the government’s efforts to focus on moving healthcare upstream to reduce the progression of chronic diseases, we believe that healthcare companies with exposure to the upstream healthcare services (GPs and diagnostics, etc.) to be potential beneficiary. We remain NEUTRAL on Raffles Medical given the lack of near-term catalysts.

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Focus table

Figure 2: Summary of Health Ministry key announcements

Nurturing a healthy nation and a healthy people	
Prevent	
Healthier Dining in the Community	The public sector will play its role in encouraging healthier diets by implementing Whole-of-Government Healthier Catering Guidelines from 1 April 2017.
Healthier Ingredient Development Scheme (HIDS)	From 1 July 2017, HPB will invest \$20 mn over three years on the Healthier Ingredient Development Scheme (HIDS). The scheme will build on HPB's earlier Healthier Ingredient Scheme pilot and focus on introducing whole grains (in rice and noodles) and healthier cooking oil.
Launch of HealthHub Track	From April 2017, HPB will launch HealthHub Track – a personal health management app in HealthHub which will allow Singaporeans to utilise digital tools to monitor and manage their health conditions.
Screen	
Diabetes Risk Assessment (DRA) Tool	MOH will roll out a Diabetes Risk Assessment (DRA) tool, to help Singaporeans aged 18 to 39 assess their risk for undiagnosed diabetes and based on the assessment, determine if they should go for diabetes screening.
Enhanced Screen for Life (SFL) Subsidies	The fee for screening and the first post-screening consultation will be fixed at \$5 for eligible Singaporeans and \$2 for CHAS cardholders, both Blue and Orange. Pioneers will not have to pay. The fixed fee of \$2 and \$5 will cover both the initial screening and the first post-screening consultation, if the test results show that a consultation is required.
Control	
Holistic Approach in Lowering and Tracking Chronic Kidney Disease (HALT-CKD) Programme	To slow down the deterioration of chronic kidney disease and reduce kidney failure rate, MOH will introduce a national 'Holistic Approach in Lowering and Tracking Chronic Kidney Disease' (HALT-CKD) programme across all polyclinics progressively from April 2017.
Healthy Bodies, Healthy Minds: NurtureSG Recommendations	
Physical Activity and Nutrition: Active and Healthy Living	The government will enhance requirements for outdoor physical activities in pre-schools, and provide more opportunities for unstructured play in mainstream schools. Outside of the school curriculum, we will introduce more opportunities for parents and children to engage in physical activities together. HPB will also provide students with steps trackers as part of the National Steps Challenge. The availability of healthier food options will also be increased for children and youth, with enhanced nutritional requirements in pre-schools.
Mental Well-being: Strengthening Supportive Networks & Resilience	HPB will move upstream to build social emotional competencies in our young. The Tote Board has also set aside up to \$10 mn in grant funding to tap on ground-up ideas to nurture mental well-being and resilience in our young.
Sleep Health: Sleep Well, Live Well	HPB and MOE will initiate public education efforts on the benefits of sleeping well, and promote sleep health practices and tips for healthy sleep habits.
Tobacco Control Measures	The government will propose legislative changes to Parliament within a year to raise the Minimum Legal Age for the sale of tobacco products to minors, from 18 to 21 years. The change will be phased in over a few years.
Transforming our healthcare system to meet the needs of Singaporeans	
Transforming Primary Care: Primary Care Network	GPs will organise themselves into virtual networks and deliver care through a multi-disciplinary team of doctors, nurses and allied health professionals to manage patients' needs more holistically and effectively
Strengthening Mental Health Services: Community Mental Health Masterplan	MOH will launch a new five-year CMH Masterplan in 2017 to further strengthen our community mental health services and better support persons with mental health conditions
Strengthening End-of-Life Care: Palliative care	MOH will strengthen end-of-life care for Singaporeans by expanding Advance Care Planning (ACP), building closer partnerships with the sector to enhance palliative care and facilitating home palliative care.
Building Up Healthcare Facilities	In line with the emphasis on primary care, MOH will be opening more primary care facilities. More aged care facilities will also be built so that more seniors can age within the community, close to their loved ones. MOH's new general hospital and community hospital projects are also on track. Sengkang General and Community Hospitals are scheduled to open in 2018. Outram Community Hospital is scheduled to open by 2020.

Source: Ministry of Health

Moving beyond healthcare to health

Highlights from Committee of Supply Debate 2017

At the Committee of Supply Debate 2017, Minister for Health Mr Gan highlighted three key shifts to prepare for the future. He suggested that beyond 2020, Singapore needs to: (1) move beyond hospital to the community, (2) move beyond quality to value, (3) move beyond healthcare to health. MOH will invest in new efforts to encourage and empower individuals to take good care of their health, arrest the causes of ill health early and reduce the progression of long-term chronic diseases.

Minister for Health Mr Gan Kim Yong also gave an update on Healthcare 2020: (1) Since 2012, a total of 2,500 hospital beds have been added to the healthcare system. (2) CGH is expected to open its Medical Centre next year which will allow it to expand its specialist outpatient services. Sengkang General and Community Hospital is expected to open by end 2018. Outram Community Hospital is scheduled to open by 2020. Woodlands General Hospital and its co-located Community Hospital will break ground next month and will be opened progressively from 2022.

Implications on private healthcare players

We expect revenue intensity to be challenged over the long term. With the government's focus on moving beyond healthcare to health through prevention, screening and more importantly healthy living, we think that over the longer term, the population will become healthier and may suffer less illnesses than before, albeit older – potentially resulting in lower revenue intensity for the private healthcare operators. Using IHH Singapore's operations as a proxy, we noted that the revenue intensity growth has slowed over the last 1-2 years (1.5% YoY in 4Q16). During Raffles Medical's 4Q16 results briefing, management highlighted that the 6.8% YoY growth achieved for the hospital services segment is mostly attributable to patient load increase. With slowing medical tourism growth and patients delaying elective procedures, management has highlighted that it is not easy to raise prices in the current environment. We also expect pricing to become more competitive with the potential introduction of fee benchmarks as suggested by the Health Insurance Task Force (HITF), highlighted in our previous report: [Assessing impact of potential changes to Integrated Shield Plans](#).

However, we expect local patient pool for the Singapore private healthcare players to remain steady. Based on our proprietary analysis of the hospital bed supply and demand, we expect overall bed supply to fall short of demand despite the expansion plans undertaken by the public sector. Due to the limited land supply, the current growth rate of the public healthcare infrastructure is not sustainable; and only two private hospital licenses have been issued in the past 17 years.

Upstream healthcare services to be potential beneficiary

With the government's efforts to focus on moving healthcare upstream and taking care of personal health to reduce the progression of chronic diseases, we believe that healthcare companies with exposure to the upstream healthcare services (GPs and diagnostics, etc.) to be a potential beneficiary. Raffles Medical's Healthcare services division (43.7% of revenue in FY16) which includes GP services may benefit, offsetting some of the potential pricing pressure faced by the Hospital services division. We remain NEUTRAL on Raffles Medical given the lack of near-term catalysts, and we expect margins and ROEs to be under pressure during this investment phase. Healthcare operators with primary healthcare and diagnostic services includes Raffles Medical and Singapore Medical Group (not covered).

Valuation table

Figure 3: ASEAN healthcare valuation comparison

13-Mar-17		US\$ bn				LC Price	LC TP	Ups.	Price performance (%)								
		Year-end	Mkt cap	Rating	Currency				1M	3M	6M	12M	YTD	2016	2015	2014	
BDMS	BDMS.BK	Dec-16	8.8	O	THB	20.10	25.00	24%	-6.1	-11.8	-8.6	-9.5	-13.0	3.6	29.7	46.4	
BH	BH.BK	Dec-15	3.7	O	THB	180.00	225.00	25%	-3.2	-1.4	13.9	-13.9	-0.6	-14.2	49.6	60.7	
BCH	BCH.BK	Dec-15	0.9	O	THB	12.10	17.50	45%	-12.9	-16.6	12.0	21.0	-18.2	63.5	14.6	30.6	
CHG	CHG.BK	Dec-15	0.7	N	THB	2.40	2.60	8%	-14.9	-19.5	2.6	-4.0	-16.1	7.5	47.8	80.0	
Raffles	RAFG.SI	Dec-16	1.8	N	SGD	1.44	1.60	11%	0.7	0.3	-6.2	-1.5	0.3	3.1	6.9	26.6	
SMG	SMGL.SI	Dec-17	0.2	N.C.	SGD	0.57	-	-	5.6	25.6	82.3	274.2	29.9	165.2	5.1	-	
Siloam	SILO.JK	Dec-15	1.3	O	IDR	13,300	12,840	-3%	-5.0	29.8	27.5	68.9	22.0	13.0	-28.5	-	
Mitra	MIKA.JK	Dec-15	2.8	O	IDR	2,610	3,110	19%	9.2	3.6	-6.8	7.4	1.6	-	-	-	

		EPS Gr'th (%)			P/E (x)			EV / EBITDA (x)			ROE (%)		P/B (x)		Yield (%)	
		'16	'17E	'18E	'16	'17E	'18E	'16	'17E	'18E	'17E	'18E	'17E	'18E	'17E	'18E
IHH	IHHH.KL	-7.9	23.8	24.6	56	45	36	23	20	17	4.8	5.6	2.1	2.0	0.6	0.8
KPJ	KPJH.KL	-4.8	20.2	16.1	34	28	24	14	13	11	9.3	9.8	2.6	2.5	1.8	2.1
BDMS	BDMS.BK	5.1	12.5	16.7	38	34	29	23	21	18	15.5	16.6	5.2	4.8	1.5	1.7
BH	BH.BK	7.5	17.7	15.5	36	30	26	23	20	17	24.8	24.9	7.6	6.6	1.8	2.1
BCH	BCH.BK	48.4	29.4	20.2	39	30	25	18	15	13	18.9	20.5	5.7	5.1	2.2	2.6
CHG	CHG.BK	10.8	25.8	23.1	44	35	29	28	22	19	22.4	24.9	7.9	7.1	2.0	2.5
Raffles	RAFG.SI	-0.1	7.1	14.7	35	33	29	25	23	20	10.4	10.8	3.4	3.1	1.4	1.4
SMG	SMGL.SI	33.4	39.0	12.8	71	28	26	-	19	15	23.1	16.9	5.7	4.0	0.0	0.0
Siloam	SILO.JK	33.4	39.0	12.8	166	120	106	25	20	17	6.7	7.0	8.0	7.5	0.1	0.1
Mitra	MIKA.JK	21.6	15.4	12.6	55	47	42	39	33	28	20.7	21.1	9.8	8.9	1.2	1.4

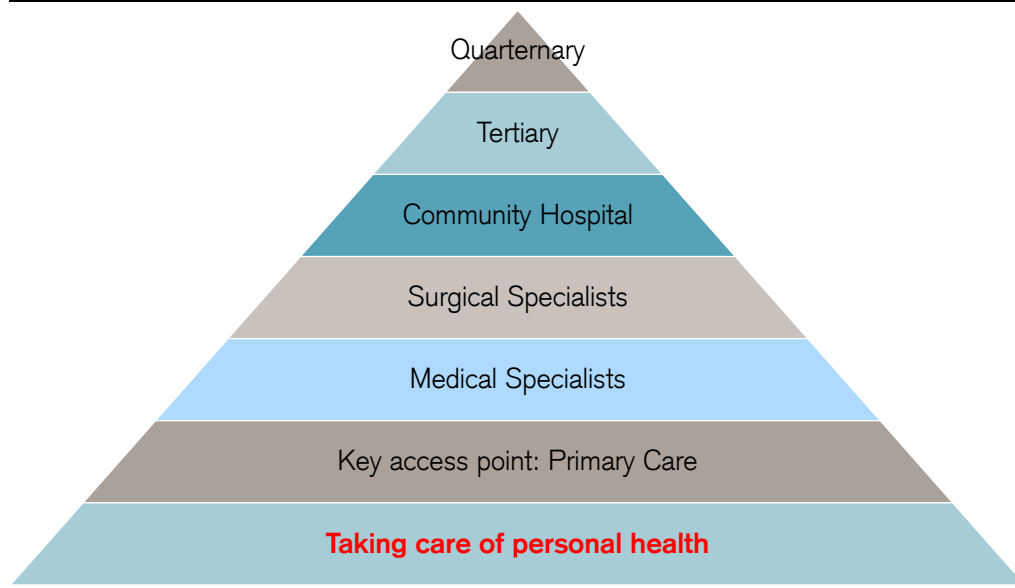
Source: Credit Suisse estimates for covered companies, the BLOOMBERG PROFESSIONAL™ service, I/B/E/S

Key highlights from Committee of Supply Debate 2017

Beyond 2020: Three beyonds

Minister for Health Mr Gan highlighted three key shifts to prepare for the future. He suggested that Singapore needs to: (1) move beyond hospital to the community, (2) move beyond quality to value, (3) move beyond healthcare to health. MOH will invest in new efforts to encourage and empower individuals to take good care of their health, arrest the causes of ill health early and reduce the progression of long-term chronic diseases.

Figure 4: Healthcare pyramid of success



Source: Credit Suisse

GPs look after 80% of Singapore's primary care needs

Transforming Primary Care: Primary Care Network (PCN)

Primary care is the foundation of Singapore's healthcare system. With an ageing population, rising chronic disease prevalence and increasing complexity of care needs, a strong primary care sector is critical to helping Singaporeans maintain their health, and manage their chronic conditions well. General Practitioners (GPs), who look after 80% of Singapore's primary care needs (government polyclinics provide the remaining 20%), are key partners in providing effective primary care.

- **PCN** – Under the scheme's care model, GPs will organise themselves into virtual networks and deliver care through a multi-disciplinary team of doctors, nurses and allied health professionals to manage patients' needs more holistically and effectively.

War on Diabetes: Prevent, Screen & Control

- **Healthier Dining in the Community** – The public sector will play its role in encouraging healthier diets by implementing Whole-of-Government Healthier Catering Guidelines from 1 April 2017. Caterers engaged for government events and training courses will offer healthier options in accordance with the guidelines. This includes providing whole grain options, reducing the number of deep-fried items, and offering plain water and fresh fruits.

- **Healthier Ingredient Development Scheme (HIDS)** – From 1 July 2017, HPB will invest \$20 mn over three years on the HIDS. The scheme will build on HPB's earlier Healthier Ingredient Scheme pilot and focus on introducing whole grains (in rice and noodles) and healthier cooking oil.
- **Launch of Healthhub Track** – From April 2017, HPB will launch HealthHub Track – a personal health management app in HealthHub which will allow Singaporeans to utilise digital tools to monitor and manage their health conditions.
- **Enhanced Screen for Life (SFL) Subsidies** – Under HPB's SFL programme, HPB invites eligible Singaporeans to undergo recommended screening tests at the appropriate time. These tests include screening for diabetes, high cholesterol, high blood pressure, obesity, colorectal cancer and cervical cancer. To further encourage screening and follow-up under SFL, MOH will simplify the subsidy framework and enhance the subsidies from 1 September 2017. The fee for screening and the first post-screening consultation will be fixed at \$5 for eligible Singaporeans and \$2 for CHAS cardholders, both Blue and Orange. Pioneers will not have to pay. The fixed fee of \$2 and \$5 will cover both the initial screening and the first post-screening consultation, if the test results show that a consultation is required.
- **Holistic Approach in Lowering and Tracking Chronic Kidney Disease (HALT-CKD) Programme** – A common complication of diabetes is chronic kidney disease (CKD) and kidney failure. To slow down the deterioration of chronic kidney disease and reduce kidney failure rate, MOH will introduce the national HALT-CKD programme across all polyclinics progressively from April 2017. Other than initiating and optimising kidney-protective medication, HALT-CKD will better identify and control risk factors that contribute to CKD deterioration, such as blood pressure and diabetes control.

Healthy Bodies, Healthy Minds: NurtureSG Recommendations

- **Physical Activity and Nutrition: Active and Healthy Living** – The government will enhance requirements for outdoor physical activities in pre-schools, and provide more opportunities for unstructured play in mainstream schools. The availability of healthier food options will also be increased for children and youth, with enhanced nutritional requirements in pre-schools. HPB's healthier meals programmes will also be intensified in schools of all levels.
- **Mental Well-being: Strengthening Supportive Networks & Resilience** – HPB will move upstream to build social emotional competencies in our young. The Tote Board has also set aside up to \$10 mn in grant funding to tap on ground-up ideas to nurture mental well-being and resilience in our young.
- **Sleep Health: Sleep Well, Live Well** – HPB and MOE will initiate public education efforts on the benefits of sleeping well, and promote sleep health practices and tips for healthy sleep habits.

Tobacco Control Measures

- **Raising the Minimum Legal Age** – MOH will take further steps to reduce, if not eliminate, opportunities for our young to be tempted and take up smoking before 21. We will propose legislative changes to Parliament within a year to raise the Minimum Legal Age for the sale of tobacco products to minors, from 18 to 21 years. The change will be phased in over a few years. The minimum legal age restriction will continue to cover purchase, use and possession by minors and sale to minors below the minimum legal age, for both retail and social supply.

Update on Healthcare 2020

At the Committee of Supply Debate 2017, Minister for Health Mr Gan Kim Yong gave an update on Healthcare 2020:

- **2,500 hospital beds added** – Since 2012, a total of 2,500 hospital beds have been added to the healthcare system. This is driven by the expansion of existing facilities as well as the opening of new hospitals such as Ng Teng Fong General Hospital (NTFGH), Changi General Hospital Integrated Building (CGH IB), Jurong Community Hospital (JCG) and Yishun Community Hospital (YCH).
- **Other new openings** – CGH is expected to open its Medical Centre next year which will allow it to expand its specialist outpatient services. Sengkang General and Community Hospital is expected to open by end 2018. Outram Community Hospital is scheduled to open by 2020. Woodlands General Hospital and its co-located Community Hospital will break ground next month and will be opened progressively from 2022.
- **Expansion of healthcare workforce** – The healthcare workforce has expanded by some 23,000, or 33% over the past five years, and the government expects another 9,000 more healthcare workers are required over the next three years.

Implications on private healthcare players

Revenue intensity may be challenged...

A population that is healthier...

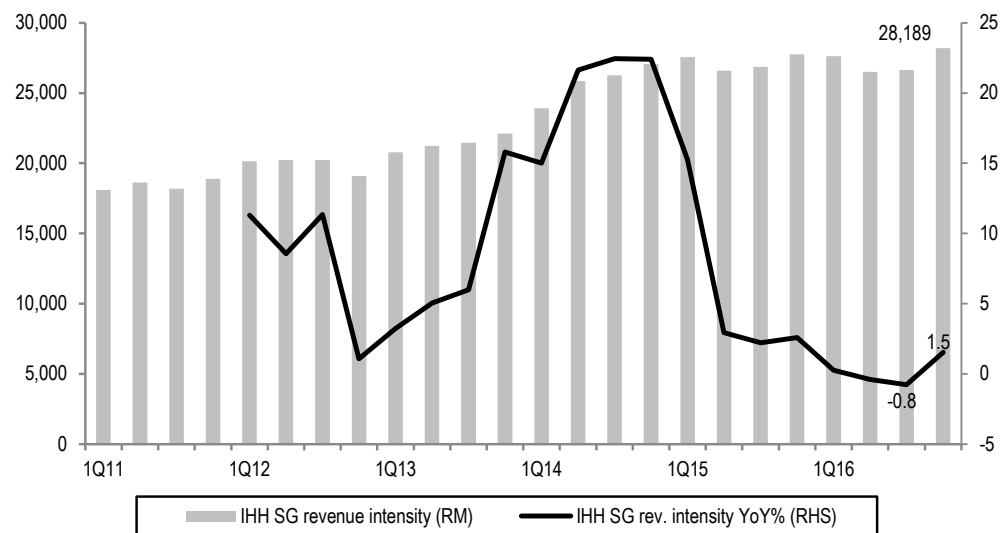
With the government's focus on moving beyond healthcare to health through prevention, screening and more importantly healthy living, we think that over the longer term, the population will become healthier and may suffer less illnesses than before while ageing – potentially resulting in lower revenue intensity for the private healthcare operators.

Pricing power may be under pressure...

Using IHH Singapore's operations as a proxy, we noted that the revenue intensity growth has slowed over the last 1-2 years (1.5% YoY in 4Q16). During Raffles Medical's 4Q16 results briefing, management highlighted that the 6.8% YoY growth achieved for the hospital services segment is mostly attributable to patient load increase. With slowing medical tourism growth and patients delaying elective procedures, management has highlighted that it is not easy to raise prices in the current environment.

Also in our previous report, [Assessing impact of potential changes to Integrated Shield Plans](#), we highlighted that pricing could become more competitive amongst the private players with the introduction of fee benchmarks. However, we expect pressure on prices to be more limited for Raffles Medical compared to peers (surgical specialties at competitors such as Gleneagles and Mount Elizabeth are priced ~15 and 30% higher).

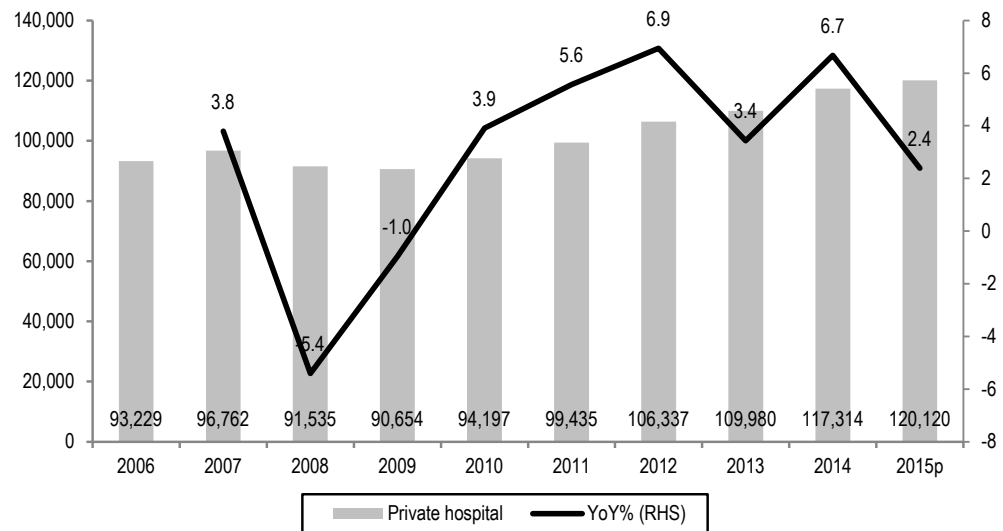
Figure 5: IHH Singapore average revenue per inpatient admission (RM)



Source: Company data, Credit Suisse estimates

Local patient pool to remain steady near term

Figure 6: Private hospitals admissions



Source: Ministry of Health

The government first unveiled the Healthcare 2020 Masterplan back in 2012 to tackle the combined impact of a growing and ageing population – to build up additional healthcare infrastructure and to ensure healthcare remains affordable to the Singapore population. With the expected increase in healthcare demand driven by an ageing population and growing income levels, supply shortage is likely to require huge investments over the medium to long term.

While the Healthcare 2020 Masterplan is expected to increase the public hospitals bed supply hugely, we do not think that it will draw demand away from the existing private healthcare players such as Raffles Medical, due to the following reasons:

- Oncoming public hospitals' bed supply still insufficient
- Public hospitals' utilisation rates remain elevated
- Limited opportunities for private players to expand bed capacity

Public hospitals capacity expansion still insufficient

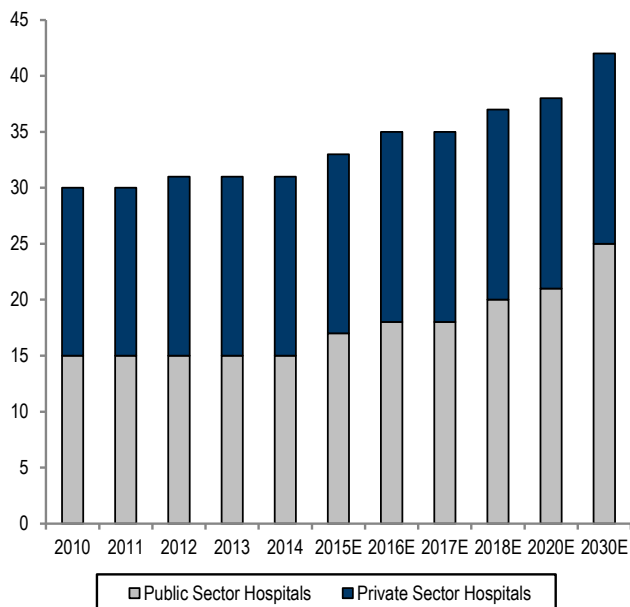
From 2014 to 2030, the number of public hospital beds is expected to increase by 55% or 5,250 beds – with the bulk of it from the Sengkang General & Community Hospital which is expected to open in 2018.

Figure 7: New public hospitals in the pipeline

New health facilities	Beds
2015	
Ng Teng Fong General Hospital opens	700
Jurong Community Hospital opens	400
2016	
Yishun Community Hospital opens	400
10 new nursing homes	
39 Senior Care Centres	
56 Seniors' Activity Centres	
2017	
Jurong West Polyclinic opens	
Punggol Polyclinic opens	
2018	
Sengkang General Hospital opens	1,400
Sengkang Community Hospital opens	
2020	
Outram Community Hospital opens	550
Four polyclinics, bringing total to 25	
2020-2030	
Four new general hospitals, raising total to 12	1,800
6 to 8 more polyclinics, bringing total to 31 to 33.	
Total	5,250

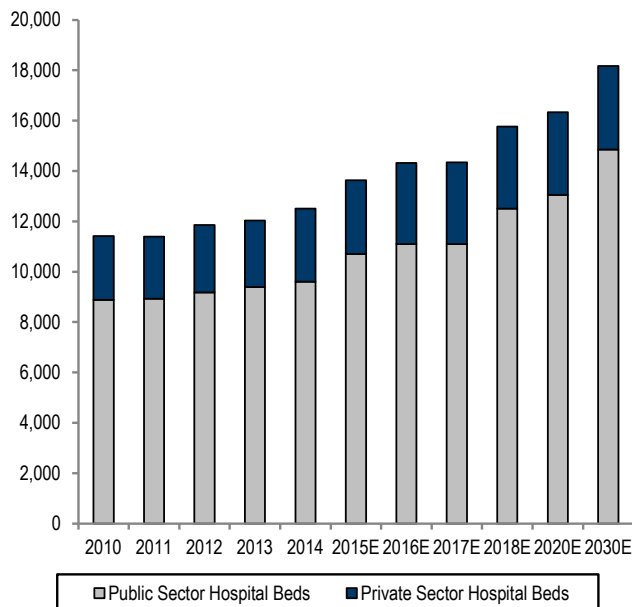
Source: Ministry of Health, Credit Suisse estimates

Figure 8: Singapore hospital projections



Source: Credit Suisse estimates, Ministry of Health

Figure 9: Singapore bed supply projections



Source: Credit Suisse estimates, Ministry of Health

Oncoming supply still falls short

We expect the bed ratio to have barely improved from 2.3 (per 1,000 population) in 2014 to 2.6 in 2030

Although the government is planning to make significant investments to increase the capacity of hospitals, we expect the bed constraint problem to persist. According to the government's published population white paper, Singapore's population could range between 6.5 mn and 6.9 mn by 2030. Based on the announced pipeline of hospitals and assuming that Singapore's population grows to 6.9 mn in 2030 from 5.5 mn in 2015, the hospital bed ratio would have barely improved from 2.5 in 2014 to 2.6 in 2030. Bed capacity is likely to remain tight given that the proportion of elderly is doubled. Assuming that the population grows to 6.5 mn in 2030 from the current 5.5 mn, the hospital bed ratio would be 2.8 which is roughly in line with the bed ratio in 2000, but the percentage of population older than 65 would still be close to three times.

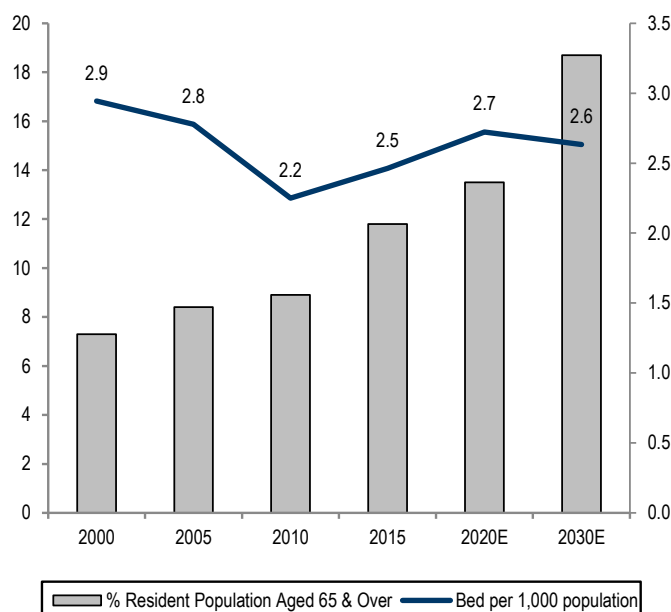
Figure 10: Bed supply projections

	2014	2015E	2020E	2030E (6.5m pop)	2030E(6.9m pop)
Total Hospitals	31	33	38	42	42
Public Sector Hospitals	15	17	21	25	25
Private Sector Hospitals	16	16	17	17	17
Hospital Beds	12,505	13,635	16,335	18,175	18,175
Public Sector Hospital Beds	9,602	10,702	13,052	14,852	14,852
Private Sector Hospital Beds	2,903	2,933	3,283	3,323	3,323
Population ('000)	5,470	5,535	6,000	6,500	6,900
Bed per 1,000 population	2.3	2.5	2.7	2.8	2.6
Target bed ratio	3.0	3.0	3.0	3.0	3.0
Required beds	16,409	16,605	18,000	19,500	20,700
Shortfall	3,904	2,970	1,665	1,325	2,525

Source: Credit Suisse estimates, Department of Statistics

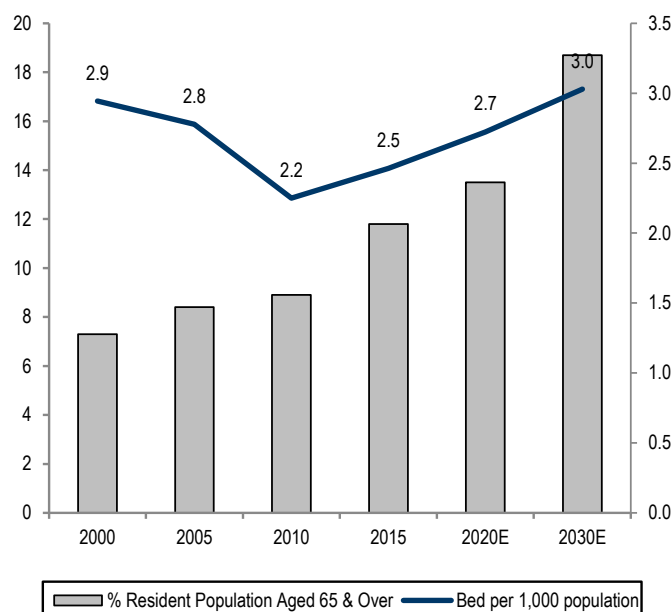
Assuming a bed ratio of 3 (per 1,000 population), and that Singapore's population grows to 6.9 mn in 2030, there will be a shortfall of 2,525 beds even with the oncoming public hospital supply.

Figure 11: Base case – assume 6.9m population



Source: Credit Suisse estimates, Department of Statistics

Figure 12: If 2030 population grows to 6m...



Source: Company data, Credit Suisse estimates

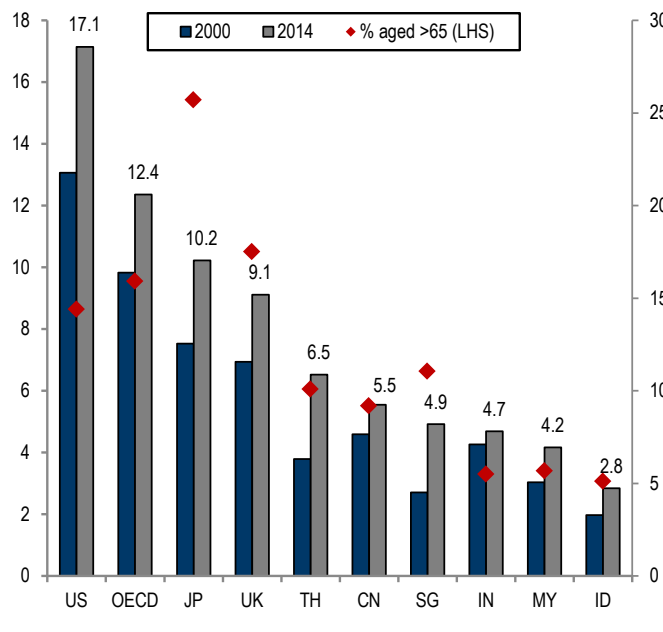
Current healthcare situation – more is required

Singapore hospital bed ratio (per 1,000 population) declined from 2.9 in 2000 to 2.5 in 2015

With reference to Figure 10, most of the developed and mature economies such as the United States and the United Kingdom have close to 3 hospital beds per 1,000 population. In comparison, ASEAN countries such as Singapore and Thailand have a ratio of hospital beds per 1,000 population of below 3. It is also interesting to note that Singapore's hospital bed ratio (per 10,000 population) has actually declined from 2.9 in 2000 to 2.5 in 2015. This is largely attributable to lack of major bed additions in the sector while experiencing a 37% growth in population over the same period.

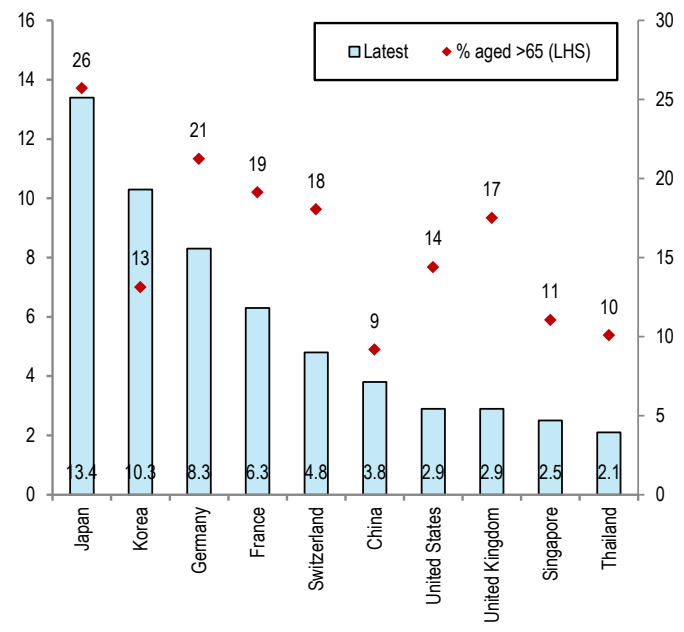
A low proportion of beds per 1,000 population is indicative of latent demand for additional hospital beds reflecting the growth potential for healthcare infrastructure in the country. As the population continues to age, more healthcare infrastructure will inevitably be required and we expect the bed ratio to trend upwards. Drawing Japan as a comparison, the country has 13.4 hospital beds per 1,000 population and has 26% of its population above 65 years of age.

Figure 13: Healthcare expenditure as a % of GDP



Source: WorldBank

Figure 14: No. of hospital beds per 1,000 people

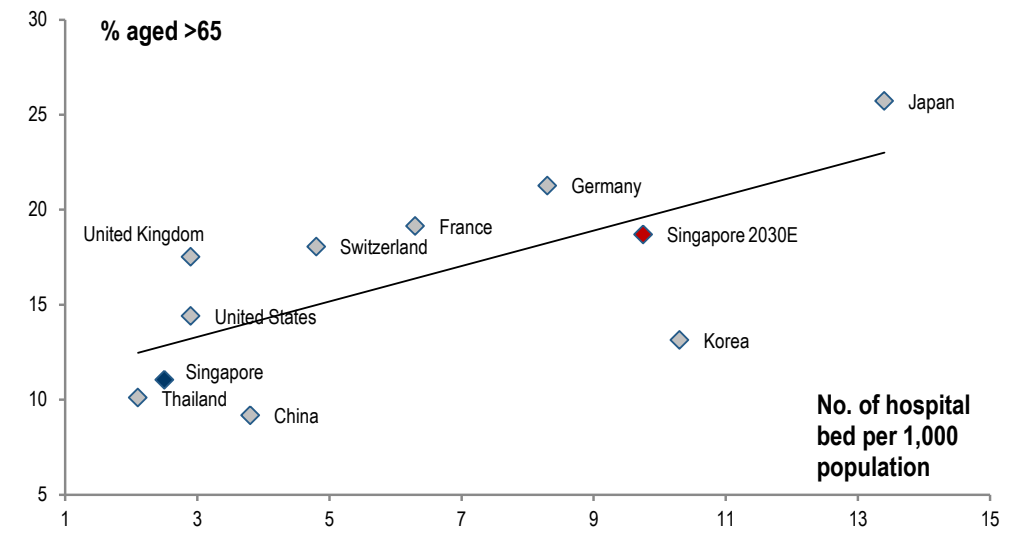


Source: WorldBank
Note: Latest – refers to the available data for the latest year

Bed ratio needs to trend upwards...

Currently, approximately 26% of Japan's population is aged more than 65 years old and it has 13.4 beds per 1,000 population. Using Japan as a benchmark, and assuming that Singapore's proportion of >65years old population does grow to 19% in 2030, this suggests that the bed ratio would have to grow in tandem to 9.7x .

Figure 15: Bed ratio expected to trend upwards as the population ages...



Source: WorldBank, Credit Suisse estimates

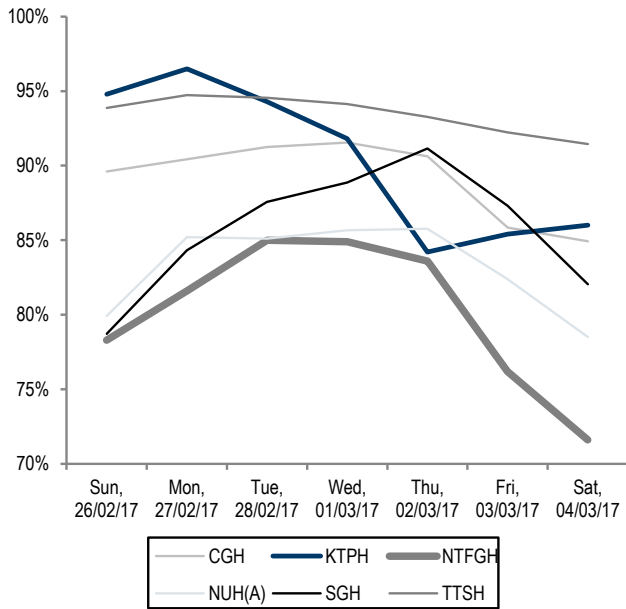
Public hospitals’ utilisation levels remain elevated

We believe that the current hospital bed ratio is insufficient, as evidenced by the high bed occupancy rate in the public hospitals (>70%). Based on our understanding from the private healthcare operators, private hospitals ideally like to operate within the range of 60-70% to maintain quality of care and ensure that there is additional capacity to take in emergency cases if needed. Once bed occupancy consistently crosses 70%, it will be time to consider expansion plans.

In addition, as shown in Figure 14, waiting time can go up close to six hours from the time the doctor decides to admit a patient to the time a patient actually goes to the inpatient ward.

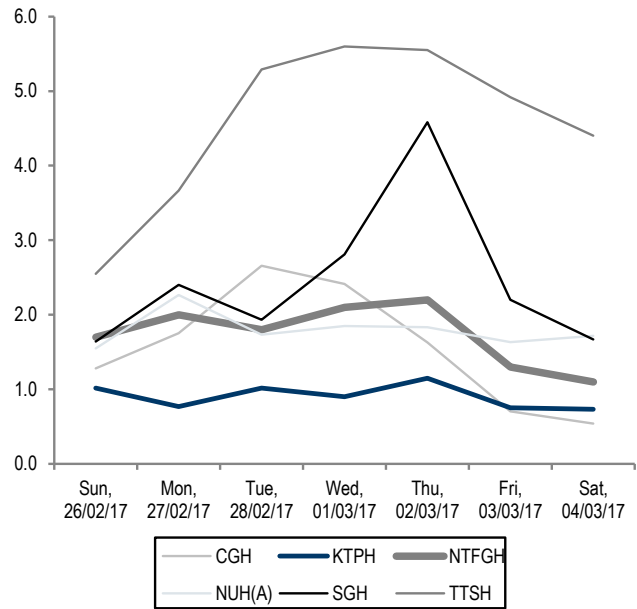
As Singapore's population continues to grow and age, the bed supply will tighten and waiting times can only get longer at the public hospitals. Overall healthcare services therefore, have to grow in tandem. We believe that this will likely ensure steady supply of local patient pool to the private operators until supply eventually catches up with demand.

Figure 16: Public hospitals' bed occupancy rate (%)



Source: Ministry of Health

Figure 17: Waiting time for admission to ward (hr)



Source: Ministry of Health

Limited opportunities for private players to add bed capacity

We think that the bed crunch issue is likely to persist and the existing private healthcare players are the net beneficiary – the addition of beds in the private sector has been limited to the opening of Mount Elizabeth Novena Hospital (333 beds), Fortis Specialty Centre (31 beds) and the Farrer Park Hospital (220 beds). The difficulty in obtaining a private hospital license due to stringent requirements and scarcity of available land have resulted in only two private hospital licenses to be issued in the past 17 years.

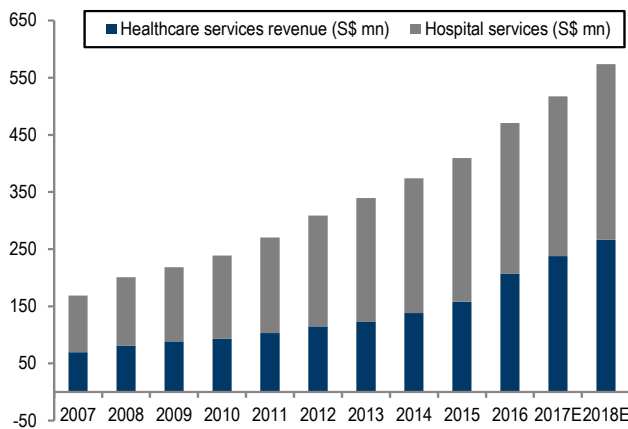
Upstream healthcare services to be potential beneficiary

With the government's efforts to focus on moving healthcare upstream and taking care of personal health to reduce the progression of chronic diseases, we believe that healthcare companies with exposure to the upstream healthcare services (GPs and diagnostics, etc.) to be potential beneficiary.

Raffles Medical – 43.7% of revenue from Healthcare services division

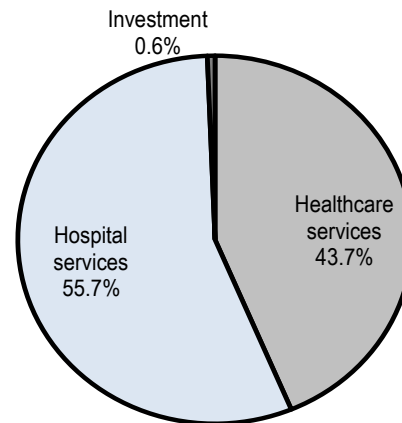
Raffles Medical's Healthcare services division (43.7% of revenue in FY16) which includes GP services may benefit, offsetting some of the potential pricing pressure faced by the Hospital services division. We also note that growth in the Hospital segment (55.7% of revenue) has slowed to 6.8% YoY, the slowest growth level since 2008 – management explained that this was due to the slowdown in medical tourism and that bulk of the 6.8% increase was attributable to patient load growth. This reinforces our view that local patient pool volume will remain supportive of overall patient load growth but revenue intensity in the Singapore healthcare sector is likely to be challenged. We remain NEUTRAL on Raffles Medical given the lack of near-term catalysts, and we expect margins and ROEs to be under pressure during this investment phase.

Figure 18: Raffles Medical's revenue breakdown



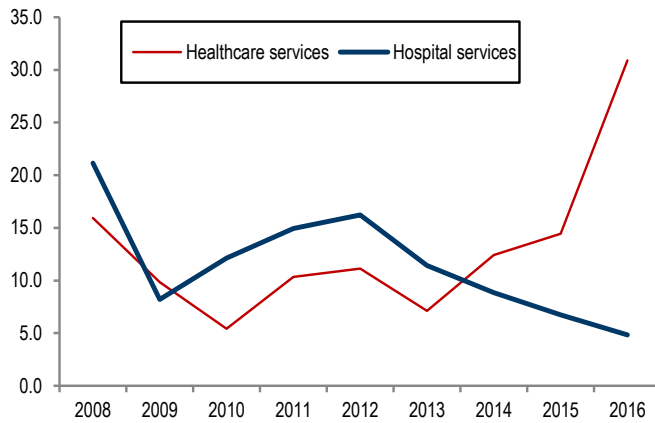
Source: Company data, Credit Suisse estimates

Figure 19: 2016 revenue breakdown (%)



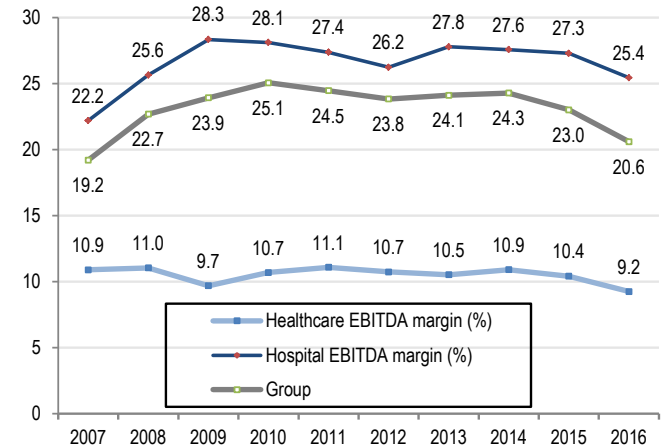
Source: Company data, Credit Suisse estimates

Figure 20: Raffles Medical's revenue YoY% growth



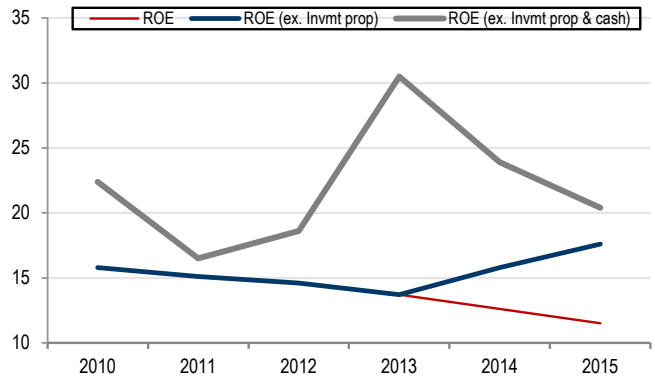
Source: Company data, Credit Suisse estimates

Figure 21: Raffles Medical's EBITDA margin (%)



Source: Company data, Credit Suisse estimates

Figure 22: ROE (%)



Source: Company data

Figure 23: 12-month fwd P/E (x)



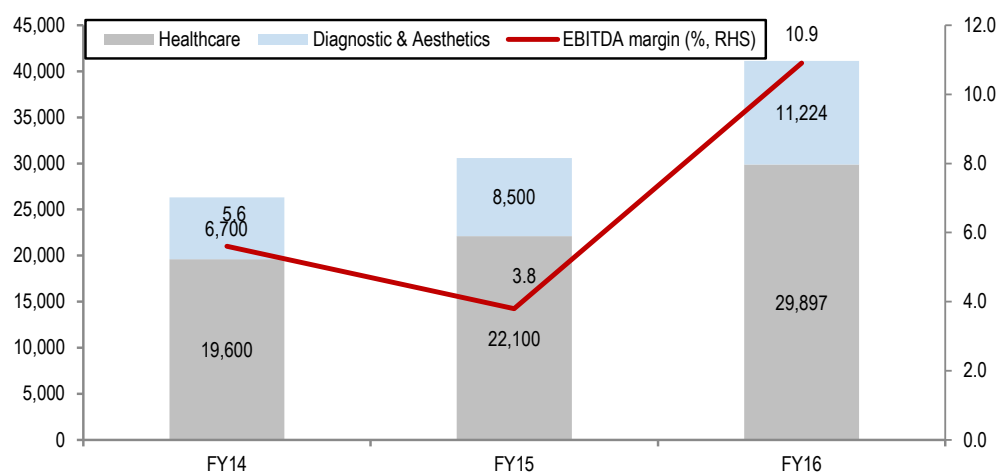
Source: I/B/E/S

Singapore Medical Group: multi-disciplinary specialist healthcare group

In our previous Not Covered report on [Singapore Medical Group - Multi-disciplinary specialist healthcare group](#), we highlighted that management expects the recent acquisitions in diagnostic businesses to further drive growth.

Lifescan Imaging (LSI): SMG first entered into the LSI JV with 38% stake in Jul 2015. In Aug 2015, LSI acquires Pacific Healthcare Imaging (PHI) which operate a radiology clinic at Paragon Orchard, for cash consideration of S\$2.3 mn. PHI generated a net loss before tax of S\$1.68 mn in 2014. In Apr 2016, LSI acquired Novena Radiology for cash consideration of S\$550k. Novena Radiology generated a net loss before tax of S\$195k for the 12 months ended 30 Sep 2015. In Aug 2016, SMG further increased its stake in LSI to 100% at a consideration of S\$8.5 mn, carrying an implied valuation of 12.3x. Having turned the business around, management believes that this acquisition would further fuel their growth in the diagnostic business segment.

Figure 24: Revenue by segment (S\$'000)



Source: Company data

Companies Mentioned (Price as of 13-Mar-2017)

Bangkok Chain Hospital (BCH.BK, Bt12.1)
Bangkok Dusit Medical Services (BDMS.BK, Bt20.1)
Bumrungrad Hospital Pcl (BH.BK, Bt180.0)
Chularat Hospital (CHG.BK, Bt2.4)
IHH Healthcare (IHHH.KL, RM5.84)
PT Mitra Keluarga Karyasehat Tbk (MIKA.JK, Rp2,610)
Raffles Medical Group (RAFG.SI, S\$1.44, NEUTRAL, TP S\$1.6)
SG Medical Group (SMGL.SI, S\$0.565)
Siloam International Hospitals (SILO.JK, Rp13,300)

Disclosure Appendix

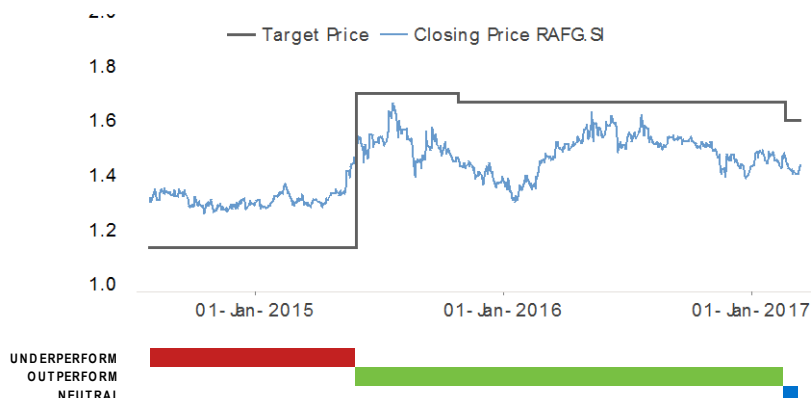
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3-Year Price and Rating History for Raffles Medical Group (RAFG.SI)

RAFG.SI	Closing Price	Target Price	
Date	(S\$)	(S\$)	Rating
29-Jul-14	1.32	1.13	U
29-May-15	1.50	1.70	O
26-Oct-15	1.46	1.67	
26-Apr-16	1.53	1.67	*
20-Feb-17	1.46	1.60	N

* Asterisk signifies initiation or assumption of coverage.



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*Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin American and non-Japan Asia stocks, ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark; prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.

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Neutral/Hold*	39%	(60% banking clients)
Underperform/Sell*	14%	(53% banking clients)
Restricted	2%	

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Target Price and Rating

Valuation Methodology and Risks: (12 months) for Raffles Medical Group (RAFG.SI)

Method: Our S\$1.6 target price for Raffles Medical is based on a discounted cash flow (DCF) methodology of a weighted average cost of capital (WACC) of 8.3% (a risk-free rate of 3%, an equity risk premium of 6.5% and a beta of 1), a terminal growth rate of 3.0%, and a medium-term growth rate of 15% over 2020-2023. While we are positive on Raffles Medical's expansion plans in Singapore and China, we expect margins and ROEs to be under pressure during this investment phase. We rate the stock NEUTRAL.

Risk: Key risks to our S\$1.6 target price and NEUTRAL rating for Raffles Medical include: 1) Delays in execution of expansion plans 2) Macroeconomic slowdown affecting employment and population growth 3) Increasing competition from regional healthcare providers 4) recovery in medical tourism and 5) further announcements on new projects in China.

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