

Bangkok Dusit Medical Services (BDMS)

Morgan Stanley Virtual Asia Pacific Conference

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BDMS Overview

BDMS



Overview



49 Hospitals



~ 8,600 Beds



11 Centers of Excellence



BDMS Wellness Clinic & Mövenpick BDMS Wellness Resort Bangkok



12,000+ Doctors 9,000+ Nurses 24,000+ Staffs



Pharmaceutical manufacturer and drug stores

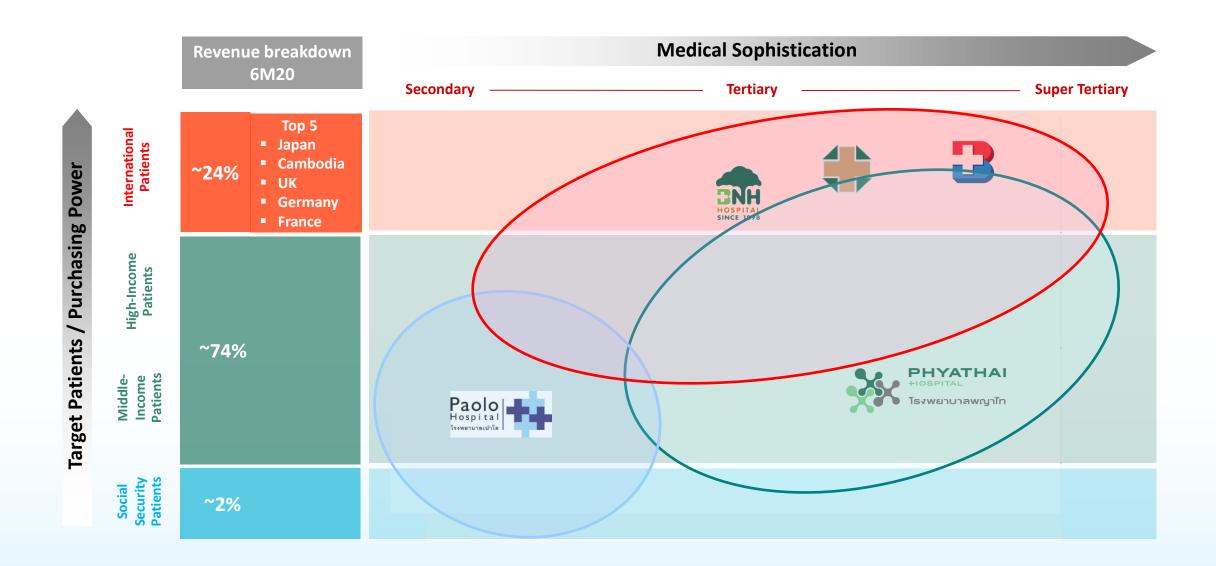
- Established on February 26, 1972
- Top 5 private hospital operators in the world by market capitalization
- Hub-and-Spoke model with an established patient referral system with the patients volume of
 - OPD visit ~ 30,500 patients a day
 - Average daily census ~ 4,100

	Brand	No. of Hospitals	No. of Beds*
3	Bangkok Hospital	25	4,063
#	Samitivej Hospital	6	1,364
**	Phyathai Hospital	5	1,241
**	Paolo Hospital	6	1,008
HOSPITAL THICK VAN	BNH Hospital	1	144
3	Royal Hospital	2	130
	Local Hospital	4	627

^{*} Maximum number of beds according to structure of the hospitals

Diversification of Patient Mix





BDMS Complete Continuum of Healthcare





Center of Excellence



Super Tertiary Care



Tertiary Care



Promotive

Preventive

Early Detection

Curative

Transitional

Rehabilitative



BDMS Wellness Clinic



Bangkok International



Chiva Transitional Care Hospital

Non-Hospital Strategic Investment





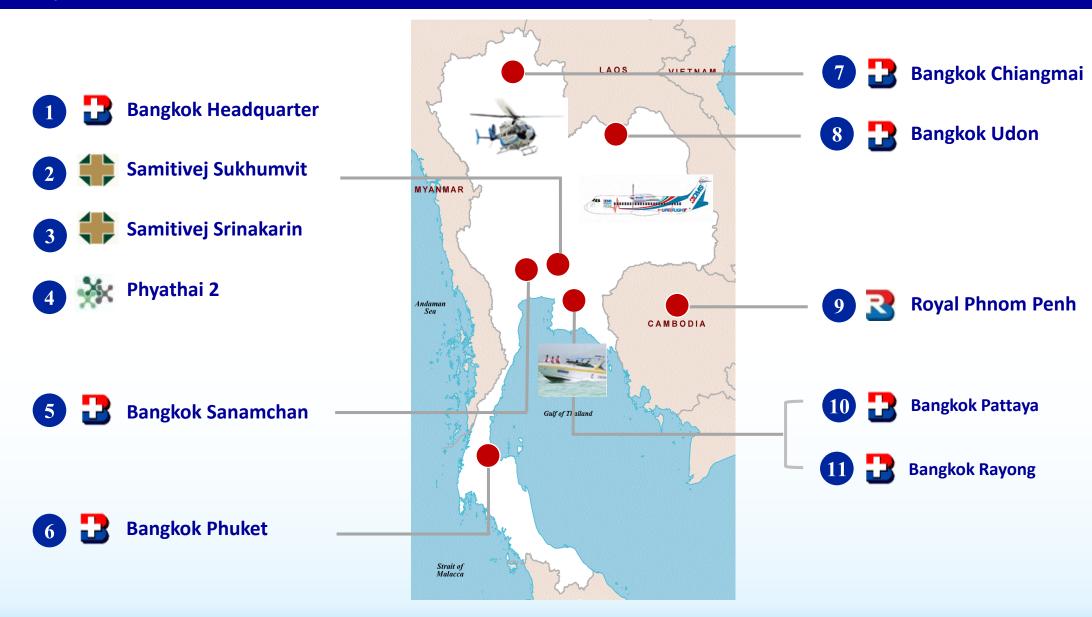
Generic Drug Manufacturer



Drug Store



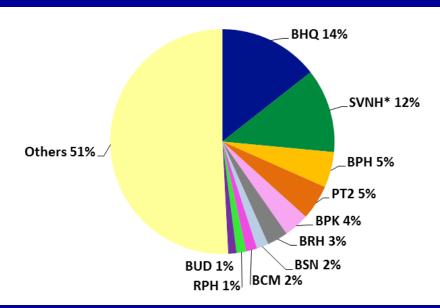
Development of 11 Center of Excellence



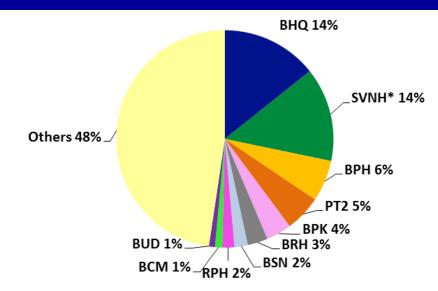
Diversified Sources of Revenues and Profitability



CoE Operating Income Contribution in 6M20



CoE Total EBITDA Contribution in 6M20



Commentary

CoE Revenue	%Growth	% of operating Income	% of total EBITDA
2Q20	(34)%	48%	52%
6M20	(21)%	49%	52%

 CoE revenue decreased significantly in 2Q20 due to lower revenue from inter patients from travel restrictions and concern of COVID-19 outbreak

- Hospital abbreviation shown on Appendix

^{*} SVNH included SVH and SNH performance



Local and International Partnership



 Collaboration on occupational health, pediatrics, rehabilitation, clinical simulation and informatics



Others international and local institutions



Collaboration for education, training and research on orthopedics



 Collaboration for education and research on trauma and orthopedics





Collaboration on Gastrointestinal Medicine



 Collaboration for knowledge sharing on orthopedics



 Research collaboration on the TRFS laser device for brain tumor surgery

Exclusive Health Insurance at BDMS Hospital Network



My First Class Healthcare @ BDMS by Allianz Ayudhya







With Coverage limit up to 100 million Baht per year



Covers all medical treatments

The Viriyah Insurance Program







Deductible Plan
Maximum Benefit (THB)
: 400k-800k



Viriyah Healthcare by BDMS

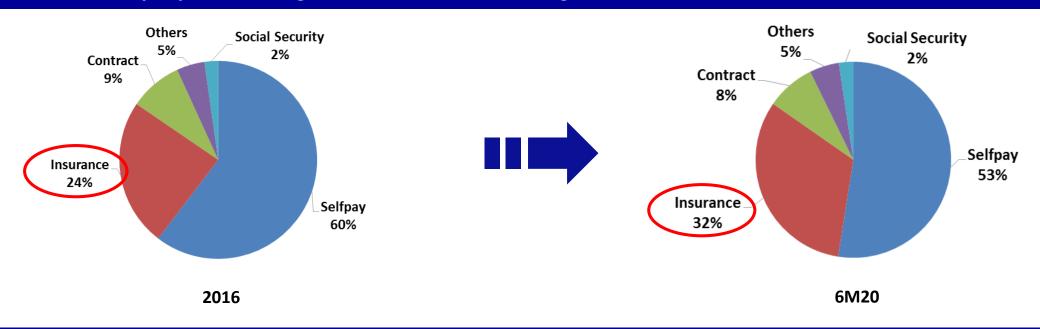
Maximum Benefit (THB)

: 100k-700k

Expanding Insurance Patient Base



Patient Revenue by Payor: Increasing Insurance Portion with a Target to Reach 40% in the Next 3 Years



Partnership with Ping An Health Insurance (PAH) – To Bolster Chinese Patients to BDMS Hospital Network



- BDMS offers PAH members with a wide spectrum of medical care including cancer screening and treatment programs, cardiovascular procedures, neurological and orthopedic services
- This partnership would help bolster Chinese patients from 4th largest interpatients in 2019 to be one of the top 3 interpatients in the next 3 years



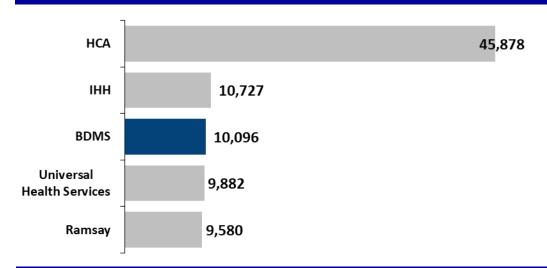
Strategy & Projects in Pipeline

	Volume & Margin I	Driven Innova	tion & Digital	Sustainability	
Strategy	 Leverage more on Hub8 Center of Excellence Increase occupancy rate Expand insurance patie 	Smart Virtual HospitalHealth application		 Quality & safety standard Good corporate governance Social responsibility 	
	2020	2021	2022	2023-2024	
	49 Hospitals			■ ~ 50 hospitals	
	• ~ 8,600 beds			• ~ 9,300 beds	
Projects in Pipeline	✓ Jomtien Hospital (232 beds)			Samitivej Internationa Children (100 beds)	
	Existing Hospital Expansi	on (Occupancy Rate > 80%)			
	 ✓ Samitiivej Chonburi (74 beds) ○ Paolo Chokchai 4 (30 beds) 	 Bangkok Chanthaburi (96 beds) Bangkok Ratchasima (166 beds) 	 Paolo Chokchai 4	Expansion of our Network Hospitals	
			(142 beds)		

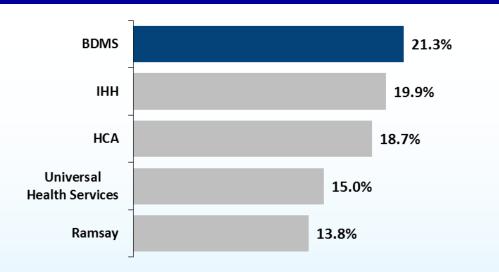
Global Hospital Rankings



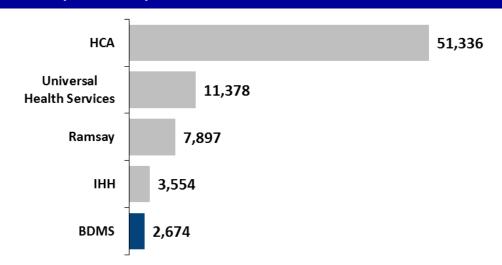
Market Capitalization (USD mm)



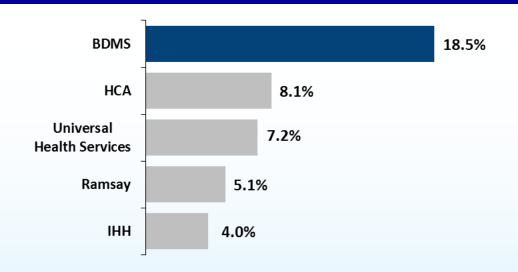
EBITDA Margin



Revenue (USD mm)



Net Profit Margin



Remark: - Market capitalization as of 14 September 2020

- Financial performance for year ended December 2019 except Ramsay for the year ended June 2019
- IHH performance without impact of MFRS 16 (Lease)



2Q20 & 6M20 in Review & Update on COVID-19

2Q20 Operational Recap and Financial Summary



2Q20 Highlights

	2Q20	
	% Chg	% to
		Revenue
Operating income	(29)%	
	THB 13,977 mm	
Patient revenue	(30)%	
	THB 13,080 mm	
Breakdown by location		
Bangkok & Vicinity	(32)%	56%
Outside Bangkok	(25)%	44%
Breakdown by nationality		
Thai	(22)%	82%
International	(58)%	18%
Breakdown by type of patie	ents	
Outpatients	(30)%	48%
Inpatients	(32)%	52%

Remark: - Operating income is calculated from hospital revenue + revenue from sales of goods + other income

- All operational statistics are from BDMS management report

Profitability and Ratio

(THB mm)	2Q20	2Q19	Chg. (yoy)
EBITDA	2,587	3,892	(34)%
EBITDA margin	18.5%	19.8%	
Share of income from	(37)	199	(188)%)
associates	(37)	133	(100)70
Core profit	458	1,865	(75)%
Core profit margin	3.3%	9.5%	

Remark: - Margin was calculated as a percentage of operating income

Commentary

- Patient revenue decreased by 30% yoy mainly from impact of COVID-19 most notably on inter patients
- Despite cost saving initiatives across BDMS, EBITDA dropped 34% yoy from high portion of fixed cost
- Net profit decreased by 75% yoy mainly from
 - Performance of Bumrungrad Hospital Public Co., Ltd. ("BH")
 - Decrease in share of profit from dilution of investment in BH (from 24.99% to 22.94%)

6M20 Operational Recap and Financial Summary



6M20 Highlights

	6M20	
	% Chg	% to
		Revenue
Operating income	(16)%	
	THB 33,980 mm	
Patient revenue	(17)%	
	THB 31,962 mm	
Breakdown by location		
Bangkok & Vicinity	(19)%	56%
Outside Bangkok	(13)%	44%
Breakdown by nationality		
Thai	(11)%	76%
International	(22)%	24%
Breakdown by type of patients		
Outpatients	(17)%	47%
Inpatients	(18)%	53%

Profitability and Ratio

(THB mm)	6M20	6M19	Chg. (yoy)
EBITDA (1)	7,377	8,962	(18)%
EBITDA margin (1)	21.7%	22.2%	
Share of income from associates	181	484	(63)%
Core profit	3,026	4,790	(37)%
Core profit margin	8.9%	11.9%	
Non-recurring items	-	5,514 ⁽²⁾	n.a.
Net profit	3,026	10,304	(71)%
Net profit margin	8.9%	25.5%	

⁽¹⁾ Excluding non-recurring items

⁽²⁾ non-recurring items in 6M19 were gain on sales in Ramkhamhaeng Hospital Public Co., Ltd. ("RAM"), provision for employee benefits and one-time expenses in finding land to locate electricity sub-station

BDMS Continued Cost Containment Measures in 2H20



Operating Expenses



O1 Clinical, Non-clinical Staff & Doctor Related Expenses

- Maintain Zero OT policy and freeze full-time headcount
- Encourage staff to use holiday leave or leave without pay
- Decrease minimum guarantee of doctors
- **02** Reduction of Non-Essential Expenses
 - Continue to decrease marketing, repair & maintenance and other expenses
 - Reduction of all meeting allowance

CAPEX



- Reduce normal CAPEX spending of around THB 2 bn in 2020
- Delay some investments especially renovation and supporting projects

Cash Flow Management

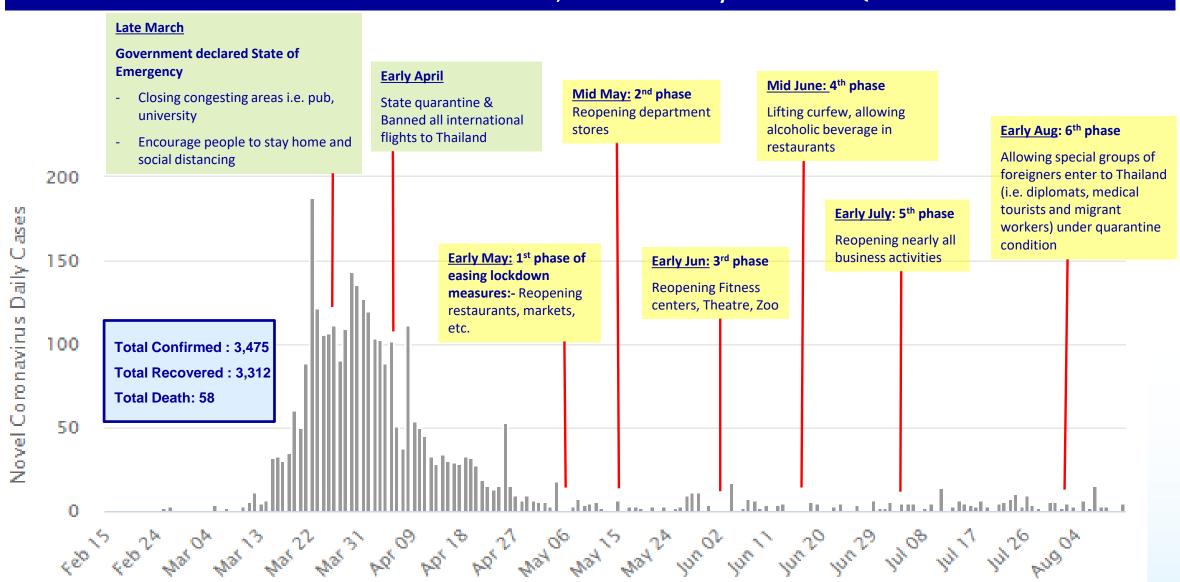


- Cash on hand end of June 2020 was THB 3-4 billion with total uncommitted credit facility from financial institutions of THB 20 billion
- Maintain healthy liquidity level to support on going operations amidst uncertainty

Update COVID-19 Situation in Thailand



Thailand has no Domestic Infection More Than Three Months; New Cases Mostly Seen at State Quarantine



BDMS Alternative Hospital Quarantine & Alternative State Quarantine





Alternative Hospital Quarantine

> 30 Hospitals



BHQ, WSH

SVH, SNH, STH, SCT

BNH

PT1, PT2, PT3, PTN

PLP, PLK, PLR, PLD, PLS, PLC

East

6

BPH, BRH, BTH

SCH, SSH

PTS

North/Northeast

3

BCM, BCR, BUD

South

BPK, BSI, BHH, BSH



Alternative State Quarantine

Resort

Mövenpick BDMS Wellness **Resort Bangkok 15 Day Homecoming Health Watch**



Key Initiatives During COVID-19

Healthy BOT



- A Healthy Bot, equipped with a camera and microphone, helps connecting patients under investigation in isolation unit to reduce human contact and to avoid cross infection
- The smart robot, available 24 hours, also helps ease the workload of clinical staffs



Tytocare



















- Tytocare is an innovative medical exam device in a modern, portable format, designed for use at home by anyone, anywhere
- It can online examination can check temperature, lung,
 heart and ears, throat and skin
- BDMS donated 200 TytoCare devices to use in public hospitals

Key Initiatives During COVID-19



Example of Our Services



Samitivej Virtual Hospital
 An online hospital providing real time consultation with doctors via
 mobile phone application



Bangkok Hospital Delivery
 Services, a tele-consultation and in-home health services for blood sample, vaccination and medication



 Many hospitals in our network offer drive thru services for vaccination



Operational Statistics & Financial Highlights

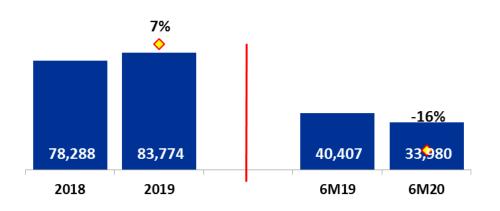
Operating Income Growth

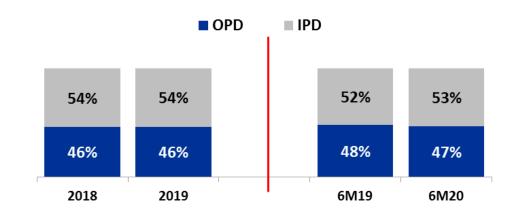


Operating Income

(THB mm)

Revenue Breakdown by Patient Types





Commentary

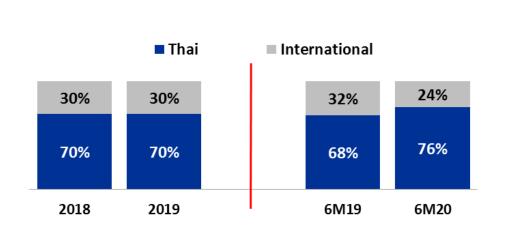
- 6M20 Operating income decreased by 16% yoy mainly from
 - Patient revenue decreased by 17% due to decrease in patient volume both Thai and inter patients especially in 2Q20 which affected by
 - COVID-19 outbreak
 - Travel restrictions
 - Government infection control measures such as state of emergency, home quarantine order (recommendation for people age over 70 years old and below 5 years old to stay home)

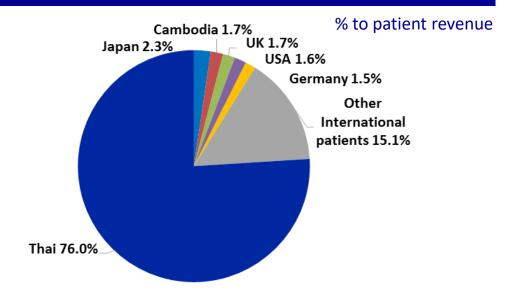
Thai and International Patients



Revenue Contribution by Nationality

Top 5 Nationality contribution in 6M20





Commentary

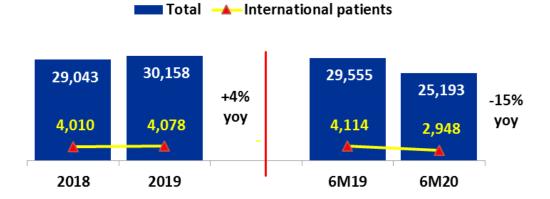
■ In 6M20, Inter patients decreased by 35% yoy while Thai patients decreased by 11% yoy

% to patient revenue

- The significant decrease was in 2Q20 due mainly to travel restrictions. In 2Q20, Inter patients decreased by 58% yoy while Thai patients decreased by 22% yoy
- Key drivers of negative growth in Inter patient revenue are Middle East (-63%), China (-45%) and Australia (-41% yoy)

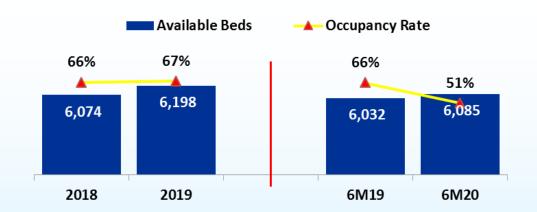
Operational Statistics

Number of OPD Visits per Day



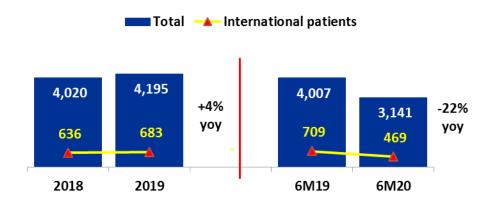
Remarks: - Including social security

Occupancy Rate Based on Available Beds



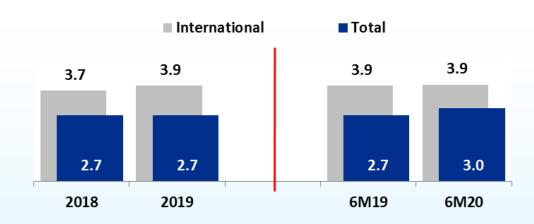
Bangkok Dusit Medical Services

Average Daily Census (ADC)



Remarks: - Including social security and new born patients

Average Length of Stay (days)



Profitability Trend

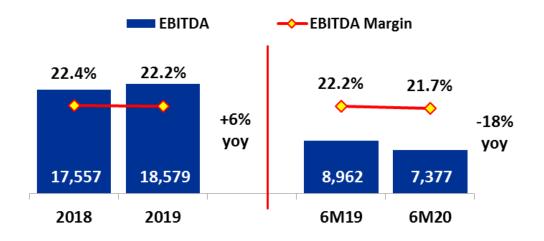
EBITDA & EBITDA Margin *

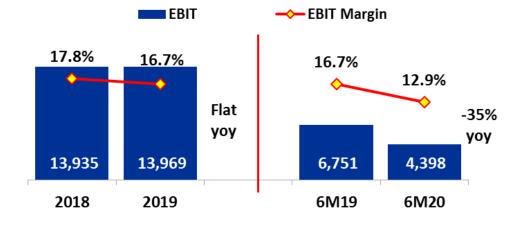
(THB mm)



Bangkok Dusit Medical Services

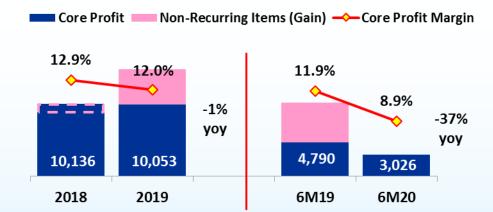
(THB mm)





Core Profit & Core Profit Margin *

(THB mm)



Commentary in 6M20

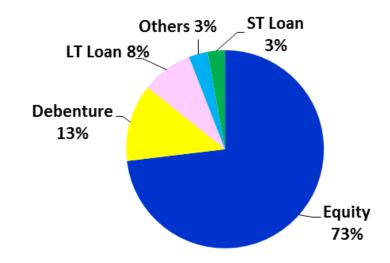
In 6M20, core profit was THB 3,026 million, decreased by 37% yoy. If including non-recurring items of THB 5,513 million in 6M19, net profit decreased 71% yoy

* Excluding non-recurring items

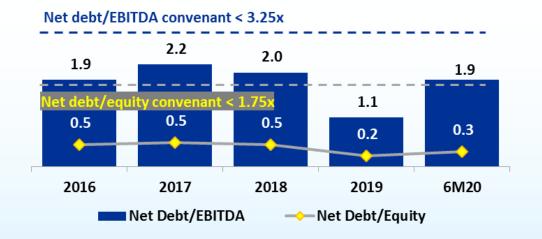
Capital Management

Bangkok Dusit Medical Services

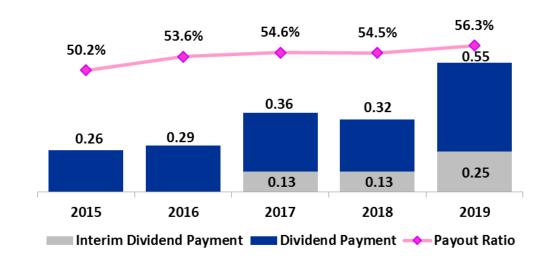
Capital Structure as of June 2020



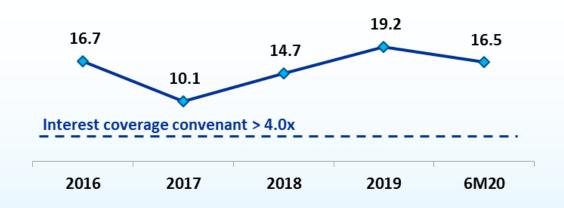
Gearing Ratios: Well Within Covenants



Dividend Payment & Payout Ratio



Interest Coverage





Healthcare Industry

Opportunities in Thailand Healthcare Sector



Despite sluggish local and global economy, Thai healthcare sector continues to be resilient

Rising Demand for Healthcare

- ✓ Aging demographics and increasing non-communicable diseases
- ✓ Growing medical tourism from capable medical personnel, convenient infrastructure and value for money

Positive Private Health Insurance Momentum

- ✓ Co-operation between insurance companies and local hospitals driving private health insurance penetration
- **✓** Thai Government tax break on premium for health insurance

Preventive Trend

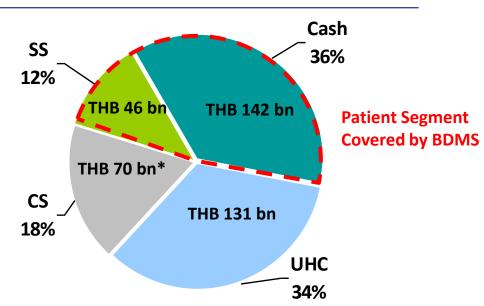
- ✓ Increasing health conscious lifestyle
- ✓ Focusing on precision medicine, wellness, early detection and exercise including mental health awareness

Health Tech

- ✓ Smart hospitals
- ✓ Mobile health application helps increase healthcare accessibility

Healthcare Segments in Thailand





Source: National Health Security Office (NHSO), The Office of the National Economic and Social Development Board (NESDB) and Social Security Office (SSO)

* BDMS estimated

Universal Healthcare Coverage (UHC)	A welfare program for Thai people to receive medical coverage for IPD and OPD care at registered facilities
Civil Servant (CS)	A welfare program provided to employees of governments and state-owned enterprises
Social Security Scheme (SS)	Minimum requirement of healthcare provided to employees of private companies
Private Healthcare (Cash)	Proportion of Thai population not covered or choose not to use public healthcare schemes (UHC, CS and SS), though may have private insurance coverage

Thailand Healthcare Demand and Supply

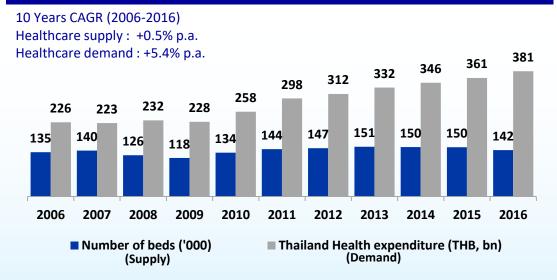
Healthcare Supply in Thailand (2020)

	# of Hospitals	# of Beds
Private	381	36,044
Public	899	97,791
Total	1,592	133,968

(Number per 10,000 population)	Thailand	Global
Doctor (2018)	8	15
Nurse (2018)	28	38
Bed (2016)	22	26

Source: WHO and Ministry of Public Health

Healthcare Demand Growing Faster than Supply



Source: NESDB and NSO

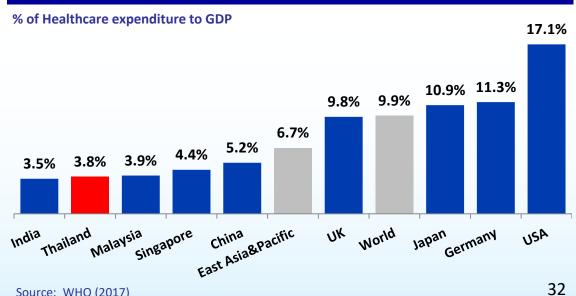


BDMS Market Coverage (2020)

	Total Private Beds	BDMS Registered Beds	Market Share
Bangkok	13,980	2,702	19%
Central	11,611	2,308	20%
South	2,863	729	25%
Northeast	3,318	384	12%
North	4,272	264	6%
Total	36,044	6,387	18%

Source: Department of Health Service Support, Ministry of Public Health

Low Healthcare Penetration

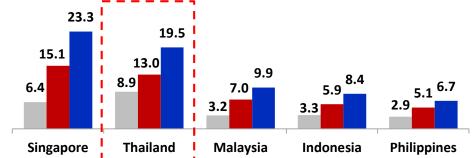


Source: WHO (2017)

Increasing Thailand Healthcare Demand

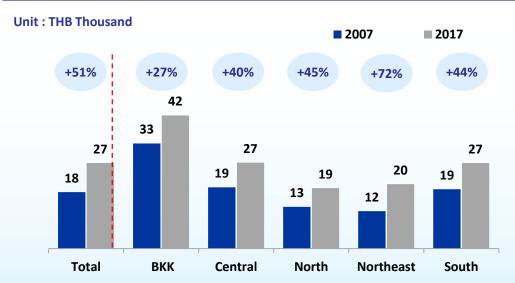
Population Growth and Aging Profile





Source: UN Population Database: 2015

Thailand Monthly Income per Household



Source : NESDB Source: OIC

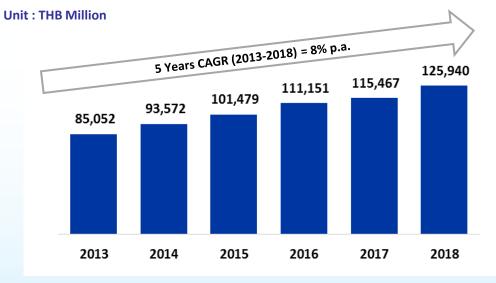


33

Commentary

- Aging population generates greater demand for healthcare expenditure
- Monthly income per household in Thailand increased by 51% during 2007-17. This would support growing demand for healthcare
- Health insurance reduces financial burden of out-of-pocket expense. Increasing trend for health insurance will benefit private hospitals

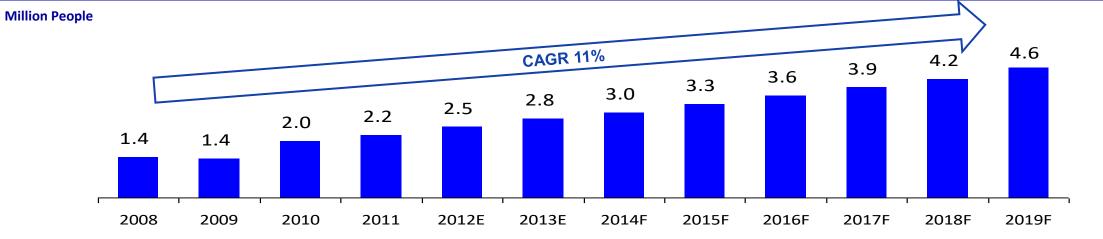
Health & Personal Accident Insurance Premium



Medical Tourism



Increasing Trend of Medical Tourists to Thailand

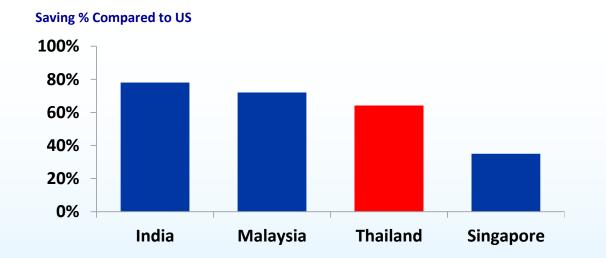


Source: EIC, SCB and Ministry of Commerce

Medical Tourism as a Rising Phenomenon

Procedures (In USD)	USA	Singapore*	Thailand	Malaysia*	India
Heart Bypass	123,000	17,200	15,000	12,100	7,900
Heart Valve Replacement	170,000	16,900	17,200	13,500	9,500
Knee Replacement	35,000	16,000	14,000	7,700	6,600
IVF Treatment	12,400	14,900	4,100	6,900	2,500

Saving as Compared to Other Medical Tourism Market



Source: Medicaltourism.com (2019)

^{*} Excluding doctor fee

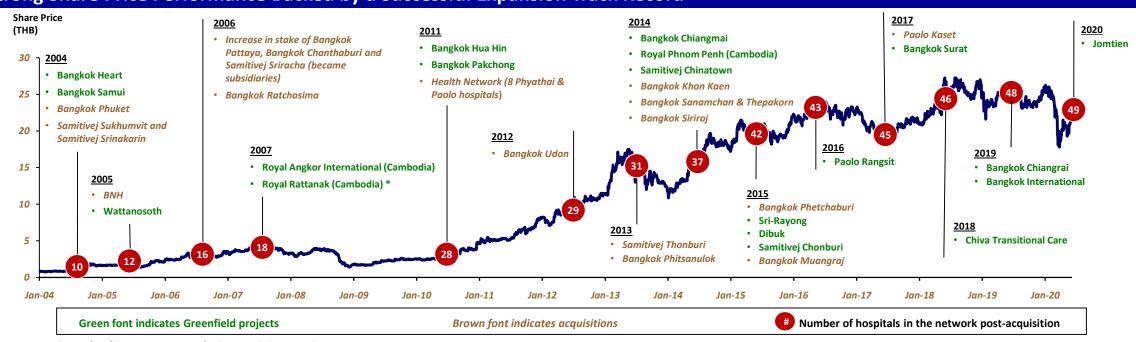


Company Information

Successful Track Record of Expansion Through M&A and Greenfield Projects

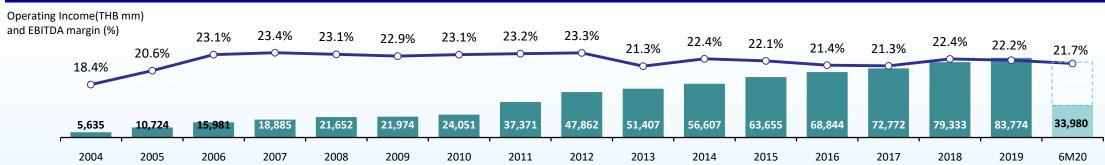


Strong Share Price Performance Backed by a Successful Expansion Track Record



^{*} Transfer of business to our new facility, Royal Phnom Penh

Solid Revenue Growth Over the Past Decade (2004-2019 CAGR of 19.7%) with Resilient EBITDA margin *



Source: Derived from BDMS' financial statements

^{*} Excluding non-recurring items



Shareholding Structure

+}	DM	IS
Bangkok	Dusit Medical	Service

		% of Shareholding
1	Mr. Prasert Prasarttong-Osoth, M.D. and spouse	15.9%
2	Thai NVDR Co., Ltd.	8.3%
3	Bangkok Airways PCL and Bangkok Airways Holding Co., Ltd.	6.5%
4	The Viriyah Insurance PCL	5.9%
5	Miss Poramaporn Prasarttong-Osoth, M.D.	3.5%
6	Social Security Office	3.3%
7	Mr. Chirotchana Suchato, M.D. and spouse	2.5%
8	South East Asia UK (Type C) Nominees Limited	2.4%
9	UBS AG Singapore Branch	2.3%
10	Mr. Att Thongtang and spouse	2.1%
	Total	52.7 %

Investments



Investments in Other Hospitals : - Listed Companies

Bumrungrad Hospital PCL (BH) 22.94%

Non- Hospital Strategic Investments *

Pharmaceutical Business

•	A.N.B. Laboratories	100%	Sterile pharmaceutical product manufacturer & distributor		
٠	Save Drug Center	100%	Drugstore		
٠	The Medicpharma	87%	Generic pharmaceutical product manufacturer		
٠	General Hospital Products PCL	47%	Sterile pharmaceutical product manufacturer		
Other Complimentary Business					

Other Complimentary Submess		
 National Healthcare Systems 	100%	Central lab, central supply chain, procurement & other shared services
Greenline Synergy	100%	Shared IT services
Bangkok Premier Insurance Broker	100%	Health & life insurance broker
Bangkok Helicopter Services	100%	Transportation of patients via helicopter services

38 * Not included all BDMS' investments

Appendix



For More Information:- www.bangkokhospital.com

Group 1 (Bangkok&West&Cambodia)	<u>Ownership</u>	No. of Beds	Group 4 (North&Northeast)	Ownership	No. of Beds	Group 6 (South)	<u>Ownership</u>	No. of Beds
1. Bangkok Hospital	100%]	373	26. Bangkok Chiangmai (BCM)	100% 🥝	175	44. Bangkok Phuket (BPK)	99.7%	<u>></u> 266
2. Bangkok Heart Hospital	100%	97	27. Bangkok Ratchasima (BKH)	91.4%	171	45. Bangkok Siriroj (BSI)	100%	0 151
3. Wattanosoth Hospital - (BHQ)	100% - 🥝	48	28. Bangkok Pakchong (BHP)	91.4%	31	46. Dibuk (DBK)	99.7%	100
4. Chiva Transitional Care	100%	52	29. Bangkok Udon (BUD)	100%	120	47. Bangkok Hat Yai (BHH)	98.8%	200
5. Bangkok International	100%]	172	30. Bangkok Phitsanulok (BPL)	100%	195	48. Bangkok Samui (BSH)	100% (52
6. Bangkok Huahin (BHN)	100% 🥝	64	31. Bangkok Khon Kaen (BKN)	100%	140	49. Bangkok Surat (BSR)	100%	150
7. Bangkok Sanamchan (BSN)	100%	210	32. Bangkok Chiangrai (BCR)	100%	80			
8. Thepakorn (TPK)	50.0%	100						
9. Bangkok Phetchaburi (BPR)	100%	255	Group 5			Group 7: Non-Hospital		
10. Bangkok Muangraj (BMR)	100%	142	33. Phyathai 1 (PT1)	98.6%	224	National Healthcare System	100%	
11. Royal Phnom Penh (RPH)	100% 🥝	100	34. Phyathai 2 (PT2)	97.8%		Bio Molecular Laboratories		
12. Royal Angkor International (RAH)	80.0%	30	35. Phyathai 3 (PT3)	97.6%	267	3. The Medicpharma	87.1%	
			36. Phyathai Sriracha (PTS)	74.2%	350	4. A.N.B Laboratories	100%	
Group 2		_	37. Phyathai Nawamin (PTN)	99.8%	140	5. Save Drug Center (SDC)	100%	
13. Samitivej Sukhumvit (SVH)	95.8%	0	38. Paolo Paholyothin (PLP)	100%	267	6. General Hospital Products	47.0%	
14. Samitivej Srinakarin (SNH)	95.8%	400	39. Paolo Samutprakarn(PLS)	93.7%	200	o. General Hospital Froducts	47.070	
15. Samitivej Sriracha (SSH)	70.1%	184	40. Paolo Chokchai 4 (PLC)	85.7%	169			
16. Samitivej Thonburi (STH)	64.0%	150	41. Paolo Rangsit (PLR)	100%	150			
17. Samitivej Chonburi (SCH)	100%	260	42. Paolo Kaset (PLK)	100%	162			
18. Samitivej Chinatown (SCT)	100%	59	43. Paolo Phrapradaeng (PLD)	84.0%	60			
19. BNH Hospital (BNH)	91.5%	144	+3. Table Finaplacating (FED)	04.070	00			
Group 3 (East)								
20. Bangkok Pattaya (BPH)	97.3% 🥝	400						
21. Bangkok Rayong (BRH)	100% 🥝	220						
22. Bangkok Chanthaburi (BCH)	99.7%	185						
23. Bangkok Trat (BTH)	99.8%	114						
24. Sri Rayong (SRH)	100%	195						
25. Jomtien (JTH)	100%	232						
								20

Remark:- Number of beds is structured beds