

Bangkok Dusit Medical Services (BDMS)

Investor Presentation

3Q16 & 9M16 Results

November 2016













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Overview













BDMS

Overview

- Established on February 26, 1972
- Largest private hospital operator in Thailand in terms of revenues from patient services and market capitalization
- Owns and manages 43 hospitals (with total beds* of 7,669) under 6 hospital brands:

Bangkok D	DMS usit Medical Services Brand	No. of Hospitals	No. of Beds*
3	Bangkok Hospital	20	3,136
**	Phyathai Hospital	5	1,340
	Samitivej Hospital	5	1,195
14	Paolo Hospital	4	798
HOSPITAL SINCE 1898	BNH Hospital	1	144
2	Royal International Hospital	2	130
	Local Hospital	6	926

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













Shareholding Structure

As of 29 January 2016

		% of Shareholding
1	Mr. Prasert Prasarttong-Osoth, M.D. and family	22.4%
2	Mr. Wichai Thongtang and family	10.7%
3	Bangkok Airways*	7.8%
4	The Viriyah Insurance Co., Ltd.	6.1%
5	Thai NVDR Co., Ltd.	3.4%
6	Mr. Chirotchana Suchato, M.D. and family	2.7%
7	Ladpli family**	2.3%
8	Social Security Office	2.2%
9	Mr. Chuladej Yossundharakul, M.D. and family	1.9%
10	Chase Nominee Limited	1.3%
	Total	60.7%

Source: Summary of the information from Thailand Securities Depository Company Limited (TSD)

^{**} Consisted of Miss Noppamas Ladpli, Mrs. Atinuch Malakul Na Ayudhaya and Mr. Parameth Ladpli







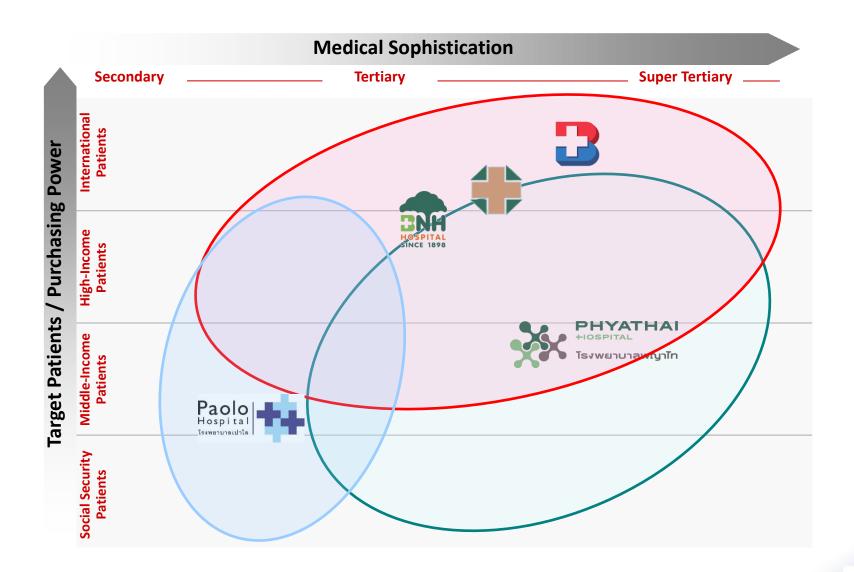






^{*} Consisted of Bangkok Airways PCL and Bangkok Airways Holding Co., Ltd

Diversification of Patient Mix









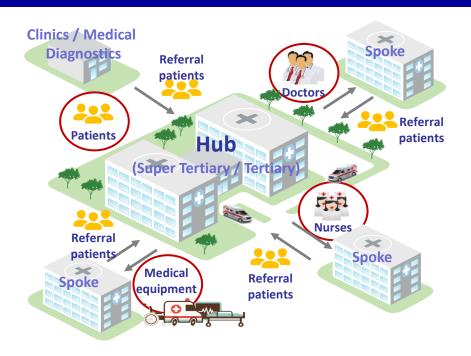






'Hub-and-Spoke' Model

Providing a Proven Patient Referral System and Creating Efficiency Through Scale





- Strong patient referral system within and across each hub and spoke
- Enhances synergies and benefits of scale among hospitals within the group
- 3 Shared supporting services among multiple hubs which enhance efficiency and competitiveness
- Established system provides a platform for future expansion







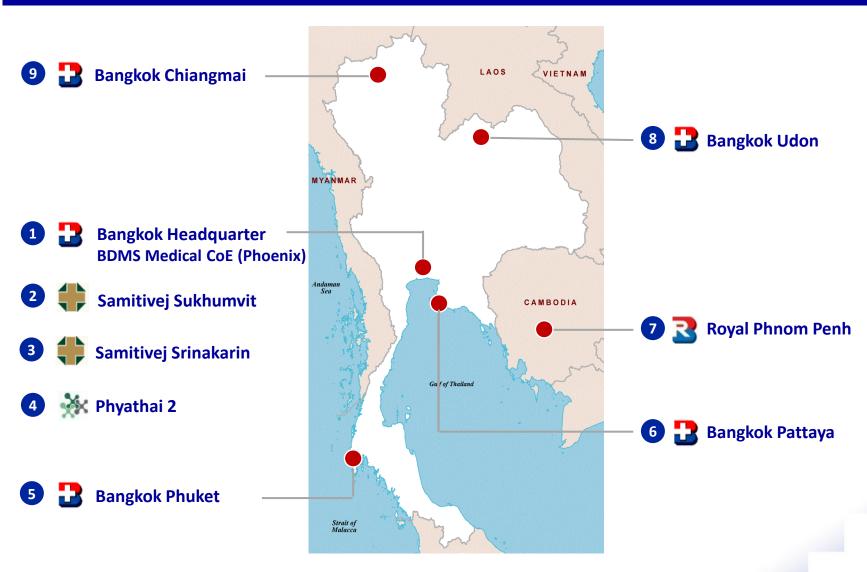






BDMS Centers of Excellence Network

Upgrading Existing 9 Hospitals to Become Centers of Excellence with the Focus on International Patients















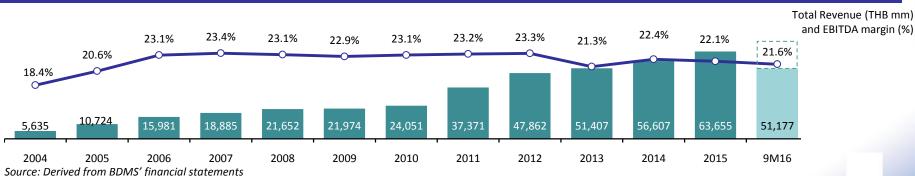
Successful Track Record of Expansion Through M&A and Greenfield Projects

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 (2004-2015 CAGR of 24.7%) with Resilient EBITDA margin



BDMS has developed 13 new hospitals and acquired a total of 29 hospitals to date













Proven Growth Strategy Through Hospital Network Expansion

Identification of Opportunities

Integration Plan

1 Meet Investment Criteria?

2 Brownfield or Greenfield Projects?

3 Integration and On-Going

Strategic Fit & Potential Synergy

- Strategic location / high growth rates
- Patient base expansion
- Potential to attract both local and international patients

AND

Financial Returns

- IRR / Payback period
- Investment cost per bed
- Profit break-even point

AND

Impact to balance sheet

BDMS' gearing ratio

Strict investment criteria must be met before making investment decision

Brownfield Projects

- Continue existing operation with revenue stream and profit from day 1
- Existing clinical personnel
- + Existing facilities
- Existing patient pool
- + Established brand

OR

Greenfield Projects

- ♣ 2 3 years before +ve EBITDA
- Ability to build new hospitals to meet our requirements and to support growth potential
- Implementation of existing brand

Pursue greenfield when there are no attractive brownfield opportunities

Doctor Pool Technicians Clinical supporting functions Nurse Pool Medical Equipments

Centralized supporting services to facilitate hospitals within the Group

Finance & Accounting

IT

HR

Procurement

Property Management

Investment Decision













Investments

Investments in Other Hospitals : - Listed Companies

- Ramkhamhaeng Hospital PCL 38.24%
- Bumrungrad Hospital PCL 23.95%

Non- Hospital Strategic Investments⁽¹⁾

Pharmaceutical Business

٠	A.N.B. Laboratories	100%	Sterile pharmaceutical product manufacturer & distributor
•	Save Drug Center	100%	Drugstore
٠	The Medicpharma	87%	Generic pharmaceutical product manufacturer
•	General Hospital Products PCL	45%	Sterile pharmaceutical product manufacturer

Other Complimentary Business

•	National Healthcare Systems	100%	Central lab, central supply chain, procurement & other shared services
•	Greenline Synergy	100%	Shared IT services
•	Bangkok Premier Life Insurance Broker	100%	Health & life insurance broker
	Bangkok Health Insurance	100%	Health Insurance

Bangkok Helicopter Services 100% Transportation of patients via helicopter services

THB mm Non-Hospital Revenues



(1) Not included all BDMS' investments





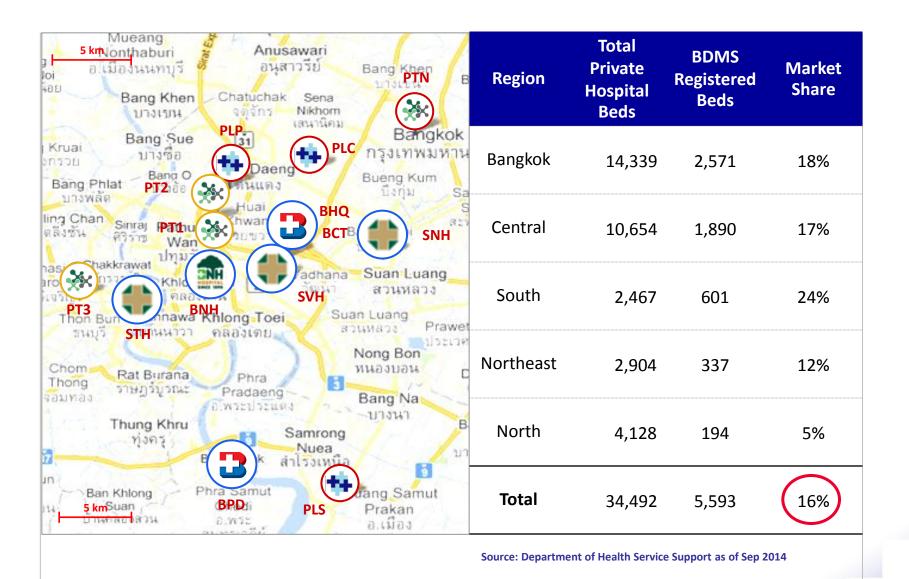








Extensive Market Coverage in Bangkok and Vicinity Area















Medical Cooperation

International and Local Partnership

Cancer



Sister Institute with MD Anderson on cancer

Occupational health, Pediatrics, Rehabilitation and Informatics



Collaboration with Oregon Health and Science
 University on occupational health, pediatrics,
 rehabilitation, clinical simulation and informatics

Trauma and Orthopedics



 Collaboration with Missouri Orthopaedic Institute, University of Missouri Health Care in education, training and research



 Collaboration with Hannover Medical School for education and research on trauma and orthopedics



 Collaboration with Stanford University for knowledge sharing on orthopedics













Medical Cooperation

International and Local Partnership

Neuroscience



Research collaboration with Department of Neurosurgery, Cedars-Sinai on the TRFS laser device for brain tumor surgery

Collaboration with Black Brain Health Center of Dr. Keith L. Black, one of the world leading neurosurgeons

Gastrointestinal



■ Collaboration with Sano Hospital on **Gastrointestinal Medicine**

Others



Collaboration with Nagoya University for education, medical treatment assistance and patient referral









Collaboration with local institutions









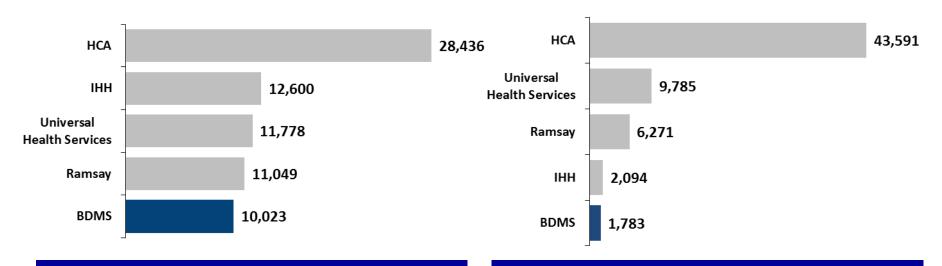




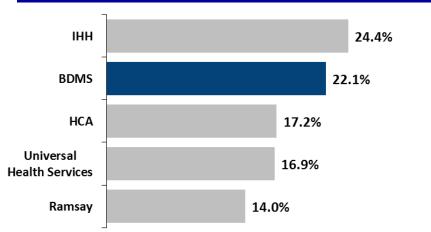
Global Hospital Rankings

Market Capitalization (USD mm)

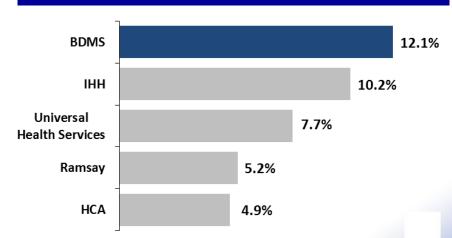
Revenue (USD mm)



EBITDA Margin



Net Profit Margin



Remark: - Market capitalization as of 3 November 2016

- Financial performance (excluding non-recurring items) for year ended December 2015 except Ramsay for the year ended June 2016















Healthcare Industry









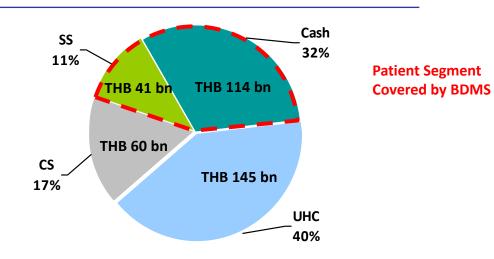




Thailand Healthcare Coverage

Healthcare Segments in Thailand





^{*} Excluding general government expenditure on healthcare Source: SSO, NHSO, WHO, BOT, Phatra Securities estimates

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













Increasing Healthcare Demand

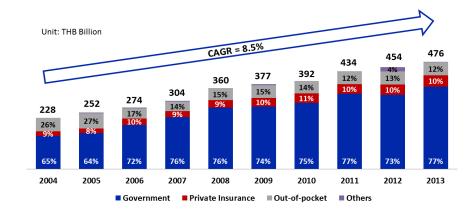
Thai Population / Bed

Population growth higher than supply

	2008	2009	2010
Bangkok	312	379	266
Central	402	414	409
Northeast	779	724	714
North	500	679	460
South	492	500	498
Total	502	540	477
Global Average			
(Y2006-2012)		385	\longrightarrow

Source: Ministry of Public Health and World Health Organization

Increasing Healthcare Expenditures in Thailand (2004 – 2013)

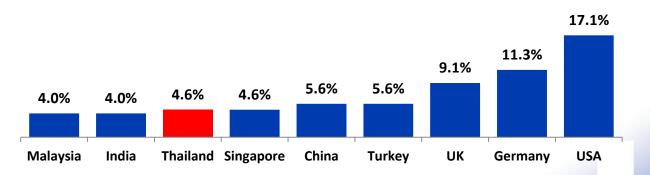


Source: National Health Account of Thailand and Health Systems Research Institute

Low Healthcare Penetration

Healthcare expenditure as % of GDP in Thailand is still low compared to other developing and developed countries

โรงพยาบาลกรุงเทพ



Source: World Health Organization for 2013







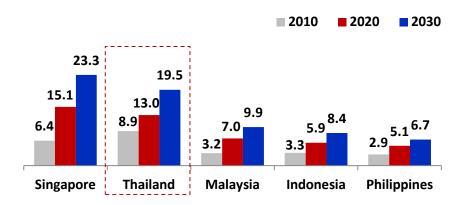




Increasing Healthcare Demand

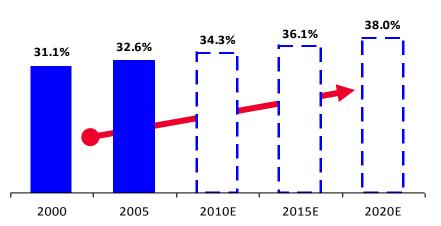
Population Growth and Aging Profile

Percentage of population above 65 years (%)



Source: UN Population Database: 2015

Urbanization



Sources: NESDB, Health & Welfare Surveys, National Statistics Office (Data related to Thailand)





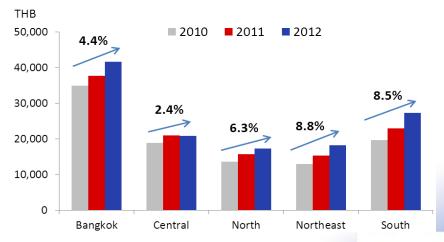


Royal Bangkok

Commentary

- Aging population will have great implications on both healthcare costs as well as its capacity to serve demand. In addition, aging population also means a strain on healthcare capacity if it fails to catch up well with increasing demand
- Increasing degree of urbanization is expected over time from 31.1% in 2008 to 38.0% in 2020
- The trend has also been the same for overall South East Asia countries where rapid urbanization is expected from 36.7% in 2000 to 50.6% in 2025

Rising Income per Capita



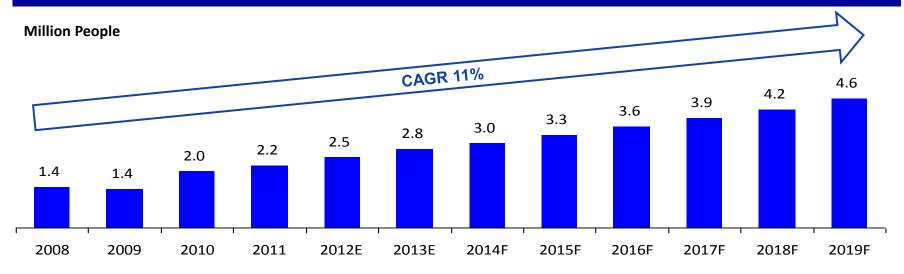
Sources: NESDB





Medical Tourism

Increasing trend of international patient visits



Source: Economic Intelligence Center, SCB and Ministry of Commerce

Medical Tourism as a Rising Phenomenon

Procedures (In USD)	USA	Singapore	Thailand	Malaysia	India
Coronary Artery Bypass Graft	88,000	54,500	23,000	20,800	14,400
Valve Replacement with Bypass	85,000	49,000	22,000	18,500	11,900
Hip Replacement	33,000	21,400	16,500	12,500	8,000
Knee Replacement	34,000	19,200	11,500	12,500	7,500
Spinal Fusion	41,000	27,800	16,000	17,900	9,500
Gastric Bypass	18,000	13,500	12,000	8,200	6,800

Source: "Patient Beyond Border" 3rd edition by Josef Woodman (2015)















Operational Statistics







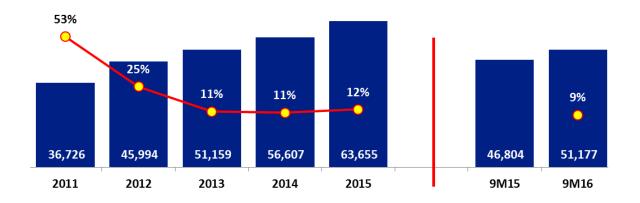






Operating Income Trend

(THB mm)



Commentary

- 9M16 Operating income increased by 9% yoy, primarily from
 - Revenue from hospital operations grew 10% yoy mainly from
 - Increase in number of patients
 - Increase in healthcare inflation, intensity and complexity cases
 - Consolidation of new network hospitals
 - Patient ward renovation and patient referral system

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

-13 new hospitals (less than 2 full calendar years) are consisted of BCM, BSN, TPK, PIH, RPH, BKN, BCT, MPH, SRH, DBK, SCH, Muangraj and PLR and consolidation of Save Drug Center







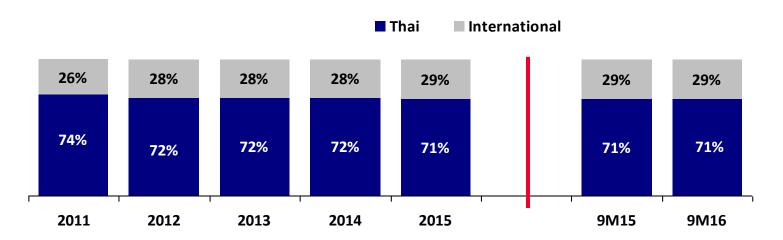






Expanding Both Thai and International Patients

Revenue Contribution by Nationality



Commentary

- 9M16 revenue from Thai patients grew 8% while international patients grew 11% yoy
 - Top 5 international patient revenues are from Japan, Myanmar, UAE, UK and Australia which contribute 2.4%, 2.0%, 1.8%, 1.6% and 1.4% of total patient revenues respectively
 - International patient revenues grew significantly for Cambodia (+34%), Qatar (+29%) and Australia (+25%)







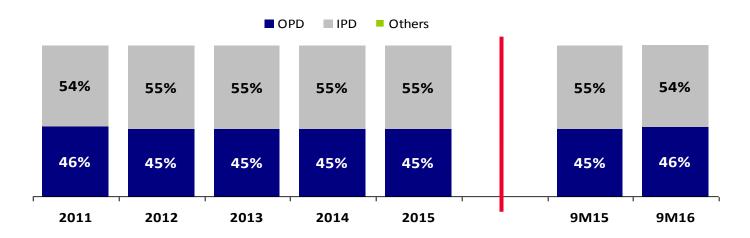




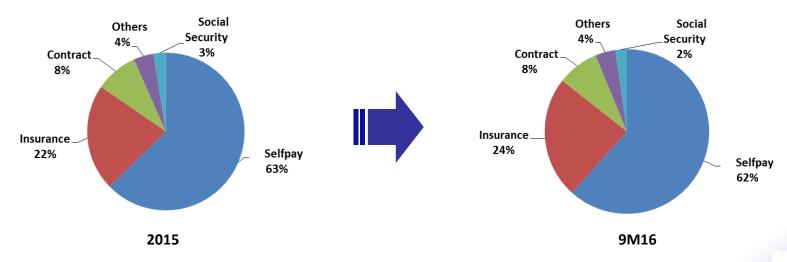


Patient Mix

Revenue Breakdown by Patient Types



Patient Revenue by Payor: Increasing Insurance Portion



Source:- BDMS management report







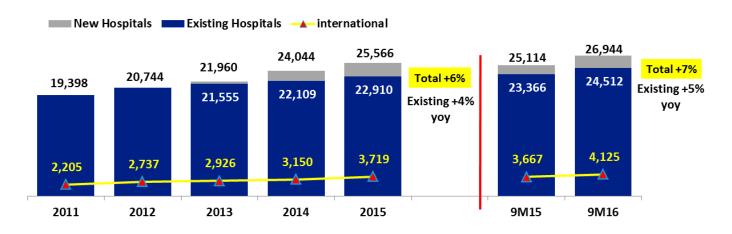




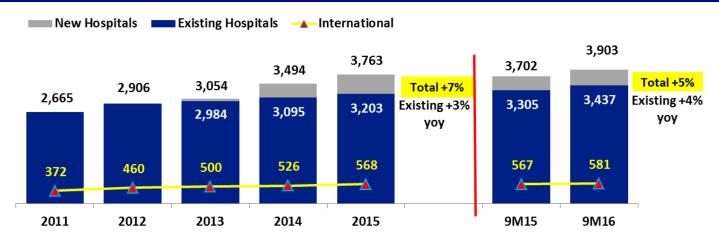


Patient Base Expansion From Both Organic Growth & Acquisitions

Number of OPD Visits per Day



Average Daily Census (ADC)



Remarks: - Including social security Source:- BDMS Management Report







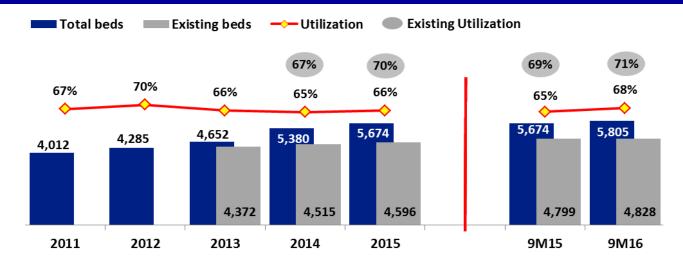




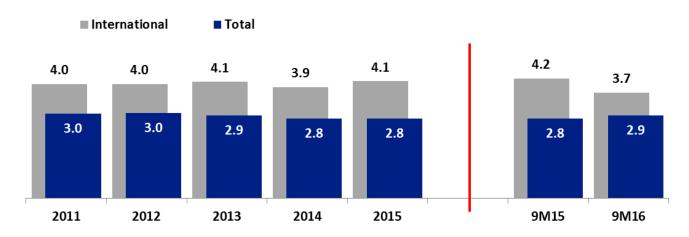


Utilization of Beds

Utilization Based on Available Beds



Average Length of Stay (days)



Remarks:- Including social security patients















Financial Highlights







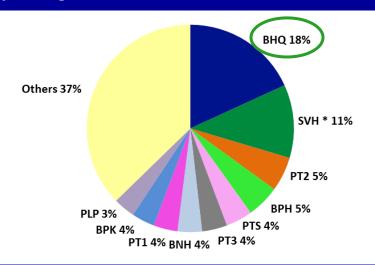




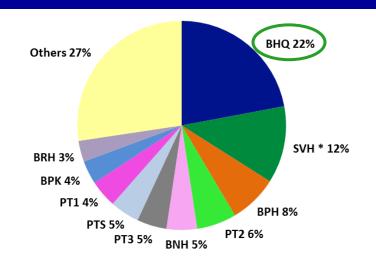


Diversified Sources of Revenues and Profitability

Operating Income Contribution in 9M16



Total EBITDA Contribution in 9M16



Commentary

- During 9M16, top 5 hospitals contributed 43% of total revenue and 53% of total EBITDA
- Revenue of Bangkok&vicinity hospitals grew 7% yoy
 - Existing Hospitals that grew more than 7% yoy are STH (+22%), PT1 (+18%), PT2 (+15%), BNH (+13%),
 PLS (+10%), PLC (+8%) and SVH (+8%)
- Revenue of Upcountry hospitals grew 14% yoy
 - Existing Hospital that grew more than 14% yoy is BUD (+29%), BPL (+27%), BKH (+18%) and BHN (+18%)

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

- EBITDA is calculated from revenue from hospital operations + revenue from F&B + other income – cost from hospital operations – SG&A expenses











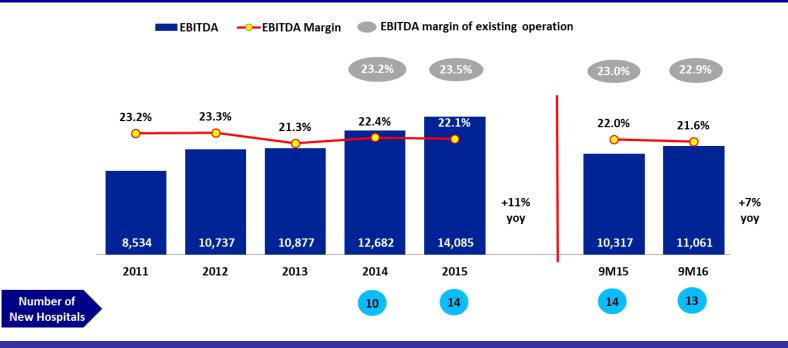


^{*} SVH also included SNH performance

Profitability Trend

EBITDA & EBITDA Margin

(THB mm)



Commentary

- 9M16 EBITDA margin decreased yoy due mainly to
 - Slower growth in the tourist destination hospitals due to changing in mix of international patients
- However, EBITDA margin of existing operations in 9M16 is similar to 9M15









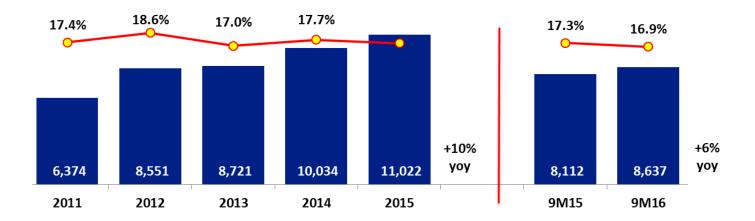




Profitability Trend

EBIT & EBIT Margin*

(THB mm)



Recurring Profit & Recurring Profit Margin*

(THB mm)



^{*} Excluding non-recurring items







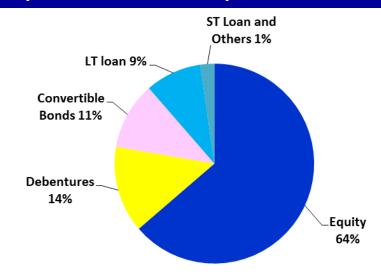






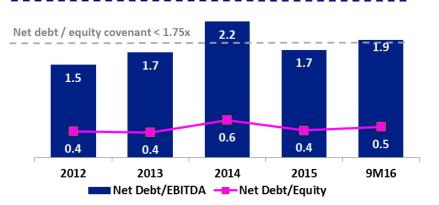
Capital Management

Capital Structure as of September 2016

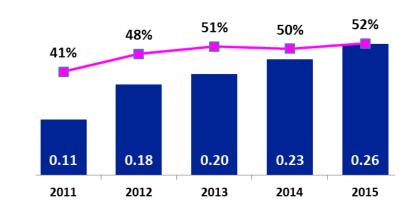


Gearing Ratios: Well Within Covenants

Net debt / EBITDA covenant < 3.25x

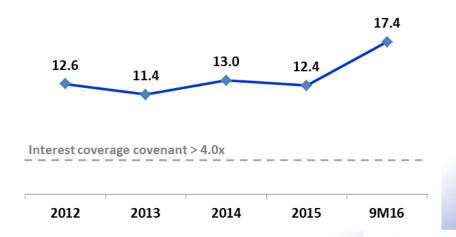


Dividend Payment & Payout Ratio



Remark:- Dividend payment has been adjusted to reflect the change in par value from THB 1.00/share to THB 0.10/share since April 2014

Interest Coverage















Financial Management Policies

Leverage

- Maintain conservative leverage ratios
 - Debt / EBITDA not more than 2.5x
 - Debt / Equity not more than 1.0x

Dividend Policy

More than 50% of Company only net profit, subject to operational results and the ability to pay dividend each year

Funding and Liquidity

- Manage liquidity as a group by using cash pooling system in order to minimize cost of fund and level of Group borrowing
- > BDMS has strong financial flexibility
 - ➤ Has uncommitted short term bank facilities of THB 10,000 mm

Interest Rate Risk

- > Maintain appropriated proportion of fixed / floating interest rate debt
- Current proportion: Fixed 77%: Float 23%

Currency Risk

➢ Minimize currency risk by borrowing in THB or using hedging instruments













Appendix 1

The First Ever Thai Baht-Denominated Zero-Coupon Convertible Bonds

Issuance Date	18 September 2014		M
Currency	THB-Denominated, USD-Settled	Bangkok Dusit M	
Issue Size	THB 10.0 billion	Joint Bool	krunner
Status	Unsecured and unsubordinated convertible bonds	Joint Lead	Manager Ph
Tenor	5 years	Merrill Lynch CREDIT SUISSE	SCE Inswrass
Put Option	At end of year 3 equal to 106.152% of the principal amount (yield 2% p.a.)	
Call Option	At any time after end of year 2.5, if the closing price of the Company's sha at least 130% of the applicable Early Redemption Amount, divided by the effective Conversion Ratio		
Coupon	Zero		
Redemption Price	110.462% of the principal amount (yield 2% p.a.)		
Conversion Price	Baht 21.045 per one newly issued ordinary share. The initial conversion p may be adjusted upon the occurrence of the adjustment events specified terms and conditions of the Bonds		
Dividend Protection	If the dividend payment is more than 55% of consolidated net profit		













Zero Coupon THB-Denominated USD-Settled Convertible Bonds due 2019

Phatra

Appendix 2

Your Trusted Healthcare Network

Group 1 (Bangkok and West)	Ownership	No. of Beds	Group 4 (North, Northeast and Cambodia)		
1. Bangkok Hospital	100% 🥝	343		<u>Ownership</u>	No. of Beds
2. Bangkok Heart Hospital ├─ (BHQ)	100% 🥝	97	26. Bangkok Khon Kaen (BKN)	100%	140
3. Wattanosoth Hospital ー	100% 🥝	48	27. Bangkok Phrapradaeng (BPD)	84.0%	60
4. Bangkok Huahin (BHN)	100% 🥝	60	28. Royal Phnom Penh (RPH)	100%	100
5. Bangkok Chinatown (BCT)	100%	59	29. Royal Angkor International (RAH)	80.0%	30
6. Bangkok Sanamchan (BSN)	100%	200	Group 5	001071	
7. Thepakorn (TPK)	44.5%	100	30. Phyathai 1 (PT1)	100%	350
8. Muang Petch (MPH)	100%	255	31. Phyathai 2 (PT2)	99.2%	
9. Muangraj	100%	125	32. Phyathai 3 (PT3)	98.2%	240
Group 2			33. Phyathai Sriracha (PTS)	74.4%	350
10. Samitivej Sukhumvit (SVH)	95.8%	275	34. Phyathai Nawamin (PTN)	99.8%	140
11. Samitivej Srinakarin (SNH)	95.8%	400	35. Paolo Paholyothin (PLP)	100%	300
12. Samitivej Sriracha (SSH)	69.8%	150	36. Paolo Samutprakarn(PLS)	93.6%	200
13. Samitivej Thonburi (STH)	63.5%	150	37. Paolo Chokchai 4 (PLC)	85.7%	148
14. Samitivej Chonburi (SCH)	100%	220	38. Paolo Rangsit (PLR)	100%	150
15. BNH Hospital (BNH)	91.5%	144	Group 6 (South)		
Group 3 (East)			39. Bangkok Phuket (BPK)	99.7%	266
16. Bangkok Pattaya (BPH)	97.3%	400	40. Phuket International (PIH)	100%	151
17. Bangkok Rayong (BRH)	100%	220	41. Dibuk (DBK)	99.7%	100
18. Bangkok Chanthaburi (BCH)	99.7%	170	42. Bangkok Hat Yai (BHH)	98.8%	200
19. Bangkok Trat (BTH)	99.8%	114	43. Bangkok Samui (BSH)	100% 🥝	52
20. Sri Rayong (SRH)	100%	195	Group 7: Non-Hospital		
, ,		133	National Healthcare System	100%	
Group 4 (North, Northeast and Camb			2. Bio Molecular Laboratories	95.0%	
21. Bangkok Chiangmai (BCM)	100% 🥝	181	3. The Medicpharma	86.9%	
22. Bangkok Ratchasima (BKH)	91.4%	180	4. A.N.B Laboratories	100%	
23. Bangkok Pakchong	91.4%	31	5. Save Drug Center	100%	
24. Bangkok Udon (BUD)	100%	120	6. General Hospital Products	44.7%	
25. Bangkok Phitsanulok (BPL)	100%	195			











