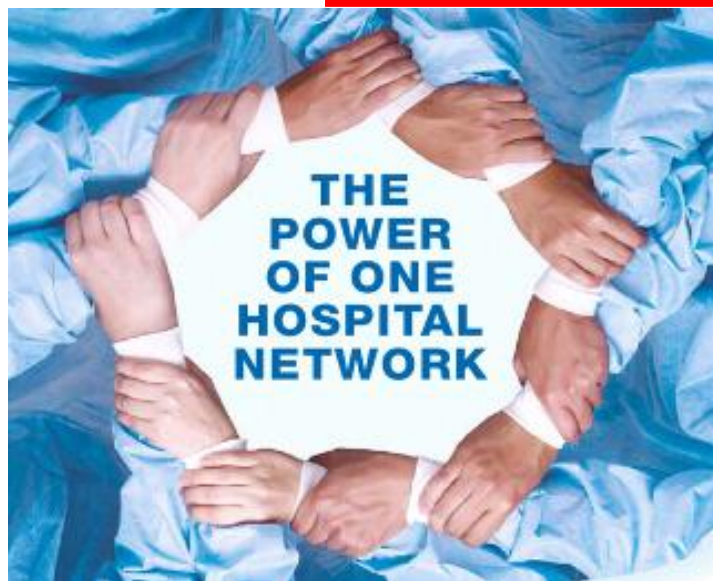




Your Trusted Healthcare Network



**Bangkok Dusit Medical Services (BDMS)**

**Investor Presentation**

**2Q16 & 6M16 Results**

**October 2016**

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# Contents

- Overview
- Healthcare Industry
- Operational Statistics
- Financial Highlights

## 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:

	Brand	No. of Hospitals	No. of Beds*
	Bangkok Hospital	20	3,136
	Phyathai Hospital	5	1,340
	Samitivej Hospital	5	1,195
	Paolo Hospital	4	798
	BNH Hospital	1	144
	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

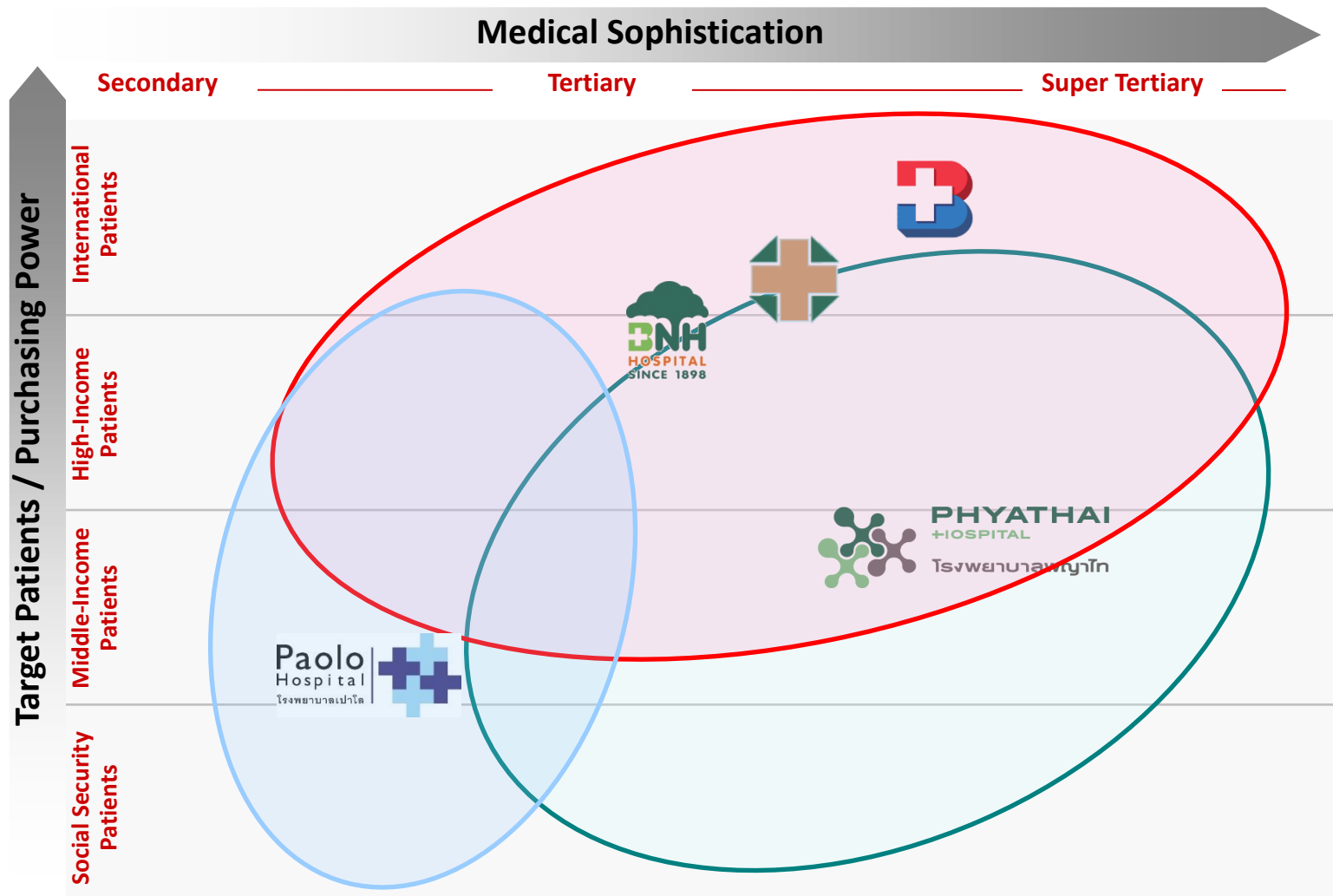
		% of Shareholding
1	Mr. Prasert Prasarttong-Osoth, M.D. and family	22.4%
2	Mr. Wichai Thongtang and family	10.7%
3	Bangkok Airways*	7.8%
4	The Viriyah Insurance Co., Ltd.	6.1%
5	Thai NVDR Co., Ltd.	3.4%
6	Mr. Chirothana Suchato, M.D. and family	2.7%
7	Ladpli family**	2.3%
8	Social Security Office	2.2%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

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

\* Consisted of Bangkok Airways PCL and Bangkok Airways Holding Co., Ltd

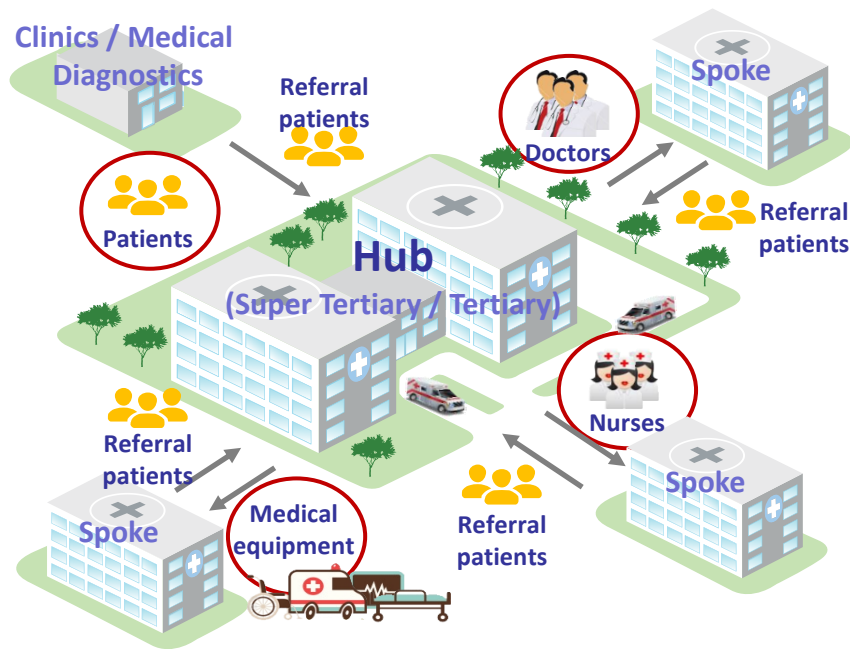
\*\* Consisted of Miss Noppamas Ladpli, Mrs. Atinuch Malakul Na Ayudhaya and Mr. Parameth Ladpli

# Diversification of Patient Mix



# 'Hub-and-Spoke' Model

Providing a Proven Patient Referral System and Creating Efficiency Through Scale

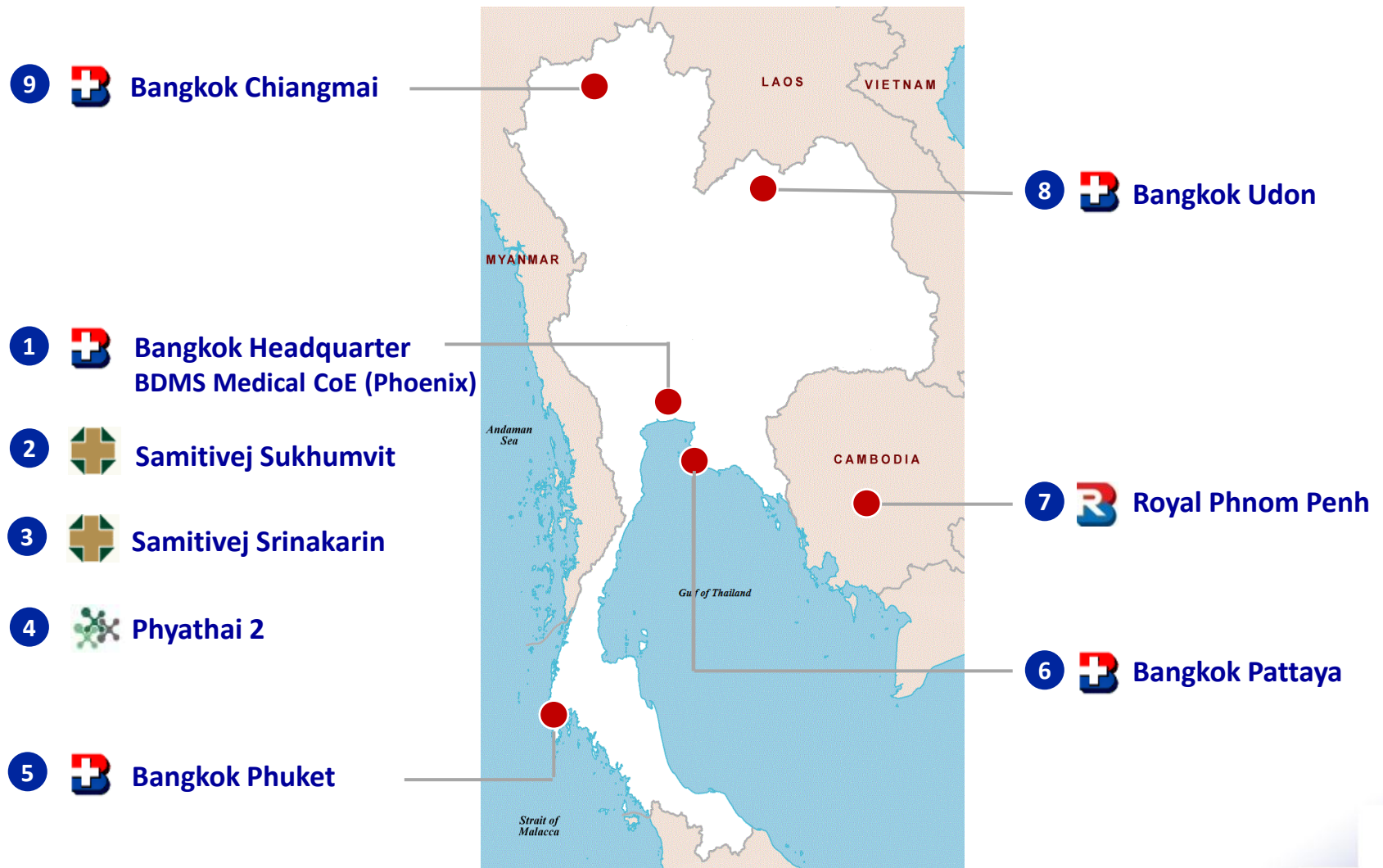


- 1 Strong patient referral system within and across each hub and spoke
- 2 Enhances synergies and benefits of scale among hospitals within the group
- 3 Shared supporting services among multiple hubs which enhance efficiency and competitiveness
- 4 Established system provides a platform for future expansion



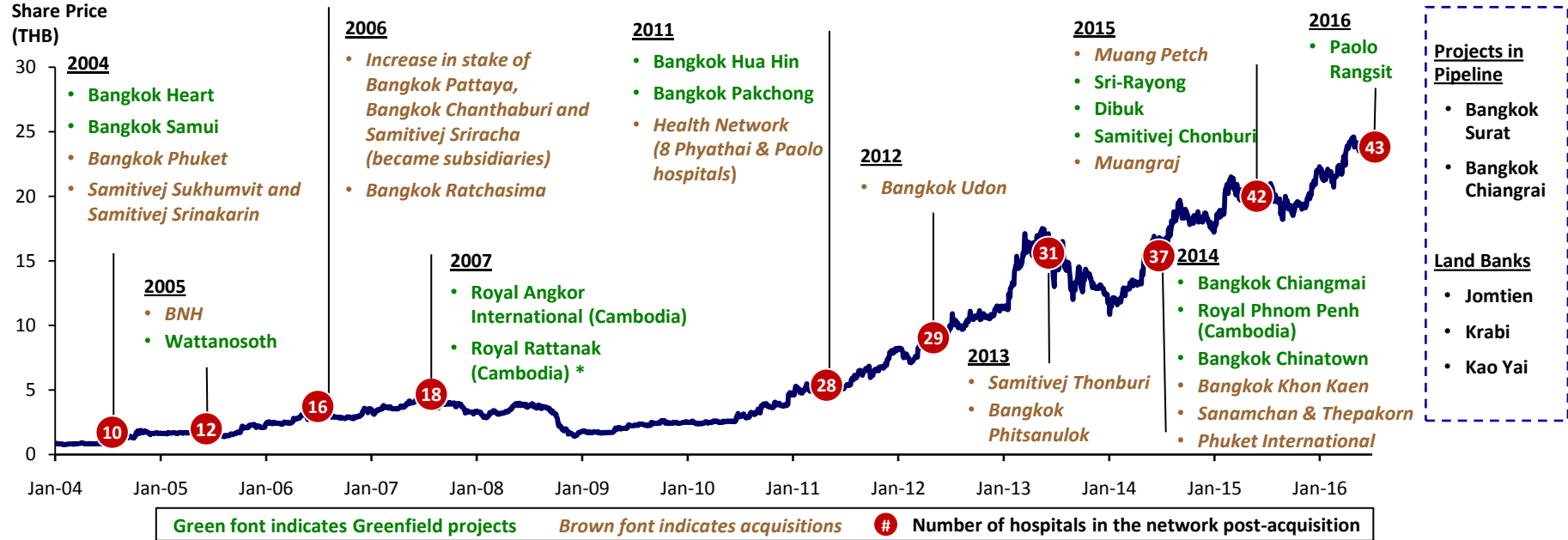
# BDMS Centers of Excellence Network

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



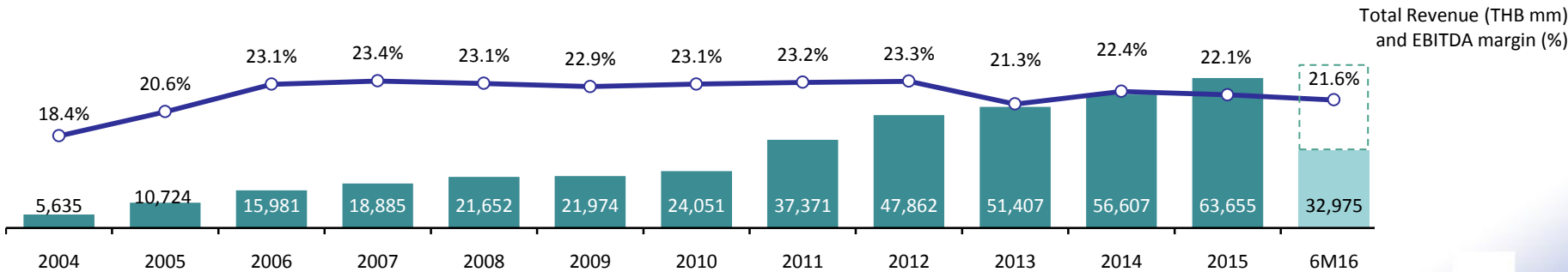
# Successful Track Record of Expansion Through M&A and Greenfield Projects

## Strong Share Price Performance Backed by a Successful Expansion Track Record



\* Transfer of business to our new facility, Royal Phnom Penh

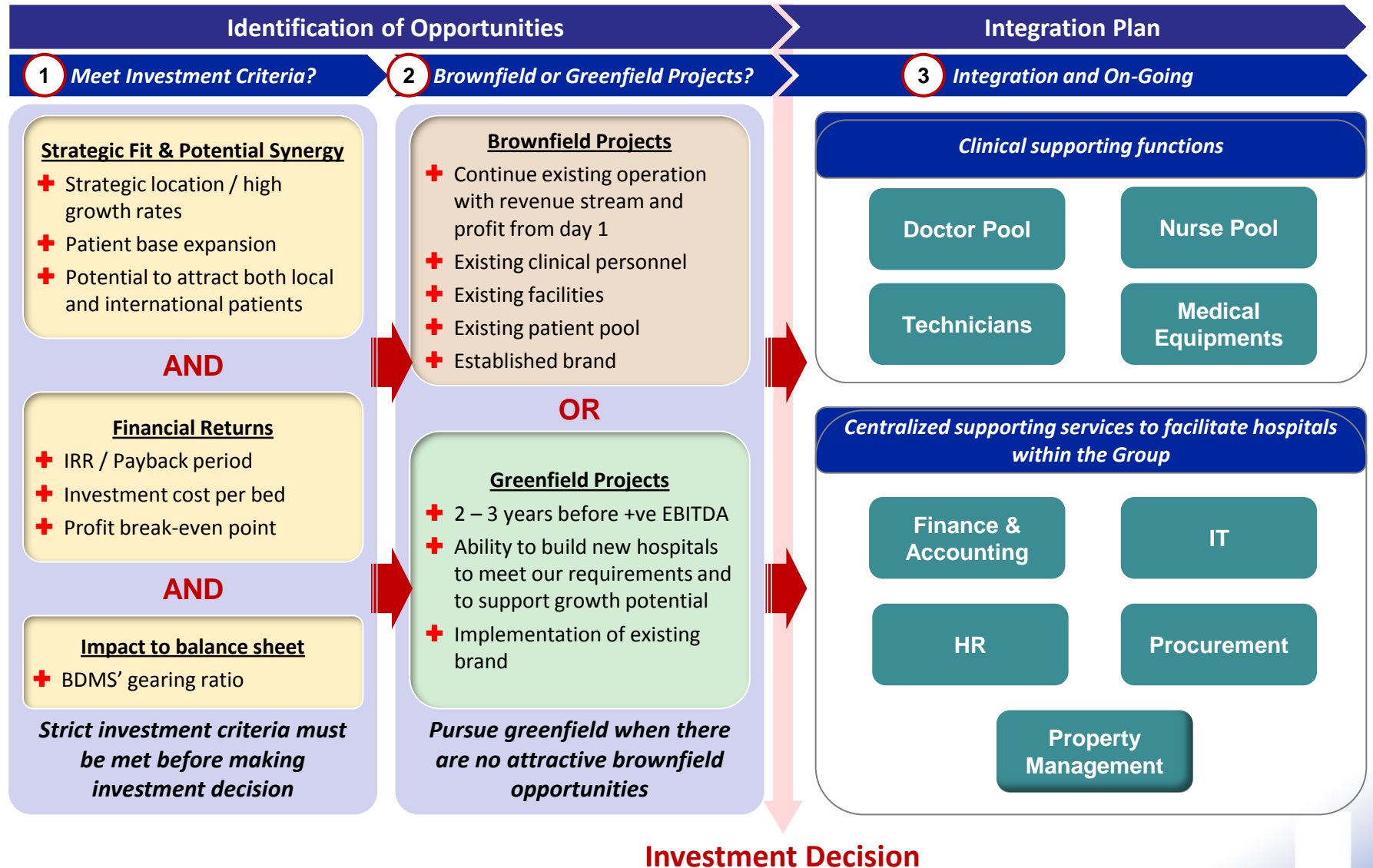
## Solid Revenue Growth Over the Past Decade (2004-2015 CAGR of 24.7%) with Resilient EBITDA margin



Source: Derived from BDMS' financial statements

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

# Proven Growth Strategy Through Hospital Network Expansion



# Investments

## Investments in Other Hospitals : - Listed Companies

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

## Non- Hospital Strategic Investments<sup>(1)</sup>

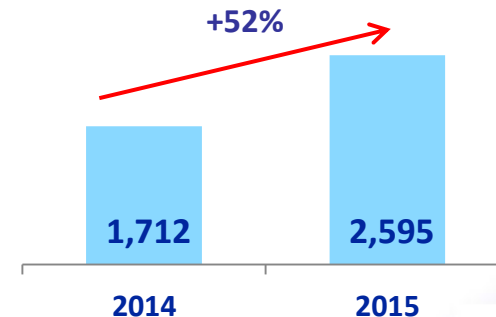
### Pharmaceutical Business

- A.N.B. Laboratories 100% Sterile pharmaceutical product manufacturer & distributor
- Save Drug Center 100% Drugstore
- 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

### Non-Hospital Revenues THB mm



(1) Not included all BDMS' investments



# Extensive Market Coverage in Bangkok and Vicinity Area



Region	Total Private Hospital Beds	BDMS Registered Beds	Market Share
Bangkok	14,339	2,571	18%
Central	10,654	1,890	17%
South	2,467	601	24%
Northeast	2,904	337	12%
North	4,128	194	5%
<b>Total</b>	<b>34,492</b>	<b>5,593</b>	<b>16%</b>

Source: Department of Health Service Support as of Sep 2014

# 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



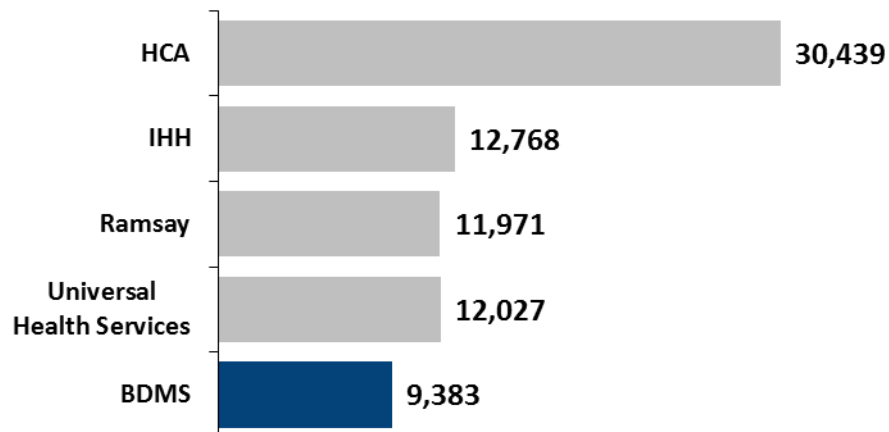
- Collaboration with Nagoya University for education, medical treatment assistance and patient referral



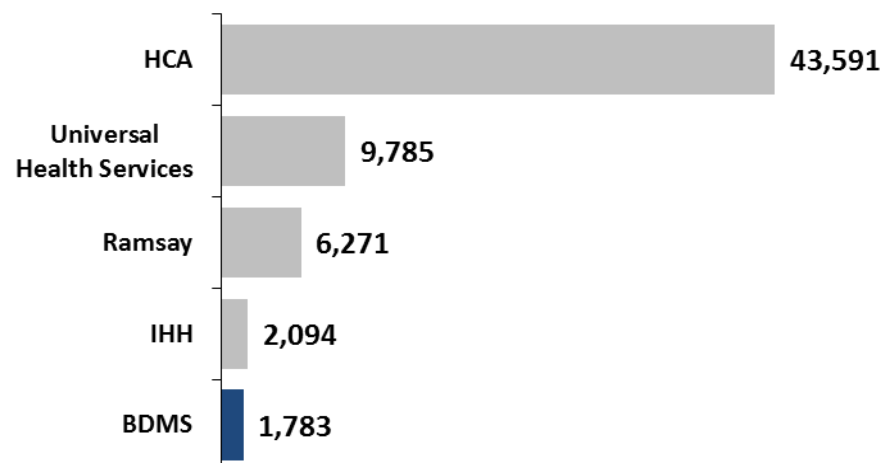
- Collaboration with local institutions

# Global Hospital Rankings

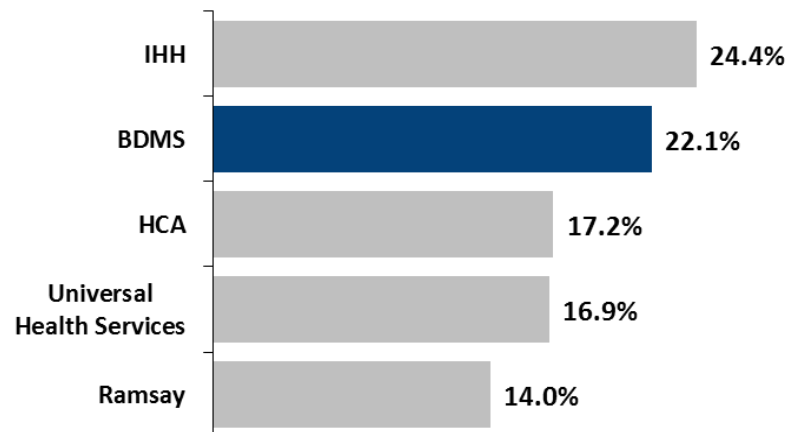
## Market Capitalization (USD mm)



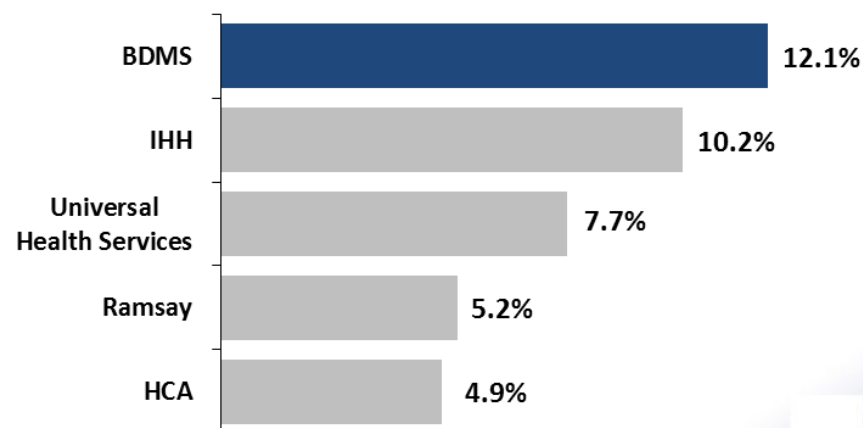
## Revenue (USD mm)



## EBITDA Margin



## Net Profit Margin



Remark: - Market capitalization as of 18 October 2016

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

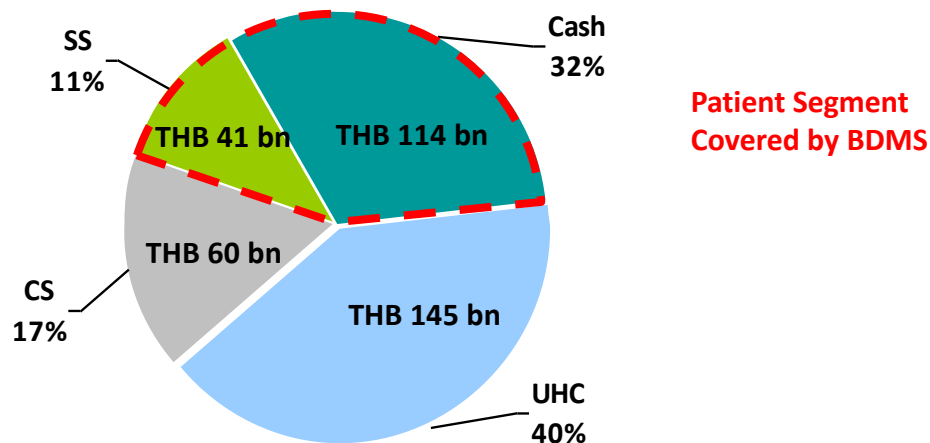


## Healthcare Industry

# Thailand Healthcare Coverage

## Healthcare Segments in Thailand

Total Expenditure for 2014: THB 360 bn\*



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

<b>Universal Healthcare Coverage (UHC)</b>	A welfare program for Thai people to receive medical coverage for IPD and OPD care at registered facilities for payment of Baht 30 (US\$ 1.00) per visit
<b>Civil Servant (CS)</b>	A welfare program provided to employees of governments and state-owned enterprises
<b>Social Security Scheme (SS)</b>	Minimum requirement of healthcare provided to employees of private companies
<b>Private Healthcare (Cash)</b>	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

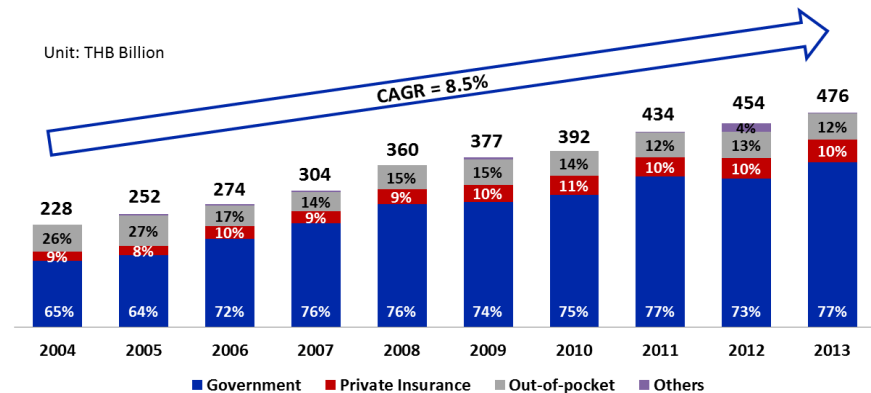
## Thai Population / Bed

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
<b>Total</b>	<b>502</b>	<b>540</b>	<b>477</b>
Global Average (Y2006-2012)	← 385 →		

Source: Ministry of Public Health and World Health Organization

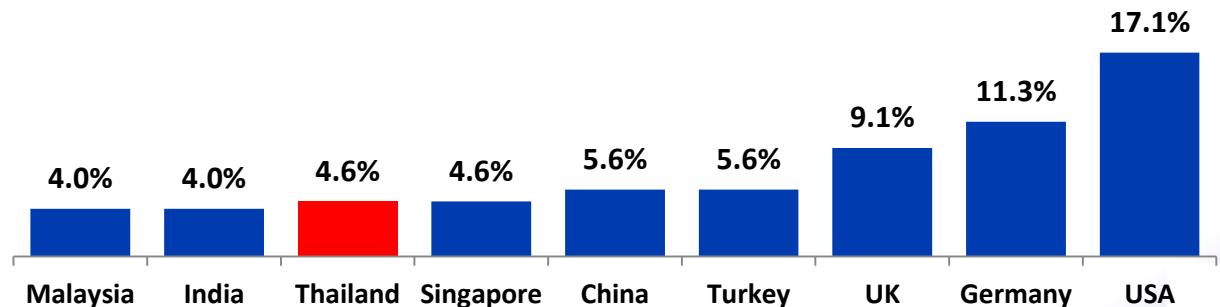
## Increasing Healthcare Expenditures in Thailand (2004 – 2013)



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

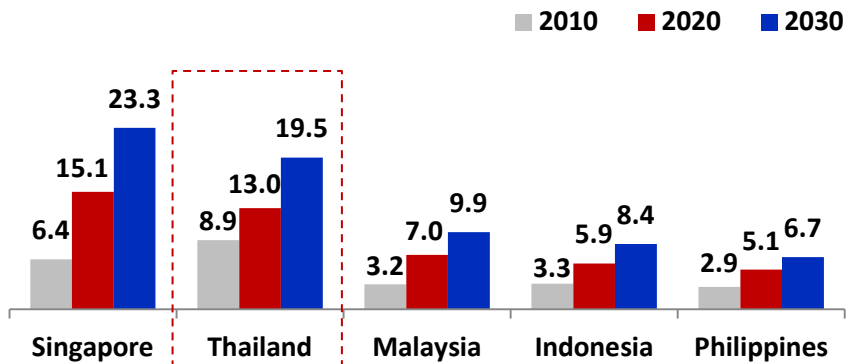


Source: World Health Organization for 2013

# Increasing Healthcare Demand

## Population Growth and Aging Profile

Percentage of population above 65 years (%)

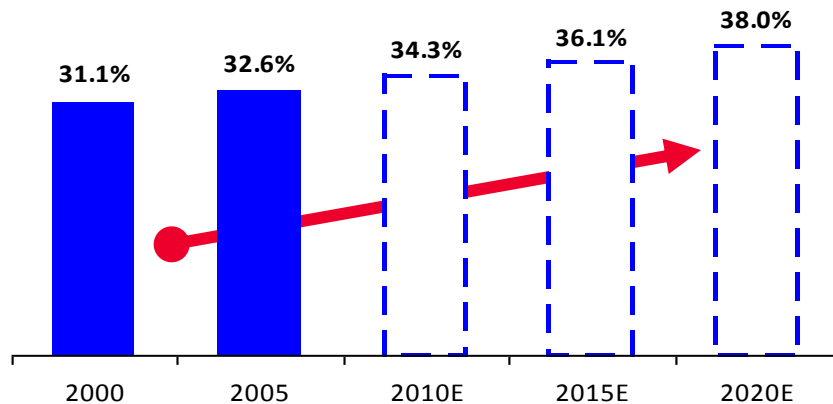


Source: UN Population Database: 2015

## Commentary

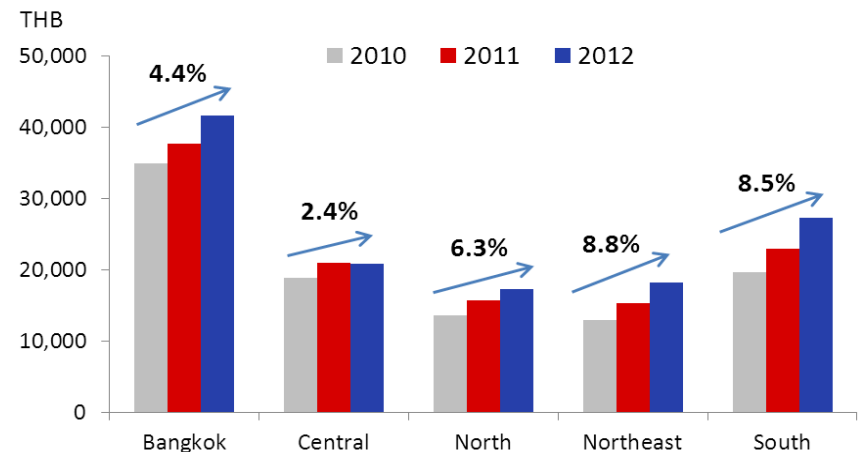
- Aging population will have great implications on both healthcare costs as well as its capacity to serve demand. In addition, aging population also means a strain on healthcare capacity if it fails to catch up well with increasing demand
- Increasing degree of urbanization is expected over time from 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

## Urbanization



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

## Rising Income per Capita

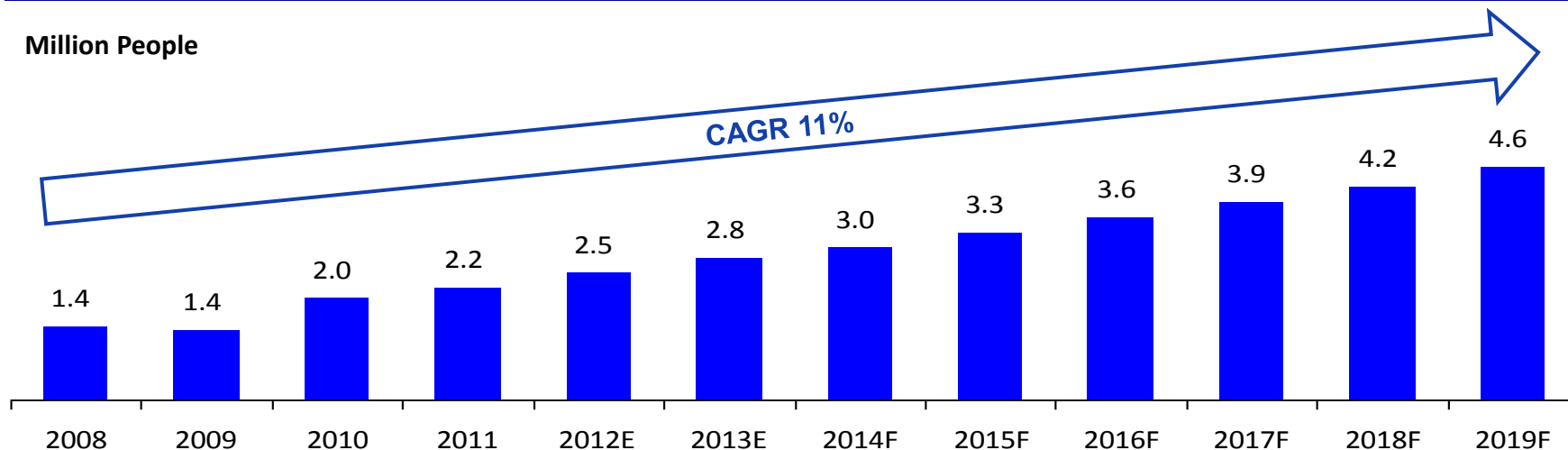


Sources: NESDB

# Medical Tourism

## Increasing trend of international patient visits

Million People



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

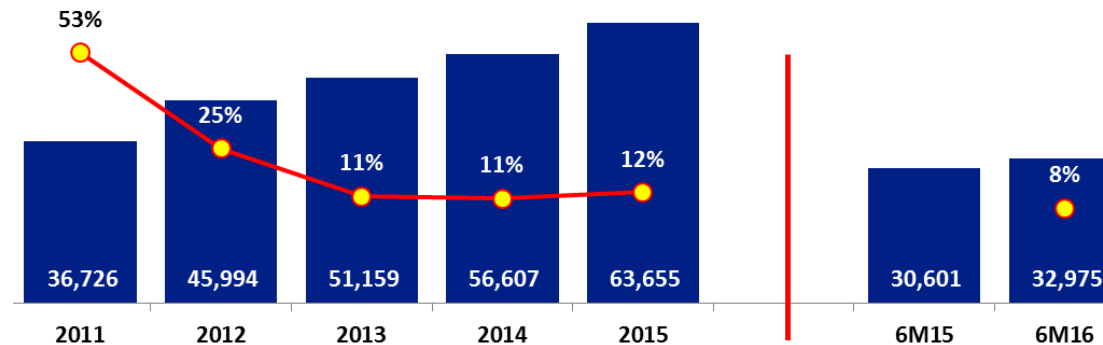
Source: "Patient Beyond Border" 3rd edition by Josef Woodman (2015)

## Operational Statistics

# Operating Income Growth

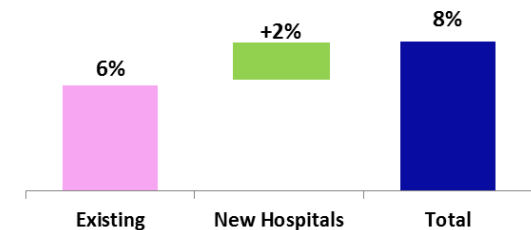
## Operating Income Trend

(THB mm)



## Commentary

- **6M16** Operating income increased by **8%** yoy, primarily from
  - Revenue from hospital operations grew **8%** yoy mainly from
    - Growth in number of outpatients and inpatients across our network hospitals
    - Increasing healthcare inflation, intensity and complexity cases
    - Consolidation of new network hospitals
    - Patient ward renovation and patient referral system

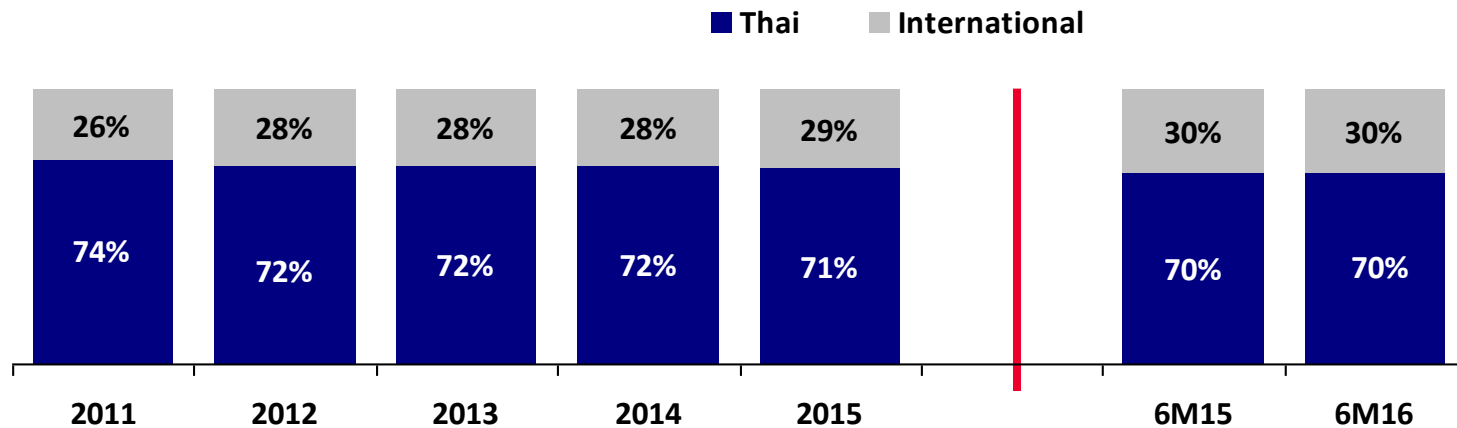


Remark:- Operating income is calculated from hospital revenue + revenue from sales of goods and food + other income

- 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



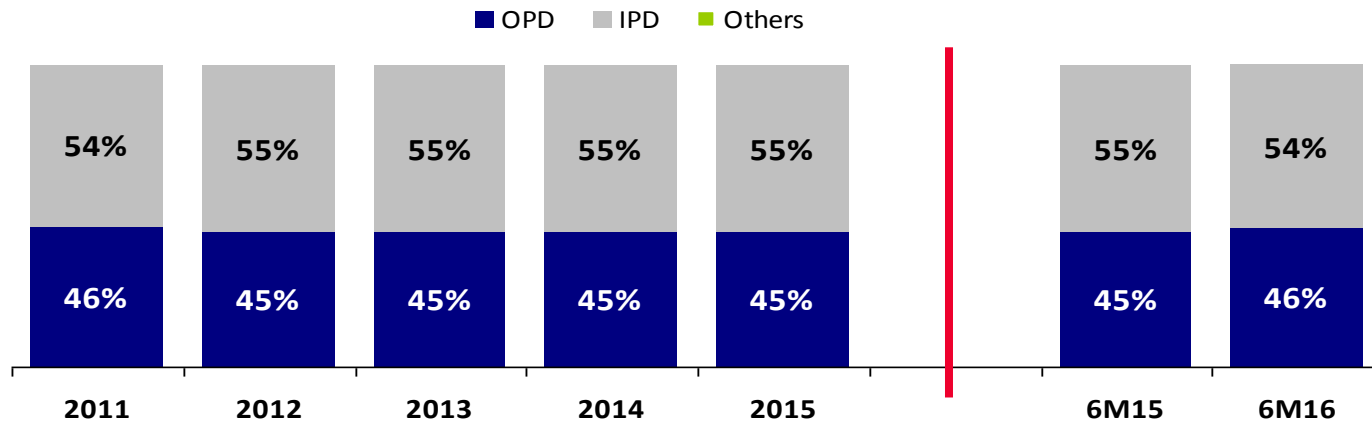
## Commentary

- **6M16** revenue from Thai patients grew 8% while international patients grew 8% yoy
- Top 5 international patient revenues are from Japan, Myanmar, UAE, UK and Germany which contribute 2.4%, 2.0%, 1.9%, 1.7% and 1.5% of total patient revenues respectively
- International patient revenues grew significantly for Cambodia (+41%), China (+23%) and Germany (+15%)

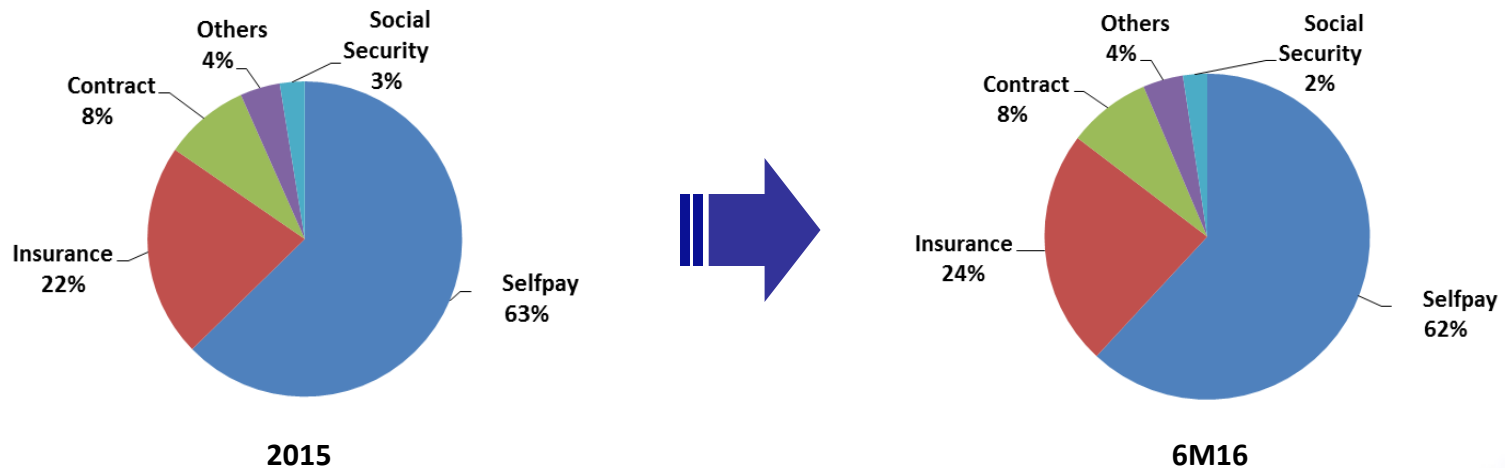


# Patient Mix

## Revenue Breakdown by Patient Types



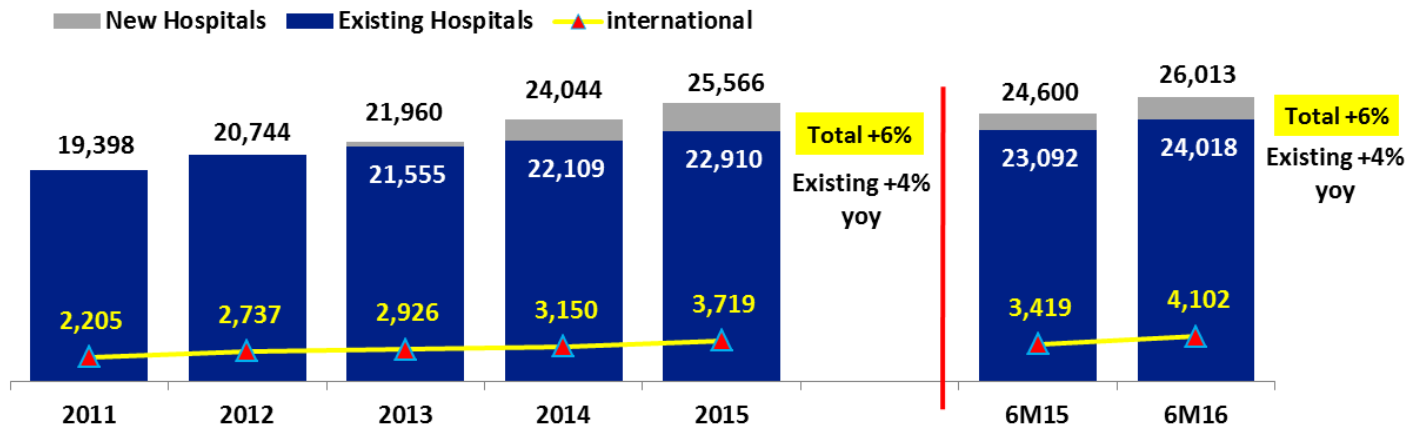
## Patient Revenue by Payor: Increasing Insurance Portion



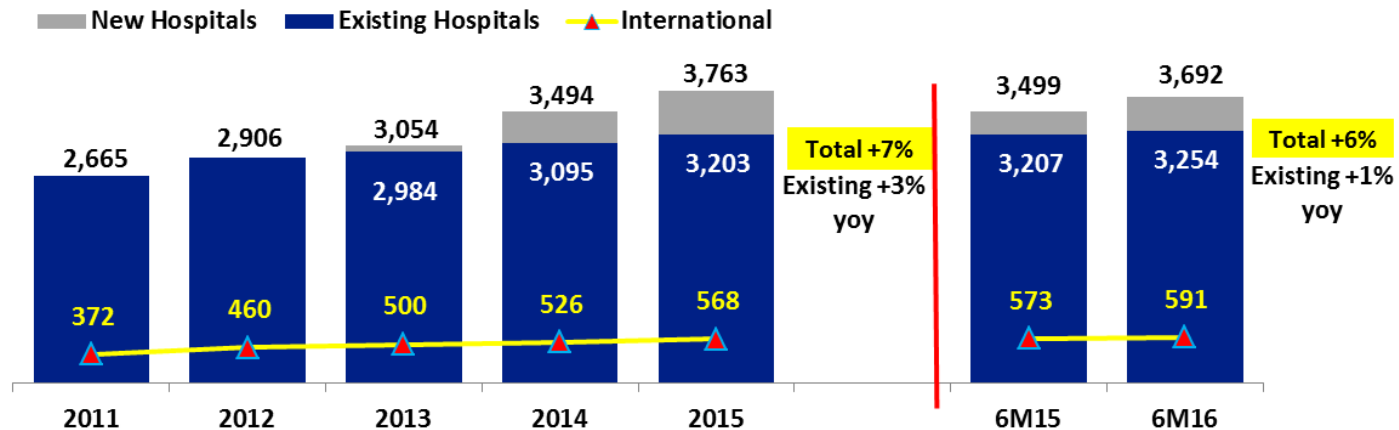
Source:- BDMS management report

# Patient Base Expansion From Both Organic Growth & Acquisitions

## Number of OPD Visits per Day



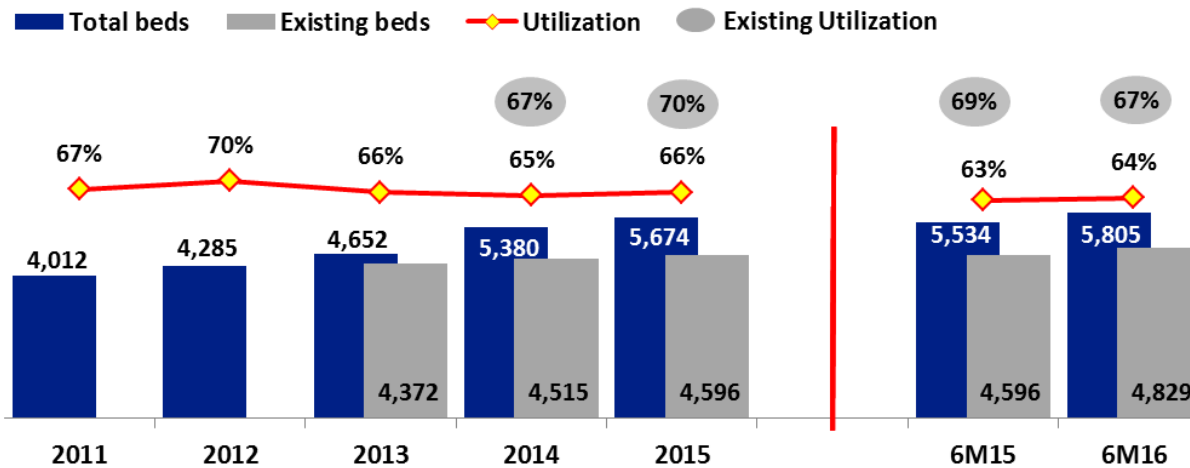
## Average Daily Census ( ADC )



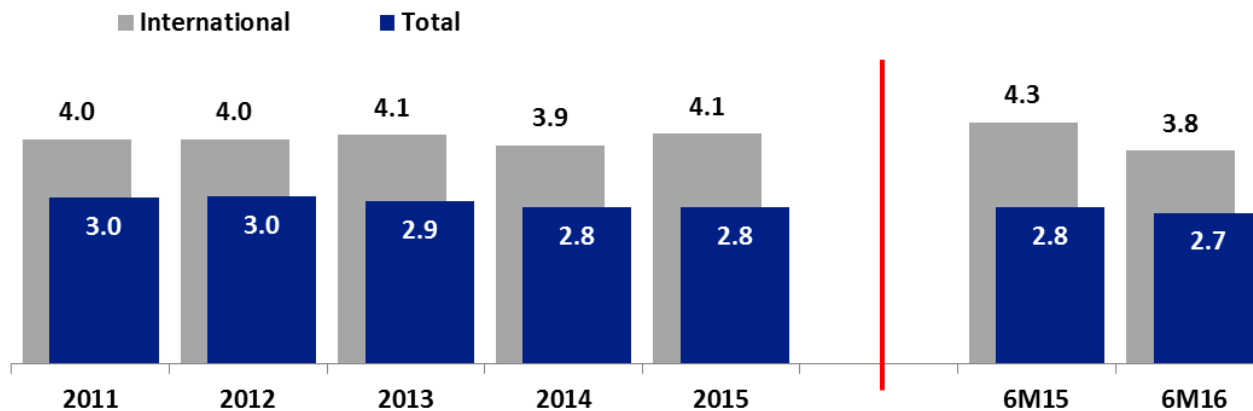
Remarks: - Including social security  
Source: - BDMS Management Report

# Utilization of Beds

## Utilization Based on Available Beds



## Average Length of Stay (days)

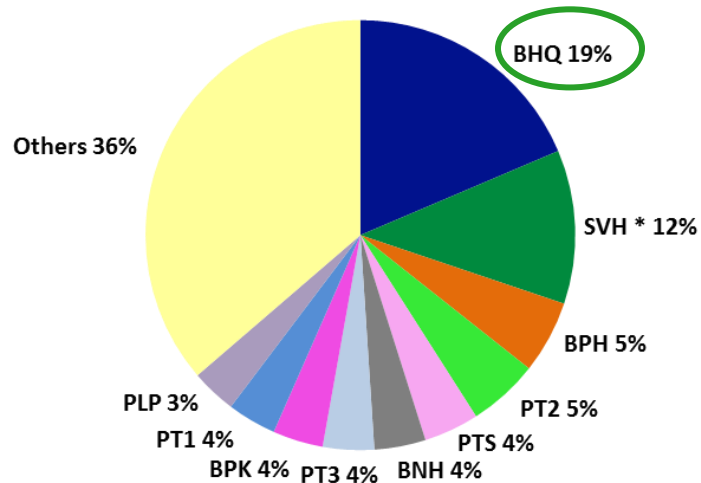


Remarks:- Including social security patients

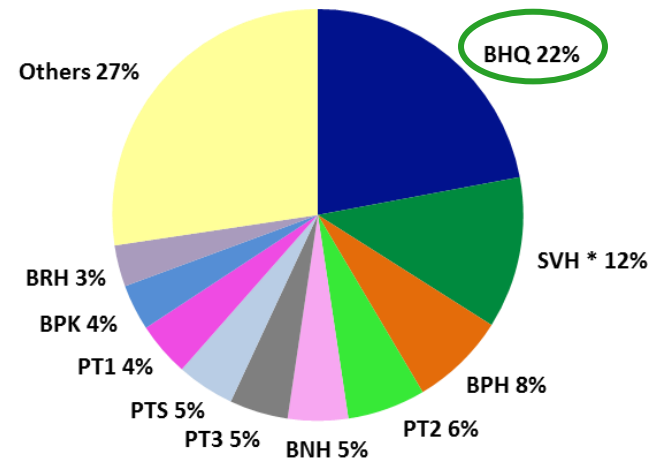
## Financial Highlights

# Diversified Sources of Revenues and Profitability

## Operating Income Contribution in 6M16



## Total EBITDA Contribution in 6M16



## Commentary

- During **6M16**, top 5 hospitals contributed 42% of total revenue and 53% of total EBITDA
- Revenue of Bangkok&vicinity hospitals grew 6% yoy
  - Hospitals that grew more than 6% yoy are STH (+37%), BNH (+20%), PT1 (+12%), PT2 (+10%) and PT3 (+7%)
- Revenue of Upcountry hospitals grew 11% yoy
  - Hospital that grew more than 11% yoy is BUD (+38%), RAH (+27%), BTH (+20%), BPL (+18%), BPD (+12%), BCH (+12%) and BSH (+12%)

\* SVH also included SNH performance

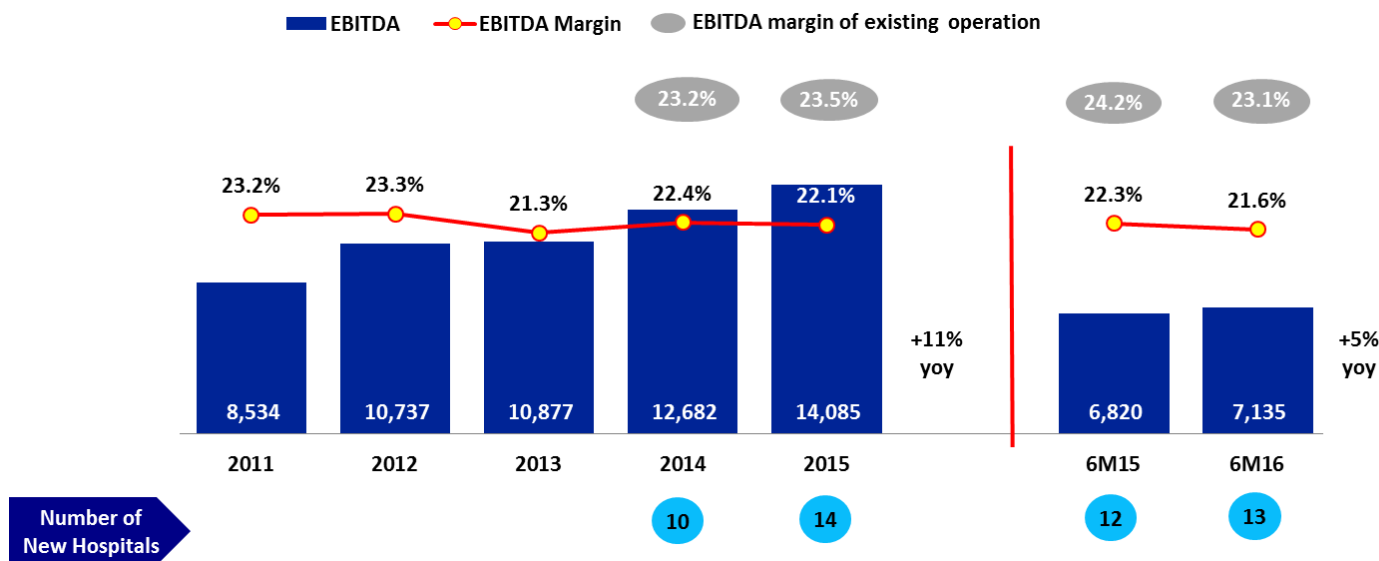
Remark: - Operating income is calculated from hospital revenue + revenue from sales of goods and food + other income

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

# Profitability Trend

## EBITDA & EBITDA Margin

(THB mm)



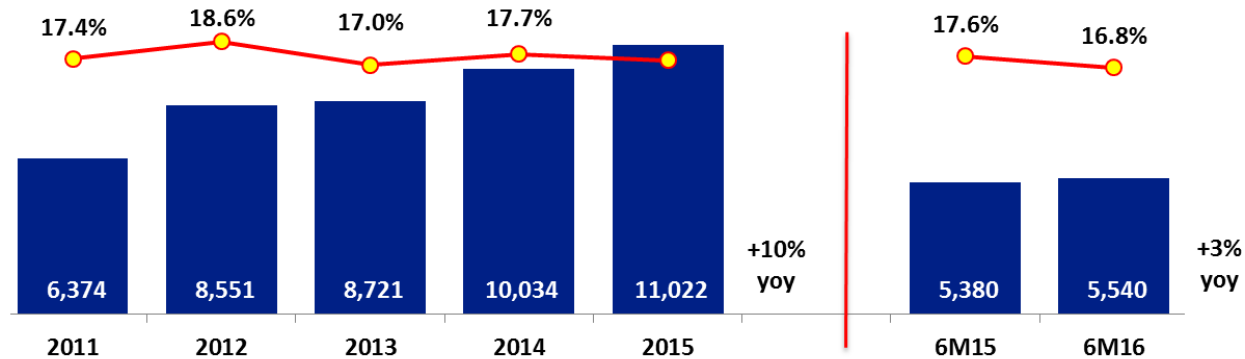
## Commentary

- **6M16** EBITDA margin decreased slightly yoy due mainly to
  - Slowdown of international patients growth from 15% in 6M15 to 8% in 6M16
  - Slower growth in the Southern group hospitals in Phuket due to shift in nationality of international patients and expansion of Phuket International Hospital

# Profitability Trend

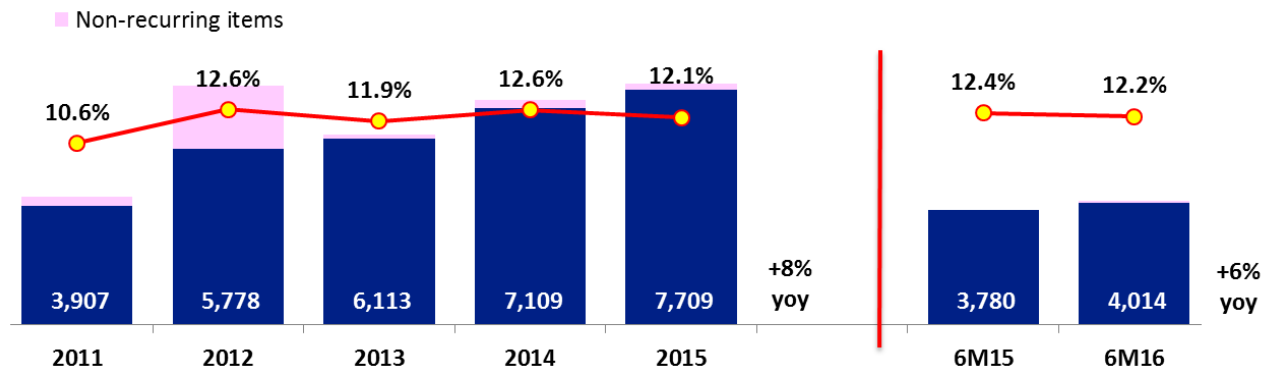
## EBIT & EBIT Margin\*

(THB mm)



## Net Profit & Net Profit Margin\*

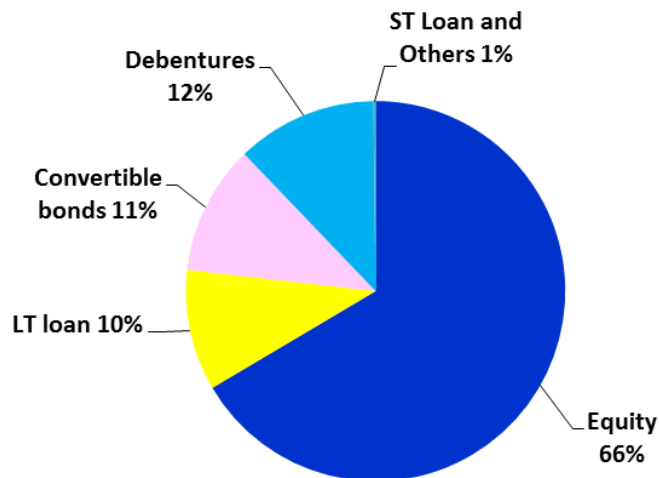
(THB mm)



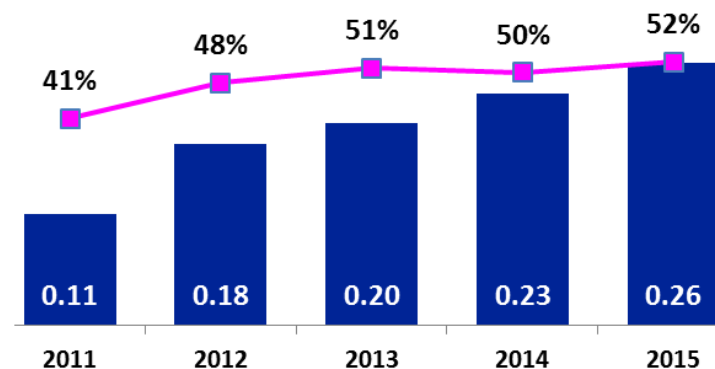
\* Excluding non-recurring items

# Capital Management

## Capital Structure as of June 2016



## Dividend Payment & Payout Ratio

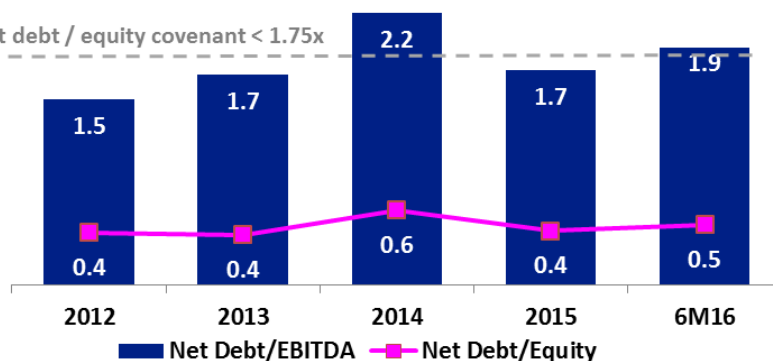


Remark:- Dividend payment has been adjusted to reflect the change in par value from THB 1.00/share to THB 0.10/share since April 2014

## Gearing Ratios: Well Within Covenants

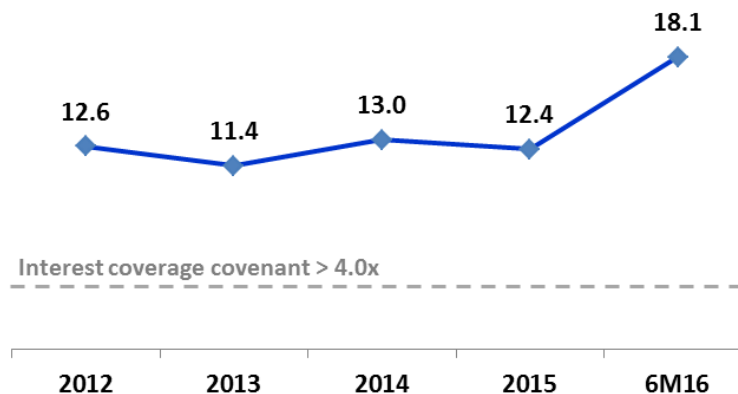
Net debt / EBITDA covenant < 3.25x

Net debt / equity covenant < 1.75x



## Interest Coverage

Interest coverage covenant > 4.0x





# 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

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

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



THB 10 billion





Joint Bookrunner  
Joint Lead Manager



# Appendix 2

## Your Trusted Healthcare Network



### Group 1 (Bangkok and West)

1. Bangkok Hospital	} (BHQ)	100%		343
2. Bangkok Heart Hospital		100%		97
3. Wattanosoth Hospital		100%		48
4. Bangkok Huahin (BHN)		100%		60
5. Bangkok Chinatown (BCT)		100%		59
6. Bangkok Sanamchan (BSN)		100%		200
7. Thepakorn (TPK)		44.5%		100
8. Muang Petch (MPH)		100%		255
9. Muangraj		100%		125


### Group 2

10. Samitivej Sukhumvit (SVH)	95.8% 	275
11. Samitivej Srinakarin (SNH)	95.8% 	400
12. Samitivej Sriracha (SSH)	69.8% 	150
13. Samitivej Thonburi (STH)	63.5%	150
14. Samitivej Chonburi (SCH)	100%	220
15. BNH Hospital (BNH)	91.5% 	144

### Group 3 (East)

16. Bangkok Pattaya (BPH)	97.3% 	400
17. Bangkok Rayong (BRH)	100%	220
18. Bangkok Chanthaburi (BCH)	99.7%	170
19. Bangkok Trat (BTH)	99.8% 	114
20. Sri Rayong (SRH)	100%	195


### Group 4 (North, Northeast and Cambodia)

21. Bangkok Chiangmai (BCM)	100% 	181
22. Bangkok Ratchasima (BKH)	91.4%	180
23. Bangkok Pakchong	91.4%	31
24. Bangkok Udon (BUD)	100%	120
25. Bangkok Phitsanulok (BPL)	100%	195




### Group 4 (North, Northeast and Cambodia)

	Ownership	No. of Beds
26. Bangkok Khon Kaen (BKN)	100%	140
27. Bangkok Phrapradaeng (BPD)	84.0%	60
28. Royal Phnom Penh (RPH)	100%	100
29. Royal Angkor International (RAH)	80.0%	30

### Group 5

30. Phyathai 1 (PT1)	100%	350
31. Phyathai 2 (PT2)	99.2% 	260
32. Phyathai 3 (PT3)	98.2%	240
33. Phyathai Sriracha (PTS)	74.4%	350
34. Phyathai Nawamin (PTN)	99.8%	140
35. Paolo Paholyothin (PLP)	100%	300
36. Paolo Samutprakarn(PLS)	93.6%	200
37. Paolo Chokchai 4 (PLC)	85.7%	148
38. Paolo Rangsit (PLR)	100%	150

### Group 6 (South)

39. Bangkok Phuket (BPK)	99.7% 	266
40. Phuket International (PIH)	100% 	151
41. Dibuk (DBK)	100%	100
42. Bangkok Hat Yai (BHH)	98.8%	200
43. Bangkok Samui (BSH)	100% 	52

### Group 7: Non-Hospital

1. National Healthcare System	100%
2. Bio Molecular Laboratories	95.0%
3. The Medicpharma	86.9%
4. A.N.B Laboratories	100%
5. Save Drug Center	100%
6. General Hospital Products	44.7%

Remark:- Number of beds is structured beds