



**Bangkok Dusit Medical Services (BDMS)**  
**Investor Presentation 4Q17&2017 Results**  
**March 2018**

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# Overview

## Overview



45 Hospitals



8,000+ Beds



10 Centers of Excellence



BDMS Wellness Clinic



12,000+ Doctors  
8,000+ Nurses  
14,000+ Staffs



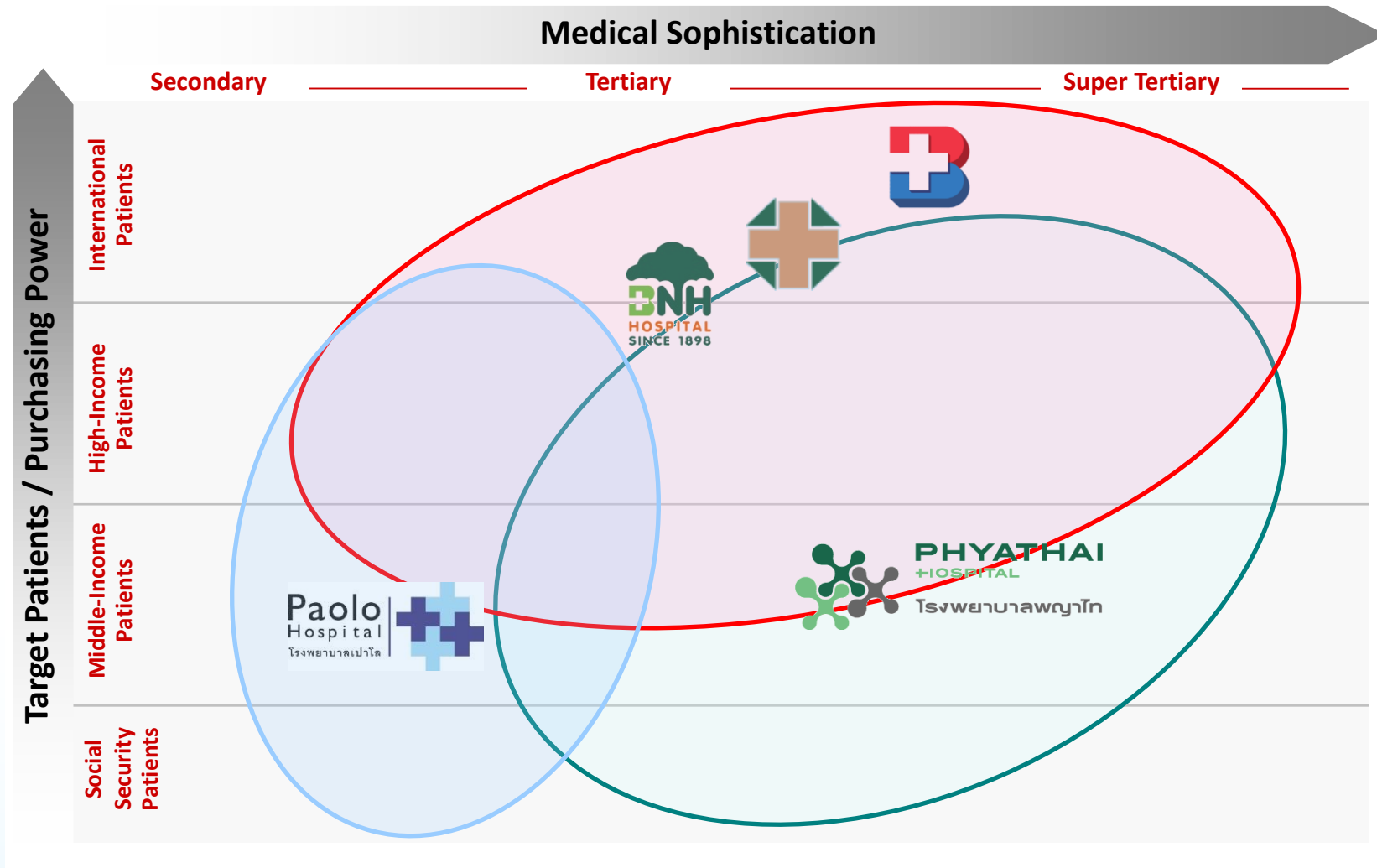
Pharmaceutical manufacturer and drug stores

- 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 helps create efficiency through scale

	Brand	No. of Hospitals	No. of Beds*
	Bangkok Hospital	21	3,602
	Phyathai Hospital	5	1,340
	Samitivej Hospital	6	1,288
	Paolo Hospital	6	1,020
	BNH Hospital	1	144
	Royal Hospital	2	130
	Local Hospital	4	546

\* Maximum number of beds according to structure of the hospitals

# Diversification of Patient Mix



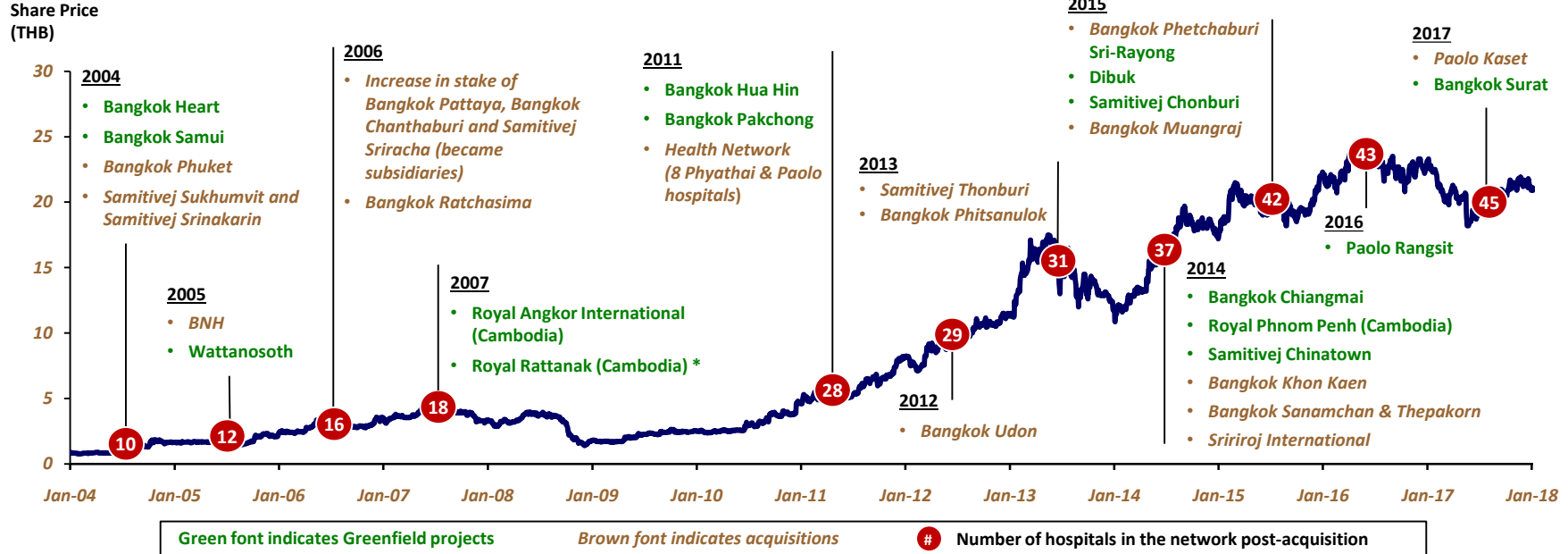
# BDMS Future Plan

## Key Strategies

	2017	2018	2019	2020
Hospitals in Pipeline	<ul style="list-style-type: none"> <li>45 Hospitals</li> <li>8,070 beds</li> <li>✓ Paolo Kaset (162 beds)</li> <li>✓ Bangkok Surat (150 beds)</li> <li>✓ BDMS Wellness Clinic (4Q17)</li> </ul>	<ul style="list-style-type: none"> <li>○ Bangkok Chiangrai (80 beds)</li> <li>○ Chiva Transitional Care (52 beds)</li> </ul>	<ul style="list-style-type: none"> <li>○ Phoenix Project (175 beds)</li> </ul>	<ul style="list-style-type: none"> <li>~ 50 hospitals</li> <li>~ 8,500 beds</li> <li>○ International Hospital (100 beds)</li> </ul>
Focus on Margin Expansion	<ul style="list-style-type: none"> <li>Increase utilization of ramping-up hospitals</li> <li>Improving operational efficiencies</li> <li>Centers of excellence</li> <li>International medical affiliation</li> </ul>			
Long-term Target	<ul style="list-style-type: none"> <li>Completed continuum of healthcare</li> <li>Top referral hospitals in Asia Pacific</li> </ul>			

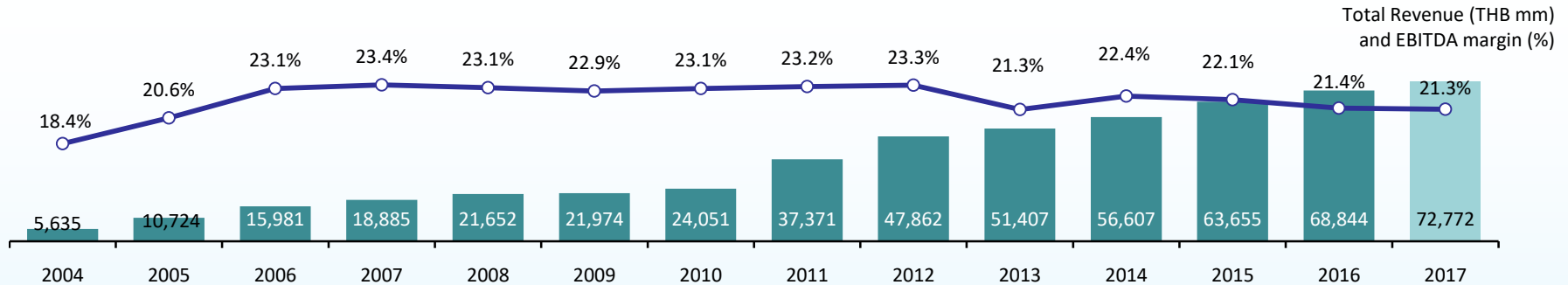
# Successful Track Record of Expansion Through M&A and Greenfield Projects

## 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 (2004-2017 CAGR of 21.7%) with Resilient EBITDA margin



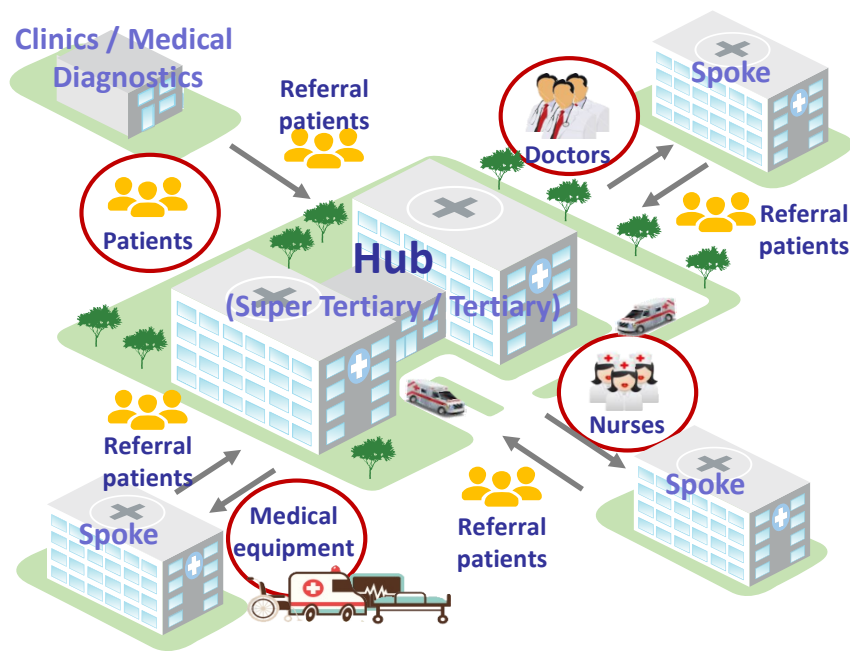
Source: Derived from BDMS' financial statements

BDMS has developed 14 new hospitals and acquired a total of 30 hospitals to date



# '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 Complete Continuum of Healthcare



## Centers of Excellence



Super Tertiary Care

Tertiary Care

Secondary Care

Promotive

Preventive

Early  
Detection

Curative

Transitional

Rehabilitative



BDMS Wellness Clinic



Phoenix Project



Chiva Transitional Care Hospital

## Non-Hospital Strategic Investment



Sterile Drug Manufacturer & Distributor



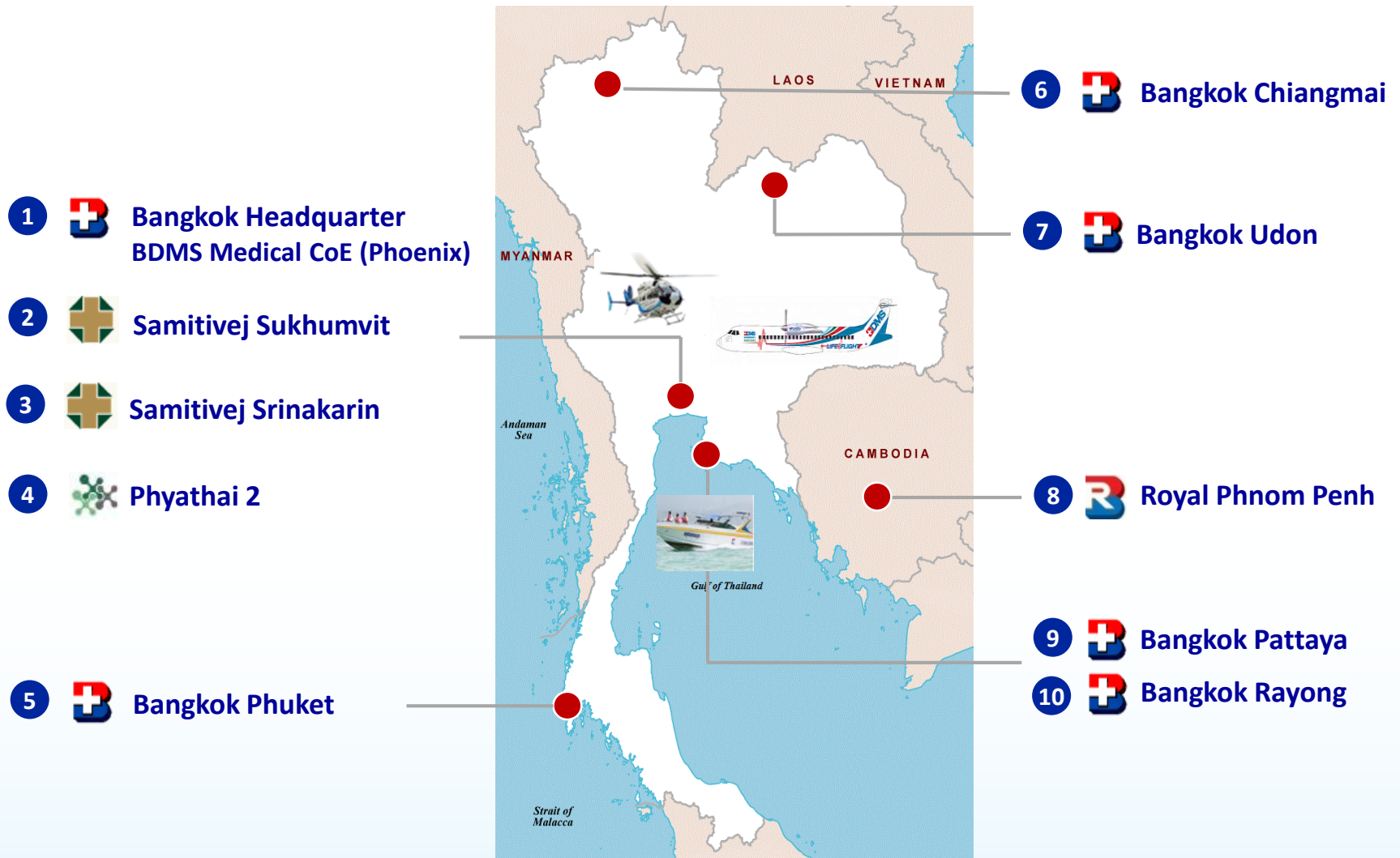
Generic Drug Manufacturer



Drug Store

# BDMS Centers of Excellence Network

Upgrading Existing 10 Hospitals to Become Centers of Excellence with the Focus on International Patients



# 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



# BDMS Wellness Clinic

A Brand New Wellness Clinic Delivering World-Class Services



- Comprehensive preventative-care center
- Targeting high-end Thai and International customers
- Regenerative Clinic opened in Dec 2017
- The rest will be opened by 1H18

## 8 Centers of Preventive Excellence

- 1 Regenerative Clinic
- 2 Musculoskeletal and Sports Clinic
- 3 Cardioscience Clinic
- 4 Neuroscience Clinic
- 5 Digestive Wellness Clinic
- 6 Breast Clinic
- 7 Fertility Clinic
- 8 Dental Clinic

# Investments

## Investments in Other Hospitals : - Listed Companies

- Ramkhamhaeng Hospital PCL (RAM) 38.24%
- Bumrungrad Hospital PCL (BH) 20.50%

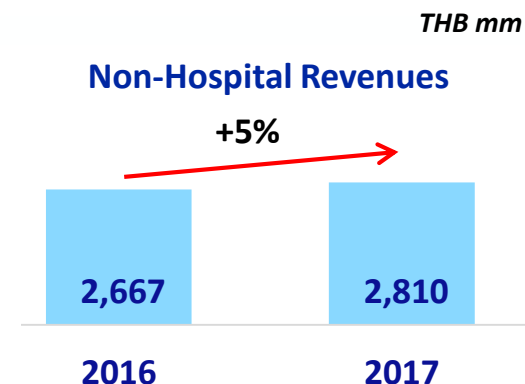
## Non- Hospital Strategic Investments \*

### 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 46% Sterile pharmaceutical product manufacturer

### Other Complimentary Business

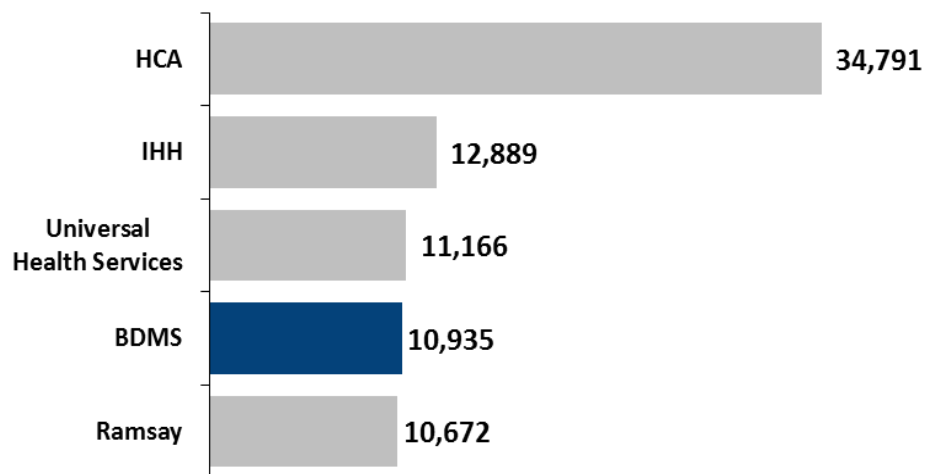
- National Healthcare Systems 100% Central lab, central supply chain, procurement & other shared services
- Greenline Synergy 100% Shared IT services
- Bangkok Premier Life Insurance Broker 100% Health & life insurance broker
- Bangkok Helicopter Services 100% Transportation of patients via helicopter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



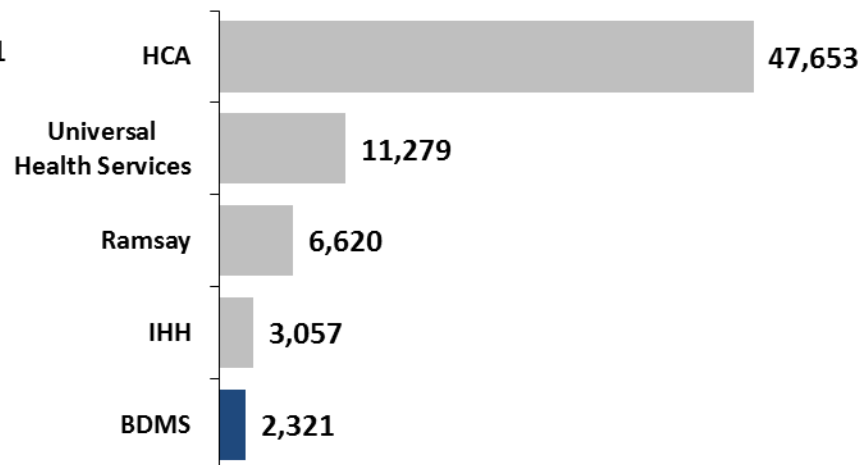
\* Not included all BDMS' investments

# Global Hospital Rankings

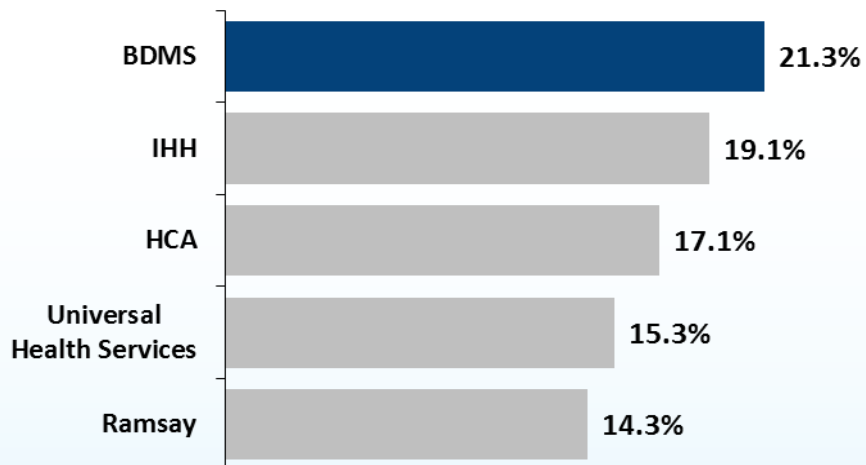
## Market Capitalization (USD mm)



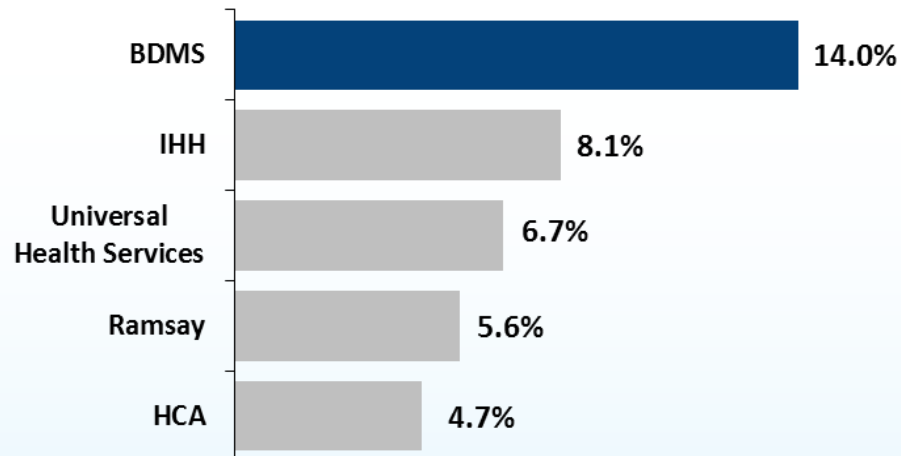
## Revenue (USD mm)



## EBITDA Margin



## Net Profit Margin



Remark: - Market capitalization as of 1 March 2018

- Financial performance for year ended December 2017 except Ramsay for the year ended June 2017



# Healthcare Industry

# Key Trend for Thai Healthcare Industry

## Supportive Demographic and Economic Trends

- Aging demographics and rising income will drive demand for Thai healthcare
- Thai healthcare spending is expected to grow 5-6% p.a. in the next 3 years \*

## Changing Behavior and Opportunities

- Increase health conscious and greater affordability driven a growing demand on preventive care
- Thailand's attractiveness as travel destination, convenient infrastructure & facility and value for money help support medical tourism

## Favorable Government Policies

- Expanding visa for medical tourist from CLMV and China to 90 days
- Thai Government recently approved tax break on premiums paid for health insurance. This should benefit private hospitals as it could boost healthcare demand

## Health Tech

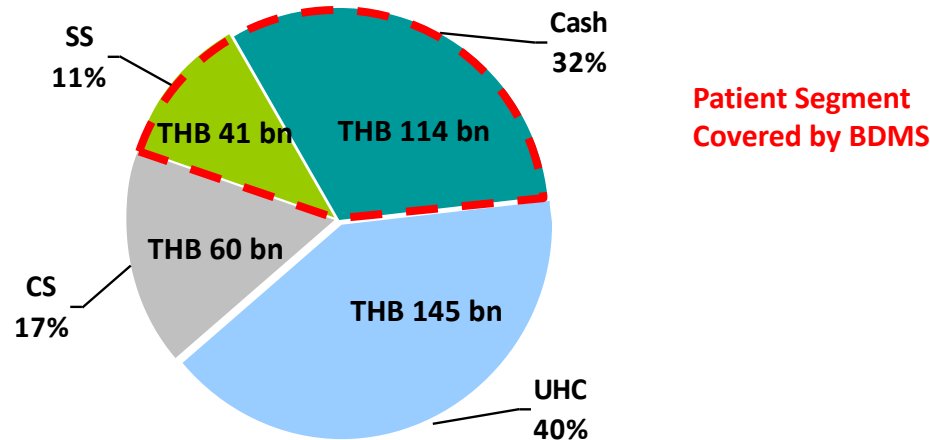
- Mobile health apps would increase health conscious and preventive care
- Support existing healthcare service rather than replacement
- Mostly in searching for doctor and personal health information

\* Source: EIC SCB

# 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
<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

# Thailand Healthcare Demand & Supply

## Healthcare Supply in Thailand (2014)

	# of Hospitals	# of Beds
Private	329	34,567
Public	1,019	120,322
<b>Total</b>	<b>1,348</b>	<b>154,889</b>

(Number per 10,000 population)	Thailand	Global
Doctor	4	14
Nurse	21	30
Bed	21	26

Source: WHO, Department of Health Service Support, Bureau of Policy and Strategy

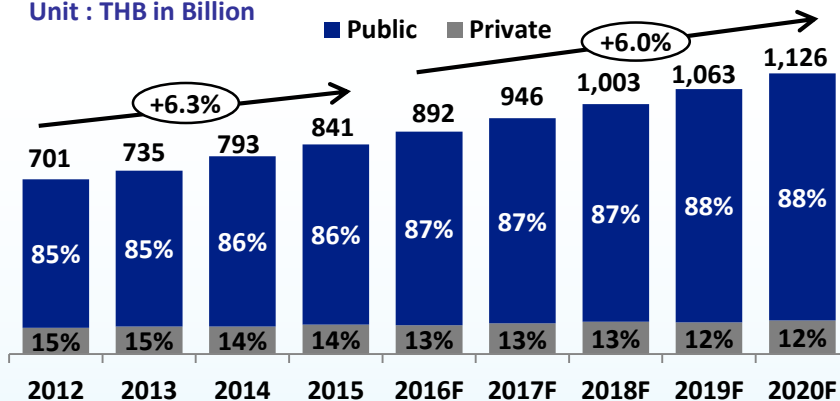
## BDMS Market Coverage (2014)

	Total Private 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: WHO and Department of Health Service Support

## Increasing Healthcare Expenditures in Thailand

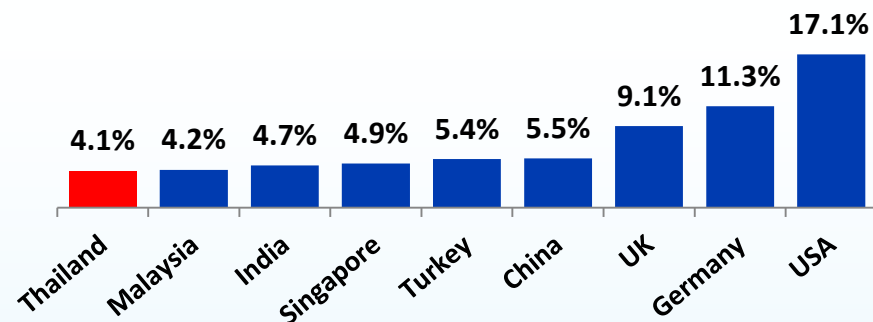
Unit : THB in Billion



Source : EIC SCB and WHO

## Low Healthcare Penetration

% of Healthcare expenditure to GDP

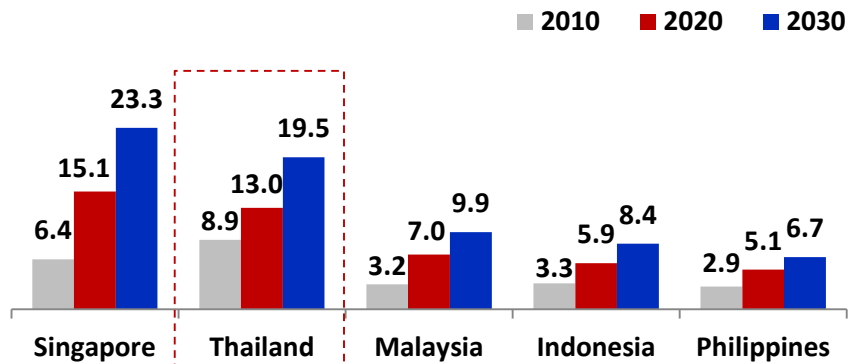


Source: WHO (2014)

# Increasing Healthcare Demand

## Population Growth and Aging Profile

Percentage of population above 65 years (%)

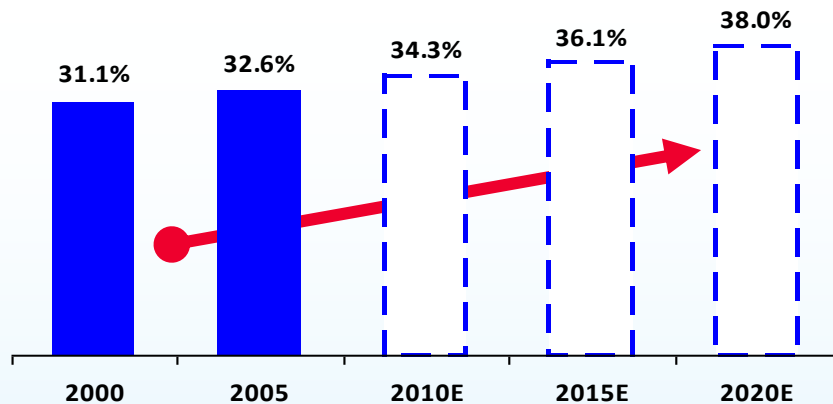


Source: UN Population Database: 2015

## 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

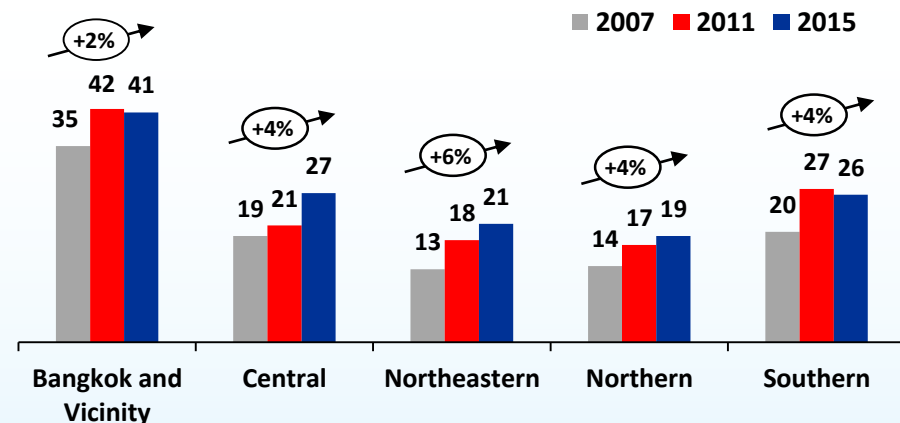
## Urbanization



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

## Rising Monthly Income per Capita

Unit : THB Thousand

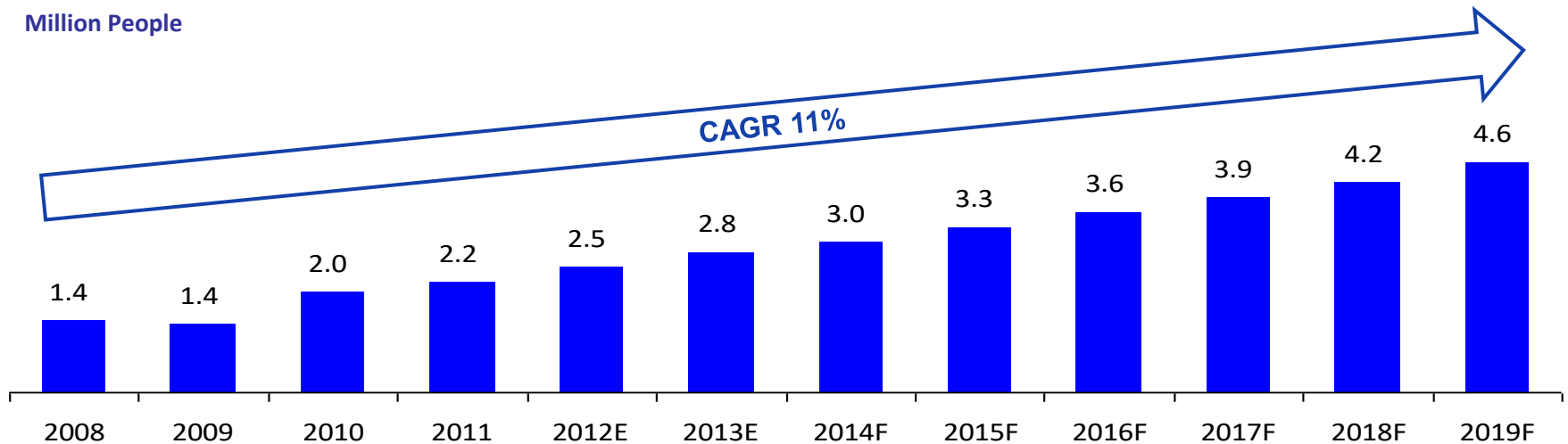


Source : NSO

# Medical Tourism

## Increasing trend of international patient visits

Million People



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
Spinal Fusion	110,000	12,800	9,500	6,000	10,300
IVF Treatment	12,400	14,900	4,100	6,900	2,500

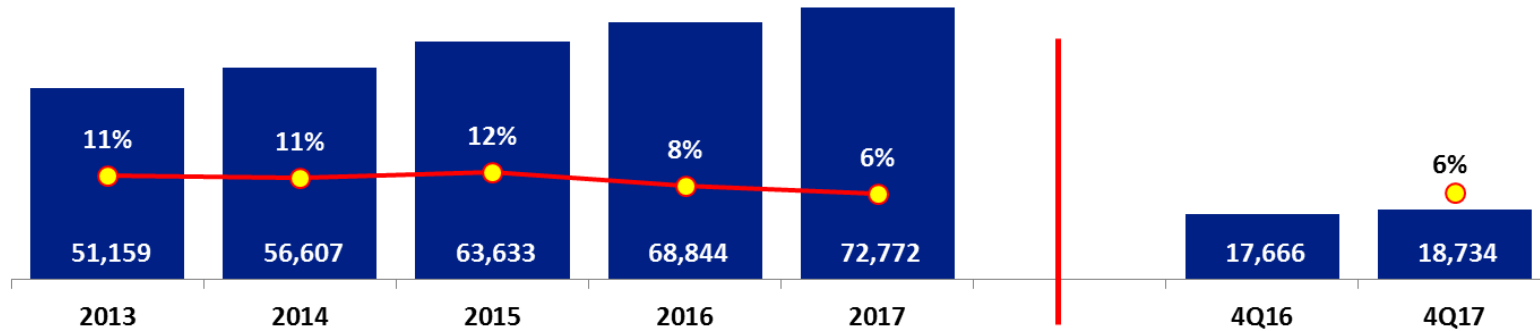
Source: Medicaltourism.com (2016)

# Operational Statistics

# Operating Income Growth

## Operating Income Trend

(THB mm)



## Commentary

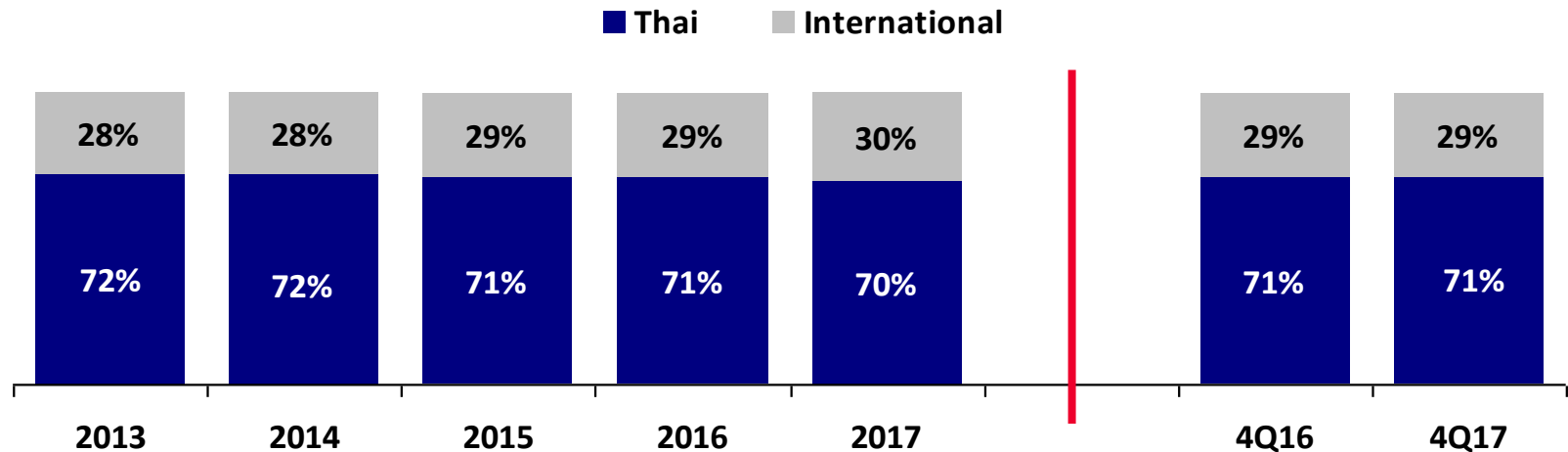
- 2017 Operating income increased by 6% yoy. This was attributed to
  - Revenue growth from hospitals in BKK +5% and in upcountry +8% yoy
  - Revenue growth from Thai +5% vs International patients +8% yoy
  - Increase in price intensity and complexity cases

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



# Thai and International Patients

## Revenue Contribution by Nationality

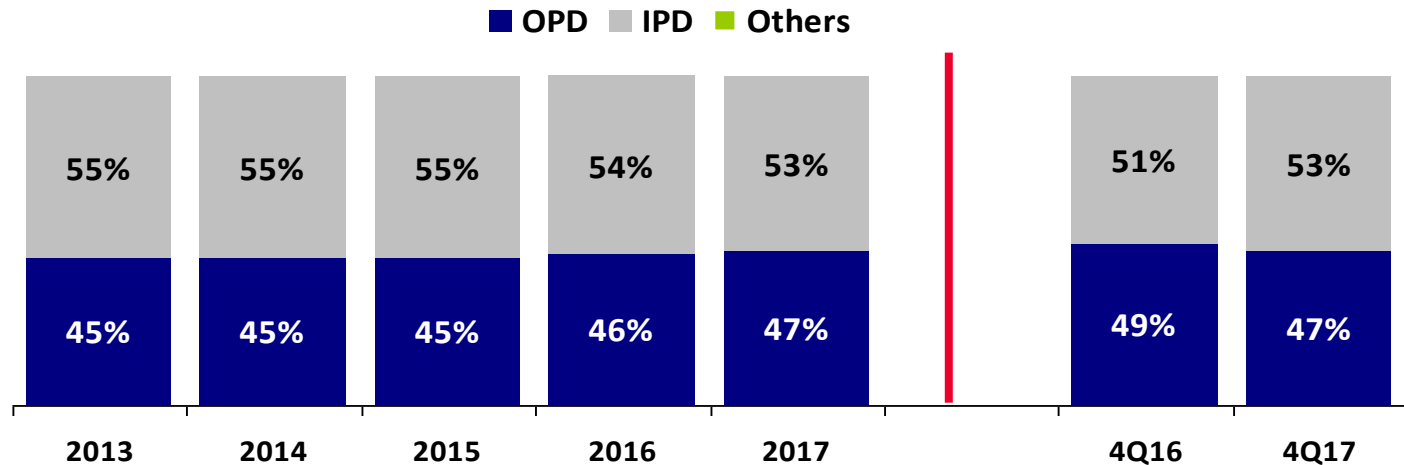


## Commentary

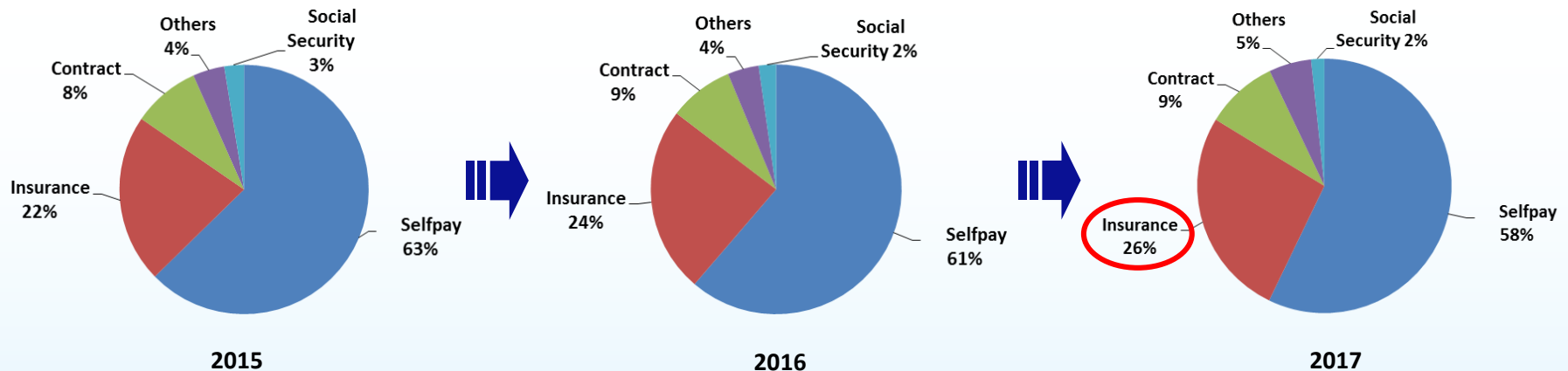
- 2017 revenues from Thai patients grew 5% yoy while international patients grew 8% yoy
  - Top 5 international patient revenues are from Japan, Myanmar, UAE, UK and USA which contribute 2.3%, 1.7%, 1.6%, 1.6% and 1.5% of total patient revenues respectively
  - Key growth for International patient revenues are Kuwait (+34%), China (+26%) and France (+21% yoy)

# Patient Mix

## Revenue Breakdown by Patient Types

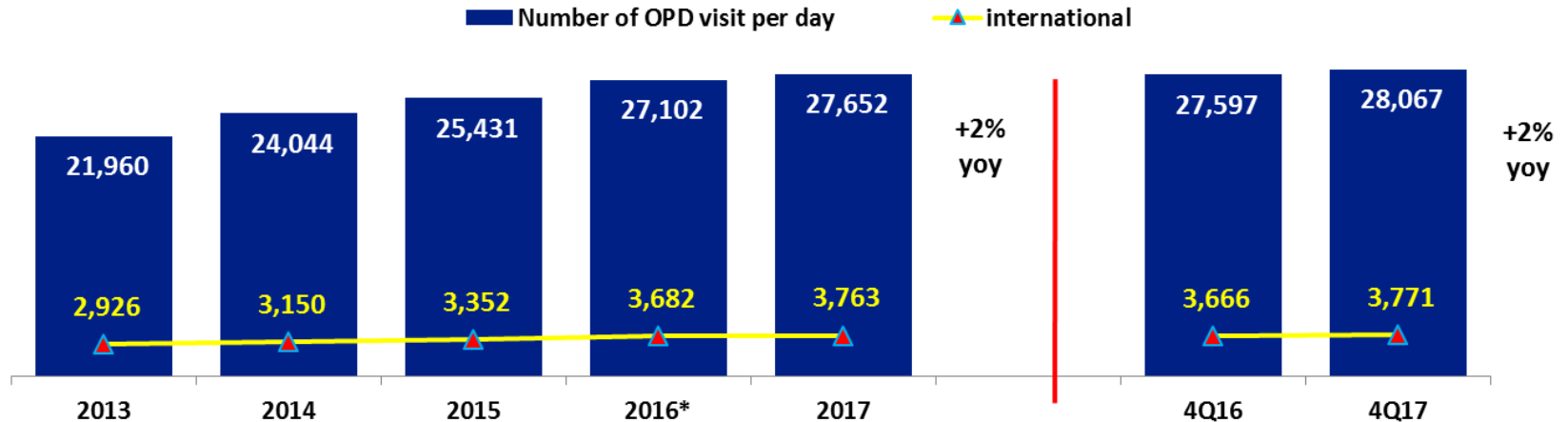


## Patient Revenue by Payor: Increasing Insurance Portion

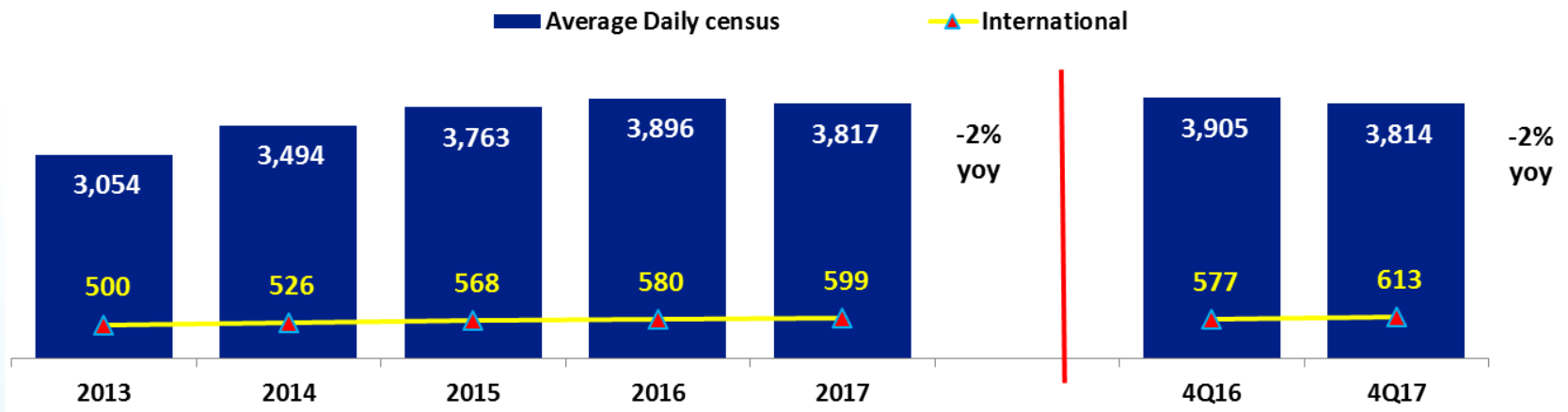


# Patient Volume

## Number of OPD Visits per Day



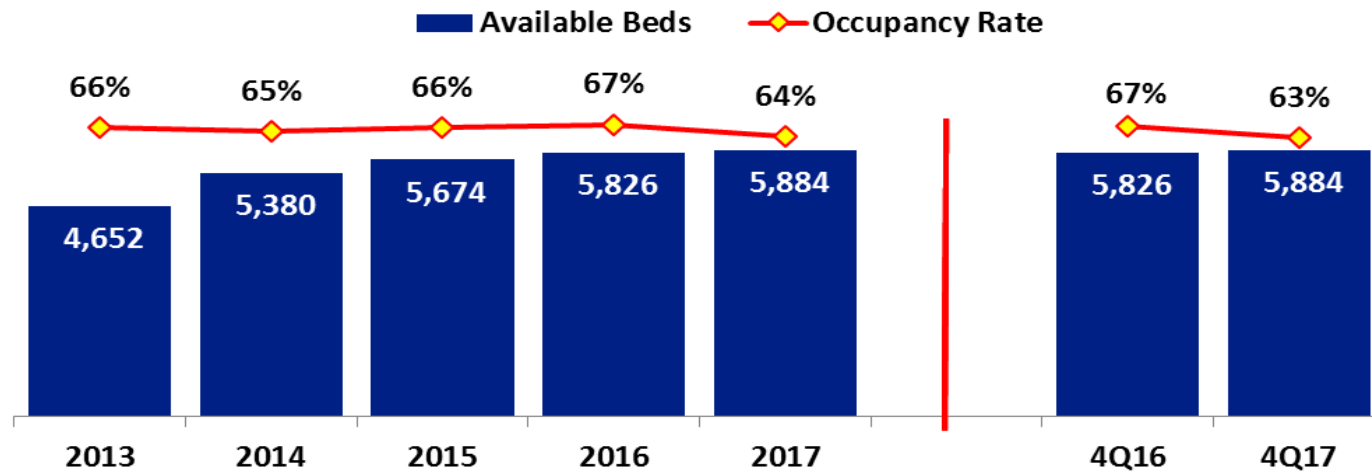
## Average Daily Census ( ADC )



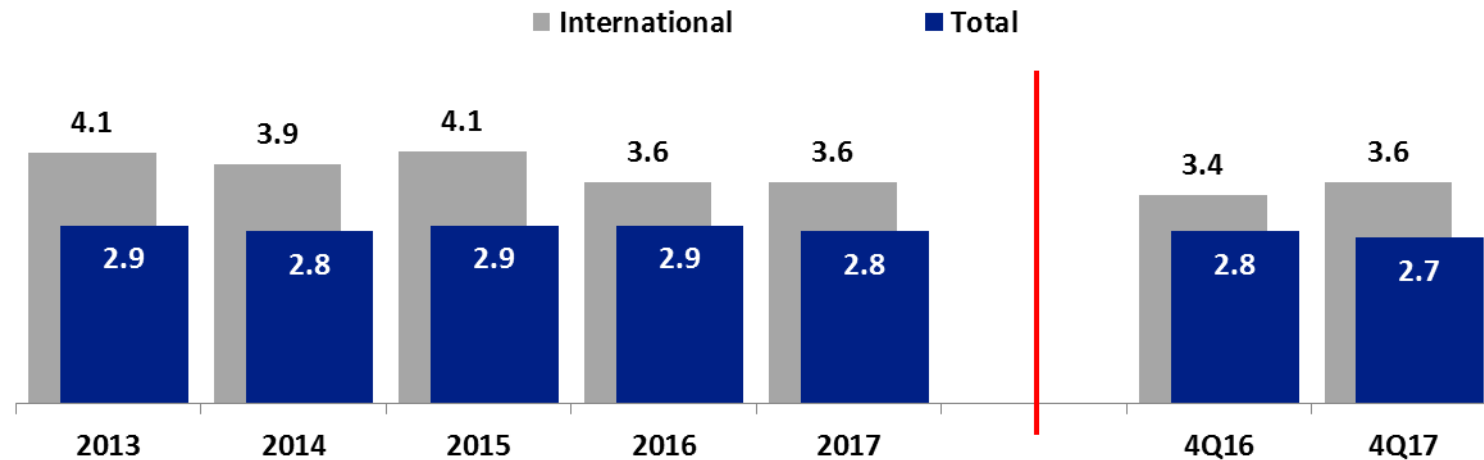
Remarks: - Including social security

# Utilization of Beds

## Occupancy Rate Based on Available Beds



## Average Length of Stay (days)

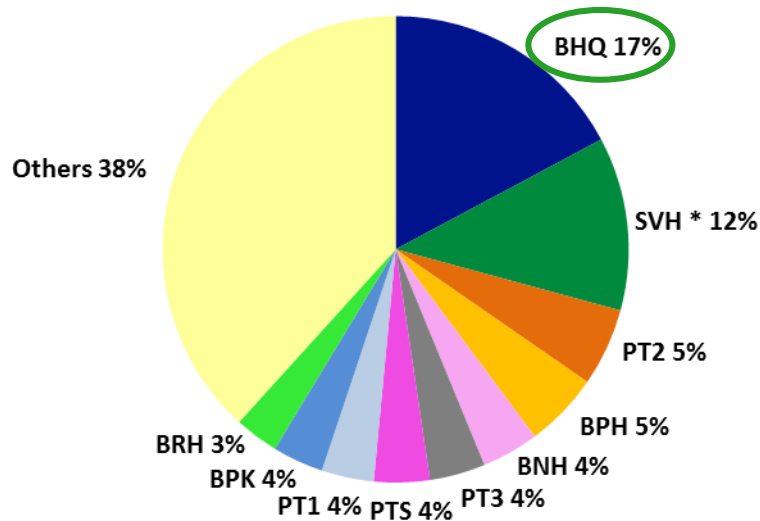


Remarks:- Including social security patients

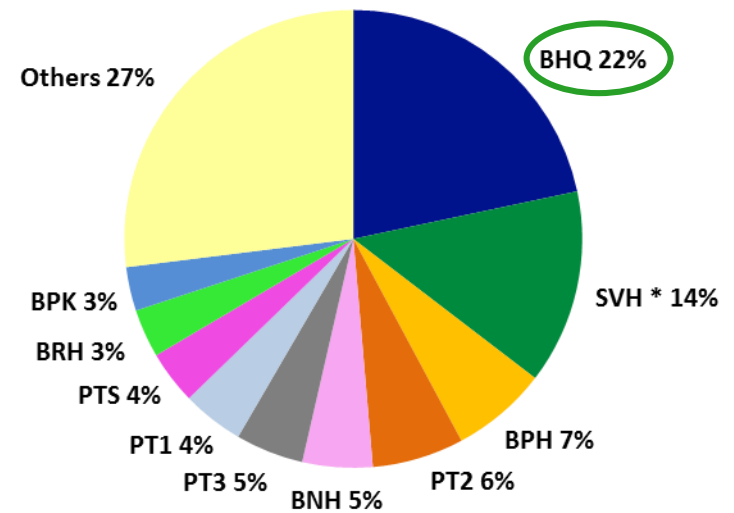
## Financial Highlights

# Diversified Sources of Revenues and Profitability

## Operating Income Contribution in 2017



## Total EBITDA Contribution in 2017



## Commentary

- In 2017, top 5 hospitals contributed 43% of total revenues and 54% of total EBITDA
- Key hospitals that drive revenue growth were PLR (+48%), SCH (+37%), BKN (+35%), BCM (+29%) and BUD (+19% yoy)

\* SVH also included SNH performance

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

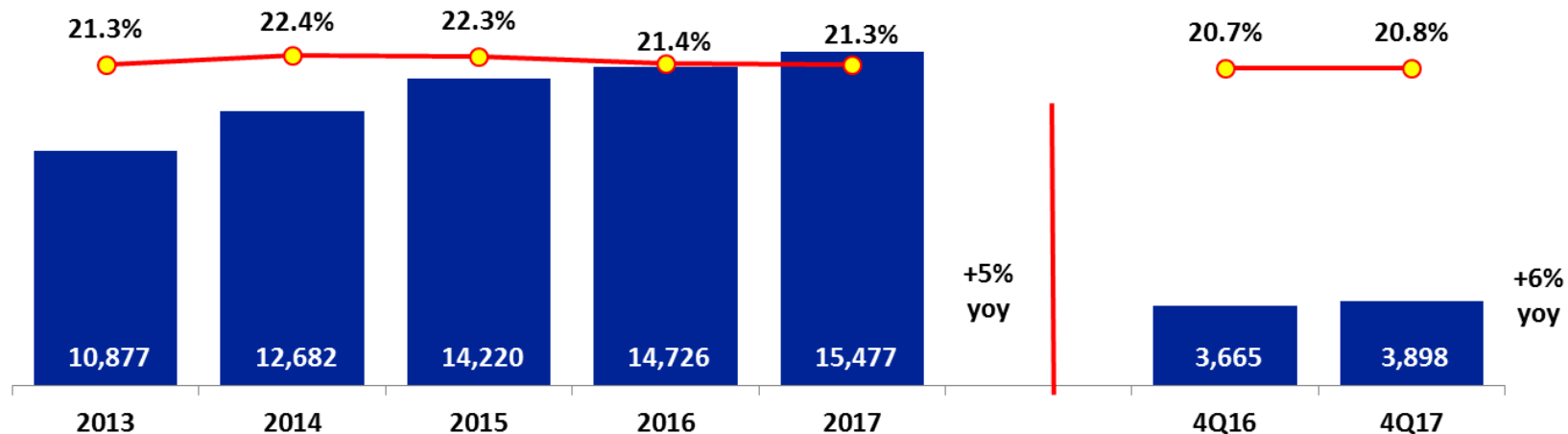
- EBITDA is calculated from revenue from hospital operations + revenue from F&B + other income – cost from hospital operations – SG&A expenses

- Hospital abbreviation shown on Appendix 1

# Profitability Trend

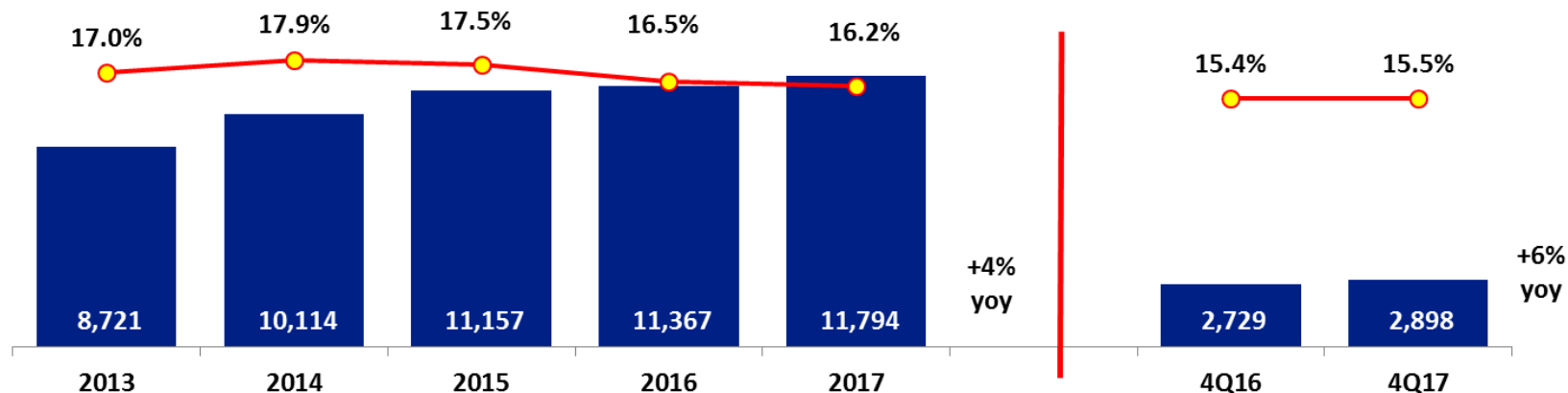
## EBITDA & EBITDA Margin

(THB mm)



## EBIT & EBIT Margin

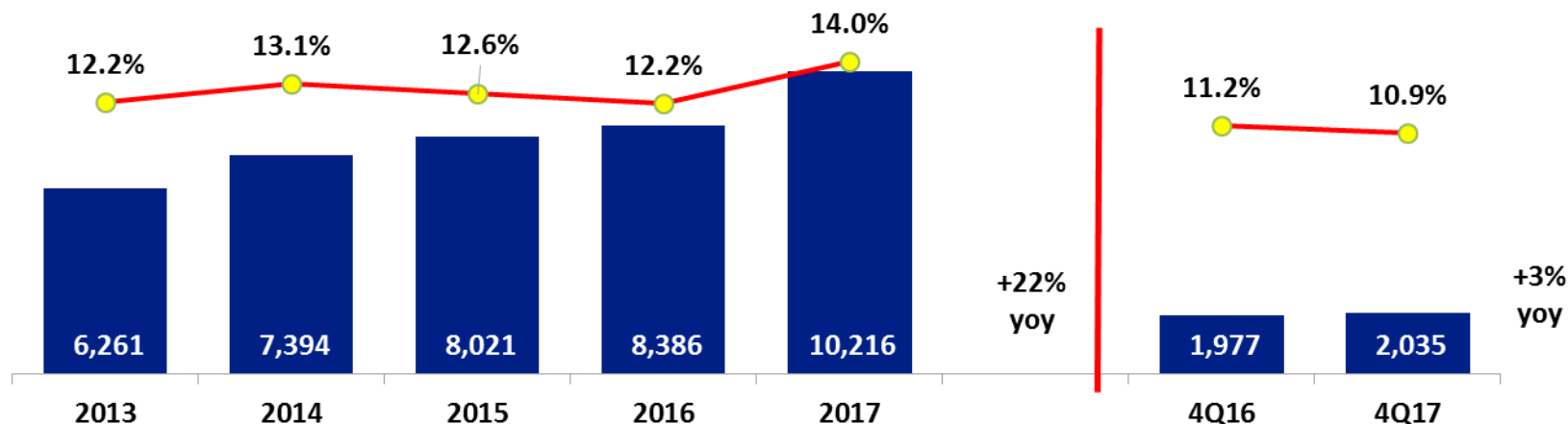
(THB mm)



# Profitability Trend

Net Profit & Net Profit Margin

(THB mm)



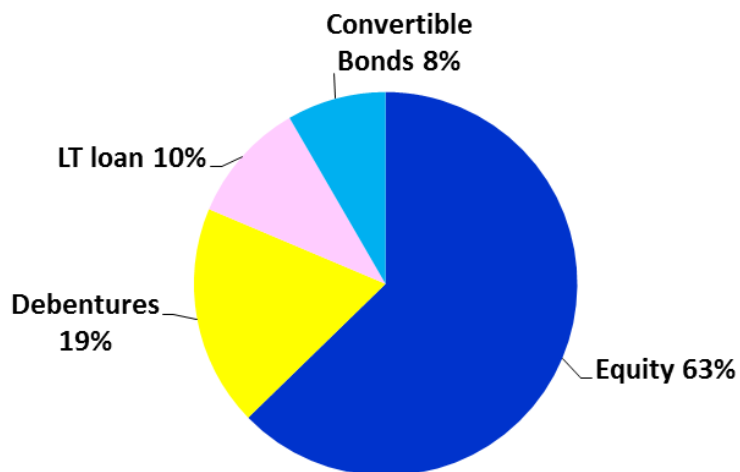
## Commentary

- 2017 net profit increased +22% yoy due mainly to net gain on partial sale of investment in BH totaling Baht 2,195 million
- If excluded net gain on sales of investment in BH, 2017 net profit slightly decreased by 2% yoy mainly from an increase in finance expenses from convertible bonds, an issuance of debentures and long-term loans from financial institutions

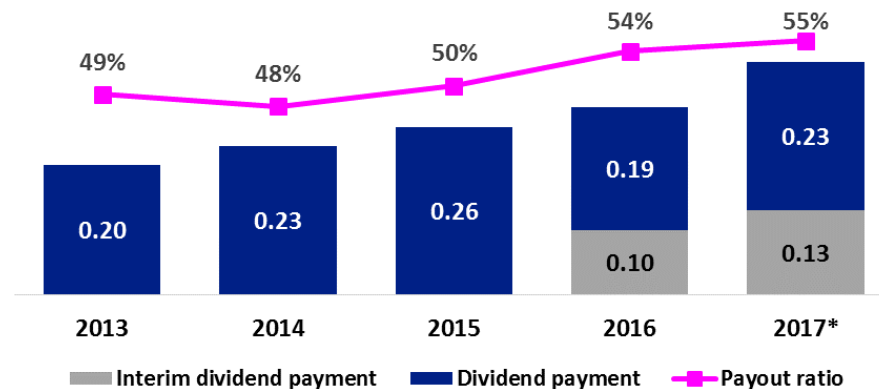


# Capital Management

## Capital Structure as of December 2017

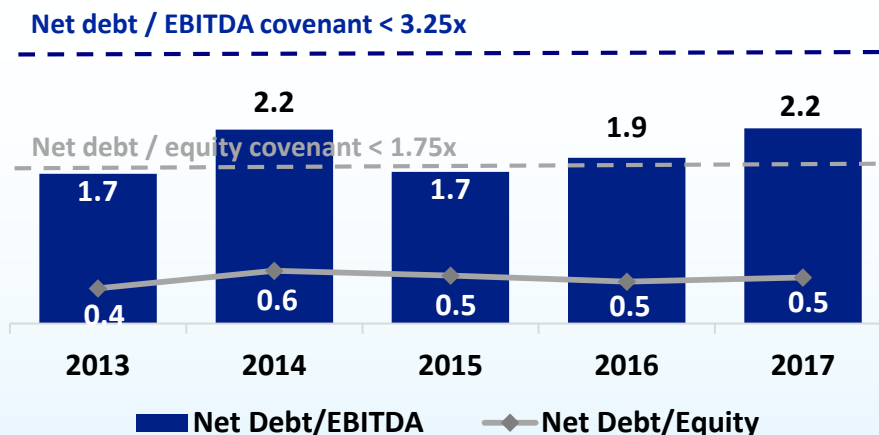


## Dividend Payment & Payout Ratio

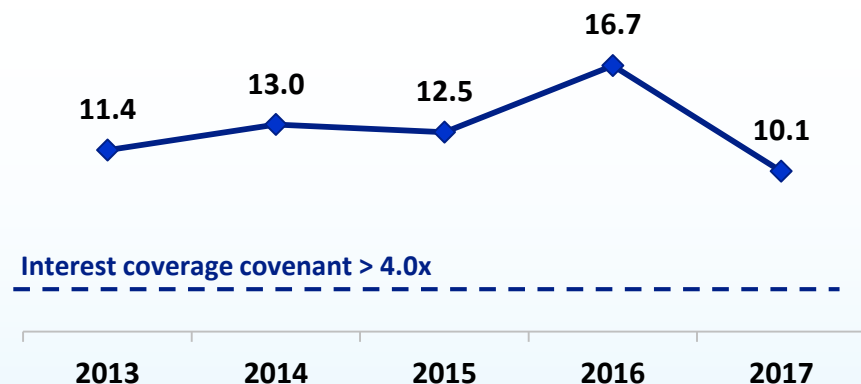


\* Board of Directors had resolution on 28 February 2018 to propose for dividend payment of Baht 0.36 per share.

## Gearing Ratios: Well Within Covenants



## Interest Coverage



# Sustainability Development

## Your Trusted Healthcare Network

### Good Corporate Governance

Practiced good Corporate Governance to ensure long-term growth and sustainability

### Employee Well-Being and Human Rights

Fully committed to support diversity and human rights in term of gender and cultural differences

### Environmental Friendly

Encouraged reductions of energy use without reducing the quality of care and raised awareness on efficient energy consumption

### Social and Community Development







Encouraged donation of medical supplies and equipment to unfortunate person  
Provided health check-up to promote health and well-being of communities








# Appendix 1

For More Information:- [www.bangkokhospital.com](http://www.bangkokhospital.com)



## Group 1 (Bangkok&West&Cambodia) Ownership No. of Beds

1. Bangkok Hospital	100%		343
2. Bangkok Heart Hospital	100%		97
3. Wattanosoth Hospital	100%		48
4. Bangkok Huahin (BHN)	100%		60
5. Bangkok Sanamchan (BSN)	100%		200
6. Thepakorn (TPK)	44.5%		100
7. Bangkok Phetchaburi (BPR)	100%		255
8. Bangkok Muangraj (BMR)	100%		125
9. Royal Phnom Penh (RPH)	100%		100
10. Royal Angkor International (RAH)	80.0%		30


## Group 2

11. Samitivej Sukhumvit (SVH)	95.8%		275
12. Samitivej Srinakarin (SNH)	95.8%		400
13. Samitivej Sriracha (SSH)	70.1%		184
14. Samitivej Thonburi (STH)	63.5%		150
15. Samitivej Chonburi (SCH)	100%		220
16. Samitivej Chinatown (SCT)	100%		59
17. BNH Hospital (BNH)	91.5%		144

## Group 3 (East)

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


## Group 4 (North&Northeast)

23. Bangkok Chiangmai (BCM)	100%		181
24. Bangkok Ratchasima (BKH)	91.4%		180
25. Bangkok Pakchong (BHP)	91.4%		31




## Group 4 (North&Northeast)

26. Bangkok Udon (BUD)	100%		120
27. Bangkok Phitsanulok (BPL)	100%		195
28. Bangkok Khon Kaen (BKN)	100%		140

## Group 5

29. Phyathai 1 (PT1)	100%		350
30. Phyathai 2 (PT2)	99.2%		260
31. Phyathai 3 (PT3)	98.2%		240
32. Phyathai Sriracha (PTS)	75.1%		350
33. Phyathai Nawamin (PTN)	99.8%		140
34. Paolo Paholyothin (PLP)	100%		300
35. Paolo Samutprakarn(PLS)	93.6%		200
36. Paolo Chokchai 4 (PLC)	85.7%		148
37. Paolo Rangsit (PLR)	100%		150
38. Paolo Kaset (PLK)	100%		162
39. Paolo Phrapradaeng (PLD)	84.0%		60

## Group 6 (South)

40. Bangkok Phuket (BPK)	99.7%		266
41. Siriroj International (SIH)	100%		151
42. Dibuk (DBK)	99.7%		100
43. Bangkok Hat Yai (BHH)	98.8%		200
44. Bangkok Samui (BSH)	100%		52
45. Bangkok Surat (BSR)	100%		150

## Group 7: Non-Hospital

1. National Healthcare System	100%	
2. Bio Molecular Laboratories	95.0%	
3. The Medicpharma	87.1%	
4. A.N.B Laboratories	100%	
5. Save Drug Center	100%	
6. General Hospital Products	45.8%	

Remark:- Number of beds is structured beds

## Appendix 2

### Shareholding Structure

(As of 29 December 2017)

	% of Shareholding
1 Mr. Prasert Prasarttong-Osoth, M.D. and family	23.8%
2 Mr. Wichai Thongtang and family	7.7%
3 Bangkok Airways*	7.3%
4 The Viriyah Insurance Co., Ltd.	6.1%
5 Thai NVDR Co., Ltd.	4.9%
6 Social Security Office	3.7%
7 Mr. Chirothana Suchato, M.D. and family	2.7%
8 Ladpli family**	2.3%
9 Mr. Chuladej Yossundharakul, M.D. and family	1.9%
10 The Bank of New York Mellon	1.3%
<b>Total</b>	<b>61.7%</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 Napamas Ladpli, Mrs. Atinuch Malakul Na Ayudhaya and Mr. Parameth Ladpli