



STRATEGIC AND COMMERCIAL INTELLIGENCE

Indian Healthcare - Growth Opportunities

ADVISORY

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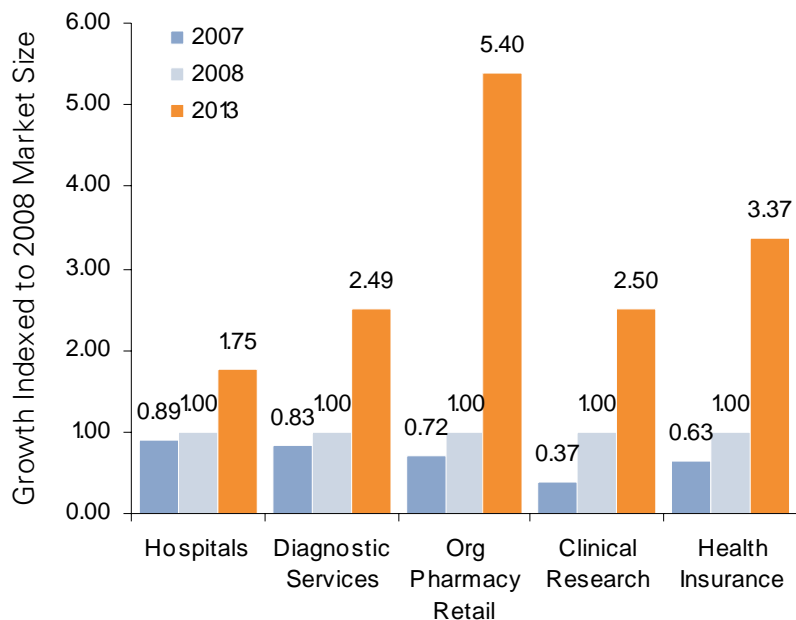
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Contents

Growth Opportunities

Appendix

India's healthcare services sector is currently at an inflexion point, with robust growth expected in every segment



Strongest growth expected in the organized pharmacy retail sector, followed by health insurance. Modest growth in hospital space due to higher capital expenditure and longer gestation period

	Competition	Expansion	Economics	Market - INR BN		CAGR
				2008	2013	(2008-13)
Hospitals	High competition in select metros; limited competition in Tier II/III cities	O&M, acquisition and greenfield opportunities beyond Tier I cities	Long gestation period; low margins	1693	2970	10-15%
Diagnostic Services	Currently limited organized activity by under a dozen players	Acquisition of regional labs; greenfield expansion; opportunities beyond India	Capex and margins vary by scale and services rendered	38	94	18-25%
Pharmacy Retail	With over 800,000 pharmacies the market is highly unorganized and fragmented	Pharmacists to health and lifestyle outlets; expansion of retail footprint	Margins vary by product mix; higher margins in lifestyle products /services	10	54	30-40%
Healthcare Insurance	Intense competition amongst new and small private sector players	Low penetration = large opportunity; opportunities in social, community and employer cover		51	173	25-30%
Clinical Research	Limited competition; market sensitive to global pharma trends	Opportunities to tie up with global CRO's and pharmaceutical companies		23	56	18-25%

Source: CRISIL Annual Hospitals Review 2009, Netscribes Report



There is a pressing need for capacity ramp up to meet the existing and increasing demand arising due to the changing Indian profile (demographic, income, disease etc)

Increasing Affordability...

- Increasing income levels particularly in rural areas and Tier II and Tier III towns and cities
- Rising middle class
- Increasing working population
- Increase in health insurance penetration

Increasing disease penetration...

- Ageing Population
- Rapid urbanization leading to India's disease profile mirroring that of developed countries (cardio, oncology, diabetes etc)
- Increasing penetration of chronic & lifestyle diseases
- Growth in medical tourism

...leading to increase in total patient population seeking treatment / health services

Growth in total patient pool

Demand for quality healthcare

Investment need to ramp up capacity across the healthcare spectrum

Hospital Demand - Benchmarking to Global Standards

Assessment of Bed Shortage	Case I	Case II	Case III
Target Bed Density (per 1000 pop)	1	2	3.6
<i>Target based on International Benchmarks</i>	<i>WHO standards for Low income countries</i>	<i>BRIC countries: Brazil and China</i>	<i>World Average</i>
India Population 2010 (NHP 2008) in billion	1.18	1.18	1.18
No. of beds (in million) needed	1.18	2.36	4.248
Current No. of Beds (approx) (in million)	0.8	0.8	0.8
Shortage (in million)	0.38	1.56	3.448
Gap closed by	2015	2020	2025
Beds to be added per annum	63,333	141,818	215,500

Source: KPMG Analysis

Differentiator through service/ value proposition and business models would lead to success

Hospitals

- PPP to bring together govt objectives of universal healthcare access and business objective of a profitable healthcare facility (industry)
- Emergence of niche players
- Healthcare cities that combine healthcare, residential, and recreational facilities; over a dozen health cities are expected to come up over the next 5 years

Diagnostic Laboratory Services

- Attempts to build a national footprint through acquisition of local and regional labs
- Partnership with hospital to manage their diagnostic services
- International expansion: Outsourcing of diagnostic services to India; acquisitions abroad, Indian labs are tying with hospital groups abroad for outsourced pathology services *(Samples are taken from abroad and after testing in India, the results are electronically communicated over a USFDA-compliant IT network)*

Pharmacy Retail

- Organized pharmacy retailing is dominated by 10-12 big players; opportunity to expand from pharmacy into lifestyle retailing
- Retail business model still evolving with regards to rentals, products etc

Healthcare Insurance

- Partnerships that allow for customer access, product innovation, underwriting capabilities, scalability and operation excellence will lead the market
- New players in the market today would need to ensure a sustainable competitive edge over the other recent entrants to be successful

Evaluating opportunities across parameters

Attractiveness of Sub-segments					
	Growth Rate	Profitability	Level of Organized Activity	Competitive Intensity	Overall Attractiveness
Healthcare Delivery (Hospitals)					
Diagnostic					
Pharmacy Retail					
Clinical Research					
Healthcare Insurance					

Legend: - Very Low - High
 - Low - Very High
 - Medium

A total of ~INR 1000 Cr. is being raised by PE funds across the country focusing on healthcare amongst other sectors; funds over INR 2300 Cr. are already closed or have reached stage of first closing

Healthcare funds under the process of raising funds						
Manager	Source: Company Websites, Press Articles	Fund Name	Type	Size (INR Cr.)	Status	Date
Axis PE			PE	400	Raising	Jun-09
Reliance Equity Advisors			PE	400	Raising	Jul-09
Religare Venture Capital, Milestone Capital		<i>India Build-Out Fund I</i>	PE (Education & Healthcare)	150	Raising	Apr-09
TATA Capital			PE (Excluding Real Estate)		Raising	Apr-09
Sabre Capital		<i>Spring Healthcare</i>	PE (Healthcare)	30	Raising	Sep-09

Healthcare funds under closed/stage of first closing					
Manager	Fund Name	Type	Size (INR Cr.)	Status	Date
Macquarie, SBI & IFC	<i>Macquarie-SBI Infrastructure Fund</i>	PE (Infra)	1000	First Close	Apr-09
Aditya Birla PE		PE	120	First Close	Oct-09
Sabre Capital	<i>Spring Healthcare</i>	PE (Healthcare)	50	First close	Mar-09
Nasscom-ICICI Knowledge Park	<i>India Innovation Fund</i>	VC	9	First Close	Nov-09
India Value Fund Advisors	<i>India Value Fund IV</i>	PE	725	Closed	Jul-09
Jacob Ballas Capital	<i>NYLIM Jacob Ballas India Fund III</i>	PE	440	Closed	Jan-09

"We are seeing more deals in power, healthcare, logistics, education so there is no lack of transactions"

Alok Gupta, MD and CEO, AXIS PE, June 2009

Contents

Growth Opportunities

Appendix

Healthcare Delivery
/ Hospital Services

Diagnostic
Services

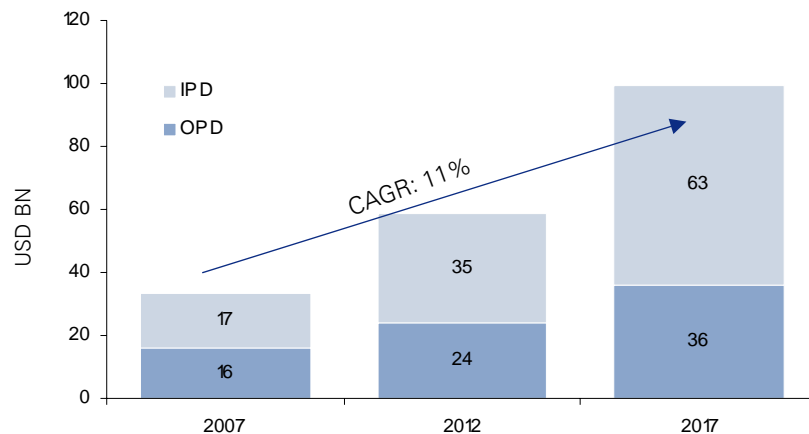
Pharmacy Retail

Clinical Research

Health Insurance

Growing hospital services market requires significant investment

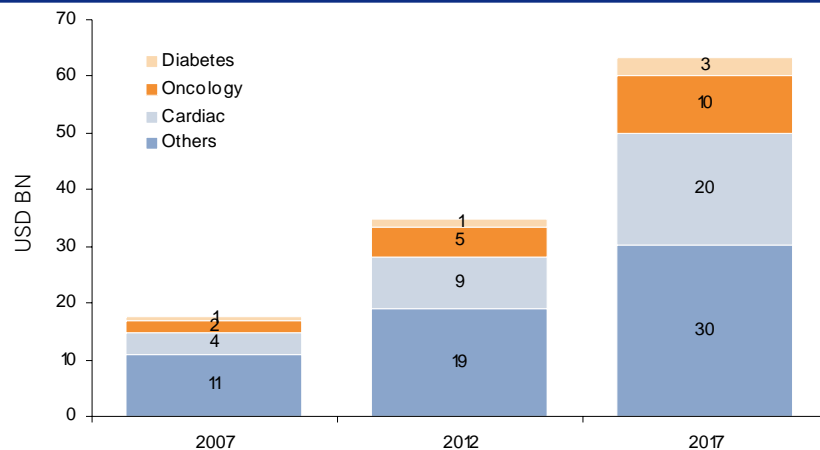
Hospital Services Market Size



Note: Conversion from INR to USD at INR 45 per USD
Source: Crisil

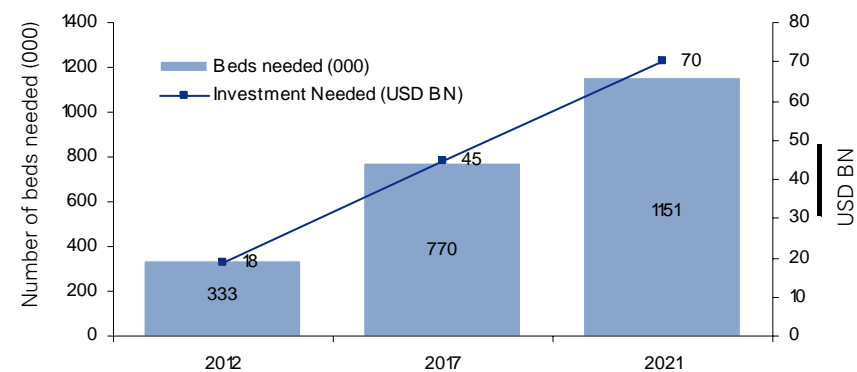
- The hospital services market is expected to grow at a CAGR of 11% from USD 33 BN in 2007 to USD 99 BN by 2017
 - Outpatient services (OPD) are expected to grow at a CAGR of 8% vs. Inpatient services (IPD) that are expected to grow at a CAGR of 14% from 2007 to 2017
 - The total number of treatments is expected to grow from 2.5 BN to 3.3 BN for OPD, and 42 MN to 76 MN in IPD from 2007 to 2017
- Within Inpatient services growth is expected to come from three key ailments – Cardiac, Oncology and Diabetes (all these three segments are expected to grow at CAGRs greater than 15%)
- Given the shortage of beds (and hospitals), the hospital sector in India is need of large investments. In addition to current shortages, the projected growth in the sector, over 333000 beds are required by 2012 at an investment greater than USD 18 bn.

Inpatient Market Size by Disease Type



Note: Conversion from INR to USD at INR 45 per USD
Source: Crisil

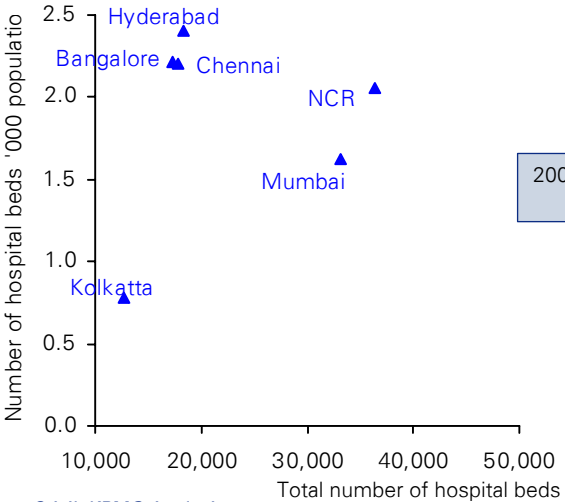
Investment Requirements



Note: Conversion from INR to USD at INR 45 per USD
Source: Crisil

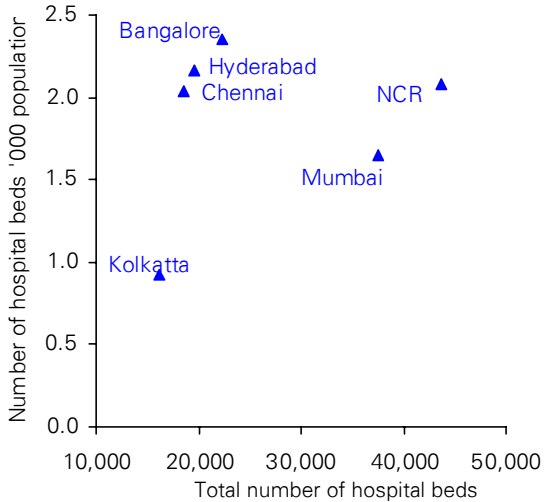
Heterogeneous levels of infrastructure, with significant additional demand projected in key cities

Supply of Hospital Beds in Key Cities (2007)



2007 to 2012 – status quo remains

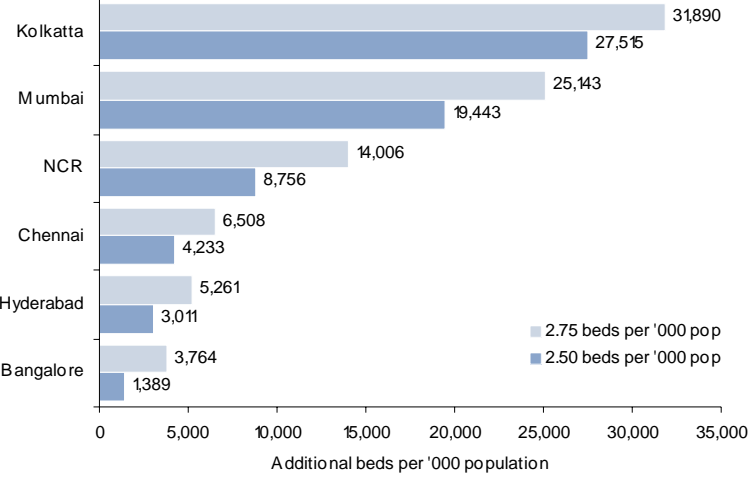
Supply of Hospital Beds in Key Cities (2012 E)



Based on current announced expansion plans, the addition in number of beds will be in line with the increase in population. All metro cities in India will continue to have less than 2.5 bed per 1000 population i.e. the shortage in beds in all key metro's will continue to persist.

Source: Crisil, KPMG Analysis

Additional Demand Scenario's (2012)



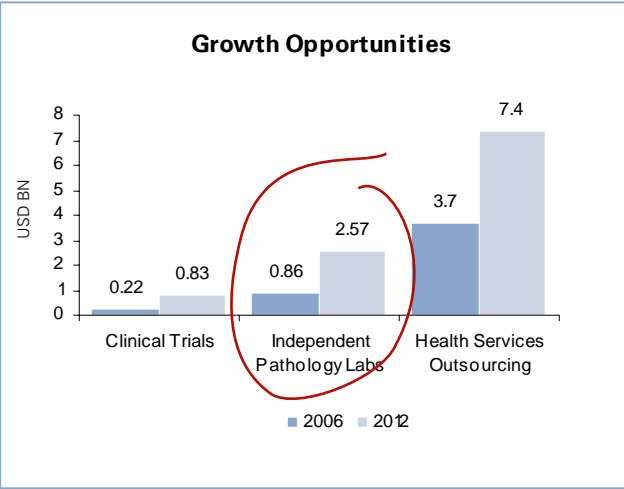
Based on a requirement of 2.50 beds per 000 population, these six cities would require close to 65,000 rooms by 2012 (in addition to the announced supply)

Based on a requirement of 2.75 beds per 000 population, these six cities would require close to 87,000 rooms by 2012 (in addition to the announced supply)

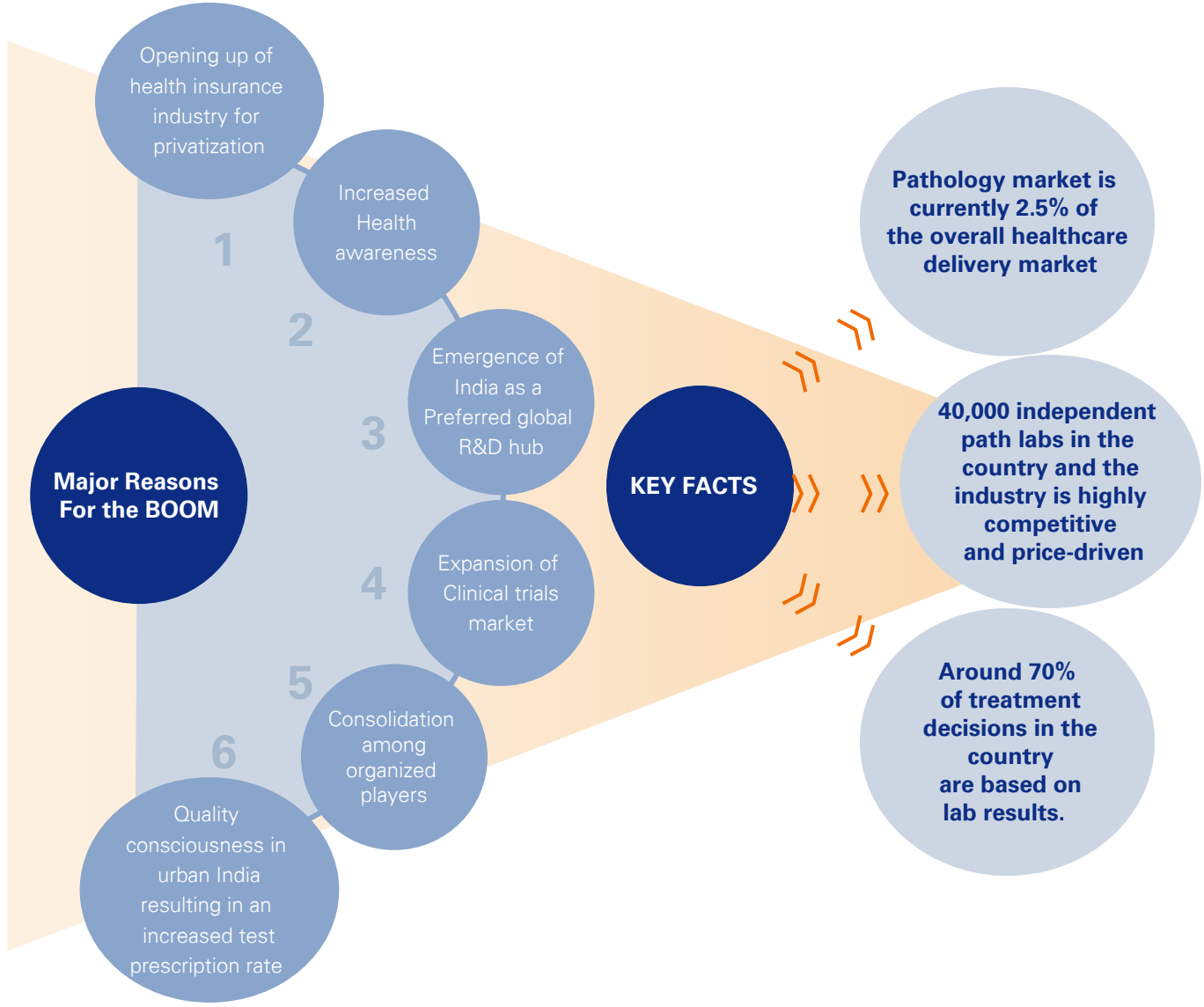
Source: Crisil, KPMG Analysis



Diagnostic services, currently a small market dominated by unorganized players

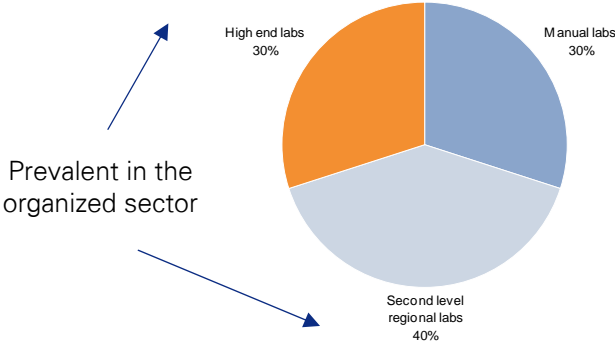


Source: Technopak Healthcare Outlook 2008



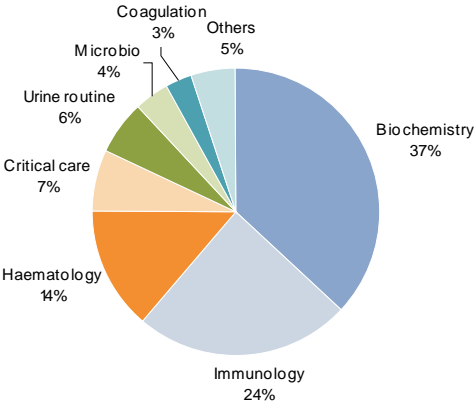
Market share by different classifications

Market by Lab Type



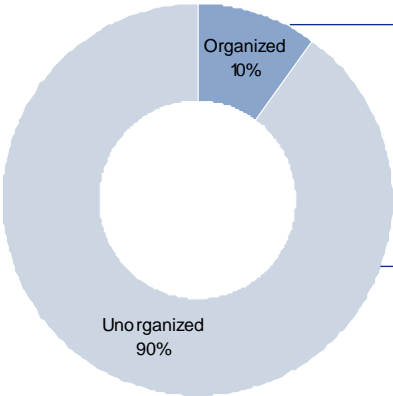
Source: Cygnus Research

Market Split by Therapeutic Segment



Source: Cygnus Research

Market by Segment Type



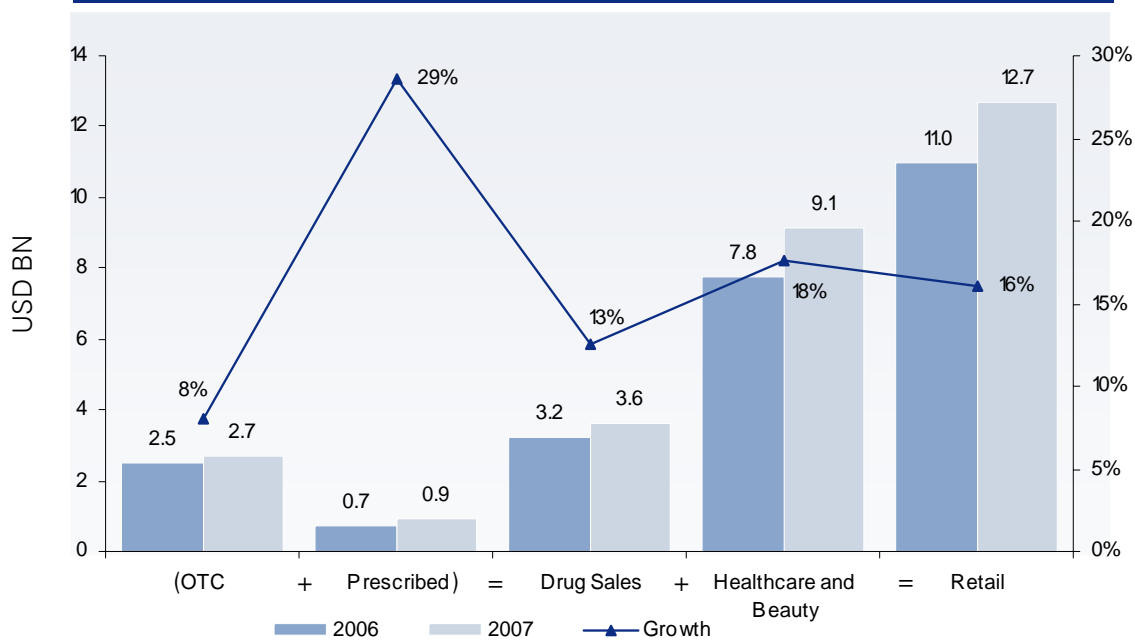
Includes national and regional chains such as SRL Ranbaxy, Dr Lal's Pathlabs, Wellspring, Thyrocare etc

Lack of regulation: Lack of mandatory registration, infrastructure norms, quality guidelines, and accreditation requirements for clinical laboratories has led to the boom of a large fragmented unorganized sector

Source: Express Pharma, June 2008

Pharmacy retail market dominated by unorganized players

Growth of Pharmacy Retail in India



Source: BMI Industry Reports, Datamonitor, IMAGES Retail, KPMG Analysis

Market is expected to grow at a CAGR of 12-15% till 2012

- India's retail pharmacy market is highly fragmented and dominated by archaic independent kiosks
- The penetration of organised retail was only 4% in 2007, up from 3.2% in 2006; with over 95% of the market unorganized neighbourhood chemists dominate the market
 - Retail pharmacy chains in the US and UK contribute 54% and 48% of the retail pharma sales respectively
- In terms of value the overall organised market grew by 47% to USD 520 MN, one of the fastest segmental growth rates in the organised sector
- Prescribed drugs showed the highest growth rate amongst all products sold at the pharmacies, registering a 35% CAGR between 2006 and 2007; sales are expected to continue growing at a CAGR of 28% till 2012 (this can be explained by the increase in the number of patented drugs)
- Overall drug sales in pharmacies are estimated to continue to grow by a CAGR of 15% till 2012, growing to a value of USD 7 BN

Expected change from standalone pharmacies to value added healthcare centers

Fragmented Unorganized Market – Stand alone pharmacists

- Limitations in the quality and integrity of supply chain despite it accounting for more than 30 percent of the retail cost of a drug
- Fragmented structure makes it prohibitive for the pharmaceutical companies, distributors and retailers to invest adequately in the infrastructure to facilitate stock
- Lack of regulatory oversight, in terms of restrictions on number of outlets in an area and compliance to set operational standards has resulted in lower entry barriers and hence increased proliferation and fragmentation
- Issues around unfair retail substitution and compliance to GMP which are detrimental to the patient's interest

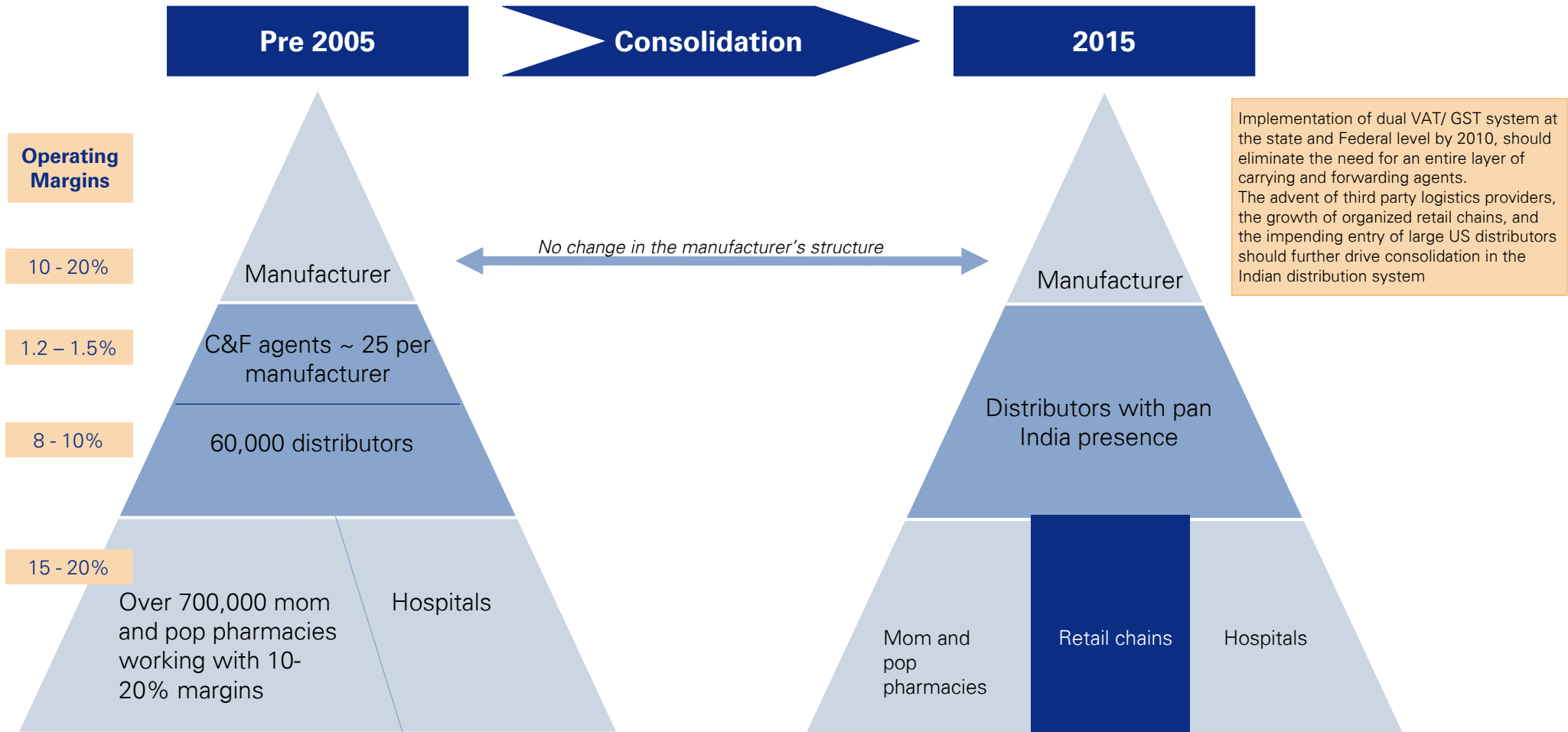


Consolidated Organized Market - Retail chains with "value added services"

- Pharmaceutical companies, and distributors to invest in infrastructure to facilitate stock, better monitoring of the supply chain and improved compliance
- QC processes to prevent counterfeit drugs
- Employment of qualified pharmacists at point of sale would assist patient's in making educated decisions
- Economies of scale in purchasing drugs would benefit the consumer through potentially lower drug prices
- Evolution of multiple formats – specialty pharmacy (disease-focused), hospital pharmacy, clinic-cum-path lab pharmacy, wellness centers (for all preventive and curative solutions), as also one-stop-shops for all medical sciences – allopathy, ayurveda, homeopathy
- Convenience as a value proposition: Loyalty programs, health awareness campaigns, emergency doctors on call, free collection of diagnostic samples and home delivery

Source: KPMG Analysis

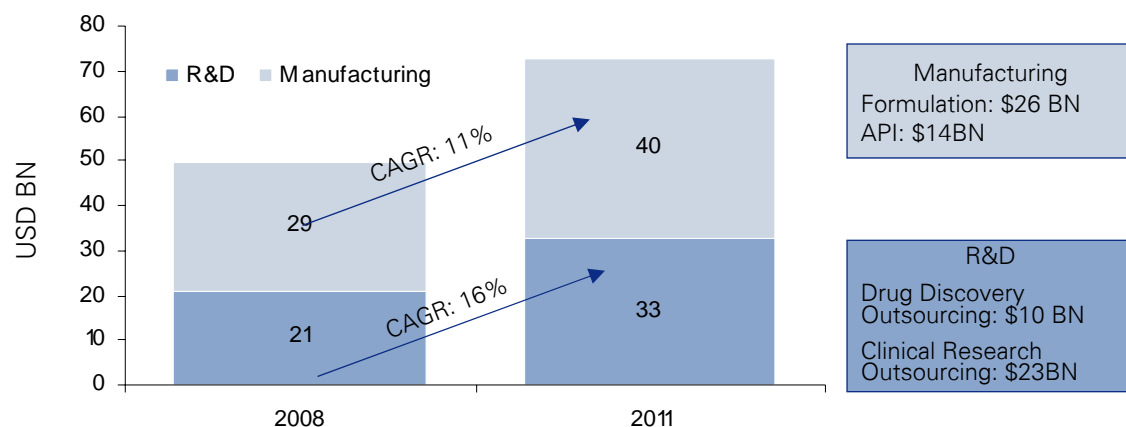
Consolidated across the industry



Source: Crisil, Express Pharma Pulse, Deloitte, KPMG Analysis

India is a natural candidate to benefit from the global outsourcing opportunity

Global Outsourcing



Source: Merrill Lynch 2008

Global Outsourcing Drivers

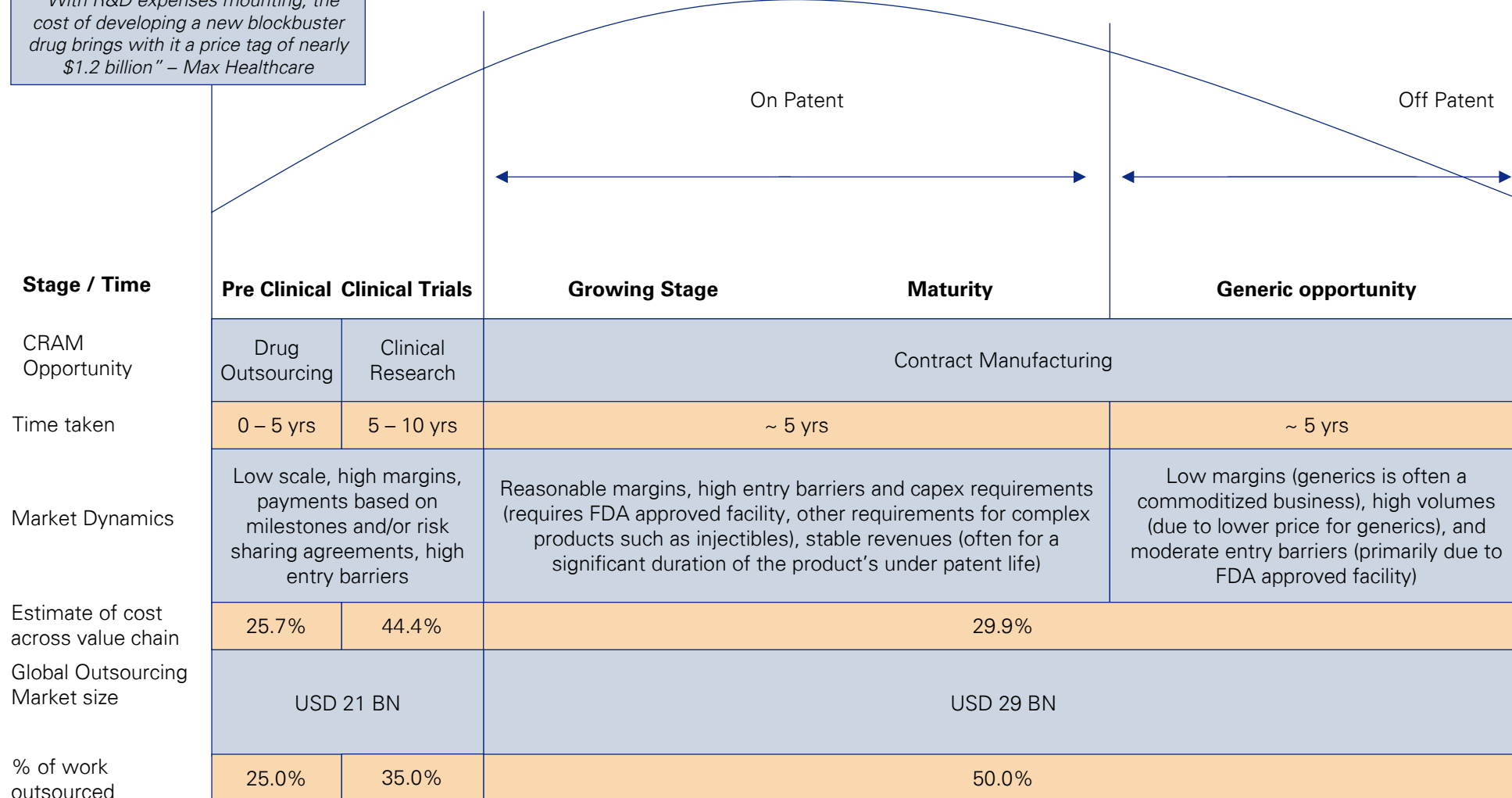
- Pressured by increasing costs and productivity issues, foreign companies are outsourcing R&D and manufacturing as part of their cost cutting initiatives
- The larger pharmaceutical companies expect to focus on high margin activities (biologicals and other niche segments, NCE development etc) and outsource activities such as manufacturing to low cost centers

India Advantage

- Indian companies are well positioned to address the entire pharmaceutical value chain across the product life cycle
- India allows 100% FDI in this sector
- Manufacturing specific: regulatory strength, technical strength, low cost manufacturing, lower wages, availability of talent
- R&D specific: Clinical trials (India has high speed of recruiting patients, speed of trial etc), availability of qualified talent pool, lower cost of conducting trials, and availability of infrastructure to conduct discovery research and clinical trials

Opportunities - The entire pharmaceutical product life cycle

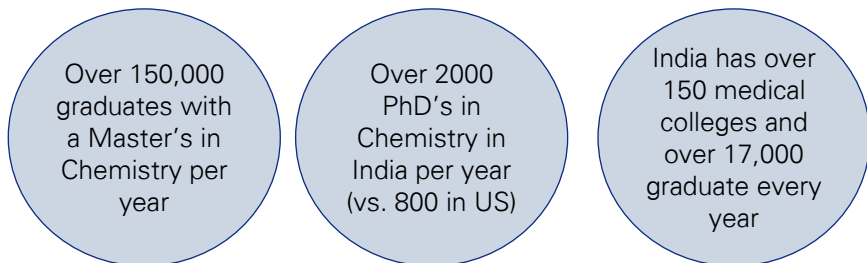
"With R&D expenses mounting, the cost of developing a new blockbuster drug brings with it a price tag of nearly \$1.2 billion" – Max Healthcare



Source: Merrill Lynch 2008, Reliance Money, Company Websites, KPMG Analysis

Talent to remain a challenge for clinical research

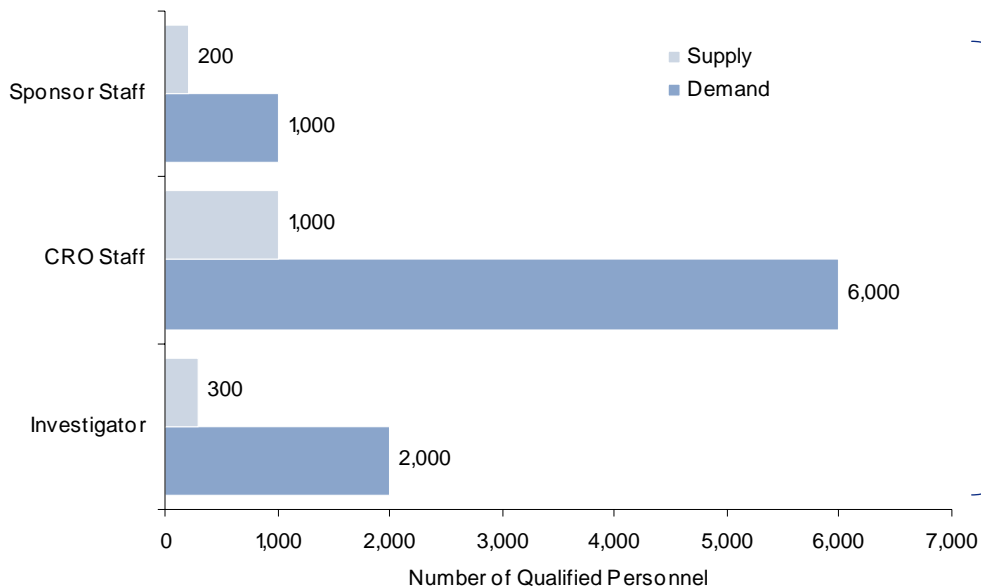
Talent Pool



Large number of graduates, however lack of specialized training and courses will lead to a shortfall in talent for certain sectors in the healthcare space (such as CRO)

Source: Merrill Lynch 2008

Talent: Demand / Supply Gap by 2010



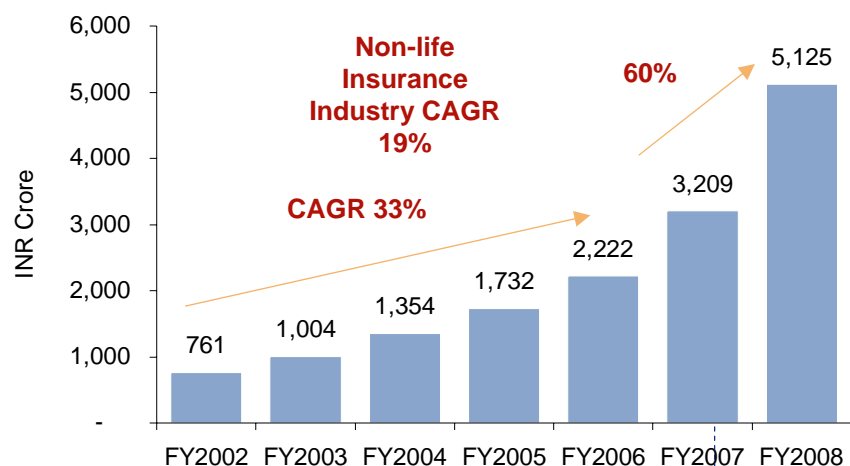
Shortage of staff in all functions in the CRO segment

Source: CII



Rapid growth over the years and especially after price detariffication in 2007

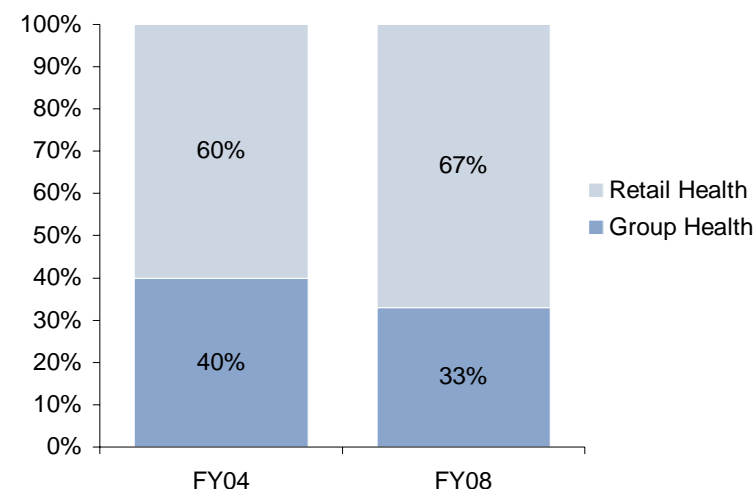
Historic Growth in Gross Written Premium (GWP)



Source: IRDA

Price Detariffication in Jan 2007

GWP Composition by Public and Private sector



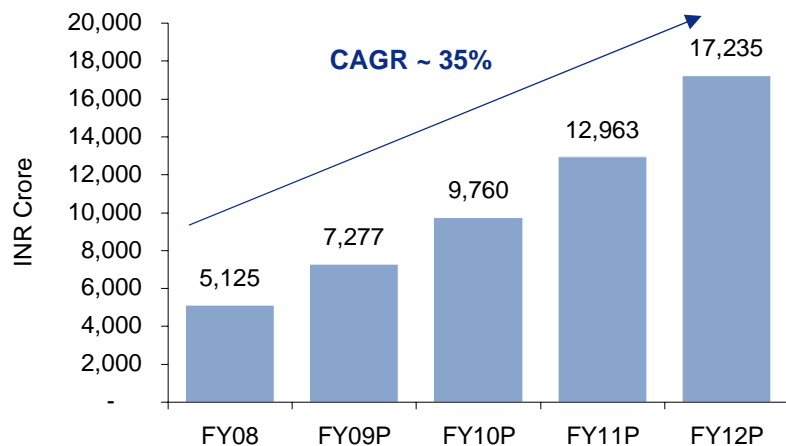
Source : IRDA, KPMG Analysis

- Health insurance has been one of the fastest growing product segments over the year
- Before Detariffication, health insurance as a stand-alone business was less profitable as compared to other lines such as Fire and Engineering and therefore received relatively lower focus
- Group-Health insurance business witnessed very low premium rates due to cross-subsidization

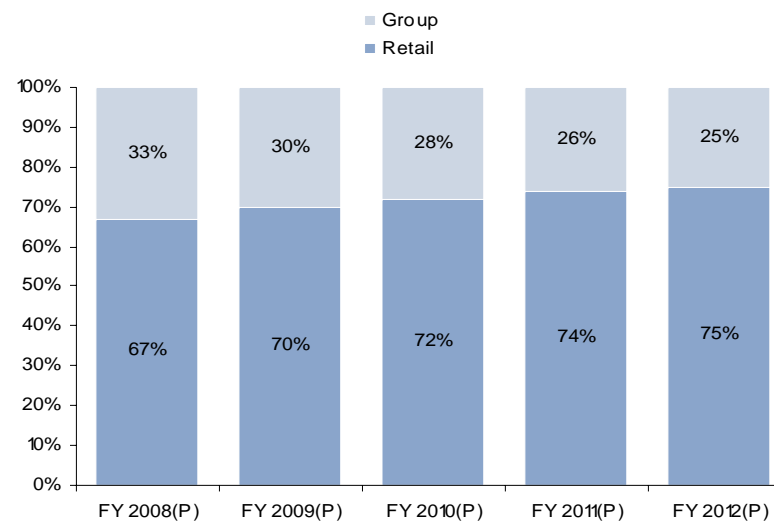
- Despite increase in the premium rates for the group-health insurance business, the proportion of group business has come down post detariffication primarily due to aggressive expansion of retail health business

... presence of sustainable growth drivers will lead to robust growth in the coming years

Projected Growth in GWP



Composition of Group and Retail GWP

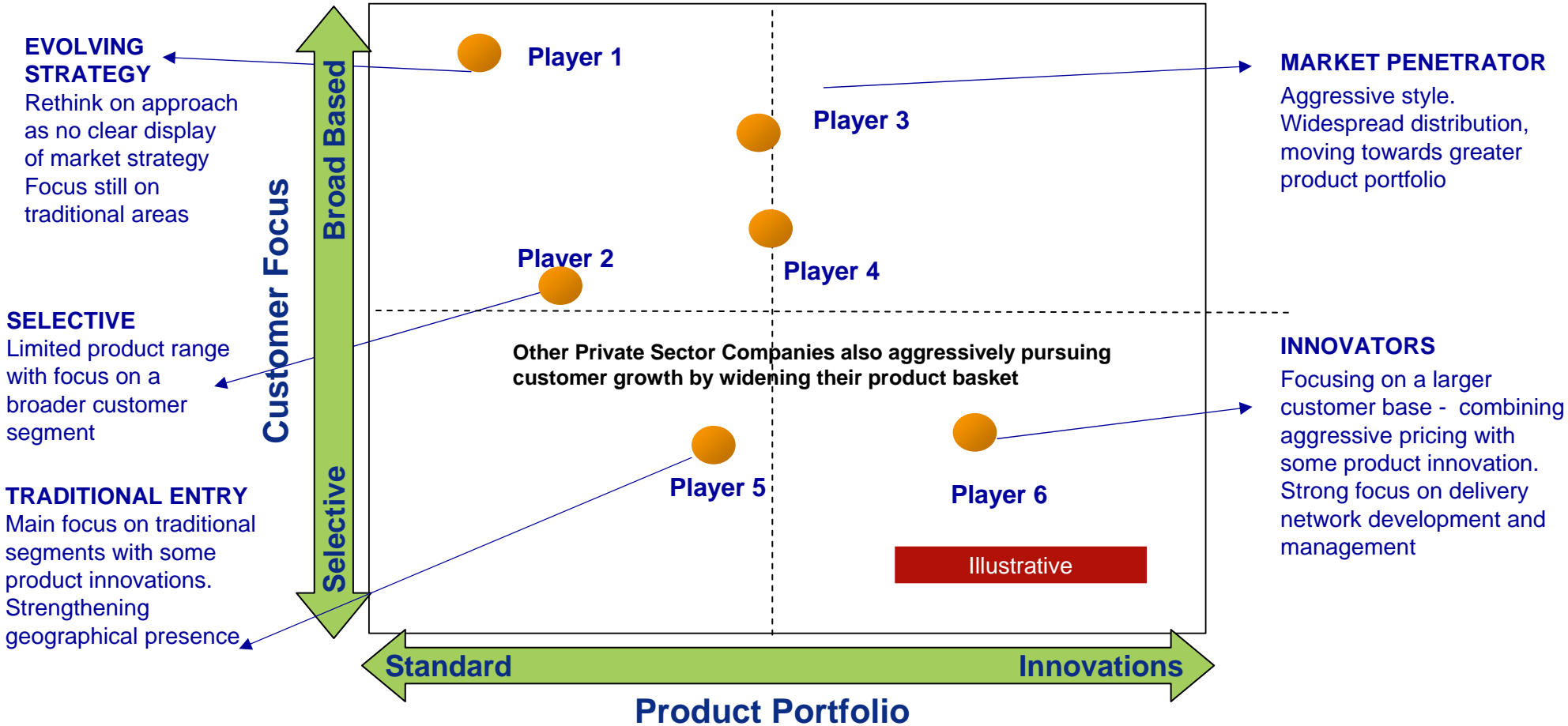


Source : KPMG Analysis

Key Growth Drivers

- Higher spends towards critical illnesses driven by lifestyle changes
- Growing organized workforce
- Increasing purchase power amongst retail customers
- The future profitability is likely to be driven by aggressive expansion in more profitable retail health insurance segment

The competition structure is likely to evolve with players taking strategic positions and consolidating their presence along their positioning



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