
DETAILED OVERVIEW OF HEALTHCARE SECTOR IN INDIA

Final Report

June 2019

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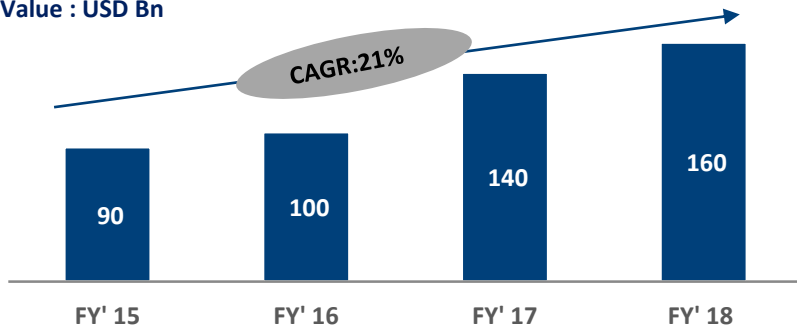
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Market Overview

Healthcare industry in India

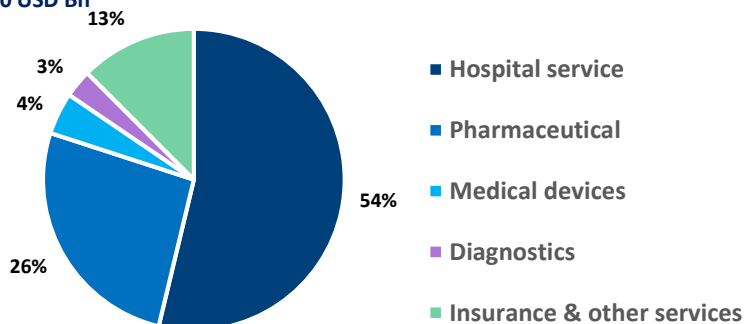
Healthcare market - Past Growth Trend (FY'15 - FY'18)

Value : USD Bn



Healthcare market - (FY' 18)

Value: 160 USD Bn

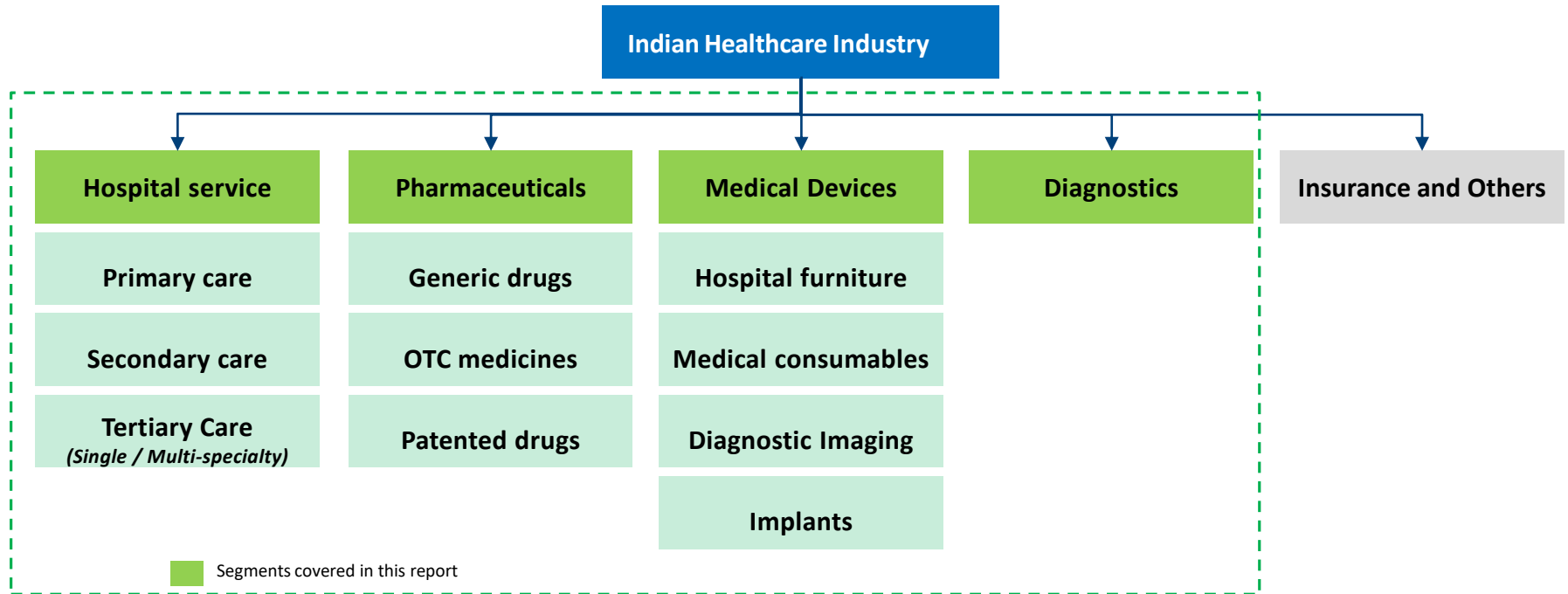


Source: Feedback Analysis, Secondary Research, IBEF

Healthcare industry

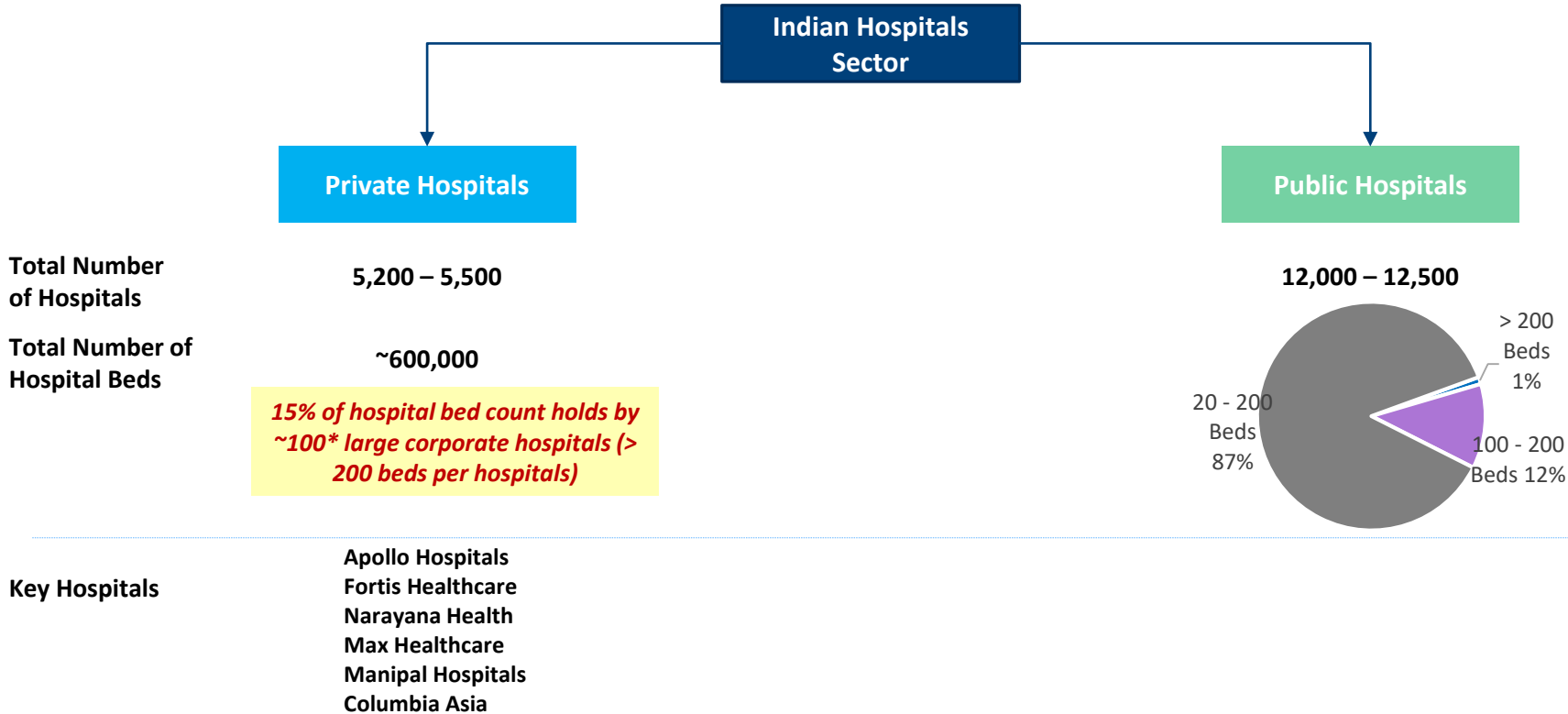
- Healthcare is a high growth industry in India, has been growing at a CAGR of 21% in the past 4 years
- Hospital service and Pharmaceutical segments contribute close to 80% of the Indian Healthcare industry
- As per Medical council of India there are more than 1 Mn doctors registered with State medical councils / Medical council of India, out of which close to 80% is available for active service
- The government's expenditure on the health sector has been at 1.4% of the country's GDP in FY'18
- 'Ayushman Bharat' which was launched on September 23, 2018 is the world's largest government funded healthcare scheme

Indian Healthcare Market: Market Classification



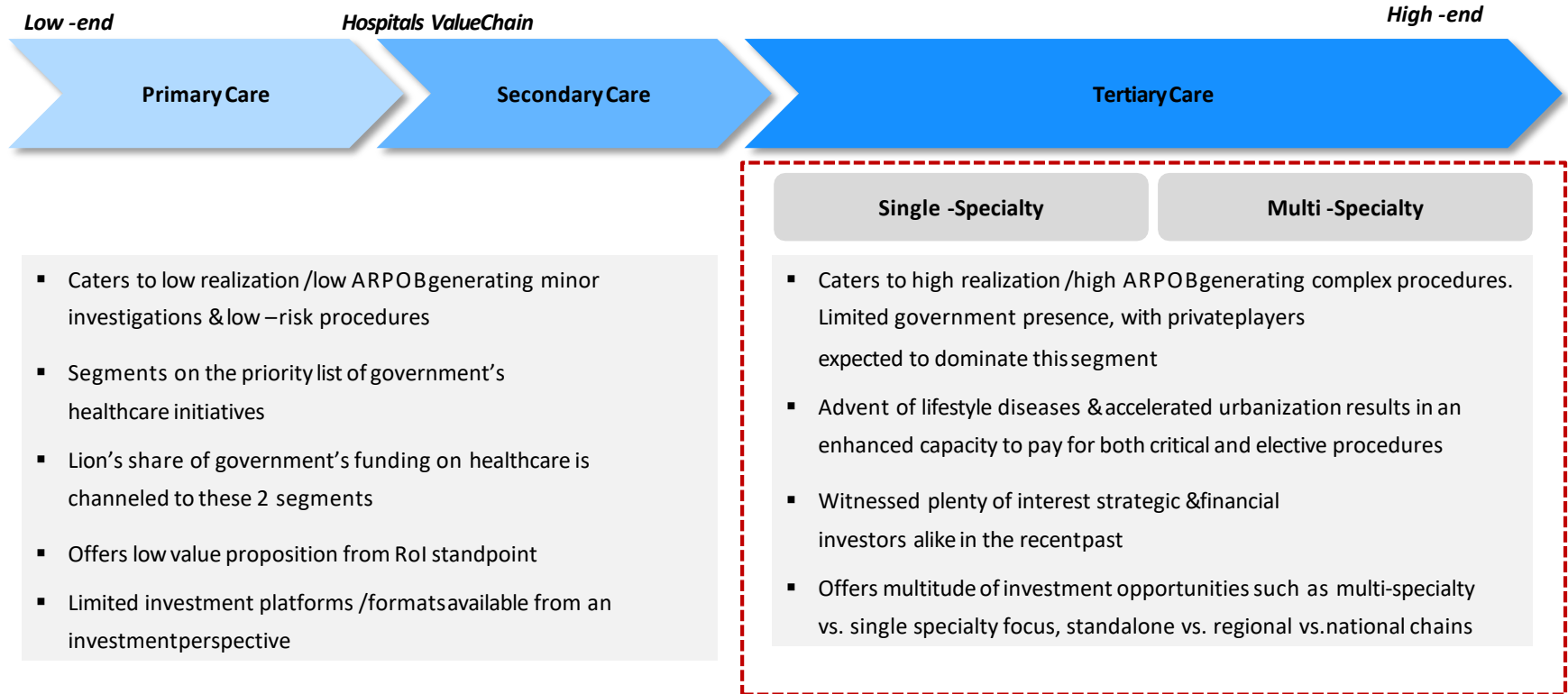
Hospital Services

Industry Structure - Hospitals



Source: Feedback BoK & Research Articles

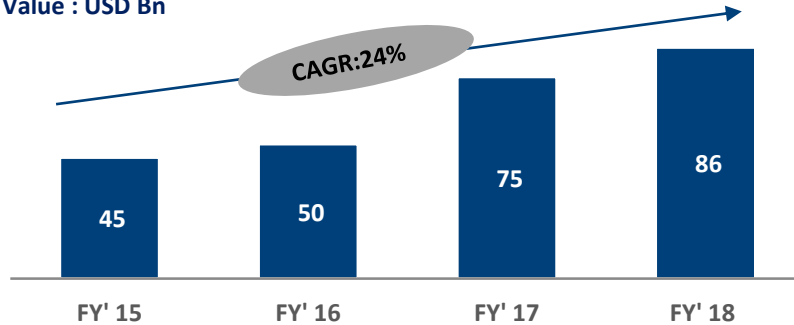
Value Chain- Hospitals



Hospital industry in India

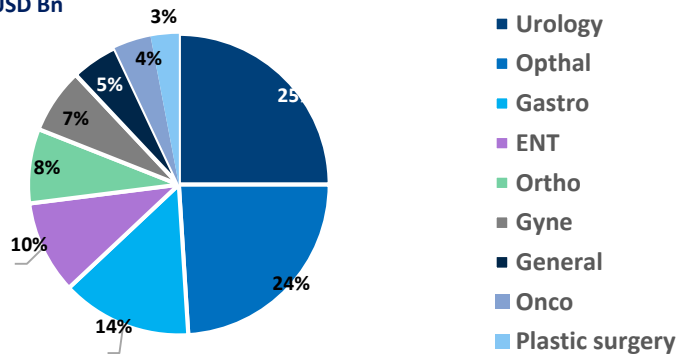
Hospitals - Past Growth Trend (FY'15 - FY'18)

Value : USD Bn



Hospitals - (FY' 18)

Value: 86 USD Bn



Source: Feedback Analysis, Secondary Research, IBEF

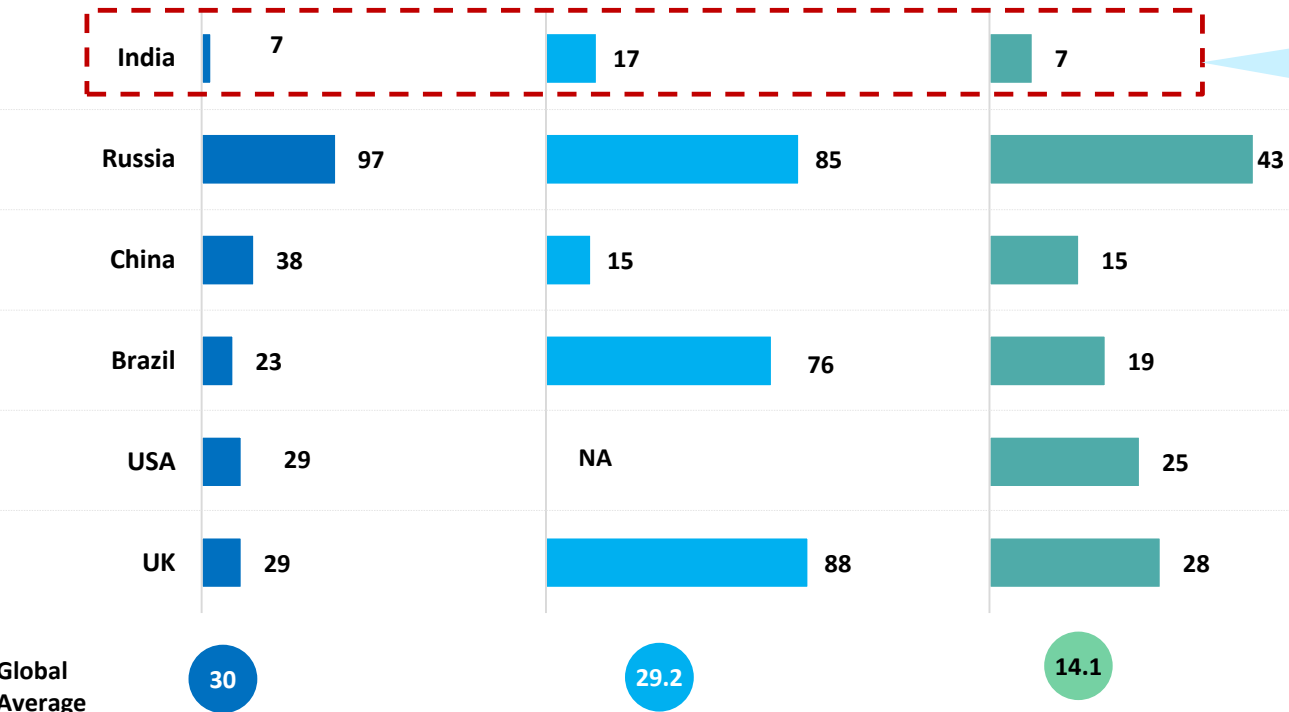
Hospitals

- The services offered under hospitals reach the population through two routes, public and private
- Public sector provides treatment by means of sub-centers, primary health centers (PHC), community health centers (CHC), district hospitals and government funded institutions
- Private sector provides services through clinics, mid and large size secondary and tertiary hospitals
- A major portion of secondary and tertiary healthcare institutions comes from private sector with a concentration in metros, tier I and tier II cities
- Hospital bed density in India is 0.9 per 1,000 persons, which is significantly short of World Health Organisation (WHO) guidelines of 3.5 per 1,000 patients
- India has only 0.7 doctors per 1,000 patients in comparison to WHO-stipulated minimum doctor-to-patient ratio of 1 : 1,000

Healthcare Indicators

Hospital Beds

Per 10,000 Population



550 additional medical colleges (100 seats/college) & 200 additional nursing colleges (60 seats/college) are required to be commissioned to meet the global average in 2030

- India has an acute shortage of healthcare infrastructure
- Penetration of the healthcare infrastructure in India is lower than that in developed countries and it is way lower than the global average
- India needs to invest around USD 200 Bn over next 10 – 15 years to reach the global median of 30 beds per 10,000 population
- Concentration of infrastructure in urban areas - 70% of the hospitals are located in top 20-25 cities

Competitive Landscape - Hospitals

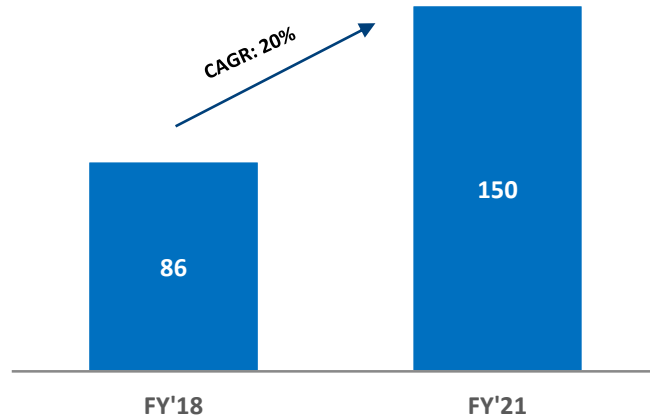
Company	Company Overview
Apollo Hospitals Enterprise Limited	<ul style="list-style-type: none"> ▪ Apollo Hospitals Enterprise Limited is an Indian hospital chain based in Chennai, India. It was founded by Dr Prathap C. Reddy in 1983 as the first corporate health care in India.. It is one of the biggest private hospitals in India ▪ Apollo Pharmacy, a unit of Apollo Hospitals Enterprise is India's first and largest branded pharmacy network, with over 3000 plus outlets in over 18 states
Aravind Eye Hospitals	<ul style="list-style-type: none"> ▪ Aravind Eye Hospitals is a hospital chain in India. It was founded by Dr. Govindappa Venkataswamy at Madurai, Tamil Nadu in 1976. It has grown into a network of eye hospitals and has had a major impact in eradicating cataract related blindness in India
Care Hospitals	<ul style="list-style-type: none"> ▪ Care Hospitals is a chain of multi-specialty healthcare hospitals with 14 hospitals in 6 cities across 5 states of India. It was founded in 1997 by Bhupathiraju Somaraju Chairman and Managing Director of Care Hospitals Group. Care Hospital is a specialty hospital for cardiac surgeon's critical care and emergency medicine specialists over 18 years
Fortis Healthcare Ltd	<ul style="list-style-type: none"> ▪ Fortis Healthcare Limited is a chain of hospitals, headquartered in India. Malaysia's IHH Healthcare Bhd has become the controlling shareholder of Fortis Healthcare Ltd by acquiring a 31.1% stake in the company ▪ The hospital chain is based out of Gurugram Haryana
Max Hospitals	<ul style="list-style-type: none"> ▪ Max Healthcare Institute is a hospital chain based in New Delhi, India with 14 hospitals across North India. The Institute is a joint venture between Max India and Life Healthcare, South Africa. The hospital chain was started in the year 1985
Manipal Group of Hospitals	<ul style="list-style-type: none"> ▪ Manipal Hospitals is a chain of multi-specialty hospitals in India. It is founded by Dr. Tonse Madhav Ananth Pai in 1953. Manipal Hospitals is part of the Manipal Education system and Medical Group
Narayana Health	<ul style="list-style-type: none"> ▪ Narayana Health (formerly known as Narayana Hrudyalaya) is a chain of multi-specialty hospitals, heart centres, and primary care facilities with its headquarters in, Bengaluru, India. Founded by Dr. Devi Shetty in the year 2000, the hospital has presence across major Indian cities Bangalore, Delhi, Gurugram, Kolkata, Ahmedabad, Jaipur, Mumbai, Mysore etc.

Source: Feedback Analysis, Secondary Research, IBEF

Future Outlook

Hospitals Market – Future Outlook

Value : USD Bn



- Rising incomes, greater health awareness, lifestyle diseases and increasing access to insurance will contribute to growth
- The Government of India aims to increase healthcare spending to three percent of the Gross Domestic Product (GDP) by 2022
- The government aims to develop India as a global healthcare hub
- Investment in healthcare infrastructure is set to rise, benefiting both 'hard' (hospitals) and 'soft' (R&D, education) infrastructure
- Additional three million beds needed for India to achieve the target of 3 beds per 1,000 people by 2025
- Additional 1.54 million doctors and 2.4 million nurses required to meet the growing demand for healthcare; 58,000 job opportunities are expected to be generated in the healthcare sector by the year 2025
- Over USD 200 billion is expected to be spent on medical infrastructure by 2024

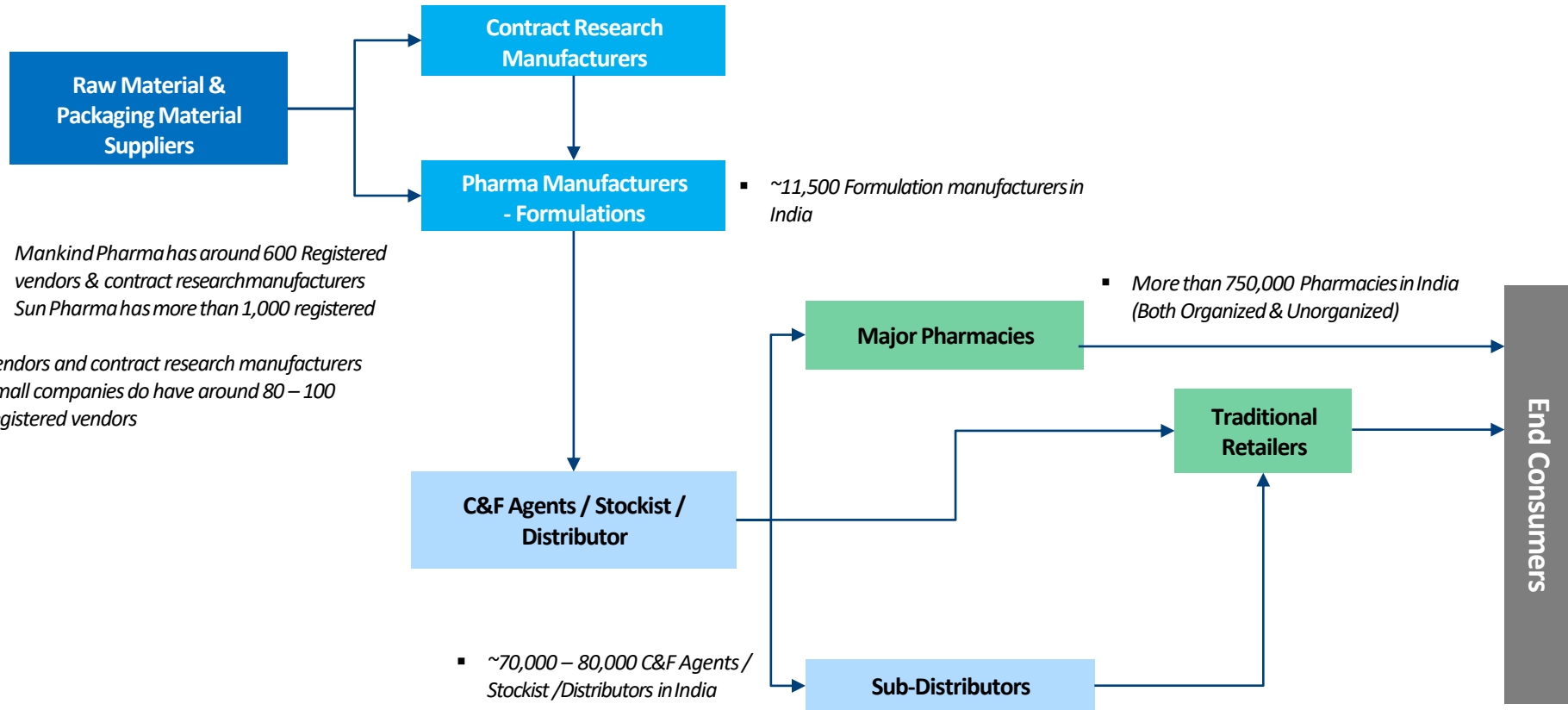
Pharmaceuticals

Industry Structure - Pharmaceuticals

Parameters	Large companies	Medium companies	Small companies	Very Small companies
Net sales	Greater than 150 Mn	USD 60 – 150 Mn	USD 5 - 60 million	Less than USD 5 Mn
No. of players	<ul style="list-style-type: none"> ▪ 26 players <ul style="list-style-type: none"> • Ranbaxy • Cipla Limited • Dr. Reddy's Lab • Lupin • Aurobindo Pharma • Sun Pharma • Cadila Health • Piramal Group • Ipca Labs • GlaxoSmithKline • Torrent Pharma • Orchid Chemical • Glenmark • Alembic Pharma • Sanofi India • Pfizer 	<ul style="list-style-type: none"> ▪ 40 medium <ul style="list-style-type: none"> • Elder Pharma • Parabolic Drugs • Novartis India • Unichem Labs • Sharon Bio Medical • Twilight Litaka • Strides Arcolab • Panacea Biotec • FDC • Hikal • Merck • Aarti Drugs • Claris Life • JB Chemicals • Ajanta Pharma • Wyeth • Indoco Remedies • Granules India • AstraZeneca 	<ul style="list-style-type: none"> ▪ Over 200 players <ul style="list-style-type: none"> • Fresenius Kabi • Aanjaneya Life • Dishman Pharma • Neuland Lab • Arvind Remedies • Natco Pharma • Plethico Pharma • Venus Remedies • Vivimed Labs • TTK Healthcare • Wanbury • Sequent Scientific 	<ul style="list-style-type: none"> ▪ More than 14,000 registered units <ul style="list-style-type: none"> • Meenaxy Pharma Pvt Ltd • Lee Pharma Ltd • Indian Genomix Pvt Ltd • Biotech Desk Pvt. Ltd • Vivo Bio Tech Ltd
Business model	<ul style="list-style-type: none"> ▪ In-house R&D facility ▪ Most are large Indian groups, with presence in all major markets ▪ Also export generic drugs to other international markets 	<ul style="list-style-type: none"> ▪ In-house research expertise ▪ Specialise in specific product categories ▪ Many are subsidiaries of international firms, marketing patented and non patented formulations in India 	<ul style="list-style-type: none"> ▪ Presence only in their respective regional markets ▪ Only manufacture non patented formulations ▪ No expenditure on R&D 	<ul style="list-style-type: none"> ▪ Presence only in their respective regional markets ▪ Only manufacture non patented formulations ▪ No expenditure on R&D

Source: Feedback Analysis, Secondary Research, News Articles

Value Chain- Pharmaceuticals

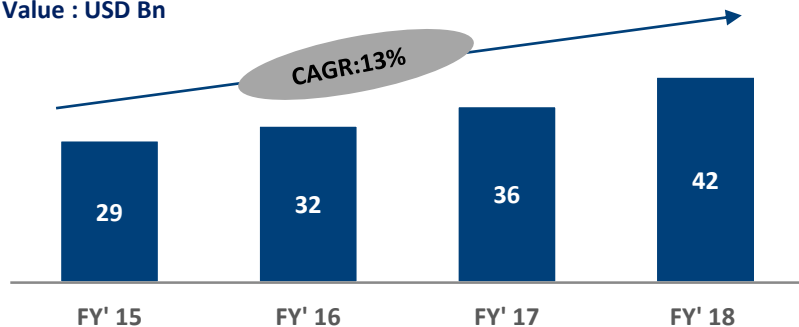


Source: Feedback Analysis, Secondary Research, Indian Retail Druggists and Chemists Association

Pharmaceuticals industry in India

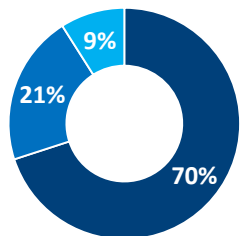
Pharmaceuticals - Past Growth Trend (FY'15 - FY'18)

Value : USD Bn

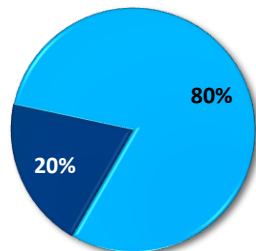


Pharmaceuticals (FY' 18)

Value: USD 42 Bn



■ Generic drugs
■ OTC medicines
■ Patented drugs



■ Bulk Drugs (API)
■ Formulations

Pharmaceuticals

- India ranks 3rd in market volume and 13th in market value in the global pharmaceuticals market
- There are more than 14,500 registered pharma manufacturing units in India out of which 11,500 are formulation manufacturing units
- India supplies 20% of global generic medicines in terms of export volume, making the country the largest provider of generic medicines globally
- India produces over 60,000 formulations, 900 types of bulk drugs and 1,200 types of intermediaries
- India is the largest supplier of medicine to the US. The other key export destinations are Brazil, Mexico, South Africa, Russia, and Japan
- Inexpensive labour, strong government support, and lower production costs are the key drivers of Indian pharma industry
 - In India production cost is 50%-60% lower compared to the US

Source: Feedback Analysis, Secondary Research, IBEF

Competitive Landscape - Pharma

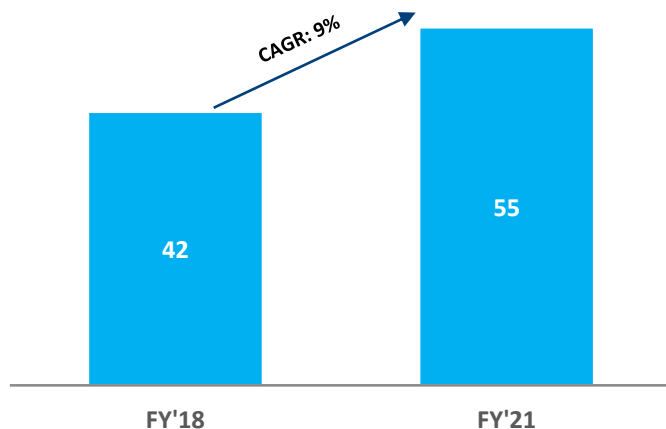
Company	Company Overview
Sun Pharma	<ul style="list-style-type: none"> ▪ Sun Pharmaceuticals is an Indian multinational pharmaceutical company headquartered in Mumbai, Maharashtra that manufactures and sells pharmaceutical formulations and active pharmaceutical ingredients (APIs) primarily in India and the United States. The company offers formulations in various therapeutic areas such as cardiology, gastroenterology etc.
Cipla	<ul style="list-style-type: none"> ▪ Cipla Limited is an Indian multinational pharmaceutical and biotechnology company, headquartered in Mumbai, India. Cipla primarily develops medicines to treat respiratory, cardiovascular disease, arthritis, diabetes, weight control and depression; other medical conditions
Cadilla	<ul style="list-style-type: none"> ▪ Cadila Healthcare is an Indian pharmaceutical company headquartered at Ahmedabad in Gujarat state of western India ▪ The company is the fourth largest pharmaceutical company in India and is a large scale manufacturer of generic drugs
Dr Reddy's	<ul style="list-style-type: none"> ▪ Dr. Reddy's Laboratories is an Indian multinational pharmaceutical company based in Hyderabad, Telangana, India. The company was founded by Anji Reddy. The company manufactures and markets a wide range of pharmaceuticals in India and overseas. The company has over 190 medications, 60 active pharmaceutical ingredients (APIs) for drug manufacture, diagnostic kits, critical care and biotechnology products
Aurobindo Pharma	<ul style="list-style-type: none"> ▪ Aurobindo Pharma Limited is a pharmaceutical manufacturing company headquartered in HITEC City, Hyderabad, India. The company manufactures generic pharmaceuticals and active pharmaceutical ingredients ▪ The company's area of activity includes six major therapeutic/product areas: antibiotics, anti-retroviral, cardiovascular products, central nervous system products, gastroenterologicals, and anti-allergic
Lupin	<ul style="list-style-type: none"> ▪ Lupin is an international pharmaceutical company based in Mumbai, which focusses on key areas such as pediatrics, cardiovascular, anti-infective, diabetology, asthma and anti-tuberculosis.
Mankind	<ul style="list-style-type: none"> ▪ Mankind Pharma is a pharmaceutical company in India based at New Delhi. The company was formed in the year 1991 and has products in therapeutic areas ranging from antibiotics, to gastrointestinal, cardiovascular, dermal, and erectile dysfunction medications

Source: Feedback Analysis, Secondary Research, IBEF

Future Outlook

Pharmaceutical Market – Future Outlook

Value : USD Bn



- India's biotechnology industry comprising bio-pharmaceuticals, bio-services, bio-agriculture, bio-industry and bioinformatics is expected to grow at an average growth rate of around 30 per cent a year and reach US\$ 100 billion by 2025
- Medicine spending in India is projected to grow 9-12 per cent over the next five years, leading India to become one of the top 10 countries in terms of medicine spending.
- Going forward, better growth in domestic sales would also depend on the ability of companies to align their product portfolio towards chronic therapies for diseases such as cardiovascular, anti-diabetes, anti-depressants and anti-cancers that are on the rise
- Speedy introduction of generic drugs into the market has remained in focus and is expected to benefit the Indian pharmaceutical companies. In addition, the thrust on rural health programmes, lifesaving drugs and preventive vaccines also augurs well for the pharmaceutical companies

Medical Devices

Industry Structure - Medical Devices

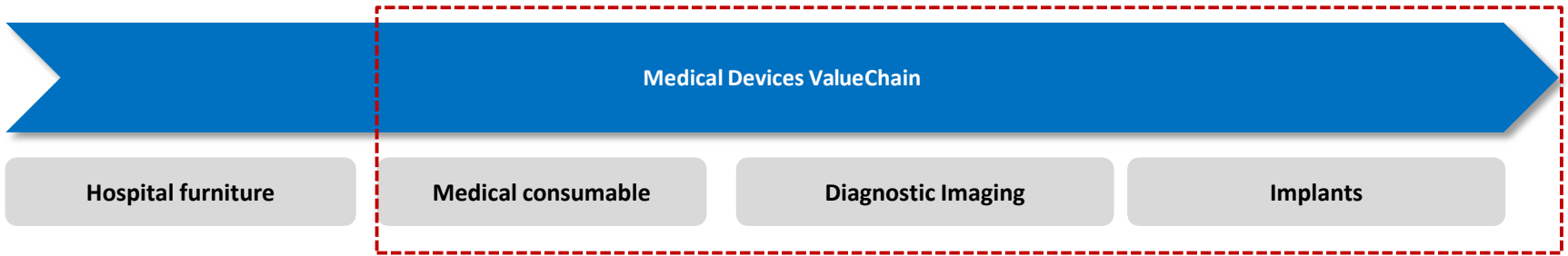
Parameters	Foreign Manufacturers	Domestic Players
No. of players	<ul style="list-style-type: none"> ▪ Wipro GE Healthcare ▪ 3M ▪ Johnson and Johnson ▪ Becton Dickinson ▪ Abbott Vascular ▪ Bausch & Lomb ▪ Baxter ▪ Boston Scientific ▪ Stryker ▪ Philips Medical ▪ Texas Instruments ▪ Eastern Medikit 	<ul style="list-style-type: none"> ▪ Hindustan Syringes & Medical Devices ▪ Opto Circuits ▪ Trivitron Healthcare ▪ Polymedicure Limited ▪ Sterimed Medical Devices ▪ Johari Digital ▪ Sutures India ▪ Skinray Healthcare ▪ Nidhi Meditech System
Business model	<ul style="list-style-type: none"> ▪ In-house R&D facility ▪ Most are large Indian groups, with presence in all major markets ▪ They are engaged in manufacturing products such as syringes, catheters, surgical gloves, blood collection systems etc ▪ The stress is given on using minimally invasive devices as frequently as possible 	<ul style="list-style-type: none"> ▪ In-house research expertise ▪ Specialise in specific product categories ▪ Many are engaged in building airflow systems used in surgical operations, dialyzer, patient monitoring devices, Electro Cardio Gram, Infusion pumps, ventilator systems, imaging systems, laboratory diagnostics, ophthalmology devices, critical care & operating room devices

Source: Feedback Analysis, Secondary Research, News Articles

Value Chain- Medical Devices

Low -end

High -end

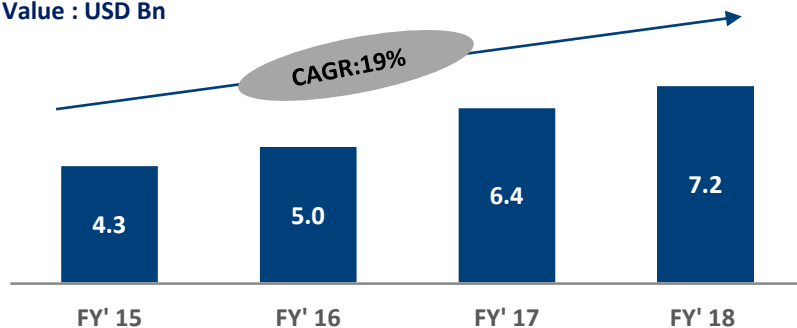


- Medical consumables, diagnostic imaging and implants are the key elements in the medical devices value chain
- Certain fast growing & sizeable medical consumable platforms such as Polymed & Sutures India also offer a attractive investment opportunity in the medical devicesegment
- With IoT-powered tracking tools, medical device manufacturers can revolutionize their operations and achieve new levels of efficiency and visibility across their organizations. And ultimately, this insight into where shipments are and whether they are likely to arrive on time and undamaged is the key to staying competitive in the modern medical devices industry

Medical device industry in India

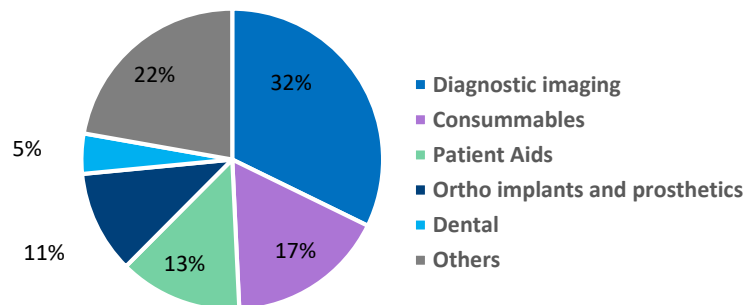
Medical devices - Past Growth Trend (FY'15 - FY'18)

Value : USD Bn



Medical devices (FY' 18)

Value: USD 7.2 Bn



Source: Feedback Analysis, Secondary Research, IBEF

Medical devices

- India is among the top 20 medical device markets in the world
- Indian medical device sector is ranked as the fourth largest in Asia after Japan, China, and South Korea
- The medical device market is dominated by imported products, which comprise of around 80% of total sales
- The domestic companies are largely involved in manufacturing low-end products for local and as well as international consumption.
- A significant percentage of purchasers of medical devices are private medical institutions and hospitals
- Diagnostic imaging is the leading segment in the Indian medical device market followed by consumables and patient aids

Competitive Landscape - Medical Devices

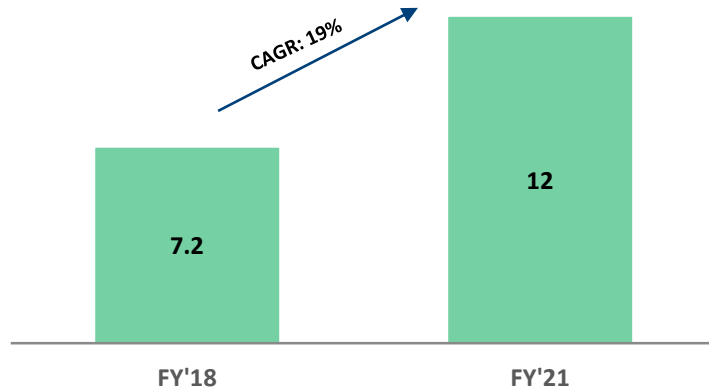
Company	Company Overview
Hindustan Syringes and Medical Devices	<ul style="list-style-type: none"> ▪ HMD is one of India's largest indigenous disposable medical devices manufacturer and also the largest manufacturer of AD syringes worldwide. The company is based out of Faridabad, Haryana and was formed in the year 1957 ▪ Its specialties include IV cannula, blood collection tube, blood collection sets, infusion set, needles, hypodermic syringes, surgical blade with handle,
Opto Circuits	<ul style="list-style-type: none"> ▪ Opto Circuits Limited is a vertically integrated multinational medical technology Group that specializes in primary, acute and critical care products for the global markets. The company is based out of Bangalore, India
Zimmer India	<ul style="list-style-type: none"> ▪ Zimmer India was formed in the year 2005 and is based out of Haryana. It is a subsidiary of the global company Zimmer Biomet. The company manufactures medical devices for knees and hips
Trivitron Healthcare	<ul style="list-style-type: none"> ▪ Trivitron is an Indian medical devices manufacturer based out of Chennai. Trivitron markets its products to hospitals, individual healthcare providers, independent clinics and laboratories, extended care facilities and all other roofs providing healthcare solutions. The company manufactures and distributes exceptional medical technology products to 165 countries
BPL Healthcare India	<ul style="list-style-type: none"> ▪ BPL Medical Technologies, the Indian multinational, spearheads pioneering efforts in medical technology and innovation which was formed in the year 1967.
Johnson & Johnson	<ul style="list-style-type: none"> ▪ Johnson & Johnson Medical provides solutions to doctors, patients and nurses. It offers an extensive range of high technology medical and surgical equipment, devices and services.
Baxter	<ul style="list-style-type: none"> ▪ Baxter International Inc. is a Fortune 500 American health care company with headquarters in Deerfield, Illinois. The company primarily focuses on products to treat hemophilia , kidney disease, immune disorders and other chronic and acute medical conditions ▪ Baxter's Medical Products business produces intravenous products and other products used in the delivery of fluids and drugs to patients

Source: Feedback Analysis, Secondary Research, IBEF

Future Outlook

Medical devices – Future Outlook

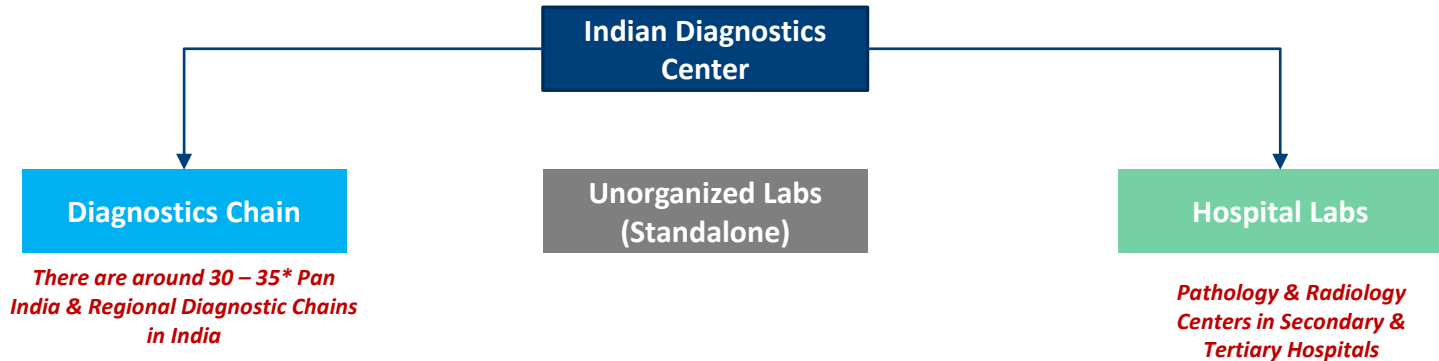
Value : USD Bn



- The “Make in India” charter has motivated medical device manufacturers in India, with promise of the government support in the form of land allocation and subsidies to encourage growth of the domestic medical device industry
- India is fast growing as a key market for medical devices outsourcing and will continue to consolidate its position in coming years
- The Indian medical devices industry has an opportunity to leapfrog innovation combining physical devices and integrating digital frameworks for long term innovation
- Technology will continue to provide a fantastic platform for disruptive innovation, wherein the wearables and diagnostic framework leveraging technology can provide out-of-the box, innovative and cost effective solutions for the masses of the country

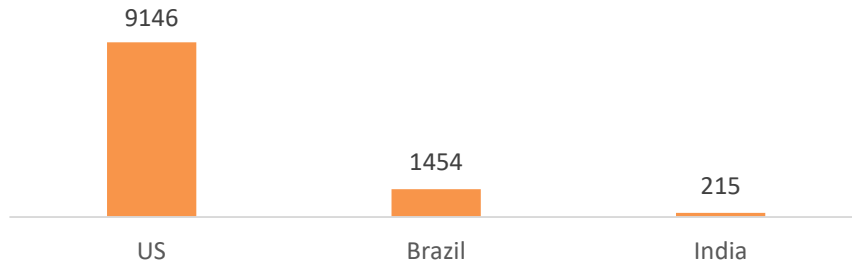
Diagnostics Centre

Industry Structure – Diagnostics Center



No. of Diagnostics Labs Per Mn Population

Nos.



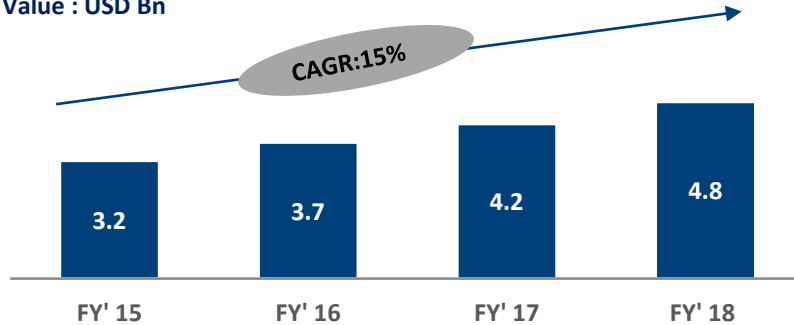
- 100,000 diagnostic laboratories across the country
 - 70% offer pathology services and the rest provide radiology and imaging such as MRI, CT scan X-ray and ultrasound
- The industry is largely fragmented with around 90 per cent of the diagnostics centers are unorganized standalone centers
- Big 4 (Dr Lal Pathlabs, SRL Diagnostics, Metropolis Healthcare & Thyrocare) holds around 7% of total diagnostics market & around 40 – 45% in organized diagnostics chain market

Diagnostics industry

(1/2)

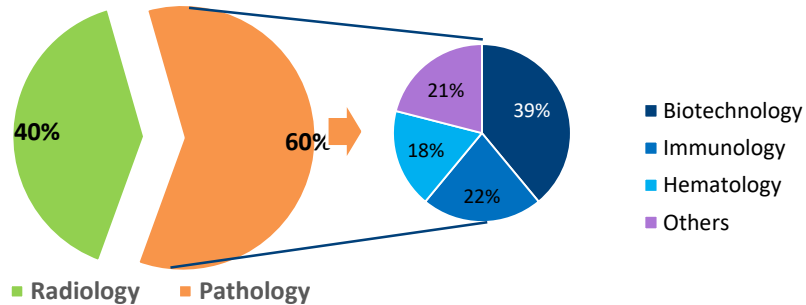
Diagnostics - Past Growth Trend (FY'15 - FY'18)

Value : USD Bn



Diagnostics (FY' 18)

Value: USD 4.8 Bn



Source: Feedback Analysis, Secondary Research, IBEF

Diagnostics

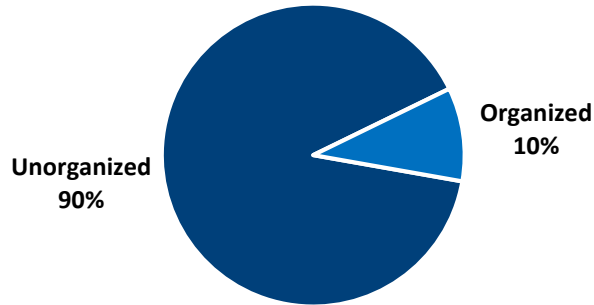
- Pathology accounted for nearly 60% of the market while Radiology accounted for the remaining 40%. However, there has been a significant growth in the radiology segment in the last couple of years
- Though a major portion of diagnostic business is being managed by the so called unorganized sector, the diagnostic service market is expected to become much more organized and consolidated with a lot of small laboratory players becoming franchisees for larger players
- A trend of consumerism has been evolving in the diagnostic market where consumer will have a choice
- Among the pathology segment, biotechnology is the major contributor followed by immunology
- Referrals are the biggest channel making up more than half of the market

Diagnostics industry

(2/2)

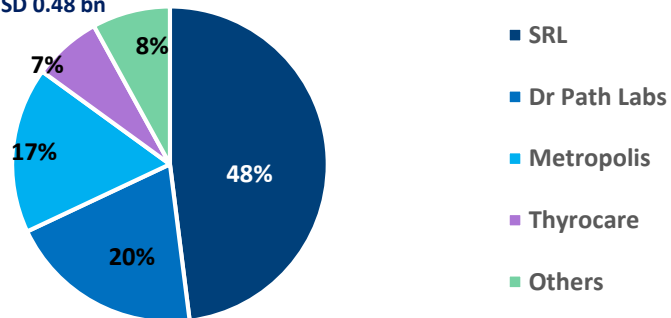
Diagnostics (FY' 18)

Value: USD 4.8 bn



Organized market (FY' 18)

Value: USD 0.48 bn



Diagnostics

- The organized players account for only about 10 percent , and operate under a hub and spoke model
- In the organized segment, SRL is the largest player in the Indian diagnostics industry with 48 percent share
- Though the market is still highly unorganized but the share of organized players has increased over the years and this trend is set to continue in the coming years
- Attracted by high growth rates and lucrative returns, the domestic diagnostic sector has been witnessing high interest from the private equity players
- Low entry barriers, low capex requirements and minimum regulatory supervision make the sector susceptible to new competitors

Competitive Landscape - Diagnostics

Company	Company Overview
Dr Lal Path Labs	<ul style="list-style-type: none"> Dr. Lal PathLabs Limited is an international service provider of diagnostic and related healthcare tests. Based in Delhi, the company offers a broad range of tests on blood, urine and other human body viscera In 2013, Dr. Lal PathLabs was awarded Best Diagnostic Service Company by VCCircle. Dr Lal Path Labs is present in 800 cities with 2,000 collections centres, and caters to around 10 million patients a year
SRL Diagnostics	<ul style="list-style-type: none"> SRL Diagnostics is an diagnostic company based out in India providing diagnostic services in pathology and radiology. SRL Diagnostics has their headquarter in Gurugram, with corporate offices in Mohali, New Delhi and Mumbai The company has more than 368 networking laboratories including 4 Reference Labs, 4 "Centers of Excellence", 26 radiology/imaging centers, 39 NABL accredited labs, 4 CAP-accredited labs and a footprint of over 5600 collection sites
Metropolis	<ul style="list-style-type: none"> Metropolis Labs is a chain of diagnostic companies, with its central laboratory in Mumbai, Maharashtra. Metropolis Healthcare has a chain of 106 clinical laboratories and 1130 collection centers across 7 countries including India
Thyrocare	<ul style="list-style-type: none"> Thyrocare Technologies Limited is a chain of diagnostic and preventive care laboratories, based in Navi Mumbai. The company has 1,122 outlets and collection centers across India and parts of Nepal, Bangladesh and the Middle East
Krsnaa Diagnostics	<ul style="list-style-type: none"> Headquartered in Pune, Krsnaa Diagnostics (Krsnaa) was established in 2011 with the motto of providing quality healthcare at affordable prices to the masses. It has grown its presence in 10 states and ~1,500 locations within 4 years. Krsnaa operates only through hospital-based labs and currently has a network of labs in 270 government and 18 private hospitals across the country
Healthians	<ul style="list-style-type: none"> Incubated in November 2014, Healthians provides high-quality at-home diagnostic services at low price. The company currently provides pathology tests in the NCR region. Healthians aims to provide high customer satisfaction by providing tests at low prices with the convenience of home testing and ensuring reliable reports in reasonable time
Core Diagnostics	<ul style="list-style-type: none"> Core Diagnostics is a leading clinical, pathology, molecular lab, oncology lab, genetics specialized company in India

Source: Feedback Analysis, Secondary Research, IBEF

Key players and their operations in diagnostics segment



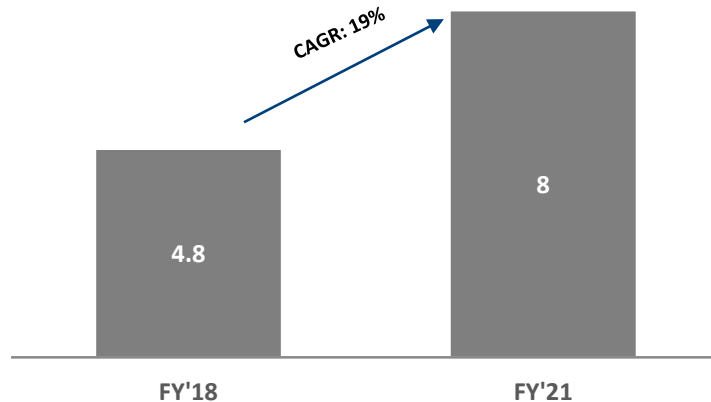
	SRL Diagnostics	Dr Lal PathLabs	METROPOLIS	Thyrocare®
No. of Labs	280	150	120	1 Central Lab - NaviMumbai
No. of Collection Centres	5,500	2,000	750	700 franchises
Number of Tests	3,500	4,000	4,000	208
Presence	450 cities	125 cities	39 cities	700 cities
Tests processed daily	80,000	30,000	28,000	30,000
International Presence				
<i>SAARC</i>	✓	✓	✓	✓
<i>Middle East</i>	✓	✓	✓	✓
<i>Others</i>	✓	✓	✓	
Other services				
<i>Wellness</i>	✓			✓
<i>Clinical Research</i>	✓	✓	✓	
<i>Lab Management</i>	✓	✓	✓	

Source: Feedback Analysis, Secondary Research, News Articles

Future Outlook

Diagnostics – Future Outlook

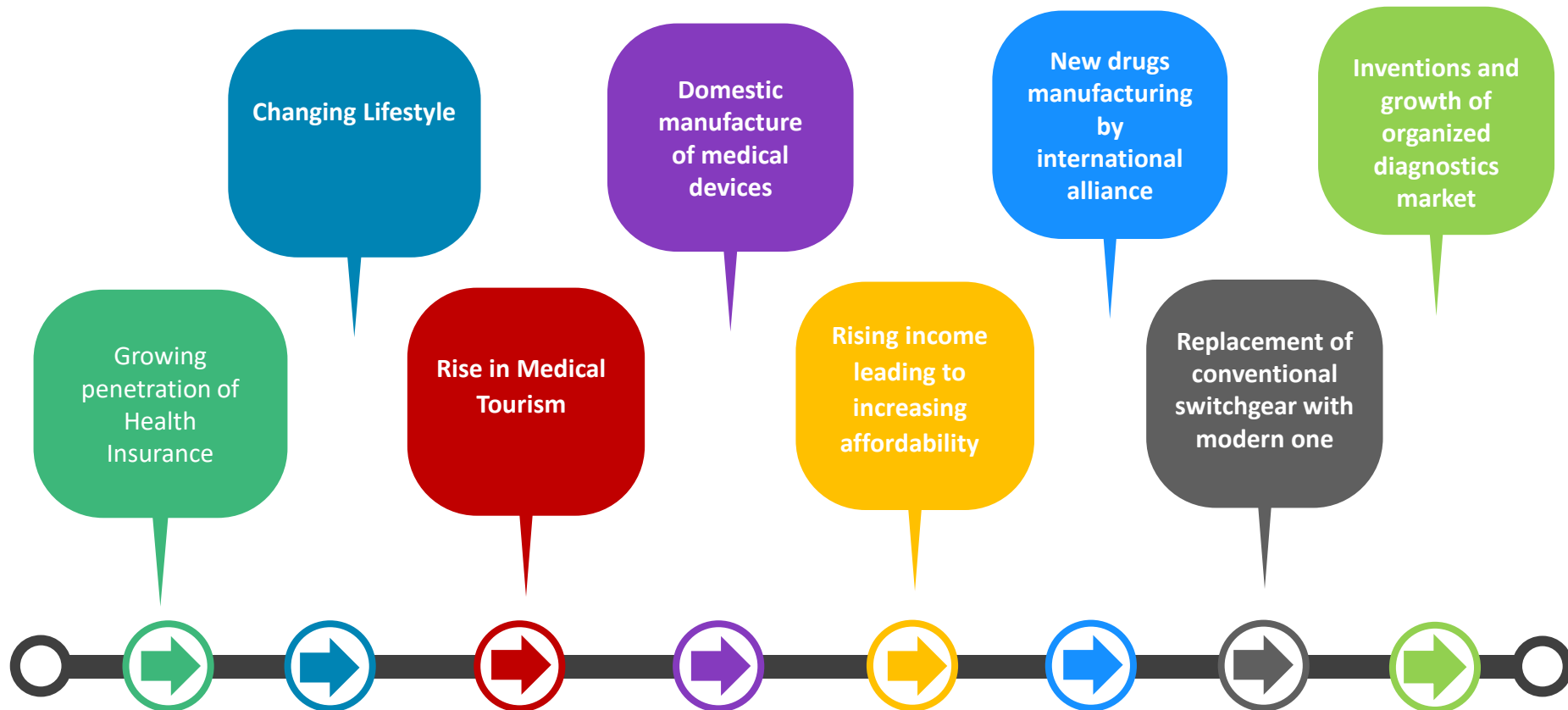
Value : USD Bn



- In recent times, several states including UP, Assam, HP, Gujarat, Maharashtra, among others, have started engaging private players to provide diagnostic services at public hospitals under the PPP (Public Private Partnership) mode.
 - Although diagnostic players earn lower EBITDA margin on such agreements, it continues to remain a lucrative proposition to expand due to the low capital requirements and high volumes
- Attracted by high growth rates and lucrative returns, smaller unlisted diagnostic players have lately evinced high interest from PE funds, enabling them to quickly pivot models and chase growth
- Organised diagnostics players have demonstrated strong growth thus far, propelled by strong underlying growth of the sector as well as wresting market share from unorganised players

Factors impacting growth of the healthcare market

Key Growth Drivers: Overview



Source: Feedback BoK & Research Articles

Key Growth Drivers

(1/3)

Growing Penetration of Health Insurance

- India's out-of-pocket expense on healthcare is significantly higher than the global average. Therefore, to curtail this high out of pocket expense, the Indian populace is increasingly resorting to health insurance policies. Health insurance penetration is on the rise due to inflationary healthcare costs, rising incidence of lifestyle diseases and rising income.
- Health insurance penetration in India is estimated to be 20% of the population and is further expected to grow to 45% by 2020. Rising insurance penetration will make quality healthcare delivery available to masses at affordable prices

Changing lifestyles has resulted in higher instances of diseases

- Rise of sedentary lifestyle and increasing consumption of high fat foods has led to increased incidence of lifestyle diseases like diabetes, cardiovascular diseases, and hypertension amongst the working age group people
- Going forward, India is expected to witness increase in population above 30 years of age from 71% of the total population in 2011 to 77% in 2021. This growing population in the segment and rising incidence of lifestyle diseases, the demand for tertiary healthcare infrastructure is set to witness robust growth

Rise in Medical Tourism

- Cost of specialized surgical procedures like heart surgery, bone marrow transplant, liver transplant is lower in India when compared with other countries. In certain cases, the cost differential is as high as 10-20%
- Availability of skilled doctors/nursing staff, cost competitiveness to conduct critical treatment, less waiting period and world class facilities developed by private hospital like Fortis, Apollo, Max among others facilitates medical tourism growth in the country

Source: Feedback analysis, analyst reports & secondary research

Key Growth Drivers

(2/3)

Steps to Encourage domestic manufacturing of medical devices

- To encourage domestic manufacturing, Association of Indian Medical Device Industry (AIMED) proposed few policy measures such as:
 - Separate medical device regulatory act as well as separate rules with IHPRA (Indian Healthcare Products Regulatory Authority). In addition, the apex body has proposed mandatory compliance to be part of Q1 certification.
 - 15% online preferential pricing on World Bank and WHO tenders, to counter the 17% subsidy provided by China to its medical device manufacturers
 - Market access policy to promote “Buy Indian”, to encourage customers to purchase from domestic manufacturers who has ICMED certification.

Increase in level of affordability

- Improvement in income level has enabled both urban and rural families to increase their spending on healthcare services. Increase in healthcare spending is most prominent among urban middle class households, who as a segment have seen the highest increase in income levels. In addition to growth in real income levels, increase in health insurance penetration levels too helped in expanding the base of patients who can afford healthcare services
- General increase in the number of consumers who are affordable to access health services has benefitted overall healthcare industry. Demand for all services / products within the industry, which include pharmaceutical products, medical devices, hospital care, among others have all gone up. Medical device manufacturers as well as importers have benefitted from this higher demand.

Key Growth Drivers

(3/3)

Increasing competency in pharmaceuticals manufacturing and international alliances for new drugs

- India has the second-largest number of USFDA-approved manufacturing plants outside the US and accounts for 22% of overall US FDA-approved facilities. The proposed patent regime with 10% rate of tax on income, from worldwide exploitation of patents developed and registered in India, is expected to propel local manufacturing and innovations
- Indian pharmaceutical companies have been tying up with global MNC's to develop new drugs. Such alliances would help India import skills, finance and knowledge, giving Indian companies a shortcut to upgrading their ability to conduct R&D

High demand for OTC as well as generic drugs

- Increased penetration of chemists, particularly in rural regions, is expected to increase the availability of OTC drugs in the country and the market is expected to have a high growth in the coming years
- India's generic drugs account for 20% of global exports in terms of volume, making the country the largest provider of generic medicines globally. India's generics drug market accounts for around 70% of the India pharmaceutical industry and it is expected to reach USD 27000 Mn by 2020

Inventions and growth of organized sector in diagnostics market

- India has been one of the fastest growing diagnostic markets over the past few years, with an increasing share in the global in-vitro diagnostics (IVD) industry. This is due to new technologies in this field
- The past decade has seen emergence of organised pan-India laboratory networks and this has resulted in more customers opting for diagnostic services

Source: Feedback analysis, analyst reports & secondary research

Challenges and Restraints

(1/2)

Fake Drugs Market and the need for tighter regulations

- Fake drugs market in India is taking shape of transnational organised crime. Currently, the country has USD 4 Mn worth fake drugs market, and it is slowly taking shape of a transnational organised crime
- A ban on hundreds of medicines in India because of concerns over health risks has brought into focus the drastic need for tighter regulation

Threat of NVC norm and greater scrutiny by USFDA

- The non-violation complaints (NVCs) norm that the US and Switzerland intend to bring into force in WTO's trade-related aspects of intellectual property rights (TRIPS) agreement could be a threat for Indian pharmaceutical manufacturers, as it could result in legal challenges for domestic manufacturers
- Greater scrutiny by the US Food and Drug Administration (USFDA) is emerging as a key challenge for Indian pharmaceutical sector as it can delay new product approvals and add to margin pressures. However, credit profiles are unlikely to be impacted

Shortage in Healthcare Infrastructure

- India has a ratio of 7 doctors, 17.1 nurses and 7 beds per 10,000 people as per WHO Statistic Report 2014, much lower against the global average of 14.1 doctors, 29.2 nurses, and 27 beds per 10,000 populations.
- Industry players suggest that the government should bring domestic healthcare metric at par with western countries and scale up spending to 6% of GDP. An estimated capacity addition of about 600,000-7,00,000 beds is required over the next five to six years
- Also, the ratio of number of doctors to patients is low in India and this proves a major hurdle in delivering timely as well as quality healthcare in the country . Such, a paucity of healthcare professionals creates a severe impact on the healthcare sector. Similarly, Indian hospitals also face a shortage in qualified nurses who prefer working in hospitals in western countries due to better compensation

Challenges and Restraints

(2/2)

Lack of infrastructure in Government Hospitals

- In spite of the higher cost, the population is dependent on private hospitals for treatment as these hospitals have been able to meet the service quality needs and demands of people
- Lower expenditure by government or public sector on healthcare facilities is one of the prime reasons that provide opportunity to private hospitals which, in turn, results in more consumption of private sector healthcare services
- The condition of hospitals is a major problem in rural areas as lack of funding has led to deterioration in the quality of medical instruments in these hospitals

Regulatory Challenges and the problem of dealing with primary healthcare

- Recently, the government has been positive on clearing regulatory hurdles related to the import-export of medical devices, and has set a few standards around clinical trials
- The country faces a growing need to fix its basic healthcare concerns in the areas of HIV, malaria, tuberculosis and diarrhoea. For primary healthcare the Government spends only about 30% of the total healthcare budget, which is significantly lower compared to countries such as the US and the UK

Healthcare Financing is a major issue

- Because of the uncertainty associated with healthcare needs, it is often not possible for people to plan their healthcare costs, which can be huge. Large uncertain expenditures are typically covered by insurance, but with over 70 percent of uninsured population, the burden of these expenditures on the pockets of common man is huge
- In India, financing for healthcare is still at a nascent stage and medical insurance is not as entrenched and needs to be far more developed so that all sections of the society can be benefited

Key Market Trends

(1/2)

Information Technology is leading the way for innovation in healthcare sector

- A variety of items such as smart-patient beds, wireless connectivity and real time monitoring, glucose meters and insulin pumps, remote body monitoring, implantable pacemaker etc. have been used in hospitals
- The use of smart healthcare has been a new trend in the healthcare space which has received widespread acknowledgement and with the development of IOT, more such devices will be in use

Rising Investments in the Healthcare Sector

- LV Max Healthcare, a healthcare institute based in New Delhi, invested Rs 320 crores (US\$ 48 million) to build a cancer care hospital in Delhi, being apart of Max's larger plan to develop its hospital in Saket. Thyrocare Technologies, a diagnostic laboratory chain, plans to expand its lab centres from 7 to 25 and franchisees from 1,200 to 5,000 to achieve a target revenue of Rs 1,000 crores (US\$ 150 million) by 2020
- International Finance Corporation, the investment arm of World Bank has invested around Rs 450 crores for a 29% stake in Healthcare major Apollo Group

Rise in the number of healthcare start-ups

- Practo Technologies Pvt Ltd, a digital healthcare start-up, has raised US\$ 55 million in series D round of funding led by Chinese investment holding company, Tencent Holdings Ltd, which will be used for expanding its product portfolio. Bengaluru-based start-up SigTuple Technologies Pvt. Ltd. has raised US\$ 5.8 million in series A round of funding led by existing investor Accel Partners
- Startups such as Practo, Livehealth & Niramai are trying to bridge the gap between medical practitioners and patients by providing an apt platform in form of smartphone applications or websites. With the active government initiative of Digital India & Startup India, the Indian healthcare startup ecosystem has started to mature

Key Market Trends

(2/2)

Rise in the use of telemedicine

- Telemedicine makes the use of telecommunications technology to treat, diagnose, assess the condition of an individual who is located at a distant place.
- Telemedicine is of great use to meet the needs of those patients who are situated at rural and remote areas and who find it difficult to have access to the healthcare delivery system that is far off from their location

Increasing involvement of patients

- Patients are getting more involved in the treatment process. While this shift is visible across the country, with the trend being much stronger in metro cities – a recent survey in Gurgaon showed that over 60 percent of patients check their doctor / hospital choices on Google before deciding, and the prescribed products thereafter
- As patients become more involved in healthcare choices, companies are developing a new consumer engagement model, using digital as a systematic channel instead of an ad-hoc top-up

Increased cases of robotic surgery

- Urological conditions have witnessed the fastest advent & growth of robotic surgery driven procedures in India
 - Accounts for 60-70% of overall robot-assisted procedures performed in India
 - Currently, 23 Da Vinci Si robots, used for performing high-precision robot-assisted surgeries, are installed in India
- It is expected that this trend will continue and more cases of robotics surgery will be done in India

Government Initiatives

- The Foreign Investment Promotion Board (FIPB) has cleared seven FDI proposals for investment in the Indian pharmaceutical companies. Currently, 100% FDI in pharma sector is permitted through automatic approval route in the new projects but the foreign investment in the existing pharma companies requires FIPB approval
- In order to provide relief to the common man in the area of healthcare, a countrywide campaign in the name of 'Jan Aushadhi Campaign' has been initiated by the Department of Pharmaceuticals, Government of India, in collaboration with the State Governments. Under this campaign, Jan Aushadhi Generic Stores are to be opened in Government Hospitals for supply of generic medicines through Central Pharma Public Sector Undertakings. The aim behind this initiative is to make available quality generic medicines at affordable prices to all
- On September 23, 2018, Government of India launched Pradhan Mantri Jan Arogya Yojana (PMJAY), to provide health insurance worth Rs 500,000 (US\$ 7,124.54) to over 100 million families every year
- In August 2018, the Government of India has approved Ayushman Bharat-National Health Protection Mission as a centrally Sponsored Scheme contributed by both center and state government at a ratio of 60:40 for all States, 90:10 for hilly North Eastern States and 60:40 for Union Territories with legislature. The center will contribute 100 per cent for Union Territories without legislature
- The Government of India has launched Mission Indradhanush with the aim of improving coverage of immunization in the country. It aims to achieve 90 per cent immunization coverage by December 2018 which will cover unvaccinated and partially vaccinated children in rural and urban areas of India
- In 2017, the Government of India approved National Nutrition Mission (NNM), a joint effort of Ministry of Health and Family Welfare (MoHFW) and the Ministry of Women and Child development (WCD) towards a life cycle approach for interrupting the intergenerational cycle of under nutrition.
- As of November 15, 2017, 4.45 million patients were benefitted from Affordable Medicines and Reasonable Implants for Treatment (AMRIT) Pharmacies
- As of December 15, 2017, the Government of India approved the National Medical Commission Bill 2017, it aims to promote area of medical education reform

Source: Feedback analysis, analyst reports & secondary research, FICCI

Government initiatives & investment opportunities in healthcare market

Opportunities and Potential for Investments

Opportunities

- India needs an additional 17.5 lakh beds by 2025 for which an estimated investment of USD 86 Bn would be required. Currently, the market is still dominated by unorganized investors. Huge private sector investments will significantly contribute to the development of hospitals
- Most Indian metros have hospitals with world-class infrastructure, processes and outcomes. However, 70% of the healthcare infrastructure is confined to the top 20 cities of India. In order to reach the remaining population, innovations both in healthcare products and delivery are required
- Less than 30% of the Indian population has some form of health insurance coverage, either private voluntary or as part of the Government Sponsored Health Insurance schemes. This presents a window of opportunity to global health insurers with a big potential market
- Medical tourism sector doubled in India in the year 2018 to reach USD 6 Bn. This sector presents the biggest opportunity for investors as there are few players and the market potential is very high
- The proportion of imports is high in the Indian medical equipment and medical implants segments, contributing approximately 85% of the market. Investment opportunity exists in areas such as in-vitro diagnostics, X-ray and ECG machines, patient monitoring equipment etc.
- Advances in telecommunication and information technology are offering wide opportunities for telemedicine services especially to the rural and remote areas of the country
- Hospital trade is also a growing business opportunity for other sectors such as food retail. Large hospitals get more than 1,000-1,500 outpatients per day and visitors for inpatients who are also potential customers. Food retail has about 15% of its business coming from hospitals

Government Regulations – Favorable for Investors

Eligibility Criteria

- It should not be set up by splitting up, or the reconstruction of a business already in existence
- It should not be formed by machinery or plant previously used for any purpose. This condition is relaxed where the used plant and machinery does not constitute more than 20 per cent of the total value of the machinery or plant used in the new business ('the 80:20 test')

Quantum of Deduction

- Operations commenced on or after the April 1, 2010 – 100% of capital expenditure
- Operations commenced on or after the April 1, 20102– 150% of capital expenditure

Carry forward and set off of losses

- Eligible to claim set-off of losses of a specified business (entitled for deduction under section 35AD) with profit of a specified business irrespective of latter being eligible for deduction under section 35AD or not
- No time limit specified for carry forward and set-off – can be carried forward indefinitely for set-off against income from specified business

Tax Incentives

- All healthcare education and training services are exempted from service tax. Increase in tax holiday under section 80- IB for private healthcare providers in non metros for minimum of 50 bedded hospitals
- 250 per cent deduction for approved expenditure incurred on operating technology enables healthcare services such as tele medicine , remote radiology
- Income tax exemption for 15 years for domestically manufactured medical technology products

Government Initiatives & Achievements

Government Initiatives

- Some of the major initiatives taken by the Government of India to promote Indian healthcare industry are as follows:
- On September 23, 2018, Government of India launched Pradhan Mantri Jan Arogya Yojana (PMJAY), to provide health insurance worth Rs 500,000 (US\$ 7,124.54) to over 100 million families every year.
- In August 2018, the Government of India has approved Ayushman Bharat-National Health Protection Mission as a centrally Sponsored Scheme contributed by both center and state government at a ratio of 60:40 for all States, 90:10 for hilly North Eastern States and 60:40 for Union Territories with legislature. The center will contribute 100 per cent for Union Territories without legislature.
- The Government of India has launched Mission Indradhanush with the aim of improving coverage of immunisation in the country. It aims to achieve at least 90 per cent immunisation coverage by December 2018 which will cover unvaccinated and partially vaccinated children in rural and urban areas of India.

Achievements

- Following are the achievements of the government in the year 2017:
- In 2017, the Government of India approved National Nutrition Mission (NNM), a joint effort of Ministry of Health and Family Welfare (MoHFW) and the Ministry of Women and Child development (WCD) towards a life cycle approach for interrupting the intergenerational cycle of under nutrition.
- As of September 23, 2018, the world's largest government funded healthcare scheme, Ayushman Bharat was launched.
- As of November 15, 2017, 4.45 million patients were benefitted from Affordable Medicines and Reasonable Implants for Treatment (AMRIT) Pharmacies.
- As of December 15, 2017, the Government of India approved the National Medical Commission Bill 2017, it aims to promote area of medical education reform.

Investments in healthcare space

- The hospital and diagnostic centers attracted Foreign Direct Investment (FDI) worth US\$ 6 billion between April 2000 and December 2018, according to data released by the Department of Industrial Policy and Promotion (DIPP). Some of the recent investments in the Indian healthcare industry are as follows:
 - Healthcare sector in India witnessed 23 deals worth US\$ 679 million in H12018.
 - India and Cuba have signed a Memorandum of Understanding (MoU) to increase cooperation in the areas of health and medicine, according to Ministry of Health and Family Welfare, Government of India.
 - Fortis Healthcare has approved the de-merger of its hospital business with Manipal Hospital Enterprises. TPG and Dr. Ranjan Pal could invest Rs. 3,900 crore (US\$ 602.41 million) in Manipal Hospital Enterprise.

Thank You

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