<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>3</td>
</tr>
<tr>
<td>Advantage India</td>
<td>4</td>
</tr>
<tr>
<td>Market Overview and Trends</td>
<td>6</td>
</tr>
<tr>
<td>Notable Strategies and Trends Adopted</td>
<td>11</td>
</tr>
<tr>
<td>Growth Drivers</td>
<td>15</td>
</tr>
<tr>
<td>Opportunities</td>
<td>26</td>
</tr>
<tr>
<td>Key Industry Organisations</td>
<td>29</td>
</tr>
<tr>
<td>Useful information</td>
<td>31</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Fourth Largest Employer
- India is expected to rank amongst the top three healthcare markets in terms of incremental growth by 2020.
- In FY18, Indian healthcare sector stood as the fourth largest employer as the sector employed a total of 319,780 people. The sector is expected to generate 40 million jobs in India by 2020.
- The Asian Research and Training Institute for Skill Transfer (ARTIST) announced plans to create around one million skilled healthcare providers by 2022.
- 100,000 jobs are expected to be created from Ayushman Bharat, the National Health Protection Scheme.

Impressive Growth Prospects
- Indian healthcare sector is expected to record a threefold rise, at a CAGR of 22 per cent during 2016-2022 to reach US$ 372 billion in 2022 from US$ 110 billion in 2016.
- India ranks 145th among 195 countries in terms of quality and accessibility of healthcare. For India, HAQ index increased from 24.7 in 1990 to 41.2 in 2016. There is immense scope for enhancing healthcare services penetration in India, thus presenting ample opportunity for development of the healthcare industry.
- According to Sample Registration System Bulletin-2016, India has registered a 26.9 per cent reduction in Maternal Mortality Ratio (MMR) since 2013.

Strong Fundamentals and Cost Advantage
- Rising income levels, ageing population, growing health awareness and changing attitude towards preventive healthcare is expected to boost healthcare services demand in future.
- The low cost of medical services has resulted in a rise in the country’s medical tourism, attracting patients from across the world. Moreover, India has emerged as a hub for R&D activities for international players due to its relatively low cost of clinical research.

Favourable Investment Environment
- Conducive policies for encouraging FDI, tax benefits, favourable government policies coupled with promising growth prospects have helped the industry attract private equity, venture capitals and foreign players.

Source: Business Standard, Ministry of External Affairs, Ministry of External Affairs (Investment and Technology Promotion Division), ASSOCHAM-RNCOS joint paper, Lancet study
Healthcare market in India is expected to reach US$ 372 billion by 2022, while medical devices market is expected to cross US$ 11 billion by 2022.

Rising incomes, greater health awareness, lifestyle diseases and increasing access to insurance will contribute to growth.

It is estimated that India will require 2.07 million more doctors by 2030 in order to achieve a doctor-to-population ratio of 1:1,000.

Investment in healthcare infrastructure is set to rise, benefiting both ‘hard’ (hospitals) and ‘soft’ (R&D, education) infrastructure.

The hospital industry in India is expected to grow CAGR of 16-17 per cent to reach Rs 8.6 trillion (US$ 132.84 billion) by FY22 from Rs 4 trillion (US$ 61.79 billion) in FY17.

The Government of India aims to increase healthcare spending to three percent of the Gross Domestic Product (GDP) by 2022.

Availability of a large pool of well-trained medical professionals in the country.

The number of doctors possessing recognised medical qualifications (Under I.M.C Act) registered with state medical councils/medical council of India increased to 841,104 in 2017 from 827,006 in 2010.

The government aims to develop India as a global healthcare hub.

Creation of new drug testing laboratories and further strengthening of the 31 existing state laboratories.

The world’s largest government funded healthcare scheme, Ayushman Bharat was launched on September 23, 2018.

**Note:** R&D – Research and Development, data on the number of doctors is expected to be updated by August 2019 from National Health Profile 2019

**Source:** KPMG, Deloitte, Hospital Market – India by Research on India, Frost and Sullivan, LSI Financial Services, ‘Report on Healthcare, Telemedicine and Medical Tourism in India’- ASA and Associates LLP, Indian Journal of Public Health
MARKET OVERVIEW AND TRENDS
THE HEALTHCARE MARKET FUNCTIONS THROUGH FIVE SEGMENTS

**Hospitals**
- Government hospitals – It includes healthcare centres, district hospitals and general hospitals.
- Private hospitals – It includes nursing homes and mid-tier and top-tier private hospitals.

**Pharmaceutical**
- It includes manufacturing, extraction, processing, purification and packaging of chemical materials for use as medications for humans or animals.

**Diagnostics**
- It comprises businesses and laboratories that offer analytical or diagnostic services, including body fluid analysis.

**Medical Equipment and Supplies**
- It includes establishments primarily manufacturing medical equipment and supplies, e.g. surgical, dental, orthopaedic, ophthalmologic, laboratory instruments, etc.

**Medical Insurance**
- It includes health insurance and medical reimbursement facility, covering an individual’s hospitalisation expenses incurred due to sickness.

**Telemedicine**
- Telemedicine has enormous potential in meeting the challenges of healthcare delivery to rural and remote areas besides several other applications in education, training and management in health sector.

*Source: Hospital Market – India by Research on India*
STRONG GROWTH IN HEALTHCARE EXPENDITURE OVER THE YEARS

- Healthcare has become one of India’s largest sectors both in terms of revenue and employment. The industry is growing at a tremendous pace owing to its strengthening coverage, services and increasing expenditure by public as well private players.
- During 2008-22, the market is expected to record a CAGR of 16.28 per cent.
- The total industry size is estimated to touch US$ 160 billion by 2017 and US$ 372 billion by 2022.
- Between 2000 and 2014, there has been a 370 per cent increase in health expenditure in India.

Note: F – Forecast, E - Estimate
Source: Frost and Sullivan, LSI Financial Services, Deloitte
This is due to rising incomes, easier access to high-quality healthcare facilities and greater awareness of personal health and hygiene.

Greater penetration of health insurance aided the rise in healthcare spending, a trend likely to intensify in the coming decade.

Economic prosperity is driving the improvement in affordability for generic drugs in the market.

The government’s expenditure on the health sector has grown to 1.4 per cent of GDP in FY18E from 1.2 per cent of GDP in FY14.

The Government of India is planning to increase public health spending to 2.5 per cent of the country's GDP by 2025.

The share of healthcare in Gross Domestic Product (GDP) is expected to rise 19.7 per cent by 2027.
NOTABLE TRENDS AND STRATEGIES ADOPTED
HEALTHCARE INFRASTRUCTURE HAS RISEN AT A FAST PACE

- India's medical educational infrastructure has grown rapidly in the last 26 years.
- The number medical colleges in India increased to 529 in FY19 from 381 in FY13.
- The number of doctors possessing recognised medical, qualifications (Under I.M.C Act) registered with state medical councils/medical council of India increased to 1,154,686 in 2018 from 827,006 in 2010.
- According to a study in India, there is only one government doctor for every 10,189 people and there is a deficit of 600,000 doctors, whereas the nurse: patient ratio is 1:483.

Source: National Health Profile 2018
### NOTABLE TRENDS IN THE INDIAN HEALTHCARE SECTOR … (1/2)

| Shift from communicable to lifestyle diseases | - With increasing urbanisation and problems related to modern-day living in urban settings, currently, about 50 per cent of spending on in-patient beds is for lifestyle diseases; this has increased the demand for specialised care. In India, lifestyle diseases have replaced traditional health problems.  
- Most lifestyle diseases are caused by high cholesterol, high blood pressure, obesity, poor diet and alcohol. |
| Expansion to tier-II and tier-III cities | - Vaatsalya Healthcare is one of the first hospital chains to start focus on Tier 2 and Tier 3 for expansion.  
- To encourage the private sector to establish hospitals in these cities, the government has relaxed the taxes on these hospitals for the first five years. |
| Emergence of telemedicine | - Telemedicine is a fast-emerging sector in India; major hospitals (Apollo, AIIMS, Narayana Hrudayalaya) have adopted telemedicine services and entered into a number of PPPs.  
- Telemedicine market in India is expected to rise at a CAGR of 20 per cent during FY16-20, reaching to US$ 32 million by 2020.  
- Telemedicine can bridge the rural-urban divide in terms of medical facilities, extending low-cost consultation and diagnosis facilities to the remotest of areas via high-speed internet and telecommunication. |
| Artificial Intelligence (AI) | - Rising adoption of AI-based applications has enabled people to talk directly to doctors, physician, and expertise for the best treatment.  
- It is also capable of solving problems of patients, doctors, hospitals as well as the overall healthcare industry. |
| Home healthcare | - Developments in information technology (IT) and integration with medical electronics, has made it possible to provide high quality medical care at home at affordable prices. It enables the customers to save upto 20-50 per cent of the cost.  
- The home healthcare market is estimated to reach US$ 4.46 billion by the end of 2018 and US$ 6.21 billion by 2020. |

**Note:** PPP is Public – Private Partnerships, Management contracts - An arrangement under which operational control of an enterprise is given to a separate entity for a fee  
**Source:** IRDA, CII, Grant Thornton, Gartner, Technopak
### NOTABLE TRENDS IN THE INDIAN HEALTHCARE SECTOR … (2/2)

| Increasing penetration of health insurance | • In FY19, gross healthcare insurance stood at 25.2 per cent of overall gross direct premium income by non-life insurers segment.  
• Health insurance is gaining momentum in India. Gross direct premium income underwritten by health insurance grew 17.16 per cent y-o-y to Rs 46,778.22 crore (US$ 6.69 billion) in FY20 (up February 2020). |
| Mobile-based health delivery | • Strong mobile technology infrastructure and launch of 4G is expected to drive mobile health initiatives in the country.  
• Cycle tel Humsafar is a SMS based mobile service designed for women, it enables women to plan their family in a better way. |
| Technological initiatives | • Digital Health Knowledge Resources, Electronic Medical Record, Mobile Healthcare, Electronic Health Record, Hospital Information System, PRACTO, Technology-enabled care, telemedicine and Hospital Management Information Systems are some of the technologies gaining wide acceptance in the sector.  
• India’s medical technology sector is forecasted to reach US$ 9.60 billion by 2022.  
• In December 2019, Food Safety and Standards Authority of India (FSSAI) launched new ‘Hygiene Rating Scheme’, a user driven and technology-enabled scheme applicable to food businesses supplying food directly to consumers either on or off the premise.  
• The National Association of Software and Services Companies (NASSCOM), and GE Healthcare have entered into a partnership to develop digital healthcare solutions. |
| Luxury offering | • A new trend is emerging as luxury offerings in healthcare sector. More than essential requirements, healthcare providers are making offerings of luxurious services. For example: pick and drop services for patient by private helicopters and luxurious arrangements for visitors to patient in hospital. |

*Source: Business Standard, Ministry of External Affairs, Ministry of External Affairs (Investment and Technology Promotion Division)*
### STRATEGIES ADOPTED

| Cost leadership | Private players in the industry are making their supply chains efficient and leveraging economies of scope to reduce cost. One such example is Narayan Hrudayalaya (NH) where healthcare is provided at affordable cost. NH reduces cost by high procurement of medical supplies, high-volume by high capacity utilisation and staff productivity and good human capital management (i.e. training). |
| Differentiation and diversified business approach | Players in the industry are trying to differentiate themselves by providing multiple health care services under one roof.  
Offering a range of healthcare and wellness services under a single brand has become a trend. Patients and healthcare services seekers find it convenient. Demand of such arrangements boosts the healthcare sector. |
| Focus | Certain players in industry focus only on providing one kind of health care service to its customers. This also helps them to be the leader in that service. Many examples can be quoted for hospitals focusing on treatment of cancer and providing leading cancer treatment and eye related problems and treatments in India. |
| Merger and Acquisitions | In August 2019, Microsoft India and Apollo Hospitals Group entered in agreement to set up a National Clinical Coordination Committee for AI-powered Cardiovascular Disease Risk Score API.  
In January 2019, National Company Law Tribunal (NCLT) approved Tri-County Premier Hearing Services Inc’s plan to acquire Bhilai Scan and Research Pvt Ltd (BSR) Diagnostics Ltd for Rs 67 crore (US$ 9.29 million).  
In December 2019, Cipla Ltd acquired brand name and trademark rights for Vysov for anti-diabetic drug Vildagliptin for Indian market from Novartis.  
The value of merger and acquisition (M&A) deals in hospital sector jumped by record 155 percent to Rs 7,615 crore (US$ 1.09 billion) in FY19. |

*Source: PE Roundup – 1H2018 & Jun’18 report by EY*
GROWTH DRIVERS
INDIAN HEALTHCARE SECTOR IS POISED TO GROW

Growing Demand
- Rising incomes and affordability.
- Growing elderly population, changing disease patterns.
- Rise in medical tourism.
- Better awareness of wellness, preventive care and diagnosis.

Policy Support
- Encouraging policies for FDI and the private sector.
- Reduction in customs duty and other taxes on life-saving equipment.
- NRHM allocated US$ 10 billion for healthcare facilities.
- National Health Insurance Mission to cover entire population.

Focus
- Expanding research and development and distribution facilities in India.
- Use of modern technology.
- Providing support to global projects from India.

Merger and Acquisitions
- Rising FDI and private sector investments.
- Lucrative M and A opportunities.
- Foreign players setting R and D centres and hospitals.

Note: FDI – Foreign Direct Investment, M&A - Mergers and Acquisitions NRHM - National Rural Health Mission
Source: Ministry of Health and Family Welfare, Government of India
RISING INCOME, AGEING POPULATION TO BE KEY HEALTHCARE DEMAND DRIVER

- Rising incomes mean a steady growth in the ability to access healthcare and related services.
- Per capita GDP of India is expected to reach US$ 3,277.28 in 2024 from US$ 1,481.56 in 2012.
- Moreover, changing demographics will also contribute to greater healthcare spending; this is likely to continue with the size of the elderly population set to rise from the current 98.9 million to about 168 million by 2026.

GDP Per Capita at Current Prices* (US$)

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1,481.56</td>
</tr>
<tr>
<td>2013</td>
<td>1,485.60</td>
</tr>
<tr>
<td>2014</td>
<td>1,610.36</td>
</tr>
<tr>
<td>2015</td>
<td>1,639.69</td>
</tr>
<tr>
<td>2016</td>
<td>1,761.63</td>
</tr>
<tr>
<td>2017</td>
<td>2,014.01</td>
</tr>
<tr>
<td>2018</td>
<td>2,036.20</td>
</tr>
<tr>
<td>2019</td>
<td>2,198.59</td>
</tr>
<tr>
<td>2020</td>
<td>2,378.67</td>
</tr>
<tr>
<td>2021</td>
<td>2,578.11</td>
</tr>
<tr>
<td>2022</td>
<td>2,791.31</td>
</tr>
<tr>
<td>2023</td>
<td>3,023.39</td>
</tr>
<tr>
<td>2024</td>
<td>3,277.28</td>
</tr>
</tbody>
</table>

Note: * estimates after 2013  
Source: International Monetary Fund, World Economic Outlook Database, April 2018
MEDICAL TOURISM: A NEW GROWTH FACTOR FOR INDIA’S HEALTHCARE SECTOR

- Presence of world-class hospitals and skilled medical professionals has strengthened India’s position as a preferred destination for medical tourism.

- Superior quality healthcare, coupled with low treatment costs in comparison to other countries, is benefiting Indian medical tourism which has, in turn, enhanced the prospects of the Indian healthcare market.

- Treatment for major surgeries in India costs approximately 20 per cent of that in developed countries.

- India also attracts medical tourists from developing nations due to lack of advanced medical facilities in many of these countries.

- Indian medical tourism market is growing at the rate of 18 per cent year on year and is expected to reach US$ 9 billion by 2020.

- Yoga, meditation, ayurveda, allopathy and other traditional methods of treatment are major service offerings that attract medical tourists from European nations and the Middle East to India.

- Government of India has been implementing various initiatives to promote ayurveda, yoga and other AYUSH systems of medicine on an international level and was allocated Rs 92.31 crore (US$ 12.79 million) in 2019-20 budget for this purpose.

- The Government of India liberalised its policy by providing 100 per cent FDI in the AYUSH sector for wellness and medical tourism segment.

- In February 2019, the Government of India established new All India Institute of Medical Sciences (AIIMS) at Manethi, District Rewari, Haryana at a cost of Rs 1,299 crore (US$ 180.04 million).

Source: Ministry of Health, RNCOS, KPMG, Deloitte, Medical Tourism Association, LSI Financial Services, Apollo Investor Presentation
# RE-EMERGENCE OF TRADITIONAL MEDICAL CARE

## Market size and Services Offered
- The Indian ayurvedic industry is expected to reach US$ 9 billion by 2022.
- Ayurveda and Unani medicines consist of more than 90 per cent of plant based formulations.
- The sector has broadened its offerings and now includes services on diet and nutrition, yoga, herbal medicine, humour therapy and spa.

## Leading brands and players
- Many big players such as Apollo, VLCC and Manipal Group are also setting up wellness centres across India, with traditional healthcare remedies as the focus of their offerings.

## Notable trends
- The traditional medical sector is developing Traditional Knowledge Digital Library to prevent companies from claiming patents on such remedies. There is growing interest from numerous private equity firms in the traditional healthcare sector in India.

## Developing infrastructure
- The country had 460 Ayurveda and homeopathy government recognised colleges in 2017-18. As of December 2019, number of sub centres reached 168,946 and number of primary health centres (PHCs) increased to 33,929.
- The total number of ayurveda practitioners in India increased to 428,884 in 2017 from 419,217 in 2016.

**Notes**: AYUSH - Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homoeopathy  
**Source**: Ministry of Health, Make in India, RNCOS, KPMG, Ayurveda Industry Market Size, Strength and Way Forward report by Confederation of Indian Industry (CII)
### Pradhan Mantri Jan Arogya Yojana (PMJAY)

- As of July 2019, around 125.7 million families have enrolled as beneficiaries under Pradhan Mantri Jan Arogya Yojana (PMJAY). The scheme has enrolled 16,085 hospitals, including 8,059 private hospitals and 7,980 public hospitals. It to include 19 Ayush packages in the treatment scheme.
- The government has announced Rs 69,000 crore (US$ 9.87 billion) outlay for the health sector that is inclusive of Rs 6,400 crore (US$ 915.72 million) for PMJAY in Union Budget 2020-21.

### 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 telemedicine, remote radiology. Artificial heart is exempted from basic custom duty of 5 per cent.
- Income tax exemption for 15 years for domestically manufactured medical technology products.
- The benefit of section 80-IB has been extended to new hospitals with 100 beds or more that are set up in rural areas; such hospitals are entitled to 100 per cent deduction on profits for 5 years.

### National Nutrition Mission

- The Union Cabinet approved setting up of National Nutrition Mission (NNM) to monitor, supervise, fix targets and guide the nutrition-related interventions across ministries.
- The programme is planning to reduce the level of stunting by 2 per cent, 2 per cent under-nutrition, 3 per cent anaemia and low birth babies by 2 per cent every year.
- Over 100 million people are expected to be benefited by this programme; and all states and districts will be covered within the programme.
- In Union Budget 2020-21, Rs 35,600 crore (US$ 5.09 billion) has been allocated for nutrition-related programmes.

Source: News Articles
### Recent Initiatives
- A solidarity human chain was formed by the Ministry of Health and Family Welfare, Government of India in partnership with the World Health Organization (WHO) on April 04, 2019.
- India has bilateral relations with 53 countries in the healthcare sector, as of August 2018. This international cooperation will encourage joint initiatives in health manpower development, training, exchange of experts, exchange of information, capacity building, and technical support in establishing laboratories / hospitals and research.

### OTC medicines
- An in-principle approval for a new category of over the counter (OTC) medicine has been given by the Drug Consultative Committee (DCC), Government of India, to help save patients' time and money.

### Incentives in the medical travel industry
- Incentives and tax holidays are being offered to hospitals and dispensaries providing health travel facilities. Senior citizens above 80 years of age will be allowed deduction of US$ 491 towards medical expenditure if they are not covered under health insurance.

### National Health Mission (NHS)
- The Government of India approved the continuation of National Health Mission with a budget of Rs 34,115 crore (US$ 4.88 billion) under the Union Budget 2020-21.

### Tele-medicine initiatives
- State Telemedicine Network (STN): The states and union territories have been provided support under the National Health Mission (NHM) under Program Implementation Plan (PIP) to create reliable, ubiquitous and high speed network backbone.
- In March 2020, Ministry of Health & Family Welfare launched the National Teleconsultation Centre (CoNTeC).  

### Innovation
- India's first ever 'Air Dispensary', which is based in a helicopter, will be launched in the Northeast and the Ministry of Development of Northeast Region (DONER) has already contributed Rs 25 crore (US$ 3.82 million) for its funding.

### Single Window System
- Drug Controller General of India (DCGI) has proposed to set up a single window system for start-ups and innovators seeking approvals, consents, and information regarding regulatory requirement.
### Union Budget 2020-21

- Under the Union Budget 2020-21, the allocation to the Ministry of Health and Family Welfare is Rs 65,012 crore (US$ 9.30 billion) and to Department of Health Research is Rs 2,100 crore (US$ 300.47 million).
- The Government of India allocated Rs 34,115 crore (US$ 4.88 billion) under the National Health Mission.
- The Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (PMJAY), the largest government funded healthcare programme targeting more than 500 million beneficiaries, was allocated Rs 6,429 core (US$ 919.87 million).

### Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)

- According to the Ministry of Health and Family Welfare, a total of 8,538 expectant mothers in their second and third trimester have received Antenatal care under the programme in 2019 (till August).
- Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), a programme launched in 2016 to ensure comprehensive and quality antenatal check-ups to pregnant women across India, has crossed the 10 million mark.

---

**Note:** ^ - includes ayurveda, homeopathy and unani practitioners, along with allopathy doctors  
**Source:** Union Budget 2020-21
### Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

- In Union Budget 2020-21, Rs 3,000 crore (US$ 429.25 million) was allocated for the scheme.
- The Government of India approved Phase III of the scheme in August 2019. Under this 75 more new medical colleges are being established all over the country.

### Mission Indradhanush

- The Government of India launched Mission Indradhanush with the aim of improving coverage of immunisation in the country and reach every child under two years of age and all the pregnant women who have not been part of the routine immunisation programme.
- Mission Indradhanush aims to achieve at least 90 per cent immunization coverage by December 2018 which will cover unvaccinated and partially vaccinated children in rural and urban areas of India.
- Intensified Mission Indradhanush (IMI) 2.0 was launched by Ministry of Health and Family Welfare from December 2019 to March 2020.

### National Resource Centre for EHR Standards

- In August 2018, the Ministry of Health and Family Welfare released Rs 4 crore (US$ 5.97 lakh) to Centre for Development of Advanced Computing (C-DAC), Pune for developing National Resource Centre for EHR Standards (NRCeS) from a total estimated cost of Rs 23.59 crore (US$ 3.52 million) to enable adaptation of notified EHR standards.

### Rashtriya Swasthya Bima Yojna

- In Union Budget 2019-20, Rs 156 crore (US$ 22.32 million) are allocated for Rashtriya Swasthya Bima Yojna.

### Ayushman Bharat

- The Government of India may provide more funds for Ayushman Bharat, the world's biggest healthcare scheme, in 2019-20.
- As of November 2019, about 63.7 lakh people have received free treatment under the Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana.

*Source: News Articles, Press Information Bureau*
100 per cent FDI is allowed under the automatic route for greenfield projects.

For brownfield project investments, up to 100 per cent FDI is permitted under the government route.

Demand growth, cost advantages and policy support have been instrumental in attracting FDI.


Inflows into sectors such as hospitals and diagnostic centers and medical appliances stood at US$ 6.63 billion and US$ 1.88 billion, respectively, during the same period.

**Cumulative FDI inflows From April 2000 Up to December 2019 into the healthcare sector (US$ billion)**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Amount (US$ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug and Pharmaceuticals</td>
<td>16.39</td>
</tr>
<tr>
<td>Hospital and Diagnostic Centers</td>
<td>6.63</td>
</tr>
<tr>
<td>Medical and Surgical Appliances</td>
<td>1.88</td>
</tr>
</tbody>
</table>

**Source:** Department of Industrial Policy and Promotion

**Note:** FDI – Foreign Direct Investment
OPPORTUNITIES
### OPPORTUNITIES IN HEALTHCARE

| Healthcare 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 US$ 200 billion is expected to be spent on medical infrastructure by 2024.  
| | Over the years, India has made strategic interventions in National Health Mission and the national disease control programmes to ensure quality and affordable healthcare for all. |

| Research | Contract research is a fast-growing segment in the Indian healthcare industry.  
| | Cost of developing new drugs is as low as 60 per cent of the testing cost in the US.  
| | To promote the research in traditional system of medicine in Himalayan region, Central Council for Research in Ayurvedic Sciences (CCRAS) established nine institutes in Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Assam, Arunachal Pradesh, Sikkim, Tripura and Nagaland. |

| Medical Tourism | In 2018-19 the medical tourism market is expected to double due to the easier norms for medical visa approvals. The value of medical tourism is forecasted to reach US$ 9 billion by 2020.  
| | Cost of surgery in India is nearly one-tenth of the cost in developed countries.  
| | There are 21 Joint Commission International (JCI) - accredited hospitals in India and growing. |

| Medical devices | The medical devices market is expected to reach US$ 11 billion by 2022, backed by rising geriatric population, growth in medical tourism and declining cost of medical services. |

**Source:** News articles
OPPORTUNITIES IN HEALTH INSURANCE

- As of 2017, 44 per cent of the Indian population is covered through health insurance.
- Increasing healthcare cost and burden of new diseases along with low government funding is raising demand for health insurance coverage.
- Many companies offer health insurance coverage to employees, driving market penetration of insurance players.
- With increasing demand for affordable and quality healthcare, penetration of health insurance is poised to grow exponentially in the coming years.
- In FY19, Gross Direct Premiums at Rs 45,488.91 crore (US$ 6.51 billion), the health segment has a 26.8 per cent share in gross direct premiums earned in the country.
- Total Gross Direct Premiums grew at 16.80 per cent y-o-y to Rs 46,778.22 crore (US$ 6.06 billion) in FY20 (up to February 2020).

Note: ^CAGR till FY19
Source: GIC

Health Insurance Premium Collection (US$ Billion) (up to February 2020)

<table>
<thead>
<tr>
<th>FY</th>
<th>Premium Collection (US$ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY11</td>
<td>2.42</td>
</tr>
<tr>
<td>FY12</td>
<td>2.79</td>
</tr>
<tr>
<td>FY13</td>
<td>2.85</td>
</tr>
<tr>
<td>FY14</td>
<td>2.90</td>
</tr>
<tr>
<td>FY15</td>
<td>3.60</td>
</tr>
<tr>
<td>FY16</td>
<td>4.08</td>
</tr>
<tr>
<td>FY17</td>
<td>4.78</td>
</tr>
<tr>
<td>FY18</td>
<td>5.88</td>
</tr>
<tr>
<td>FY19</td>
<td>6.51</td>
</tr>
<tr>
<td>FY20</td>
<td>6.69</td>
</tr>
</tbody>
</table>
KEY INDUSTRY ORGANISATIONS
<table>
<thead>
<tr>
<th><strong>INDUSTRY ORGANISATIONS</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Indian Medical Association</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>I.M.A. House</td>
</tr>
<tr>
<td>Indraprastha Marg,</td>
</tr>
<tr>
<td>New Delhi – 110 002, India</td>
</tr>
<tr>
<td>Telephone: 91 11 2337 0009, 2337 8819</td>
</tr>
<tr>
<td>Fax: 91 11 2337 9470, 2337 9178</td>
</tr>
<tr>
<td>Website: <a href="http://www.ima-india.org">www.ima-india.org</a></td>
</tr>
<tr>
<td>E-mail: <a href="mailto:inmedici@vsnl.com">inmedici@vsnl.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>The Federation of Obstetric and Gynaecological Societies of India</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Residency, 605,</td>
</tr>
<tr>
<td>Bapurao Jagtap Marg,</td>
</tr>
<tr>
<td>Jacob Circle, Mahalaxmi East,</td>
</tr>
<tr>
<td>Mumbai – 400 011, India</td>
</tr>
<tr>
<td>Fax: 23021383</td>
</tr>
<tr>
<td>Website: <a href="http://www.fogsi.org">www.fogsi.org</a></td>
</tr>
<tr>
<td>E-mail: <a href="mailto:inmedici@vsnl.com">inmedici@vsnl.com</a></td>
</tr>
</tbody>
</table>
GLOSSARY

- CAGR: Compound Annual Growth Rate
- EPA: Externally Aided Projects
- FDI: Foreign Direct Investment
- FY: Indian Financial Year (April to March)
- So FY10 implies April 2009 to March 2010
- GOI: Government of India
- ICT: Information and Communications Technology
- IMF: International Monetary Fund
- INR: Indian Rupee
- M and A: Mergers and Acquisitions
- NHRM: National Rural Health Mission
- PPP: Public Private Partnerships
- R and D: Research and Development
- US$: US dollar
- WHO: World Health Statistics
- Where applicable, numbers have been rounded off to the nearest whole number
## Exchange Rates

### Exchange Rates (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.95</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.28</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.29</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.24</td>
</tr>
<tr>
<td>2008–09</td>
<td>45.91</td>
</tr>
<tr>
<td>2009–10</td>
<td>47.42</td>
</tr>
<tr>
<td>2010–11</td>
<td>45.58</td>
</tr>
<tr>
<td>2011–12</td>
<td>47.95</td>
</tr>
<tr>
<td>2012–13</td>
<td>54.45</td>
</tr>
<tr>
<td>2013–14</td>
<td>60.50</td>
</tr>
<tr>
<td>2014–15</td>
<td>61.15</td>
</tr>
<tr>
<td>2015–16</td>
<td>65.46</td>
</tr>
<tr>
<td>2016–17</td>
<td>67.09</td>
</tr>
<tr>
<td>2017–18</td>
<td>64.45</td>
</tr>
<tr>
<td>2018–19</td>
<td>69.89</td>
</tr>
<tr>
<td>2019-20</td>
<td>70.49</td>
</tr>
</tbody>
</table>

### Exchange Rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>44.11</td>
</tr>
<tr>
<td>2006</td>
<td>45.33</td>
</tr>
<tr>
<td>2007</td>
<td>41.29</td>
</tr>
<tr>
<td>2008</td>
<td>43.42</td>
</tr>
<tr>
<td>2009</td>
<td>48.35</td>
</tr>
<tr>
<td>2010</td>
<td>45.74</td>
</tr>
<tr>
<td>2011</td>
<td>46.67</td>
</tr>
<tr>
<td>2012</td>
<td>53.49</td>
</tr>
<tr>
<td>2013</td>
<td>58.63</td>
</tr>
<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015</td>
<td>64.15</td>
</tr>
<tr>
<td>2016</td>
<td>67.21</td>
</tr>
<tr>
<td>2017</td>
<td>65.12</td>
</tr>
<tr>
<td>2018</td>
<td>68.36</td>
</tr>
<tr>
<td>2019</td>
<td>69.89</td>
</tr>
</tbody>
</table>

**Source:** Reserve Bank of India, Average for the year
India Brand Equity Foundation (IBEF) engaged TechSci Research to prepare this presentation and the same has been prepared by TechSci Research in consultation with IBEF.

All rights reserved. All copyright in this presentation and related works is solely and exclusively owned by IBEF. The same may not be reproduced, wholly or in part in any material form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this presentation), modified or in any manner communicated to any third party except with the written approval of IBEF.

This presentation is for information purposes only. While due care has been taken during the compilation of this presentation to ensure that the information is accurate to the best of TechSci Research and IBEF’s knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice.

TechSci Research and IBEF neither recommend nor endorse any specific products or services that may have been mentioned in this presentation and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed on this presentation.

Neither TechSci Research nor IBEF shall be liable for any direct or indirect damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this presentation.