

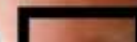
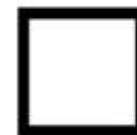


PHARMACEUTICALS



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EXECUTIVE SUMMARY

Leading pharma producer

- Indian pharmaceutical industry supplies over 50 per cent of global demand for various vaccines, 40 per cent of generic demand in the US and 25 per cent of all medicine in UK¹.

One of the highest exports

- India accounts for 20 per cent of global exports in generics. India's pharmaceutical export stood at US\$ 16.28 billion in FY20.

Among fastest growing industries

- Indian pharmaceutical sector is expected to grow at a CAGR of 22.4 per cent in the near future and medical device market expected to grow US\$ 25 billion by 2025. India is the second largest contributor of global biotech and pharmaceutical workforce. The pharmaceutical sector was valued at US\$ 33 billion in 2017.

Rapidly growing healthcare sector

- Indian healthcare sector, one of the fastest growing sectors, is expected to cross US\$ 372 billion by 2022.

Robust growth in Biotech industry

- By FY25, India's biotech industry is estimated to increase to US\$ 100 billion.

Source: ¹ FICCI - Trends & Opportunities for Indian Pharma 2018, Pharmexcil, Assocham and RNCOS

- Low cost of production and R&D boosts efficiency of Indian pharma companies, leading to competitive exports. Indian pharma export reached US\$ 16.28 billion in FY20.
- India's cost of production is approximately 33 per cent lower than that of the US.
- India's ability to manufacture high quality, low priced medicines, presents a huge business opportunity for the domestic industry.

Cost Efficiency

- Economic prosperity to improve drug affordability.
- Increasing penetration of health insurance to drive expenditure on medicine.
- With increasing penetration of pharmacies, especially in rural India, OTC drugs will be readily available

Economic Drivers

ADVANTAGE INDIA

- Increasing private sector investments in R&D and acquisitions are driving the sector's growth.
- Between 2008-19, the S&P BSE Healthcare Index has grown at 16.72 per cent.

Increasing Investments

- Pharma Vision 2020' aimed at making India a global leader in end-to-end drug manufacturing.
- Under Budget 2020-21, allocation to the Ministry of Health and Family Welfare is Rs 65,012 crore (US\$ 9.30 billion)
- In this sector, 100 per cent FDI is allowed under automatic route.

Policy Support

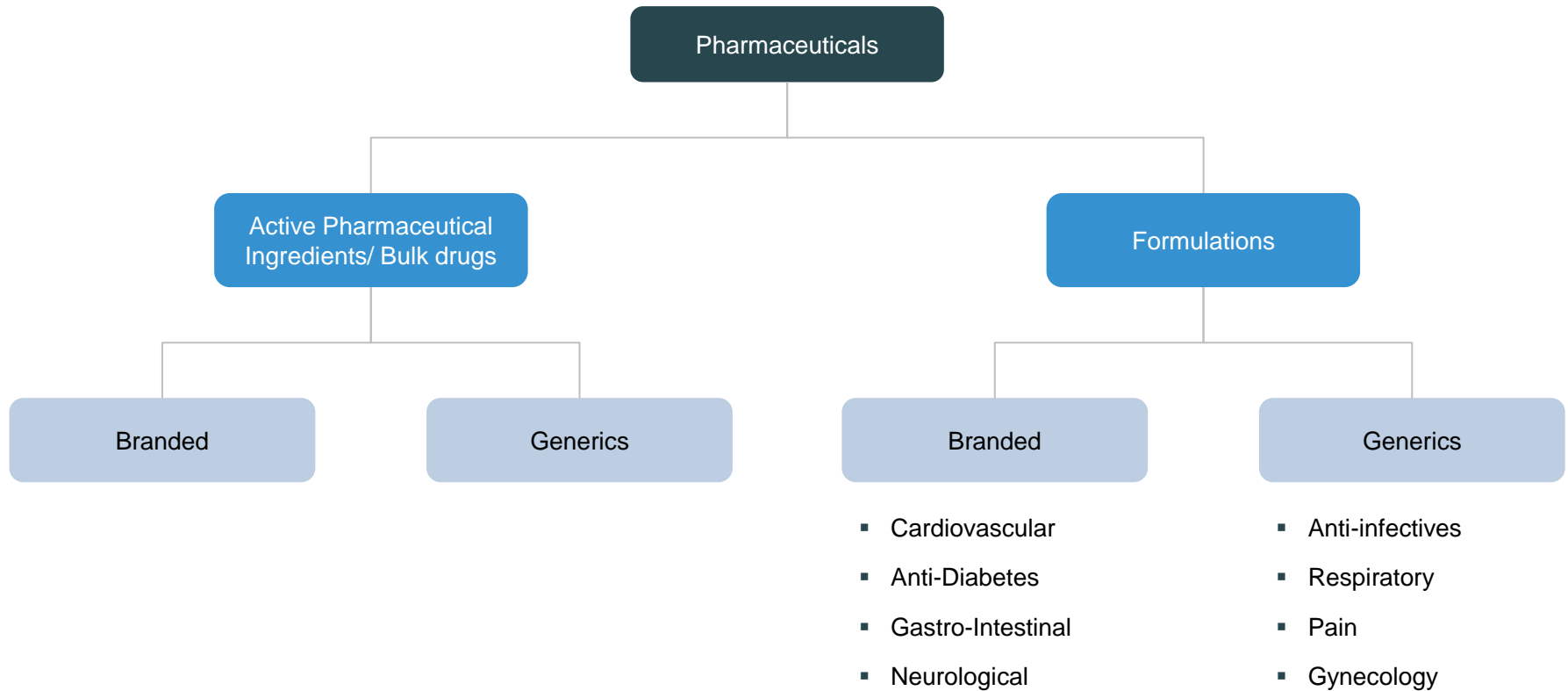
Note: 2020 revenue forecasts are estimates of McKinsey, API - Active Pharmaceutical Ingredients, F – Forecast, OTC - Over-The-Counter

Source: PwC, McKinsey, Pharmaceuticals Exports Promotion Council of India

MARKET OVERVIEW



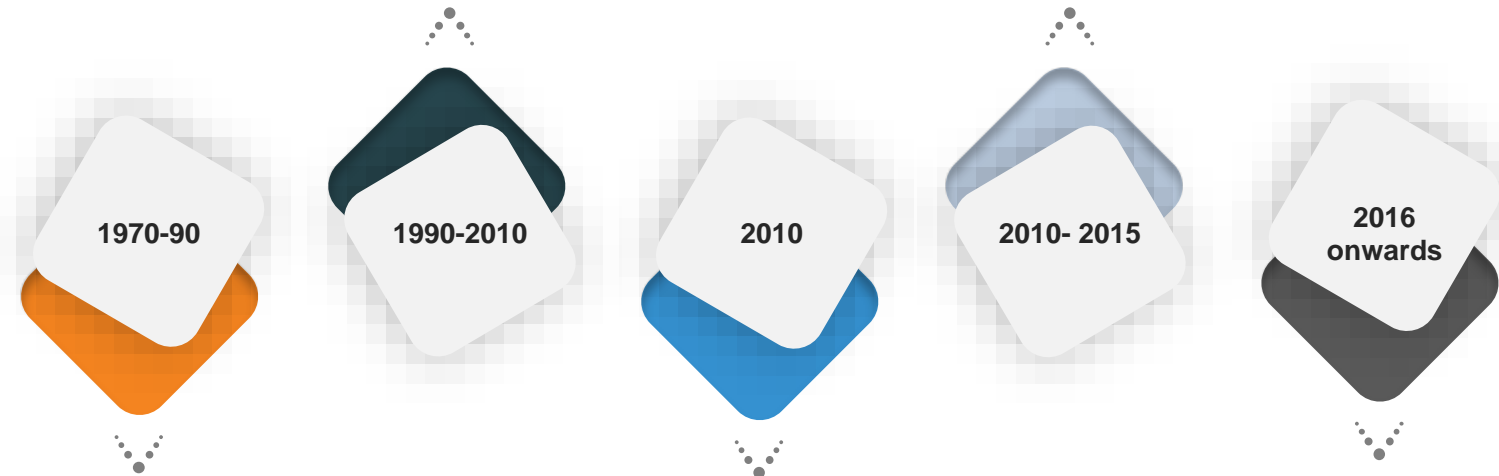
STRUCTURE OF PHARMA SECTOR IN INDIA



Source: Dun and Bradstreet

EVOLUTION OF INDIAN PHARMACEUTICAL SECTOR

- Liberalised market
- Indian companies increasingly launch operations in foreign countries
- India a major destination for generic drug manufacturing
- Approval of Patents (Amendment) Act 2005, which led to adoption of product patents in India
- 2013: New Drug Pricing Control Order issued by Directorate of Food and Drugs this will reduce the prices of drugs by 80 per cent
- 2014: 100 per cent FDI allowed in medical device industry. The investment will be routed through automatic route
- Leading Indian pharma companies are raising funds aggressively to fund acquisition in domestic as well as international market to increase their product portfolios
- 2015: India has 10,500 manufacturing units and over 3,000 pharma companies
- National Health Policy Draft 2015 to increase expenditure in health care sector
- Patent Act Amendment 2015, it includes amendments in Patent Act 2002



- Indian Patent Act passed in 1970
- Several domestic companies start operations
- Development of production infrastructure
- Export initiatives taken

- Increased patent filings by pharma players
- Likely adoption of newer sales models such as channel management, KAM and CSO
- The National Pharmaceutical Pricing Policy, 2012 (NPPP-2012)

- In Union Budget, 2016, FDI increased to 74 per cent in existing pharmaceutical companies and 100 per cent for new projects
- The Government of India unveiled 'Pharma Vision 2020' aimed at making India a global leader in end-to-end drug manufacture. Approval time for new facilities has been reduced to boost investments.

Notes: KAM - Key Account Management, CSO - Contract Sales Organisation

Source: TechSci Research

Active Pharmaceutical Ingredients (APIs)

- Domestic API consumption is expected to reach US\$ 18.8 billion by FY22¹.
- In April 2019, a high-level task force was constituted to create a roadmap for increasing domestic production of APIs. Currently India imports over 60 per cent of its APIs from other countries.

Contract Research and Manufacturing Services (CRAMS)

- Fragmented market with more than 1,000 players
- CRAMS industry has posted 48 per cent CAGR between FY15-18 and expected to witness a strong growth over 25 per cent over 2018-21.

Pharmaceutical industry

Formulations

- Largest exporter of formulations in terms of volume, with 14 per cent market share and 12th in terms of export value.
- Double-digit growth is expected over the next five years

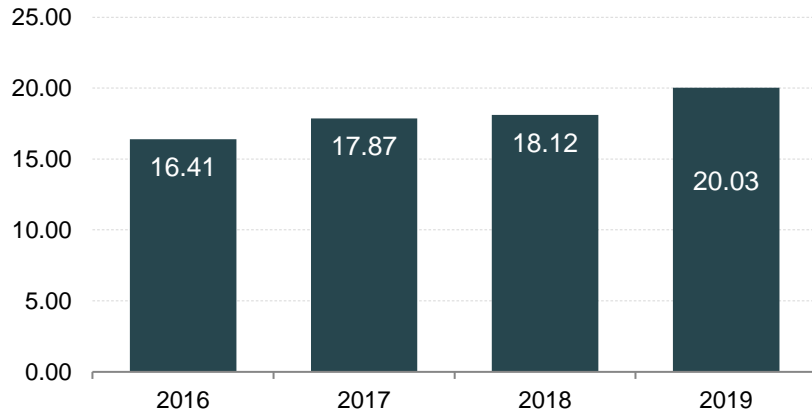
Biosimilar

- The Government plans to allocate US\$ 70 million for local players to develop Biosimilar.
- The domestic market is expected to reach US\$ 40 billion by 2030.
- As on August 2019, the moving annual turnover (MAT) for biosimilar molecules sold in the domestic market stood at Rs 1,498 crore (US\$ 214.31 million).

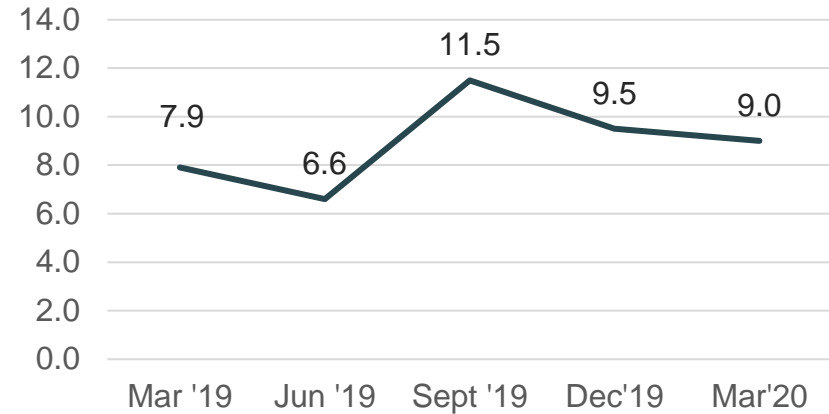
Notes: OTC - Over The Counter, * including biologicals

Source: ¹ RNCOS, BMI, Datamonitor, Kemwell Biopharma, Chemical Pharmaceutical Generic Association, ICRA Report estimates, pharmanewswire.com, DGC&S

Annual Turnover of Indian Pharmaceutical Market (US\$ billion)



Quarterly Growth in Indian Pharma Market (%)



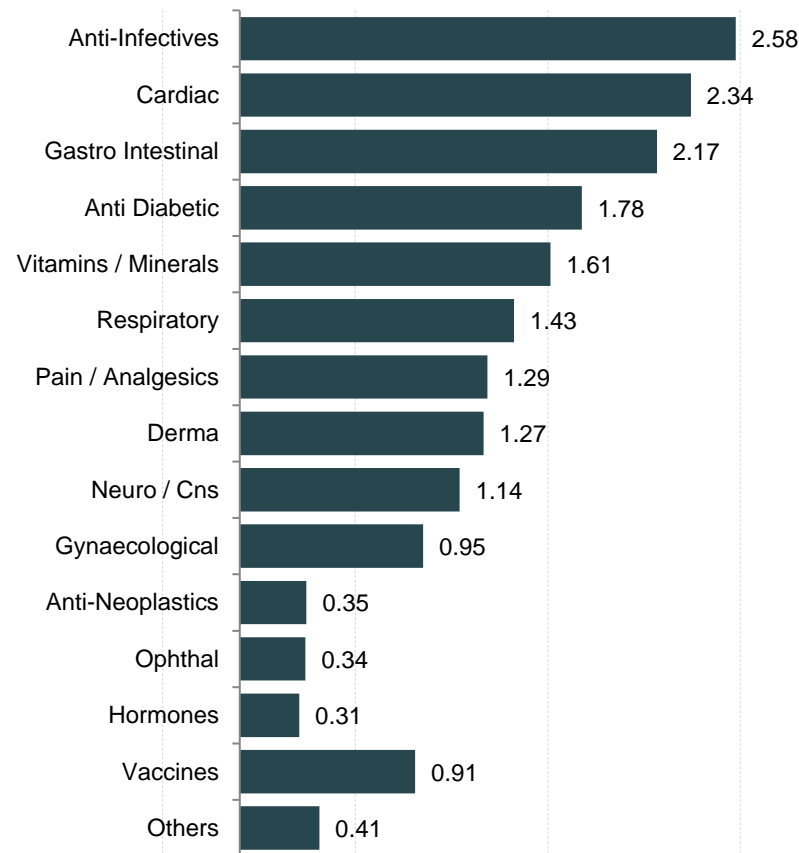
- India's domestic pharmaceutical market turnover reached Rs 1.4 lakh crore (US\$ 20.03 billion) in 2019, growing 9.8 per cent year-on-year (in Rs) from Rs 129,015 crore (US\$ 18.12 billion) in 2018.
- Medicine spending in India is projected to grow 9-12 per cent over the next five years, leading India to become one of the top 10 countries in terms of medicine spending.
- India's cost of production is significantly lower than that of the US and almost half of that of Europe. It gives a competitive edge to India over others.
- The Ayurveda sector in India reached US\$ 4.4 billion by 2018 end and grow at 16 per cent CAGR till 2025.
- In May 2020, the Indian pharmaceutical sales grew 9 per cent y-o-y to Rs 10,342 crore (US\$ 1.47 billion).

Source: Department of Pharmaceuticals, PwC, McKinsey, AIOCD AWACS, , IQVIA, CII

COMPOSITION OF INDIAN PHARMA MARKET

- ¹With 70 per cent of market share (in terms of revenues), generic drugs form the largest segment of the Indian pharmaceutical sector. Over the Counter (OTC) medicines and patented drugs constitute 21 per cent and 9 per cent, respectively
- The share of generic drugs is expected to continue increasing; domestic generic drug market is expected to reach US\$ 27.9 billion in 2020
- Due to their competence in generic drugs, growth in this market offers a great opportunity for Indian firms
- Based on moving annual turnover, Anti-Infectives (13.6%), Cardiac (12.4%), Gastro Intestinals (11.5%) had the biggest market share in the Indian pharma market in 2018.
- The highest growth in sales in 2018 were seen in hormones (14.2%), anti diabetic (12.9%), and respiratory (12%).
- During December 2019, on moving annual total (MAT) basis, industry growth was at 9.8 per cent, with price growth at 5.3 per cent, new product growth at 2.7 per cent while volume growth at two per cent y-o-y.

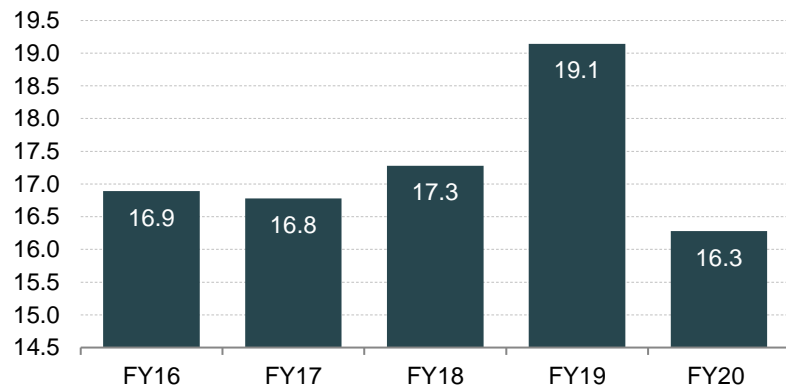
Segment Wise Moving Annual Turnover² 2018 (US\$ billion)



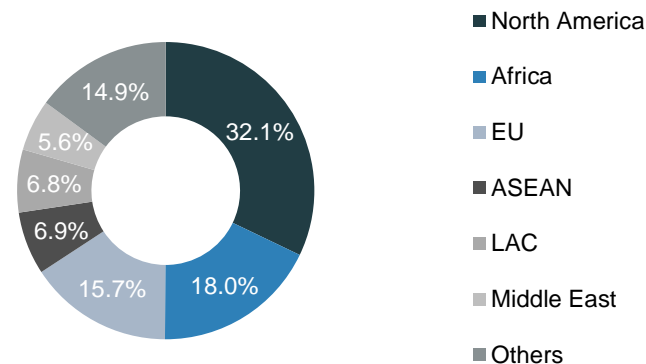
Source: FCCI Indian Pharma Summit, ¹KPMG US-India Dynamic June 2018, ²AIOCD

PHARMA EXPORT TO CONTINUE WITNESSING POSITIVE GROWTH

Pharmaceutical Exports from India (US\$ billion)



Major Export Destinations in India's Pharma Export in FY20 (%)



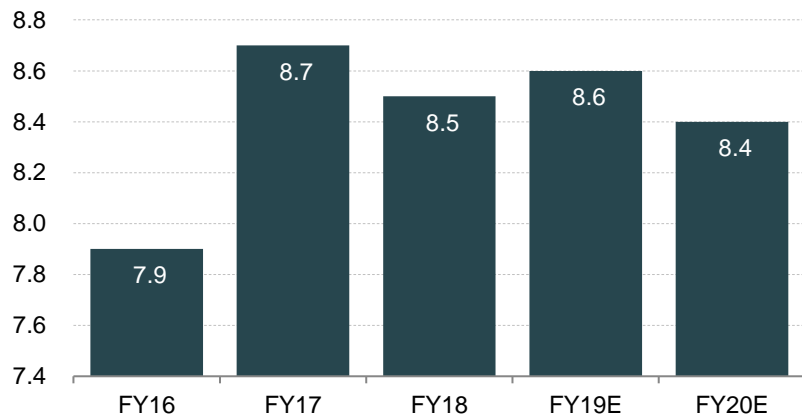
- India is the world's largest provider of generic medicines; the country's generic drugs account for 20 per cent of global generic drug exports (in terms of volumes). Indian drugs are exported to more than 200 countries in the world, with the US as the key market.
- Indian pharma companies are capitalising on export opportunities in regulated and semi-regulated markets.
- Pharmaceutical export from India, which include bulk drugs, intermediates, drug formulations, biologicals, Ayush & herbal products and surgical, reached US\$ 16.28 billion in FY20.
- The biggest export destination for Indian pharma product is the US. In FY20, 32.1 per cent of India's pharma exports were to the North America, followed by 17.96 per cent to Africa and 15.70 per cent to the European Union.

Note: EU – European Union, ASEAN - Association of Southeast Asian Nations, LAC - Latin America and the Caribbean

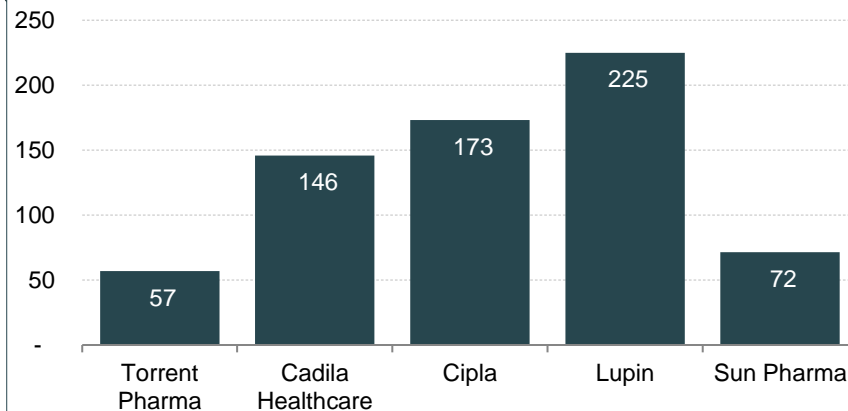
Source: Department of Commerce India, Department of Pharmaceuticals, India Business News, Global Trade Atlas, KPMG US-India Dynamic June 2018, Pharmexcil

R&D SPENDING IN INDIAN PHARMA

R&D Investment by Indian Pharma Companies* (% of sales)



R&D Spending by Top Indian Pharma Companies in FY20 (US\$ million)



- In FY20, highest expenditure on Research and Development was done by Lupin, followed by Cipla.
- Sun Pharma's R&D plan includes developing more products through expanded R&D team for global markets, focussing on more complex products across multiple dosage forms and investments in speciality pipeline.
- As per Union Budget 2019-20, Rs 1,900 crore (US\$ 269 million) have been set aside for research of the total amount, Rs 62,659 crore (US\$ 8.86 billion) have been allocated for Ministry of Health and Family Welfare.
- India plans to set up a nearly Rs 1 lakh crore (US\$ 1.3 billion) fund to provide boost to companies to manufacture pharmaceutical ingredients domestically.

*Note: *Top 10 companies as per research by HDFC Securities,
Source: Company websBPM, CRISIL Research, HDFC Securities*

RECENT TRENDS AND STRATEGIES



NOTABLE TRENDS IN THE INDIAN PHARMACEUTICALS SECTOR

Research and development

- Indian pharma companies spend 8-13 per cent of their total turnover on R&D.
- On July 16, 2020, Drug Controller General of India (DCGI) approved the first fully indigenously developed Pneumococcal Polysaccharide Conjugate Vaccine by Serum Institute of India. This vaccine is used for active immunisation against invasive disease and pneumonia caused by 'Streptococcus pneumonia' in infants.

Increasing exports

- India's pharmaceutical export market is thriving due to strong presence in the generics space.
- Pharmaceutical exports from India stood at US\$ 16.28 billion in FY20 and US\$ 1.53 billion in April 2020.

Joint Ventures

- In May 2020, Jubilant Generics Ltd entered into a non-exclusive licencing agreement with US-based Gilead Sciences Inc to manufacture and sell the potential COVID-19 drug Remdesivir in 127 countries, including India.
- In June 2020, Syngene International Ltd developed its own ELISA antibody testing kits at its research facility in Bengaluru and tied up with HiMedia Laboratories for manufacturing and distribution of the testing kits.

Expansion by Indian players abroad

- Sun Pharma entered into a global licensing agreement with Hyderabad based CSIR Indian Institute of Chemical Technology.

Notes: R&D - Research and Development,

Source: Pharmexcil

COVID-19 FIGHTBACK FROM THE INDIAN PHARMACEUTICALS SECTOR (1/2)

Research and development related to COVID-19

- On July 08, 2020, Council of Scientific and Industrial Research (CSIR), in collaboration with Laxai Life Sciences Pvt. Ltd. Hyderabad, sought regulatory approval to undertake four-arm randomized controlled phase III clinical trial on COVID-19 patients using combination of antiviral and host-directed therapies.
- On July 14, 2020, Bharat Biotech started the first phase of human clinical trials for India's first COVID-19 vaccine candidate Covaxin. The drug is being developed by Bharat Biotech in collaboration with Indian Council of Medical Research's Pune-based National Institute of Virology.
- On July 17, 2020, ZyCoV-D, the plasmid DNA vaccine designed and developed by Zydus Cadila and partially funded by the Department of Biotechnology, Government of India has initiated Phase I/II clinical trials in healthy subjects, making it the first indigenously developed vaccine for COVID-19 to be administered in humans in India.

Product Launched

- Jubilant Generics Ltd launched Remdesivir, the COVID-19 drug under the 'JUBI-R' brand at Rs 4,700 (US\$ 66.67) per vial in the Indian market.
- On July 16, 2020, Minister of Human Resource Development, Mr Ramesh Pokhriyal 'Nishank' e-launched the World's most affordable RT-PCR based COVID-19 diagnostic kit developed by Indian Institute of Technology Delhi and approved by the Indian Council of Medical Research (ICMR) and Drugs Controller General of India (DCGI).

Indian players abroad

- On July 02, 2020, Dr Reddy's Laboratories partnered with Japanese pharma giant Fujifilm Toyama Chemical and Global Response Aid (GRA) for development, manufacture and sale of antiviral drug Avigan (favipiravir) tablets for potential treatment of COVID-19.
- CP Pharmaceuticals, a subsidiary of Wockhardt, will be manufacturing the AstraZeneca-Oxford University COVID-19 vaccines for the UK government.

Notes: R&D - Research and Development,

Source: News Articles

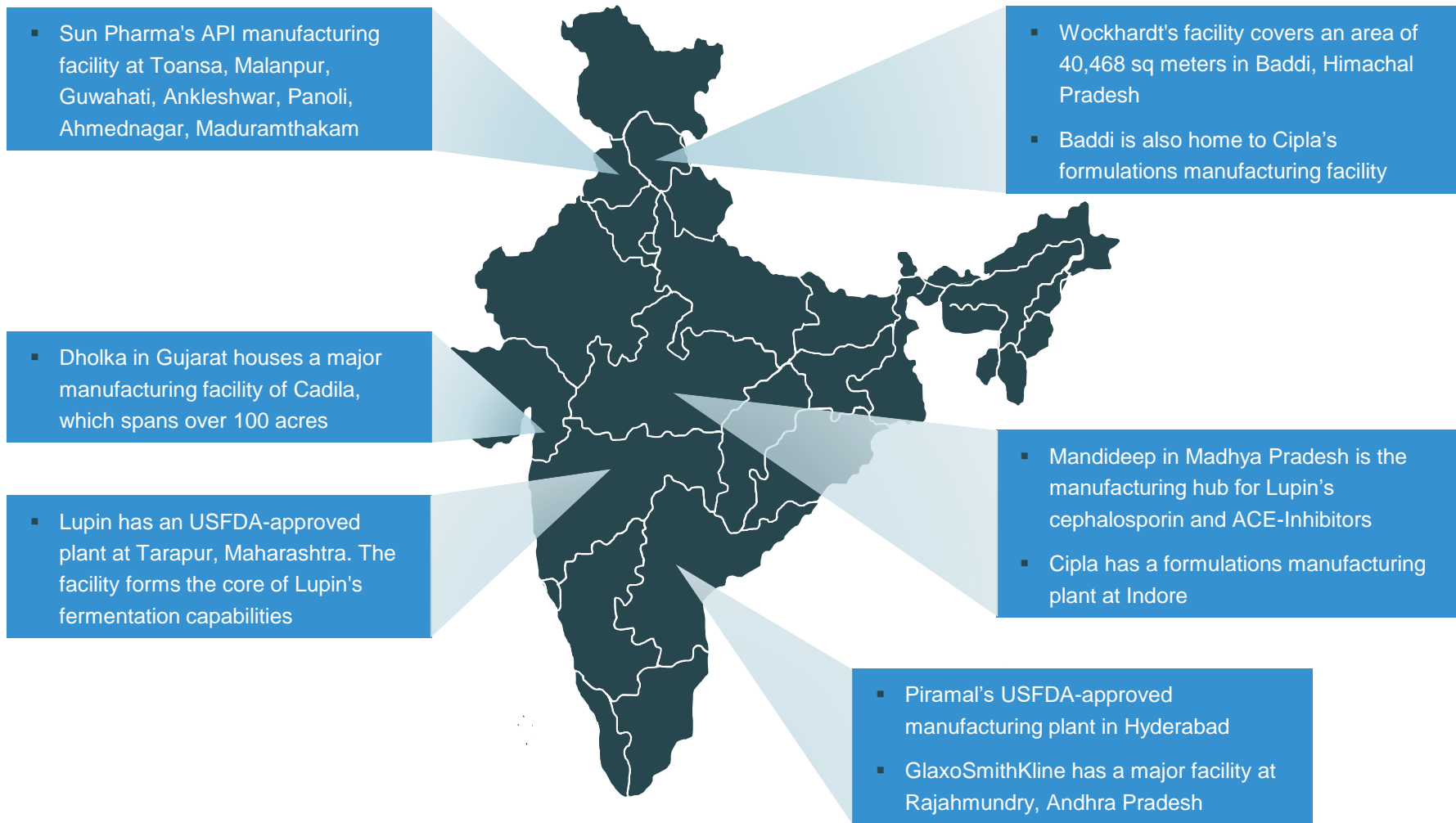
COVID-19 FIGHTBACK FROM THE INDIAN PHARMACEUTICALS SECTOR (1/2)

Technological initiatives

- The Electronic Vaccine Intelligence Network (eVIN), which provides technological solutions for strengthening immunisation supply chain systems, reached 32 states and Union territories (UT). It aims to provide real-time information on vaccine stocks and flows, and storage temperatures across all cold chain points in the country.
- In June 2020, Government launched COVID BEEP (Continuous Oxygenation and Vital Information Detection Biomed ECIL ESIC Pod), India's first indigenous and cost effective wireless physiological parameters monitoring system for COVID-19 patients, developed by ESIC Medical College Hyderabad in collaboration with IIT Hyderabad and Department of Atomic Energy.
- In June 2020, VST Mobility Solutions, a start-up headquartered at Cochin, launched an automated mask disposal machine as part of its effort to develop products to combat COVID-19.

Source: News Articles

STATES HOSTING KEY PHARMACEUTICAL VENTURES



Source: Company websBPM

STRATEGIES ADOPTED

Cost leadership

- Sun Pharma is trying to achieve cost leadership by
 - Vertical Integration: Complex API, which require special skills and technology, are developed and scaled up for both API and dosage forms.

Differentiation

- Players in the sector are trying to strengthen their position in the market and expand themselves by investing heavily in R&D activities, such as:
 - Dr Reddy's acquired OctoPlus N.V, a Netherlands-based company, to get access to the Poly Lactic-Co-Glycolic Acid (PLGA) technology for the formulation of complex injectables.

Focus on new markets

- Lupin is making inroads into new markets such as Latin America, Russia and other East European countries.
- Sun Pharma decided to focus on specialty and chronic therapies such as neurology, oncology, dermatology segments.
- India plans to set up a nearly Rs 1 lakh crore (US\$ 1.3 billion) fund to provide boost to companies to manufacture pharmaceutical ingredients domestically.

Mergers and Acquisitions in Biotech

- On July 03, 2020, US-based private equity (PE) firm KKR acquired about 54 per cent stake in Mumbai-based drug manufacturer JB Chemicals and Pharmaceuticals for Rs 3,100 crore (US\$ 439.78 million).
- In April 2020, Bharat Biotech entered into a partnership with the University of Wisconsin Madison and US-based company FluGen to develop a vaccine, Coro-Flu, against COVID-19.
- In July 2020, PE firm Advent International signed a definitive agreement to acquire controlling stake in Hyderabad-based RA Chem Pharma Ltd, a vertically integrated pharmaceutical company promoted by Micro Labs Ltd.

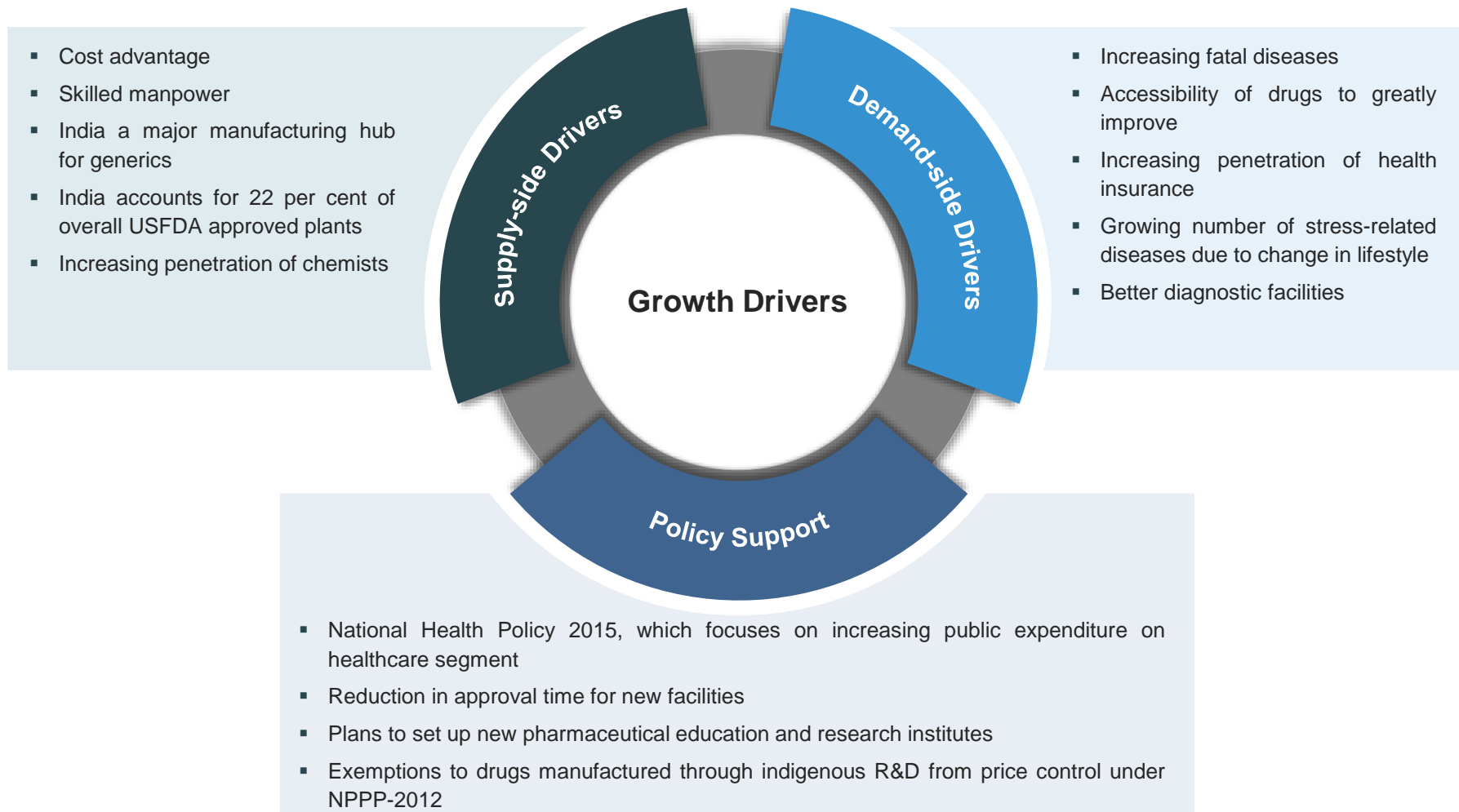
Notes: R&D – Research and Development

Source: Company websBPM, Ministry of External Affairs, RBI

GROWTH DRIVERS



GROWTH DRIVERS OF INDIAN PHARMA SECTOR



Notes: BPL - Below Poverty Line, USFDA - United States Food and Drug Administration, NPPP-2012--The National Pharmaceutical Pricing Policy, 2012

Source: Pharmaceutical Export Promotion Council

SUPPLY-SIDE DRIVERS OF INDIAN PHARMA SECTOR

Launch of patented drugs

- Following the introduction of product patents, several multinational companies are expected to launch patented drugs in India.
- Growth in the number of lifestyle diseases in India could boost the sale of drugs in this segment.
- High Court allowing to export patent drugs, to foreign players in the Indian market.

Medical infrastructure

- Pharma companies have increased spending to tap rural markets and develop better medical infrastructure.
- Hospitals' market size is expected to increase by US\$ 200 billion by 2024.
- Medical devices industry in India has been growing 15.2 per cent annually and was valued at US\$ 5.2 billion in 2018 and is expected to reach US\$ 50 billion by 2025.

Scope in generics market

- India's generic drugs account for 20 per cent of global exports in terms of volume, making it the largest provider of generic medicines globally. The generics drug market accounts for around 70 per cent of the India pharmaceutical industry and it is expected to reach US\$ 27.9 billion by 2020.

Over-The-Counter (OTC) drugs

- India's OTC drugs market is estimated to have grown at a CAGR of 16.3 per cent to US\$ 6.6 billion over 2008–16 and is further expected to grow on the account of increased penetration of chemists, especially in rural regions. The India OTC market was accounted at US\$ 4.61 billion in 2018 and is expected to reach US\$ 10.22 billion by 2024.

Patent Expiry

- About 120 drugs are expected to go off-patent over the next 10 years; with expected worldwide revenue between US\$ 80 to 250 billion.

Notes: CAGR - Compound Annual Growth Rate

Source: BMI, India Biz, Nicholas Hall & Company, IQVIA

DEMAND DRIVERS OF INDIAN PHARMA SECTOR

Accessibility

- Over US\$ 200 billion to be spent on medical infrastructure in the next decade.
- New business models expected to penetrate tier-2 and 3 cities.
- Over 160,000 hospital beds expected to be added each year in the next decade.
- India's generic drugs account for 20 per cent of global exports in terms of volume, making the country the largest provider of generic medicines globally.

Acceptability

- Rising levels of education to increase acceptability of pharmaceuticals.
- Patients to show greater propensity to self-medicate, boosting the OTC market.
- Acceptance of biologics and preventive medicines to rise.
- Surge in medical tourism due to increased patient inflow from other countries.

Demand drivers

Pradhan Mantri Bhartiya Janaushadhi Kendras

- Rising income could drive 73 million households to the middle class over the next 10 years.
- Over 650 million people expected to be covered by health insurance by 2020.
- The Government plans to provide free generic medicines to half the population at an estimated cost of US\$ 5.4 billion.
- Affordable medicines under Pradhan Mantri Bhartiya Janaushadhi Kendra's (PMBJKs) achieved an impressive sale of Rs 100.40 crore (US\$ 14.24 million) in first two months of FY21.

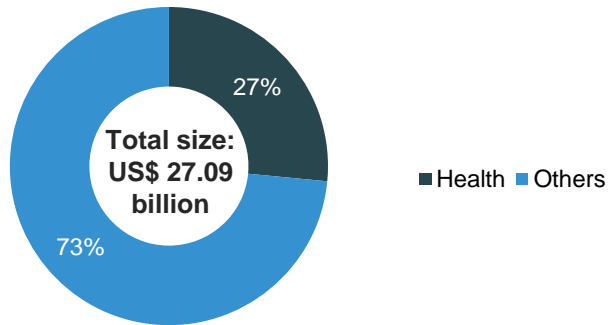
Epidemiological factors

- Patient pool expected to increase over 20 per cent in the next 10 years, mainly due to rise in population.
- New diseases and lifestyle changes to boost demand.
- Increasing prevalence of lifestyle diseases.

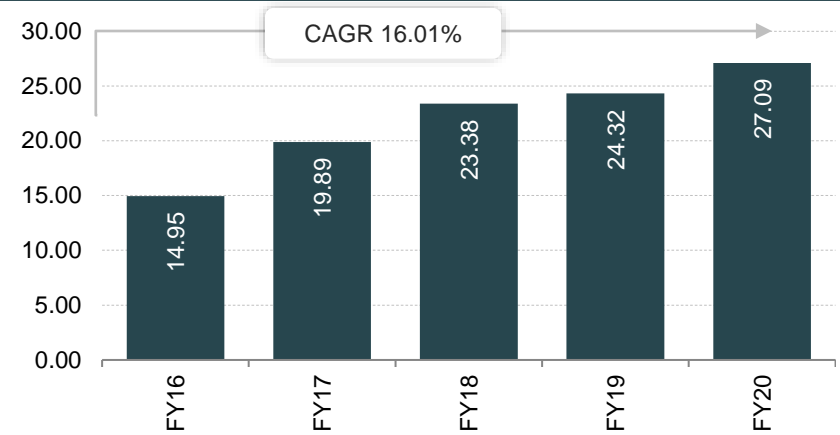
Note: RSBY - Rashtriya Swasthya Bima Yojna

Source: ICRA Report on Indian Pharmaceutical Sector, Pharmaceutical Industry: Developments in India- Deloitte, Mckinsey Pharma Report 2020

Break-up of non-life insurance market in India (FY20)



Gross Direct Premiums of Non-Life Insurers (US\$ billion)



- Increasing penetration of non-life insurance including health insurance will drive the expansion of healthcare services and pharmaceutical market in India.
- Adoption of health insurance in the country has been increasing at a fast pace.
- Gross direct premium from health insurance reached Rs 516.37 billion (US\$ 7.33 billion) in FY20 and contributed 27 per cent to the gross direct premiums of non-life insurance companies in India.
- Another boost to the sector will be the National Health Protection Scheme under Ayushman Bharat, announced in Union Budget 2018-19. The scheme was launched in September 2018.

Note: CAGR is up to FY19

Source: IRDA, General Insurance Council

FAVOURABLE POLICY MEASURES SUPPORT GROWTH (1/2)

Pharma Vision 2020

- Pharma Vision 2020 by the Government's Department of Pharmaceuticals aims to make India a major hub for end-to-end drug discovery.

Reduction in approval time for new facilities

- Steps taken to reduce approval time for new facilities.
- NOC for export licence issued in two weeks compared to 12 weeks earlier.

Single-window clearance

- As per NBDS, a proposal has been made to set up the National Biotechnology Regulatory Authority (NBRA) to provide a single-window clearance mechanism for all bio-safety products to create efficiencies & streamline the drug approval process.

Support for technology upgrades and FDIs

- Government is planning to relax FDI norms in the pharmaceutical sector.
- In March 2017, the Government decided to create a digital platform to regulate and track the sale of quality drugs, and it can be used by people living in the country as well as abroad.

Pharmaceutical Parks

- Government of India is planning to set up mega bulk drug parks in order to reduce industry's dependency on raw material imports.
- As of October 2018, the Uttar Pradesh Government will set up six pharma parks in the state and has received investment commitments of more than Rs 5,000-6,000 crore (US\$ 712-855 million) for the same.
- In October 2019, Telangana Government proposed Hyderabad Pharma City with financial assistance from Central Government of Rs 3,418 crore (US\$ 489 million).

National Commission for Homoeopathy (NCH) Bill, 2018

- In December 2018, the Government of India approved the National Commission for Homoeopathy, Bill, 2018 in order to have more transparency in the sector.

FAVOURABLE POLICY MEASURES SUPPORT GROWTH (2/2)

Union Budget 2020-21

- The allocation to the Ministry of Health and Family Welfare has increased to Rs 65,012 crore (US\$ 9.30 billion).
- The National Health Mission Scheme is the largest Government funded healthcare programme, which is expected to benefit 7.31 million poor families in the country by providing a cover of up to Rs 5 lakh (US\$ 7,314.22) per family per year on floater basis in the impaneled hospitals across India.
- The Government has allocated Rs 34,115 crore (US\$ 4.88 billion) towards the National Health Mission under which rural and urban people will get benefited.
- Rs 6,400 crore (US\$ 915.72 million) has been allocated to health insurance scheme Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).

Biotechnology Industry Research Assistance Council

- BIRAC has been established to promote research & innovation capabilities in India's biotech industry. The council will provide funding to biotech companies for technology & product development.
- BIRAC under Small Business Innovation Research Initiative (SBIRI) scheme supports innovations in biotechnology.

Biotechnology Based Programme for Women

- Programme on application of biotechnology for women was done to provide employment, skill development, awareness generation, health improvement & socio-economic upliftment of the women population.

National Biopharma Mission

- The Industry – Academia mission was launched in June 2017 to boost development of biopharmaceuticals in India.

Source: Livemint, Union Budget

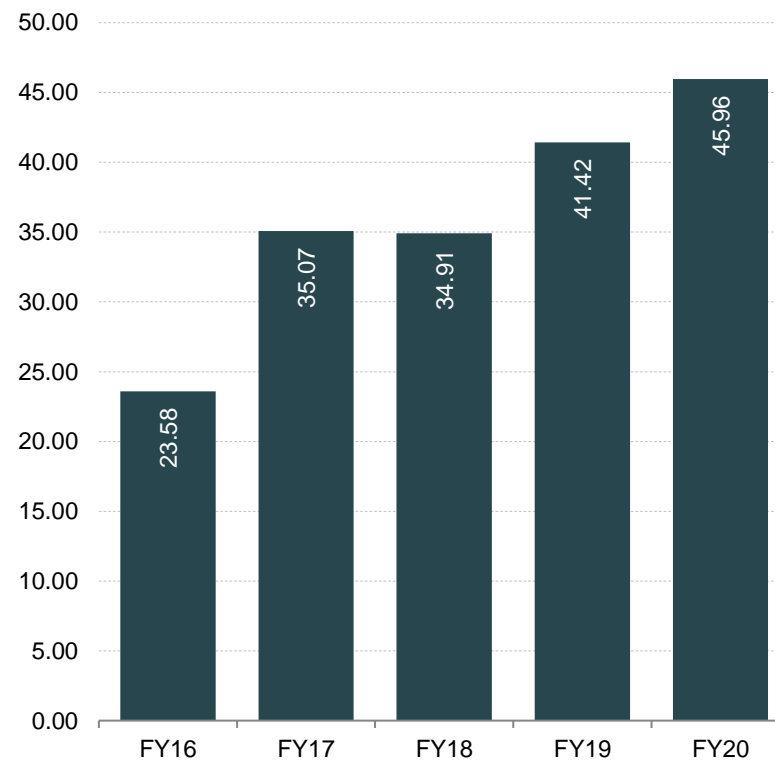
NATIONAL PHARMA POLICY TO BRING GREATER TRANSPARENCY

- In 2017, the Department of Pharmaceuticals released a draft National Pharmaceutical Policy with the following objectives:
 - Make all essential drugs accessible to masses through affordable prices.
 - Provide the Indian pharmaceutical sector with a long term stable policy environment.
 - Make India self sufficient in end to end domestic drug manufacturing.
 - Maintain world class quality for domestic consumption and exports.
 - Create a positive environment for research and development in the pharma sector.
- As per the new policy, the Department of Pharmaceuticals will have control over the National List of Essential Medicines (NLEM), which decides the drugs for which the Government of India can control the prices.
- In November 2019, Cabinet approved the extension/renewal of the extant Pharmaceuticals Purchase Policy (PPP) with the same terms and conditions while adding one additional product, namely, Alcoholic Hand Disinfectant (AHD) to the existing list of 103 medicines till the final closure/strategic disinvestment of the Pharma CPSUs.

GOVERNMENT EXPENDITURE IN THE PHARMA SECTOR ON AN UPTREND

- Government expenditure on health increased to Rs 3.24 lakh crore (US\$ 45.96 billion) in FY20, implying a CAGR of 18 per cent from FY16.
- Medical technology park in Vishakhapatnam, Andhra Pradesh has already been set up with an investment of US\$ 183.31 million. States like Himachal Pradesh, Gujarat, Telangana and Maharashtra are showing interest for making investments in these parks.
- German technical services provider TUV Rheinland's Indian subsidiary has partnered with Andhra Pradesh MedTech Zone (AMTZ) to create an infrastructure for Electro-Magnetic Interference (EMI/EMC) at an investment of US\$ 12.64 million over a course of four to five years.
- As per Economic Survey 2019-20, Government expenditure (as a percentage of GDP) increased to 1.6 per cent in FY20 from 1.2 per cent in FY15 for health.

Government Expenditure on Health in India (US\$ billion)



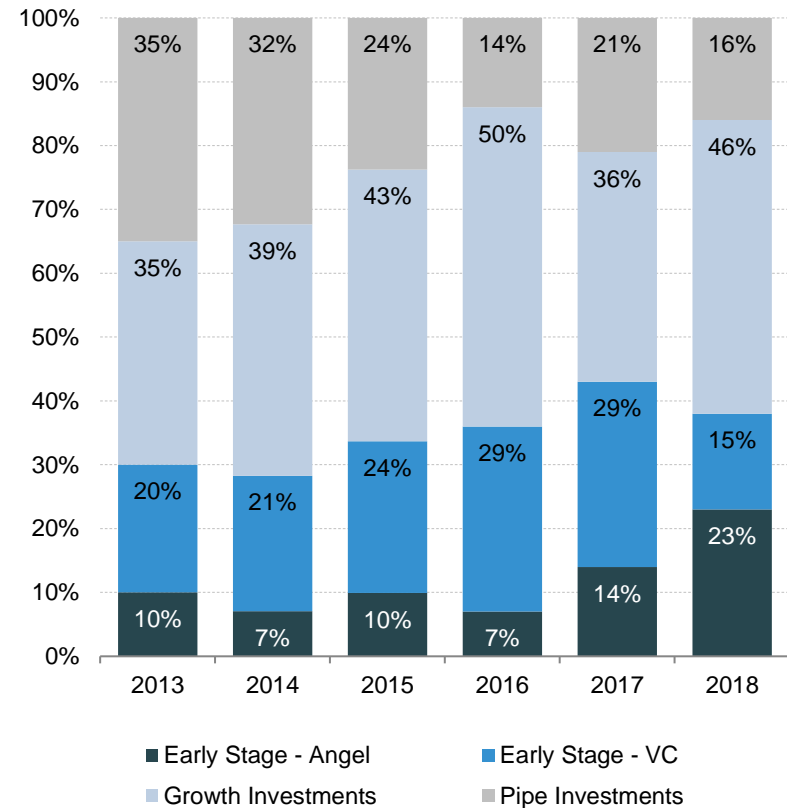
Note: CAGR - Compound Annual Growth Rate,

Source: Business Monitor International, Economic Survey 2019-20

INVESTMENTS, JVs INFUSING SUPERIOR CAPABILITIES IN INDIAN FIRMS

- Indian Drugs & Pharmaceuticals sector has received cumulative FDI worth US\$ 16.39 billion between April 2000 and March 2020.
- Over the last three years, pharmaceuticals segment has accounted for more than 70 per cent of M&A deals.
- Indian pharmaceutical major Cipla Ltd has agreed to buy a 26 per cent stake in AMP Solar Power Systems Pvt Ltd for approximately Rs 12.90 crore (US\$ 1.85 million).
- Healthcare sector witnessed private equity of total US\$ 1.1 billion with 27 deals in first half of 2019.

PE Investments in Indian Pharma by Deal Type



Source: BMI, Business Standard, EY, IQVIA – Winning the Indian Pharmaceutical Market Nov 2018, DPIIT

OPPORTUNITIES



OPPORTUNITIES ABOUND IN CLINICAL TRIALS AND HIGH-END DRUGS

Clinical trials market

- India is among the leaders in the clinical trial market.
- Due to a genetically diverse population and availability of skilled doctors, India has the potential to attract huge investments to its clinical trial market.
- As of February 2019, India was engaged in 3,618 trials in last one year.

High-end drugs

- Due to increasing population and income levels, demand for high-end drugs is expected to rise.
- Growing demand could open up the market for production of high-end drugs in India.

Penetration in rural market

- With 70 per cent of India's population residing in rural areas, pharma companies have immense opportunities to tap this market.
- Demand for generic medicines in rural markets has seen a sharp growth. Various companies are investing in the distribution network in rural areas.

CRAMS

- The Contract Research and Manufacturing Services industry (CRAMS) – estimated at US\$ 17.27 billion in 2017-18, is expected to reach US\$ 20 billion by 2020.
- The market has more than 1,000 players.

Source: BMI, Drug Controller General of India

USEFUL INFORMATION



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- CRAMS: Contract Research and Manufacturing Services
- API: Active Pharmaceutical Ingredients
- FDI: Foreign Direct Investment
- GOI: Government of India
- INR: Indian Rupee
- US\$: US Dollar
- BPL: Below Poverty Line
- RSBY: Rashtriya Swastha Bima Yojna
- ESIC: Employees State Insurance Corporation
- Wherever applicable, numbers have been rounded off to the nearest whole number

EXCHANGE RATES

Exchange Rates (Fiscal Year)

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

Exchange Rates (Calendar Year)

Year	INR Equivalent of one US\$
2005	44.11
2006	45.33
2007	41.29
2008	43.42
2009	48.35
2010	45.74
2011	46.67
2012	53.49
2013	58.63
2014	61.03
2015	64.15
2016	67.21
2017	65.12
2018	68.36
2019	69.89

Source: Reserve Bank of India, Average for the year

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