



Drugs & Pharmaceuticals Industry - India Market

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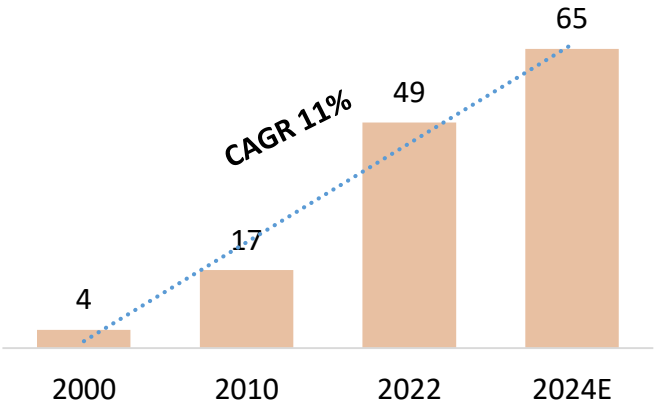
Drugs & Pharmaceuticals Industry – Executive Summary

| | |
|--------------------|---|
| Market Size | The Indian pharmaceutical industry is often referred to as the "Pharmacy of the World." Currently, it ranks as the third-largest pharmaceutical sector globally by volume, with a market size of approximately USD 65 billion (bn). Projections indicate it could expand to USD 120-130 bn (₹ 9,84,000 to ₹ 10,66,000 crores) in the next decade, potentially increasing its contribution to the GDP by about 100 basis points. |
| Global Supplier | India is a major global supplier of affordable vaccines, producing 60% of the world's vaccines. The country leads in the supply of DPT, BCG, and measles vaccines, fulfilling up to 70% of the WHO's demand for DPT and BCG vaccines, and 90% of the demand for measles vaccines. |
| Share by Volume | As the largest provider of generic medicines worldwide, India holds a 20% share in global supply by volume, manufacturing around 60,000 different generic brands across 60 therapeutic categories. The country exports pharmaceuticals to over 200 nations, supplying more than 50% of Africa's generic medicine needs, nearly 40% of the generic demand in the US, and approximately 25% of all medications in the UK. |
| Manufacturing Hub | India boasts the highest number of US-FDA compliant pharmaceutical plants outside the United States, with over 3,000 pharmaceutical companies and a robust network of more than 10,500 manufacturing facilities supported by a skilled workforce. |
| Segments | Key segments of the pharmaceutical industry include generic drugs, bulk drugs, vaccines, Over-The-Counter (OTC) medicines, Formulations drugs, biosimilars, and biologics. The country has around 500 Active Pharmaceutical Ingredient (API) manufacturers, contributing about 8% to the global API market. |
| Annual Growth Rate | The sector has shown a compounded annual growth rate (CAGR) of about 11% in the domestic market, with exports growing by 16% over the past two decades. The domestic market's growth aligns with the overall GDP growth, driven largely by the industry's success in supplying generic formulations to international markets. |
| Exports | The pharmaceutical sector is a significant contributor to India's foreign trade and trade surplus, with total pharmaceutical exports reaching USD 25 bn in the 2022-23 period. Additionally, the pharmaceutical industry has become a favored destination for foreign investors, ranking among the top ten sectors for foreign investment in India. It accounts for approximately 3.3% of total FDI inflows across various sectors. |

Drugs & Pharmaceuticals Industry - Market Overview & Size

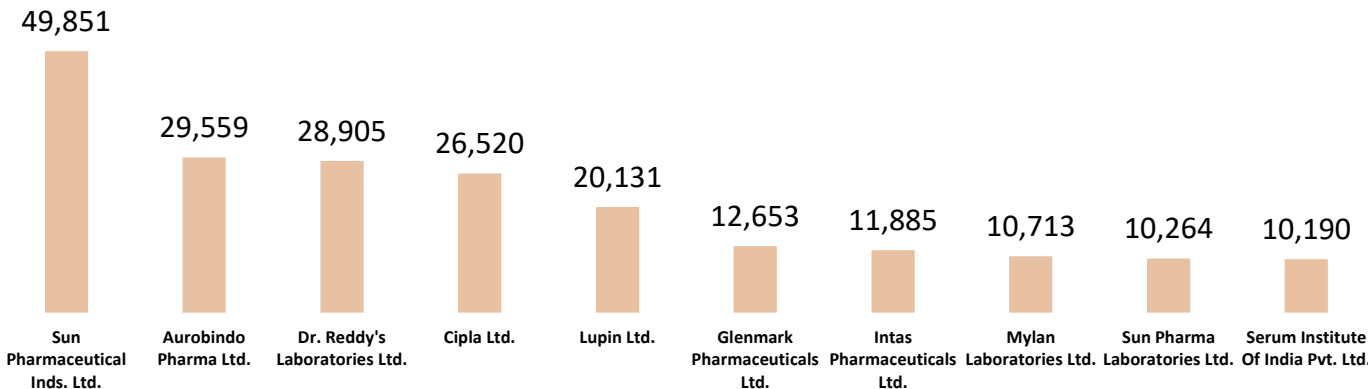
- The Indian Pharmaceutical Industry has experienced significant growth over the past few years, increasing from approximately USD 4 bn in 2000 to an estimated USD 65 bn by 2024
- India ranks as the 13th largest pharmaceutical market by value and the third largest by volume globally. It supplies over 20% of the global generic medicines market and accounts for more than 60% of the world's vaccines
- APIs (Active Pharmaceutical Ingredient) are crucial in pharmaceuticals. India is the third-largest market for APIs globally, holding an 8% share and contributing 57% of the APIs on the WHO's prequalified list. The market size in India for 2021 was USD 20 bn, with an anticipated CAGR of 8.3%
- Contract manufacturing services represent 60% of the market, while the remaining portion consists of contract research services. India's projected market size for 2024 is approximately USD 12 bn, with an CAGR of 10.7%
- OTC Segment - The largest segment is Vitamins & Minerals, with a market volume of USD 2.3 bn in 2023. India's market size for this segment is USD 6.1 bn, with an anticipated CAGR of 7.5%

Indian Pharmaceutical Market Size (USD bn)



Sources: IBEF.

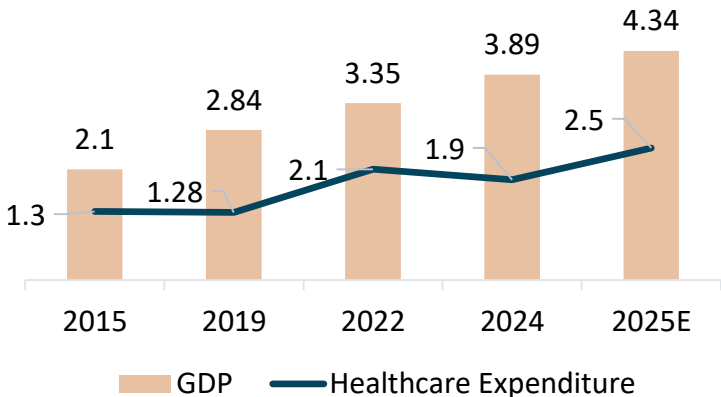
Top Pharmaceuticals Companies by Revenue* (Rs. Crore)



*Note: Data as of FY 2024.
Except Data for Serum, Mylan, Intas, Sun Laboratories as of FY 2023.

Sources: CII, Broker Reports, Ernst & Young, GOI, CMIE, Economic Times, Company Reports.

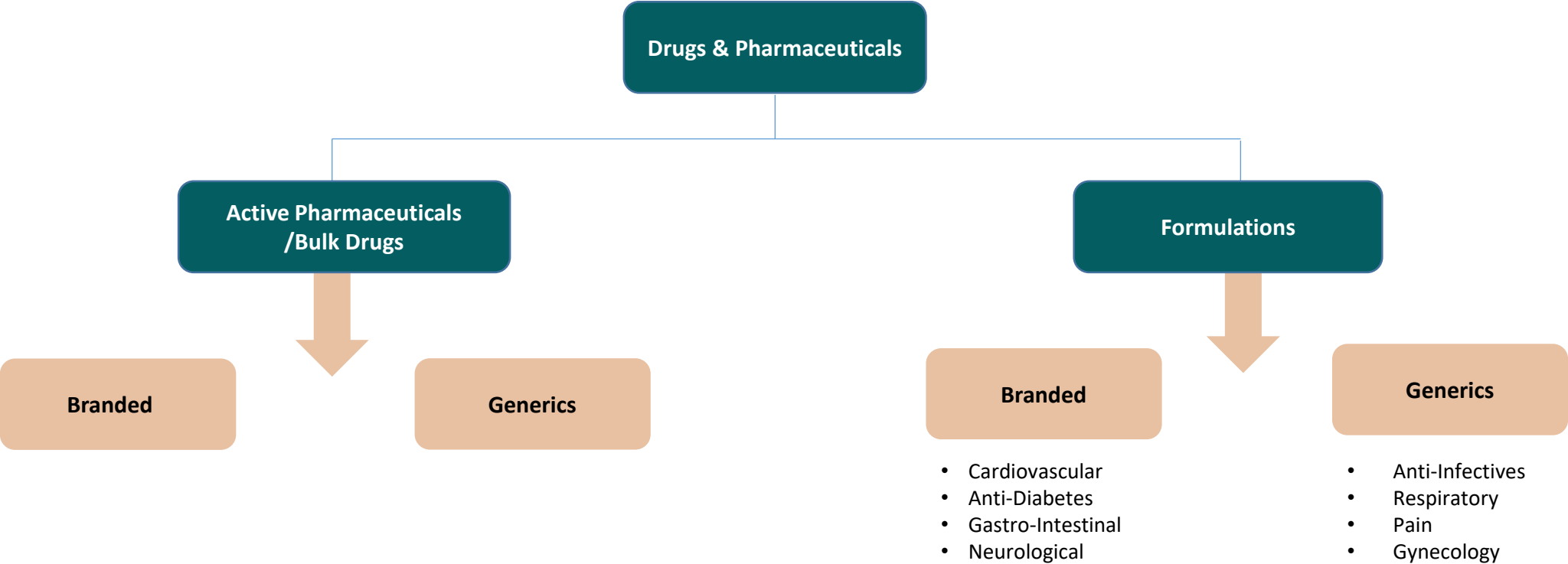
Healthcare Expenditure - % of GDP (Rs. Trillion)



Sources: GOI, World Bank Estimates.

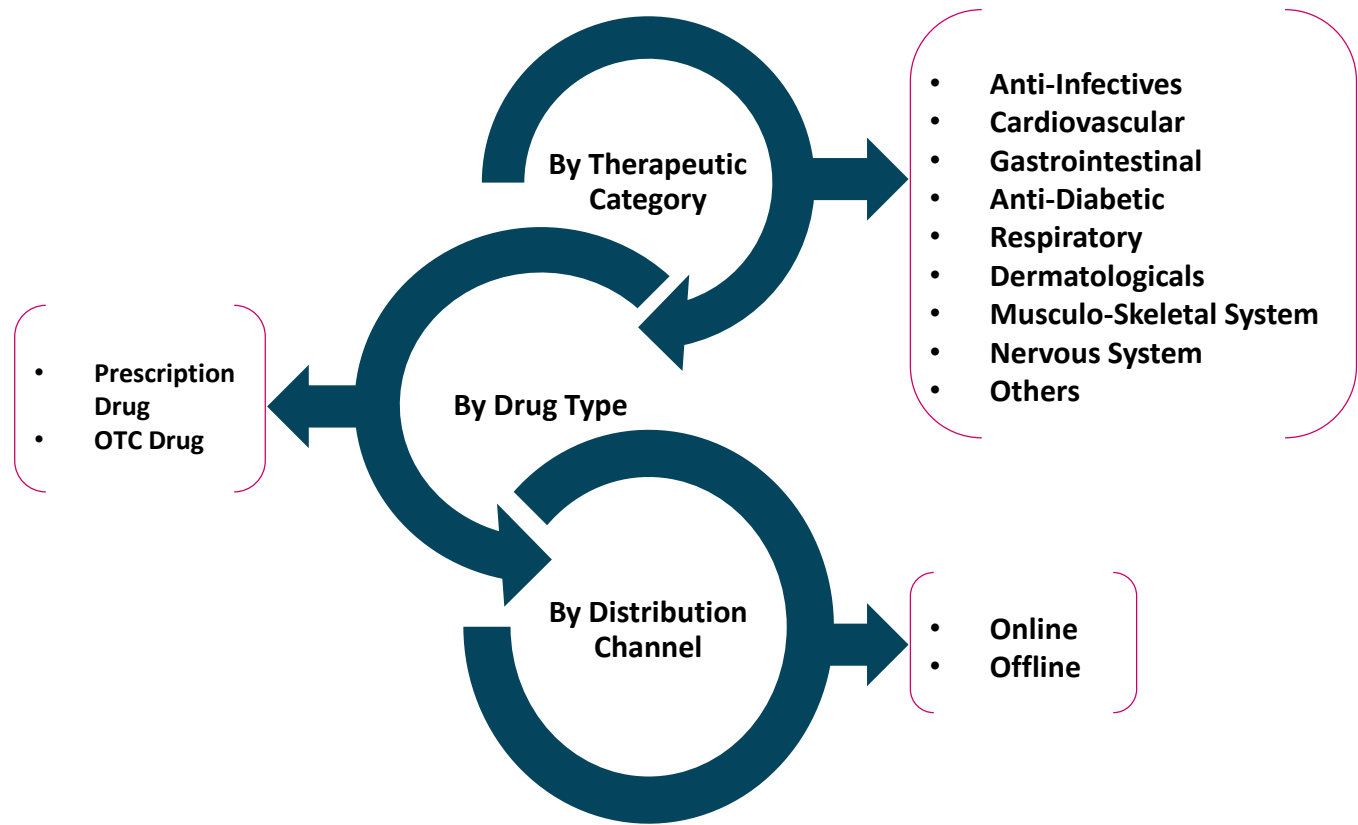
Drugs & Pharmaceuticals Industry – Structure

The structure of the Indian pharmaceutical market is diverse and multifaceted, encompassing a wide range of companies and product segments. The Indian pharmaceutical industry is primarily composed of multinational corporations engaged in research and development, producing innovative drugs, branded generics, and biosimilars and domestic companies which includes both publicly and privately held firms.

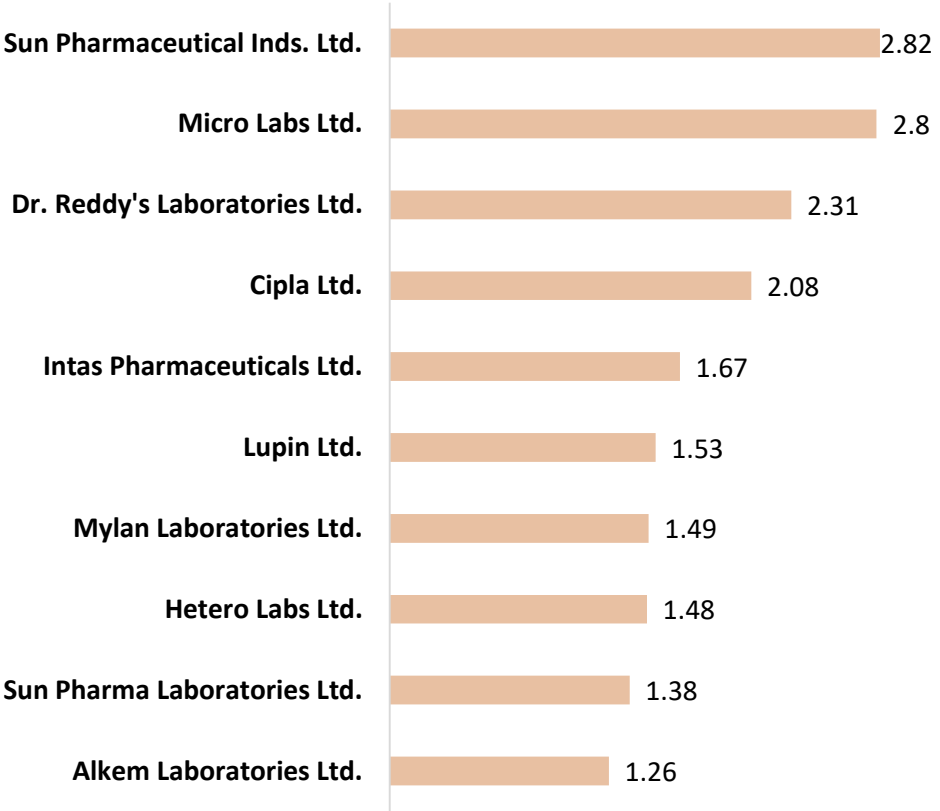


Drugs & Pharmaceuticals Industry - Market Segmentation & Market Share

Market Segmentation



Top 10 Pharmaceutical Companies - Market Share (2022- 23)



Source: CMIE.

Drugs & Pharmaceuticals Industry - Market Segments - OTC

OTC Segment – Market Size, Overview and Estimates

- The OTC Pharmaceuticals market in India is projected to generate a revenue of INR 7.53 billion in 2024, with an anticipated annual growth rate of 8.15%, indicating strong growth potential from 2024 to 2029
- On a global scale, the United States remains the largest market, with projected revenue of INR 41,240 million in 2024
- Additionally, online sales are predicted to account for 5.67% of total revenue in the OTC Pharmaceuticals market by 2024. Notably, there is a growing demand for traditional herbal remedies and Ayurveda medicines within India's OTC Pharmaceuticals market

OTC Segment – Key Drivers

- **Self-Medication:** Self-medication is expected to drive growth in several segments, including cough and cold, gastrointestinal, analgesics, multivitamins, and dermatological products. Commonly used OTC drugs for self-medication include those for fever, headaches, toothaches, muscle aches, constipation, musculoskeletal pain, and cough & cold
- **Rise in Disease Prevalence Among the Geriatric Population:** The growing prevalence of diseases among the aging population is significantly boosting the demand for OTC products. Older individuals are increasingly relying on OTC medications such as laxatives, flu remedies, and pain-relieving ointments, contributing to the overall growth of the market
- **Launch of New and Updated Customer-Centric Products:** The introduction of updated OTC products with new formulations, such as alcohol-free, dye-free, and honey-based syrups, sedative-free cough treatments, and products containing natural extracts, is gaining popularity among consumers. This shift towards more consumer-friendly products is driving market expansion and increasing market share

Market Share by Sales & % Market Share by Group of Drugs

| Group of Drugs | Sales (INR Crore) | Market Share in % of Companies | | |
|-------------------------------|-------------------|--------------------------------|--------|-------|
| | | Large | Medium | Small |
| Anti-Infectives | 23807 | 89% | 9% | 2% |
| Cardiac | 21915 | 85% | 14% | 1% |
| Gastro Intestinal | 19622 | 76% | 20% | 4% |
| Anti-Diabetic | 15879 | 79% | 19% | 2% |
| Vitamins/ Minerals /Nutrients | 14945 | 59% | 36% | 6% |
| Respiratory | 13569 | 82% | 15% | 3% |
| Pain/ Analgesics | 11740 | 68% | 26% | 6% |
| Derma | 10642 | 66% | 29% | 5% |
| Neuro/ CNS | 9898 | 88% | 7% | 5% |
| Gynecological | 8015 | 67% | 29% | 4% |
| Hormones | 3072 | 85% | 13% | 2% |
| Anti-Neoplastics | 3063 | 61% | 36% | 3% |
| Ophthalmic / Otologicals | 2669 | 65% | 24% | 11% |
| Urology | 2408 | 81% | 17% | 2% |
| Blood Related | 1800 | 62% | 31% | 7% |
| Vaccines | 1767 | 63% | 30% | 7% |
| Others | 1450 | 52% | 37% | 12% |
| Stomatologicals | 1015 | 54% | 34% | 11% |
| SexStimulantsRejuvenators | 956 | 88% | 10% | 2% |
| Anti-Malarial | 559 | 89% | 5% | 6% |

**Note – Data as of 2021 - 22, Companies have been classified as Large, Medium and small based on the domestic turnover of ₹1,000 crore and above, between ₹ 100 crore to ₹ 1,000 crore and up to ₹ 100 crore respectively.*

Drugs & Pharmaceuticals Industry - Market Segments – Biosimilars & Vaccines

Overview & Market Size

- The Indian biologics and biosimilars market is estimated to reach USD 12 billion in 2025 expanding from USD 6 billion in 2022
- Biosimilars are designed to be highly similar to approved reference products in terms of clinical, non-clinical, and quality parameters
- India is a global leader in biosimilars, with over 100 approved products, including monoclonal antibodies, insulin, and vaccines
- Significant regulatory progress has been made in the country, with the Central Drugs Standard Control Organization (CDSCO) and the Department of Biotechnology (DBT) working together to establish comprehensive guidelines for biologics
- Biosimilars provide a cost-effective solution to meet the healthcare needs of India's large patient population, making them an appealing option for both patients and healthcare providers. The rising incidence of chronic diseases, such as diabetes, cancer, and autoimmune conditions, is a key factor driving the growth of the biosimilars market in India

Key Players

- Biocon Ltd
- Intas Pharmaceuticals Ltd
- Dr Reddy's Laboratories Ltd
- Reliance Life Sciences Pvt. Ltd
- Zydus Cadila Healthcare Ltd
- Lupin Limited
- Wockhardt Limited
- Panacea Biotec Ltd
- Emcure Pharmaceuticals Ltd
- Torrent Pharmaceuticals Ltd
- Pfizer Inc
- Novartis International AG
- Roche Holding AG
- Sanofi S.A.
- Merck & Co., Inc.
- GlaxoSmithKline plc
- AstraZeneca plc
- Johnson & Johnson
- Boehringer Ingelheim GmbH
- Fresenius SE & Co. KGaA

Examples - Biosimilars Approved in India

| Product Name | Active Drug | Indications |
|--------------|--------------------|---|
| Glaritus | Insulin glargine | Diabetes mellitus |
| Grafeel | Filgrastim | Neutropenia |
| Epofer | Epoetin alfa | Anemia |
| Adfar | Adalimumab | RA, Crohn's disease |
| Erbitux | Cetuximab | Colorectal carcinoma |
| Krabeva | Bevacizumab | Colorectal cancer |
| Herceptin | Trastuzumab | Breast cancer |
| Intacept | Etanercept | RA |
| Abcixirel | Abciximab | Autoimmune disease |
| Relibeta | Interferon beta-1a | Multiple sclerosis |
| Relipoietin | Epoetin alfa | Anemia, autologous blood transfusion, chronic kidney failure, HIV |

**Note – RA = rheumatoid arthritis, HIV = human immunodeficiency virus*

Sources: PubMed Central, National Centre for Biotechnology Information.

Drugs & Pharmaceuticals Industry - Market Segments – API/Bulk Drugs

Market Size, Growth Projections and Key Drivers

The Active Pharmaceutical Ingredient (API) or bulk drugs segment in India is experiencing substantial growth and transformation due to various factors and trends

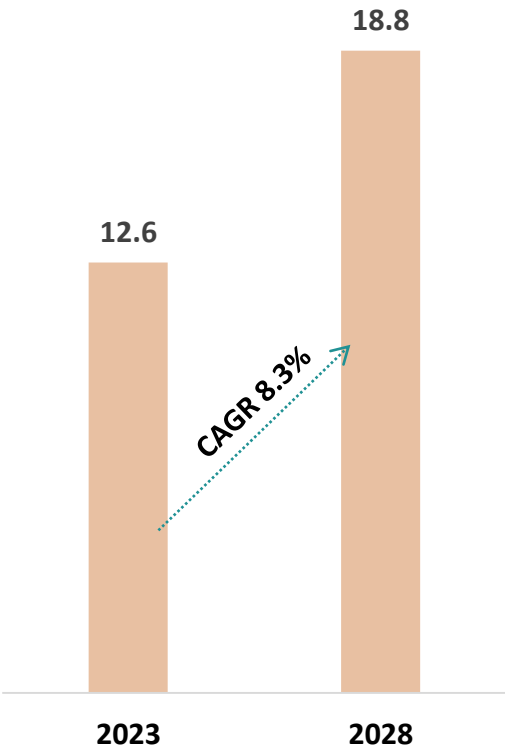
Global Leadership: India is establishing itself as a global leader in the production of Active Pharmaceutical Ingredients, supported by strategic government initiatives, a robust manufacturing ecosystem, and a growing domestic market

- India's API sector, with over 665 US FDA-approved plants, is a key global supplier, with major players like Dr. Reddy's Laboratories, Aurobindo Pharma, and Sun Pharmaceutical Industries investing in capacity expansion and technology upgrades
- India, the third largest API producer, contributes 8% to the global API industry, manufacturing over 500 APIs and contributing 57% to the WHO prequalified list
- Market Position and Growth Potential: India, the third-largest producer of APIs, is projected to experience significant growth. The Indian API market is expected to grow at a CAGR of 8.3% in the next few years, attracting investors and venture capitalists
- India's strong domestic market, advanced chemical industry, skilled workforce, stringent quality standards, and low costs make it an attractive location for modern plant setups
- Major players in India's active pharmaceutical ingredient market include Solara, Aurobindo Pharma, Dr. Reddy's Laboratories, Lupin, Sun Pharmaceutical Industries, Divi's Laboratories, Aarti Drugs, Neuland Labs and Century Pharmaceuticals

India's strong position in generic medicines, however, is largely reliant on China for APIs, presenting both challenges and opportunities for both nations

India heavily relies on Chinese imports for over 70% of its APIs, despite technological advancements. To reduce this dependency, India needs to increase domestic production and boost research and development while geopolitical tensions prompt alternative sourcing options, with India emerging as a potential substitute for Chinese APIs

India API Market (USD Bn)



Source: RBSA Advisors Report.

Drugs & Pharmaceuticals Industry - Market Segments – Generics (1/2)

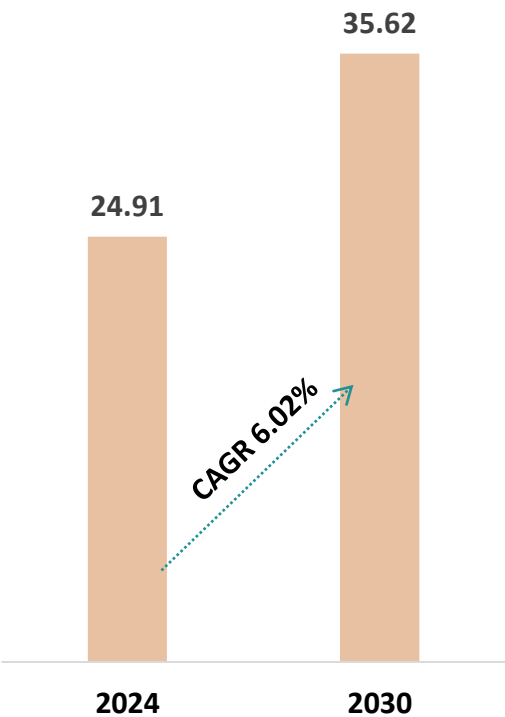
India's pharmaceutical industry, the largest producer and exporter of generic medicines, produces over 60,000 brands, accounting for 20% of global supply. The strong generics market is bolstered by government initiatives, cost-effectiveness, and a robust manufacturing infrastructure.

Market Size, Growth Projections and Key Drivers

According to estimates the India Generic Drugs Market, valued at USD 24.91 billion in 2024, is projected to reach USD35.62 billion by 2030, with a 6.02% CAGR.

- **Cost-effectiveness:** Generic drugs are more accessible due to their lower cost compared to their branded counterparts
- **Government Support:** Government initiatives like Jan Aushadhi Scheme, which offer generic medications at lower prices than branded drugs, have led to increased adoption of these medications
- **R&D Investments:** Indian pharmaceutical companies are prioritizing R&D to improve product quality and manufacturing processes
- **Robust pharmaceutical infrastructure:** India's robust pharmaceutical infrastructure, bolstered by over 10,500 facilities and a vast skilled labor pool, enables high-quality production at competitive costs
- **Market Composition:** The market comprises various products, including small molecule generics and biosimilars, with small molecules being the fastest-growing segment, West India is India's largest regional market due to its favourable business environment and strategic location
- **Global Presence:** India dominates the global generic drug market, accounting for 20% of the supply and fulfilling over 50% of global demand, particularly in the US and Europe Indian pharmaceutical companies are exporting to numerous countries, particularly in developed markets that demand high-quality generics at lower prices
- **Competitive Pricing:** Indian generics are 33% cheaper than U.S. medications, providing significant healthcare cost relief for countries with limited access to brand-name medications

India Generics Market (USD Bn)



Source: TechSci Research.

Drugs & Pharmaceuticals Industry - Market Segments – Generics (2/2)

Innovation and Research

- **R&D:** Indian companies are prioritizing R&D for novel drugs, biopharmaceuticals, and biosimilars, aiming to maintain competitiveness against larger multinational corporations
- **Technological Advancements:** Advanced manufacturing technologies are being adopted by companies to improve efficiency and product quality, with continuous processes and automation being explored for production streamlining

Key Regions Leading the Generic Drugs Market

- Mumbai and Pune are key cities for pharmaceutical companies due to their well-developed infrastructure and skilled workforce, making them attractive locations for drug manufacturing and research
- Ahmedabad, a key player in the generic drugs sector, is bolstered by Gujarat's business-friendly policies and robust pharmaceutical industry presence.
- While West India dominates, South India, particularly Telangana and Karnataka, is notable for its presence of pharmaceutical companies and research institutions
- Haryana and Punjab contribute to the pharmaceutical market but lack West India's scale due to extensive infrastructure in Maharashtra and Gujarat

Key Players & Products

| Company | Key Products |
|-----------------------------------|--|
| Sun Pharmaceutical Industries Ltd | Anti-diabetics: Metformin, Cardiovascular: Atorvastatin CNS: Amitriptyline, Oncology: Doxorubicin |
| Cipla Ltd | Respiratory: Salbutamol inhalers, HIV/AIDS: Lamivudine, Zidovudine, Cardiovascular: Clopidogrel |
| Aurobindo Pharma | Antibiotics: Amoxicillin, Antiretrovirals: Efavirenz CNS: Gabapentin |
| Dr. Reddy’s Laboratories | Oncology: Rituximab (biosimilar), Cardiovascular: Rosuvastatin, Diabetes: Sitagliptin |
| Torrent Pharmaceuticals | Cardiovascular: Telmisartan, CNS: Duloxetine |
| Lupin Pharmaceuticals | Antibiotics: Levofloxacin, Cardiovascular: Lisinopril CNS: Quetiapine |
| Glenmark Pharmaceuticals | Dermatology, oncology, respiratory |
| Sandoz (a Novartis division) | Biosimilars, anti-infectives, dermatologicals |
| Zydus Cadila | Diabetes care, cardiovascular health, vaccines |
| Alkem Laboratories | Therapeutic |

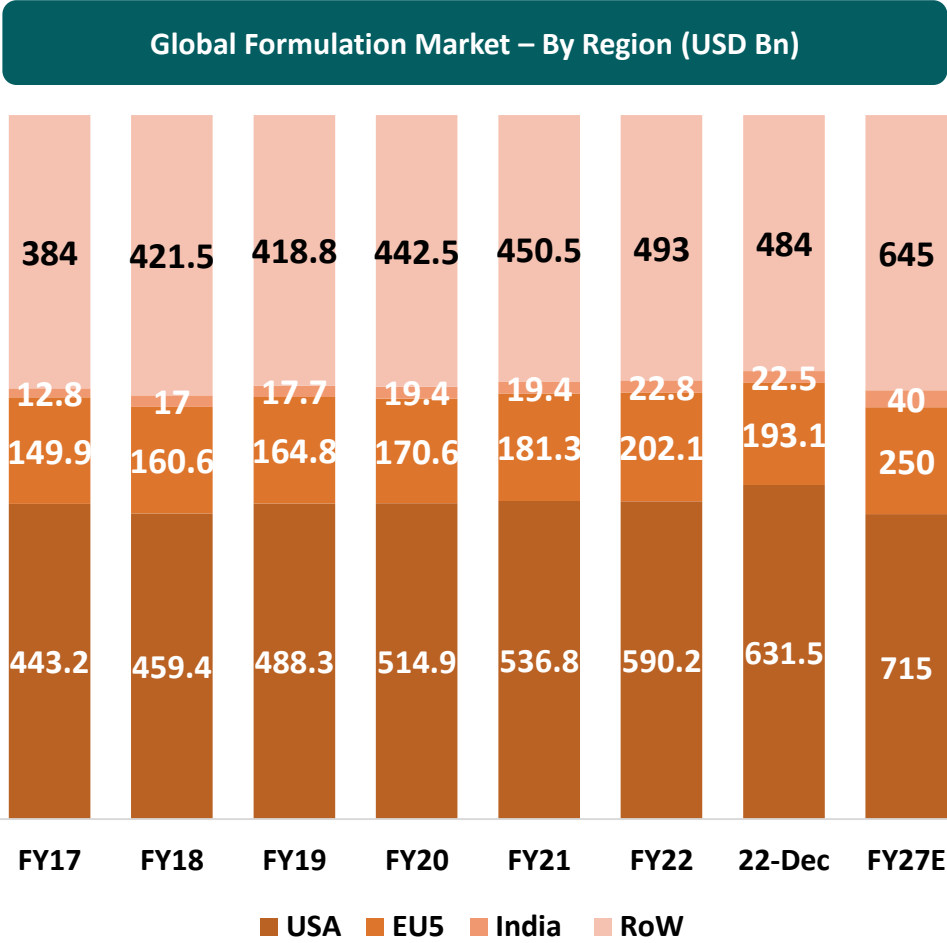
Source :Company Reports.

Drugs & Pharmaceuticals Industry - Market Segments – Formulations (1/3)

- The global formulation market is primarily led by the US, which holds a 47.4% share by value, followed by the EU5 (France, Germany, Italy, Spain, and the UK) with a 14.5% share
- From Financial Year 2017 to 2022, both the US and EU5 have experienced growth rates between 5.5% and 6% CAGR. In contrast, India has seen a growth rate of approximately 12.0% CAGR during the same period
- India represents only 1.7% of the global market by value

| Market Share % - By Region & Estimates | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------------|--------|
| Region | FY 17 | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | Till Dec'22 | FY 27E |
| USA | 44.7% | 43.3% | 44.8% | 44.9% | 45.2% | 45.1% | 47.1% | 44-45% |
| EU5 | 15.1% | 15.2% | 15.1% | 14.9% | 15.3% | 15.5% | 14.5% | 14-15% |
| India | 1.3% | 1.6% | 1.6% | 1.7% | 1.6% | 1.7% | 1.7% | 2-3% |
| RoW | 38.9% | 39.8% | 38.4% | 38.6% | 28.0% | 37.7% | 36.4% | 38-39% |

**Note: EU5 (EU5 comprises of 5 countries namely France, Germany, Italy, Spain, and the UK)*
RoW = Rest of the world
Source: RBSA

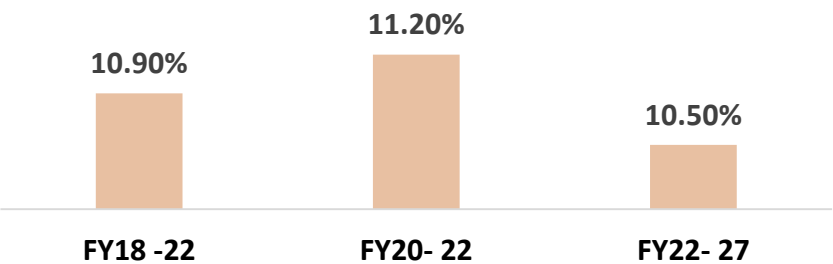


**Note: EU5 (EU5 comprises of 5 countries namely France, Germany, Italy, Spain, and the UK)*
RoW = Rest of the world
Source: RBSA

Drugs & Pharmaceuticals Industry - Market Segments – Formulations (2/3)

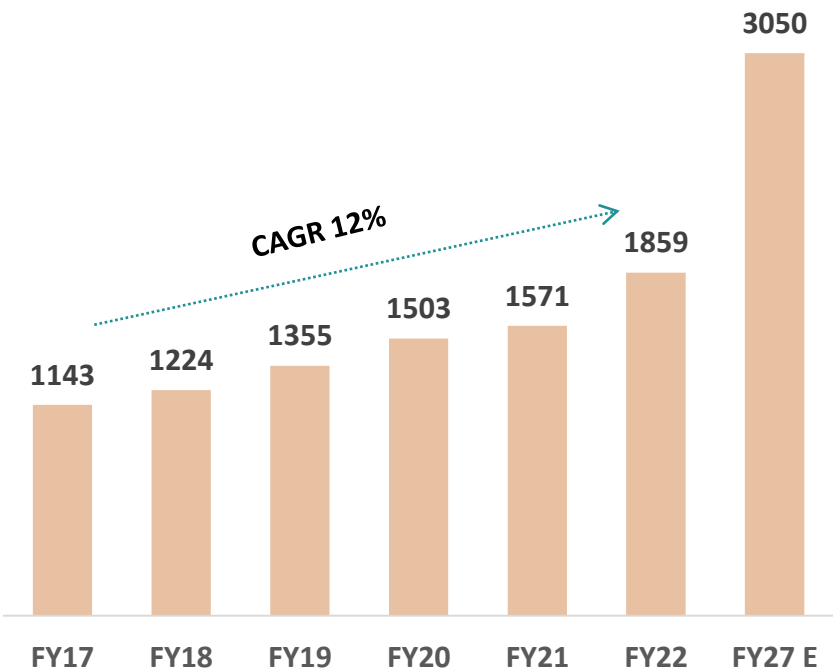
- Companies in the Indian Formulation Market (IFM) benefit from resilience during recessions, as it remains a high-growth potential sector. In contrast, international markets face challenges such as regulatory pressures, higher R&D expenditures, and geopolitical tensions
- Domestic manufacturers in the IFM, which have high entry barriers, control over 80% of the market by value
- Furthermore, local players are well-positioned to increase their market share due to the demand for high-volume, locally tailored products
- In terms of cost structure, the market's nature has led to greater adoption of government financing models, further enhancing its cost proposition
- Multinational companies hold around 15-20% of the IFM market share and play a leading role as innovators in the industry.

CAGR (FY 18-22, FY 20 -22 and FY 22-27 Estimates)



Source: RBSA

India Formulation Market Size & Estimates (INR Bn)



Source: RBSA

Drugs & Pharmaceuticals Industry - Market Segments – Formulations (3/3)

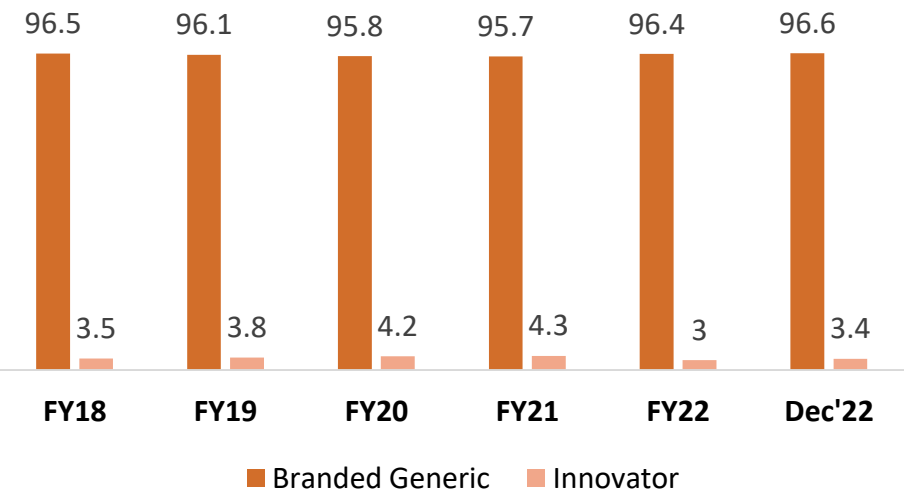
Key Drivers

- In developed markets like the US, innovator drugs have historically accounted for a significant portion of the value share, sometimes as high as 70% to 80% during the Financial Years 2017-21
- Conversely, the IFM market is largely dominated by branded generics, which represented approximately 96.0% of the market share as of December 2022
- Key factors contributing to the growth of branded generics include the increasing demand for affordable healthcare solutions and a strong pharmaceutical manufacturing infrastructure in India
- There remains a widespread belief among healthcare providers and patients that branded products are of superior quality compared to generics. This perception can hinder the adoption of branded generics, despite their equivalence in efficacy and safety
- Physicians often prefer prescribing innovator drugs due to concerns about the quality of generics, which has created a complex dynamic between branded generics and traditional generics in terms of market acceptance.

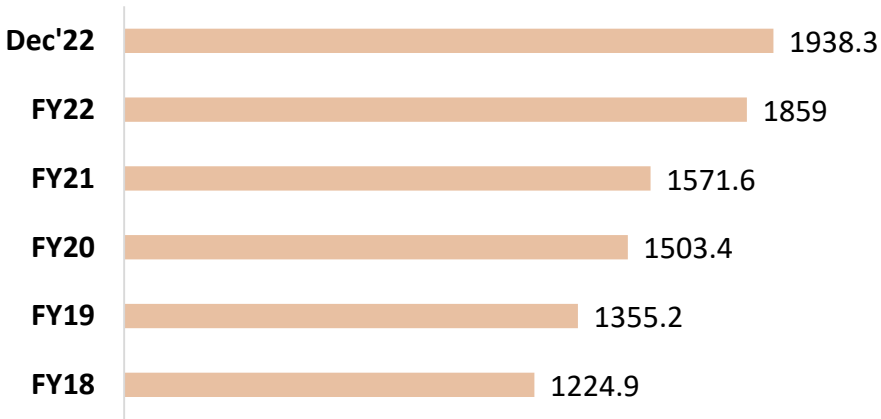
***Note: Innovator Drugs:** These are original medications that are developed through extensive research and are protected by patents. Due to the high costs associated with their development, they are typically sold at premium prices.

Branded Generics: These medications contain the same active ingredients as innovator drugs but are marketed under a different brand name without patent protection. Often produced by the same companies that manufacture innovator drugs, branded generics leverage brand recognition while offering lower prices than their original counterparts.

India Formulation Market % Share – Branded Generic vs Innovator



India Formulation Market – Total Combined Branded Generics & Innovator (INR Bn)



Drugs & Pharmaceuticals Industry – Key Trends (1/2)

Healthcare

Healthcare is becoming an increasingly important priority on the government's policy agenda, accompanied by a notable rise in healthcare budgets. Moving forward, effective collaboration with the government will play a pivotal role in shaping the sector's future. The industry must be more attuned to the needs of both the government and society than ever before. Companies will need to focus on developing and adapting Public-Private Partnership (PPP) models to engage in a growing number of government-led and public healthcare initiatives.

Regulatory

As regulators intensify their scrutiny, maintaining a strong focus on quality assurance and control has become even more crucial, particularly for companies serving developed markets. A major challenge facing the pharmaceutical industry is ensuring compliance. For long-term growth, companies must operate in a more compliant and ethical manner, with increased transparency in both their operations and customer interactions.

Approvals

Market competition is growing fiercer as regulatory approvals become faster, pushing companies to get it right the first time and strengthen their in-house scientific expertise. Additionally, with policies tightening, the cost of failure has risen significantly, making effective risk management a critical priority for companies.

Innovation

The industry's focus is transitioning from "Make in India" to "Develop in India." Moving forward, capabilities in New Product Development and Innovation will be essential for driving growth. Pharmaceutical companies must address the unique healthcare needs of India's disease profiles and prioritize the discovery of new treatment options, as research in some of these areas has not yet received the attention it deserves.

Drugs & Pharmaceuticals Industry - Key Trends (2/2)

Globalization

Globalization has been a significant trend in the industry over the past several years, with an increasing number of global leaders entering India—and vice versa. Currently, Indian pharmaceutical companies have a presence in over 200 countries, a number that is expected to grow. As globalization continues to expand, the scope and depth of market penetration will increase, with companies operating across a broader, more diverse global landscape.

Rural Market

Currently, approximately 70% of India's population lives in rural areas, yet healthcare services are disproportionately concentrated in urban regions, which account for about 70% of the provision. Looking ahead, both rural and urban markets will become increasingly important. Pharmaceutical companies will need to prioritize the development of distribution channels and infrastructure to effectively reach smaller cities and rural areas.

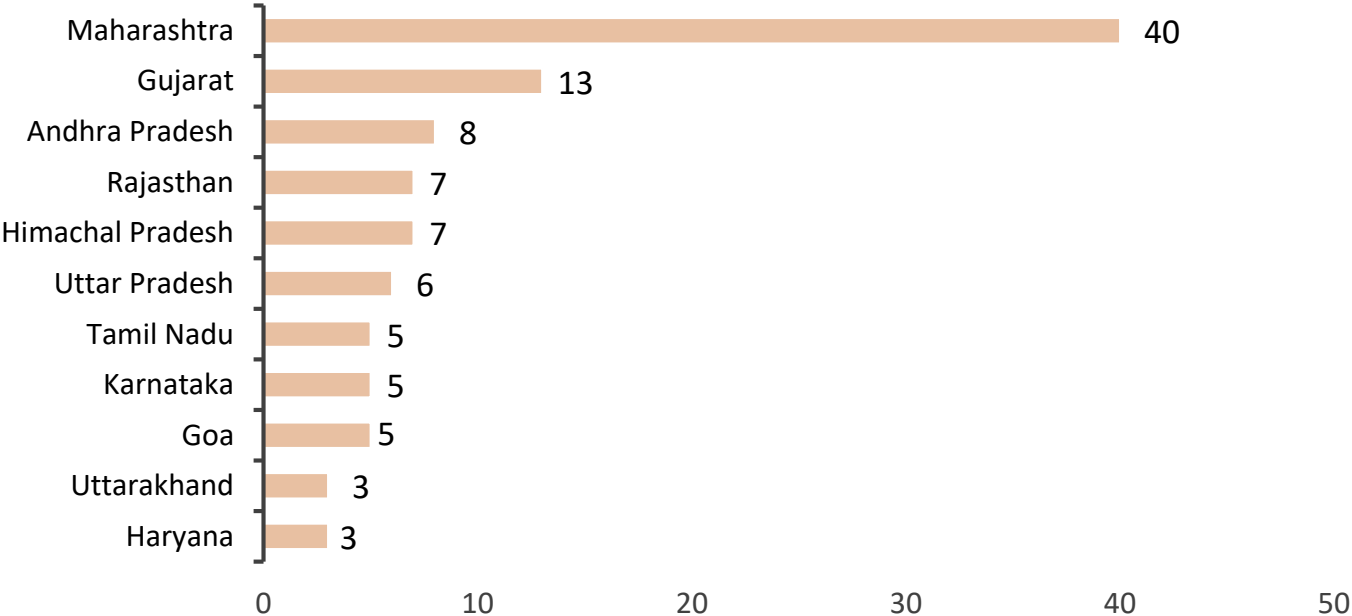
Collaboration

The industry is experiencing a convergence and integration of sectors, particularly Pharmaceuticals, Medical Devices, and Disposables. Moving forward, companies will need to adopt a more collaborative and flexible approach. Building strong connections across the broader ecosystem, including with hospitals and distributors, will be essential for sustained growth and success.

Drugs & Pharmaceuticals Industry - Clusters by Region & Production

The survey report from the Department of Pharmaceuticals in February 2023 reveals a strong network of 118 pharmaceutical clusters across 19 states and union territories. Maharashtra tops the list with the highest concentration, boasting 40 pharma clusters. Besides the above regions, Punjab, Chhattisgarh, Madhya Pradesh, Odisha, Puducherry, Sikkim, West Bengal, and Jharkhand are also home to pharmaceutical clusters.

Major Pharmaceuticals Clusters



- There are currently 7,673 pharmaceutical industries operating, with an average of 65 units per cluster.
- Significant pharmaceutical hubs include Taloja in Maharashtra and Visakhapatnam, Tirupati, and NTR-Krishna-Palnadu in Andhra Pradesh, each hosting over 400 pharmaceutical industries
- The annual domestic production from the 118 pharmaceutical clusters nationwide is estimated to be around 611,120 tonnes, while the total annual export value of pharmaceutical products from these clusters is approximately 576,140 tonnes

**Note: Data as of February 2023.*

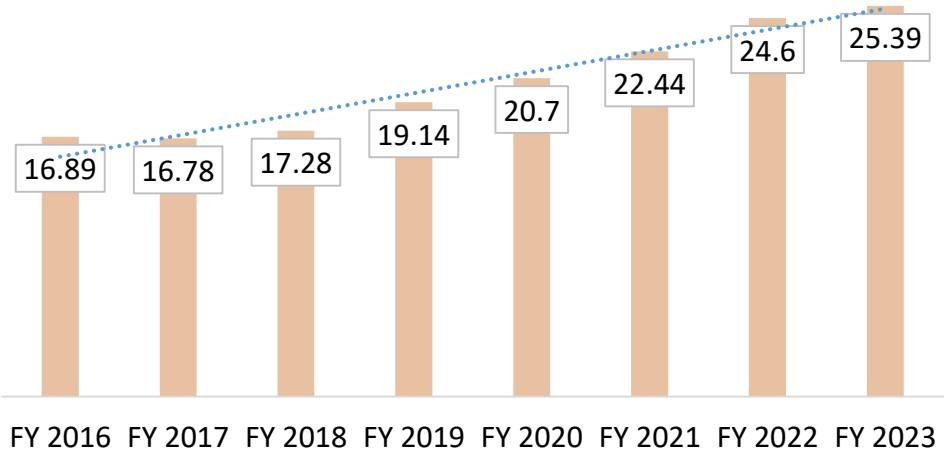
India plays a vital role in vaccine production, especially for DPT, BCG, and measles vaccines. The country accounts for 60 percent of global vaccine production, India is the largest provider of generic medicines in the world, supplying 20 percent of the global market by volume.

**Note: Data as of FY 2022 - 23.*

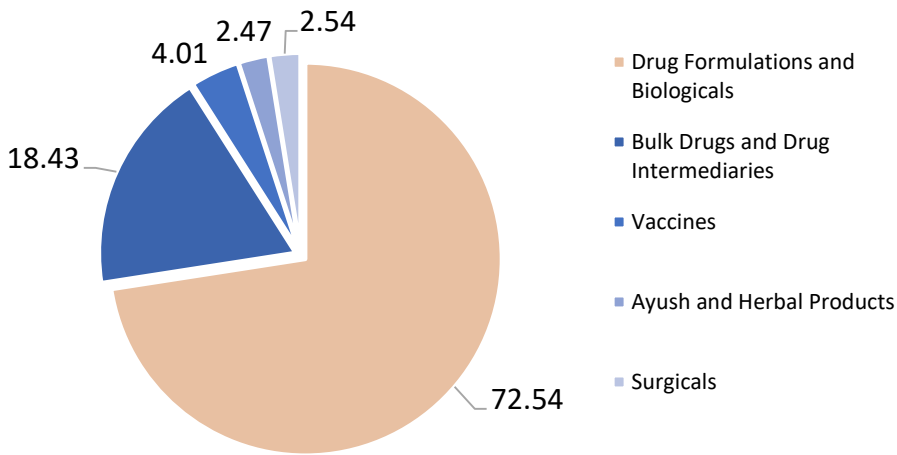
Drugs & Pharmaceuticals Industry - Export Market, Region & Category Wise Share

- Indian pharmaceuticals are exported to over 200 countries, with the United States, Belgium, South Africa, the UK, and Brazil being the top five destination markets. In the 2022-23 period, exports of Indian drugs and pharmaceuticals reached INR 2.04 trillion (approximately USD 24.51 bn), accounting for 5.71 percent of the country’s total exports
- The Indian Pharmaceutical Industry is its combination of affordability and high quality, which has earned India the title of the “Pharmacy of the World.” The industry's total annual turnover reached USD 49.78 bn in FY23, up from USD 41.68 bn in 2021-22. A significant achievement of the Indian pharmaceutical sector is its provision of affordable HIV medications. Additionally, India stands as one of the largest suppliers of low-cost vaccines globally
- India primarily exports drug formulations and biologicals, which make up approximately 75% of the country’s total pharmaceutical exports

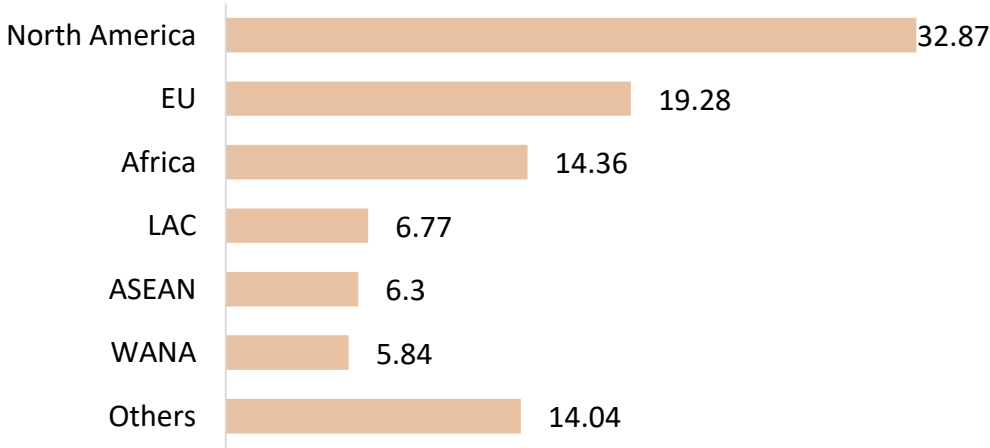
Drugs & Pharmaceuticals Exports from India (USD bn)



Category Wise Export Market Share (2022 – 2023)



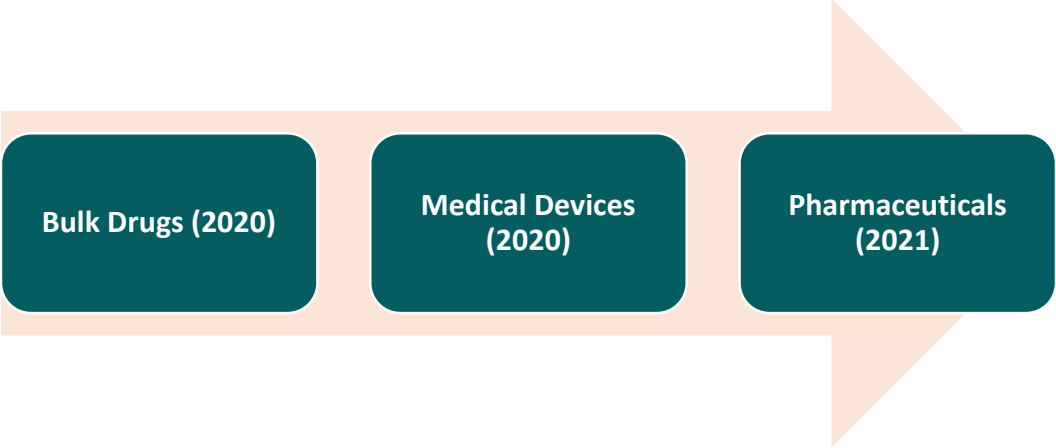
Major Export Destinations – Value of Exports %*



**Note: Value of exports data available till FY 2021
WANA = West Asian and North African Countries, LAC = Latin American Countries*

Drugs & Pharmaceuticals Industry - Government Policy Action and Investments by Category

Government Initiatives for Pharmaceutical Sector – PLI Schemes

- The Government of India had launched three Production Linked Incentive (PLI) Schemes: Bulk Drugs (2020), Medical Devices (2020), and Pharmaceuticals (2021). These initiatives are designed to promote self-reliance, boost domestic manufacturing, and attract substantial investments in the sector
- 
- The Ministry's initiative, "Strengthening of Pharmaceutical Industry (SPI)," has a total budget of Rs. 500 crore (approximately USD 60.9 million). It aims to provide essential support to existing pharmaceutical clusters and MSMEs throughout the country to enhance their productivity, quality, and sustainability
 - Additionally, the government aims to increase the number of Pradhan Mantri Bhartiya Jan Aushadhi Kendras to 10,500 by March 2025. The PMBJP product range includes 1,451 medications and 240 surgical instruments

Impact on Pharmaceutical Sector

- India has started producing 22 active pharmaceutical ingredients (APIs) or bulk drugs under the PLI Scheme. These APIs are essential for manufacturing life-saving medications and advanced medical devices, such as CT and MRI machines.
- Currently, India relies on imports for 85 percent of its APIs, primarily from China, and has an 80 percent dependency on medical device imports. Each year, India imports APIs valued at INR 350 bn (USD 4.2 bn), with China being a major supplier of these critical components for even basic drugs like painkillers
- February 2023, the Department of Pharmaceuticals (DoP) distributed the first tranche of incentives under the PLI scheme for pharmaceuticals, totaling INR 1.66 bn (USD 19.93 million) among four selected applicants. The PLI scheme for bulk drugs has a total financial allocation of INR 69.4 bn (USD 833.62 million) and aims to boost the domestic production of 41 essential bulk drugs in India

| PLI Scheme | Investment Received (As of March 2023) INR |
|-----------------|--|
| Bulk Drugs | 24.05 bn |
| Medical Devices | 8.37 bn |
| Pharmaceuticals | 186.18 bn |
| Total | 218.61 bn |

Drugs & Pharmaceuticals Industry - Budget Allocations and Government Expenditure

Government Initiatives for Pharmaceutical Sector – Budget Allocations

Union Budget 2024 - 25

- For FY25, the government has allocated Rs. 1,000 crore (USD 120 million) to promote bulk drug parks, marking a significant increase from the previous year. The overall budget for developing the pharmaceutical industry has been raised to Rs. 1,300 crore (USD 156.5 million). Additionally, funding for medical device parks has increased to Rs. 150 crore (USD 18 million). The allocation for assistance to medical device clusters for common facilities (AMD-CF) is set at Rs. 40 crore (USD 4.1 million). Furthermore, the budget for the Jan Aushadhi scheme, which aims to provide affordable generic medicines, has been boosted to Rs. 284.5 crore (USD 34 million), up from Rs. 110 crore (USD 13 million) in the revised estimates for FY24

Interim Budget 2023 - 24

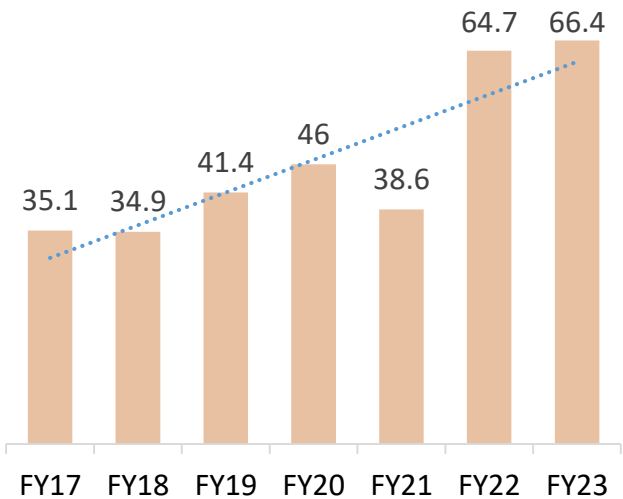
- A mission to eradicate sickle cell anaemia by 2047 launched, focusing on raising awareness and conducting comprehensive screenings for seven crore individuals aged 0 to 40 in affected tribal regions, along with providing counselling through coordinated efforts. To promote innovation in the pharmaceutical sector, a new initiative will be introduced through centres of excellence to encourage research and development. The government aims to motivate businesses to invest in R&D in select priority areas. Additionally, it has announced plans to establish 157 nursing colleges in conjunction with government medical colleges at the grassroots level

Pharma industry -Umbrella Scheme

The Department of Pharmaceuticals prepared an Umbrella Scheme namely ‘Scheme for Development of Pharma industry.’ comprises of the following sub schemes:

- Assistance to Bulk Drug Industry for Common Facilitation Centres
- Assistance to Medical Device Industry for Common Facilitation Centres
- Assistance to Pharmaceutical Industry (CDP-PS)
- Pharmaceutical Promotion and Development Scheme (PPDS)
- Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS)

Government Expenditure on Health in India (USD Bn)



Source: GOI.

Drugs & Pharmaceuticals Industry - Advantage India & Factors Contributing to the Growth (1/2)

Strong Contract Manufacturing Capabilities

- ❑ India is leading in contract manufacturing for the pharmaceutical industry and the largest vaccine producer globally, and it heavily influences other APAC manufacturing markets. Contract service agreements (CSAs) saw an upward trend between 2011 and 2019 and remained high in 2020. A major reason for this trend was the growing demand for COVID-19 vaccine production and distribution
- ❑ In Asia, India is leading by number of CSAs and is second worldwide. Serum Institute and Biological E are Indian contract manufacturing organizations with particularly high volumes of contract manufacturing agreements. As part of the Quad vaccine pact signed in March 2021
- ❑ India has the most FDA-approved manufacturing facilities in the world, as well over 2,000 WHO-Good Manufacturing Practice-approved pharmaceutical manufacturing facilities and over 250 European Directorate of Quality Medicines (EDQM)-approved plants

Government Investment In API

- ❑ Despite being a major player in API, India still relies heavily on China for imports of APIs and key starting materials. Disruptions in API importation during the pandemic exposed existing vulnerabilities in India's supply chain. In addition, the US is aiming to push for "onshore" manufacturing and move it away from Asia, mainly due to ongoing tensions with China. If successful, this could have a significant impact on the India API market, with the FDA estimating that 80% of APIs used in the US originate from India or China
- ❑ The government has been actively implementing initiatives to strengthen domestic API production. For example, in July 2020, PLI scheme (1.0) was approved by the Indian government for the promotion of domestic manufacturing and aimed to provide approximately USD 95 million to reduce India's dependence on imported APIs, drug intermediaries and key starting materials
- ❑ This PLI scheme led to approval of funding for Aurobindo Pharma, Solara Active Pharma Sciences, Rajasthan Antibiotics, and Vital Laboratories Pvt, among other manufacturers

Health Care Tech & Growth

- ❑ The health tech industry in India has undergone enormous growth in recent years. This has been driven by improved access to the internet, increased use of smartphones and health apps by consumers, new government policies, and the need to transform a neglected healthcare system burdened with many issues
- ❑ These include low government investment in healthcare, a major shortage of healthcare professionals to treat its massive population, unaffordable modern treatments compared to traditional medicine, and health inequalities for rural and low-income populations
- ❑ Like other countries, COVID-19 has had a significant impact on the health tech market in India, with the telemedicine, online diagnostics, and e-pharmacy sectors reporting massive growth

Drugs & Pharmaceuticals Industry - Advantage India & Factors Contributing to the Growth (2/2)

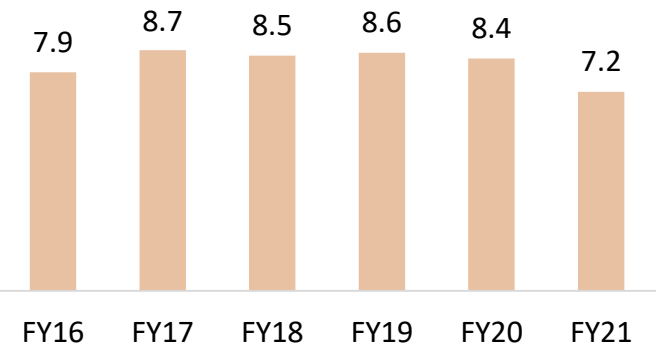
Technological Disruptions

- ❑ Technological innovations are transforming the pharmaceutical sector. Tools like Internet of Things (IoT) sensors, Radio-Frequency Identification (RFID), and Software-as-a-Service (SaaS) platforms are anticipated to improve supply chain efficiency and quality control. Track-and-trace systems, such as QR codes and barcodes, are being introduced to address the issue of counterfeit drugs. Furthermore, virtual and augmented reality tools are being utilized to train quality control professionals
- ❑ As the pharmaceutical industry progresses, it will be essential to empower pharmacists, optimize distribution networks, and leverage technology to establish a transparent supply chain."

Research & Development

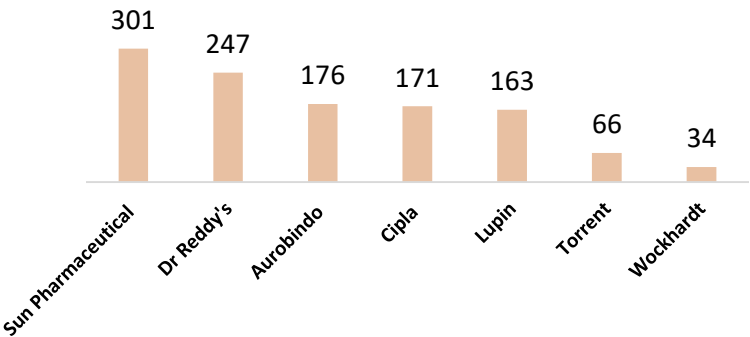
- ❑ The government has implemented various policy initiatives to enhance Research & Development in the pharmaceutical sector, including fiscal incentives for R&D units and streamlined processes for developing new drug molecules, conducting clinical research, and creating new drug delivery systems. This has led to the establishment of new R&D facilities with excellent infrastructure focused on original drug discovery
- ❑ India boasts a substantial branded generics market, allowing many companies to introduce their versions of generic drugs. R&D plays a crucial role in ensuring that these generics meet quality and cost standards
- ❑ India is increasingly recognized as a strategic partner in the drug discovery value chain. Additionally, several Indian companies are investing in their R&D centers and providing early-stage discovery services along with promising drug candidates. A significant scientific workforce in India is dedicated to developing patent non-infringing methodologies for pharmaceuticals

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



Source: HSIE Research.

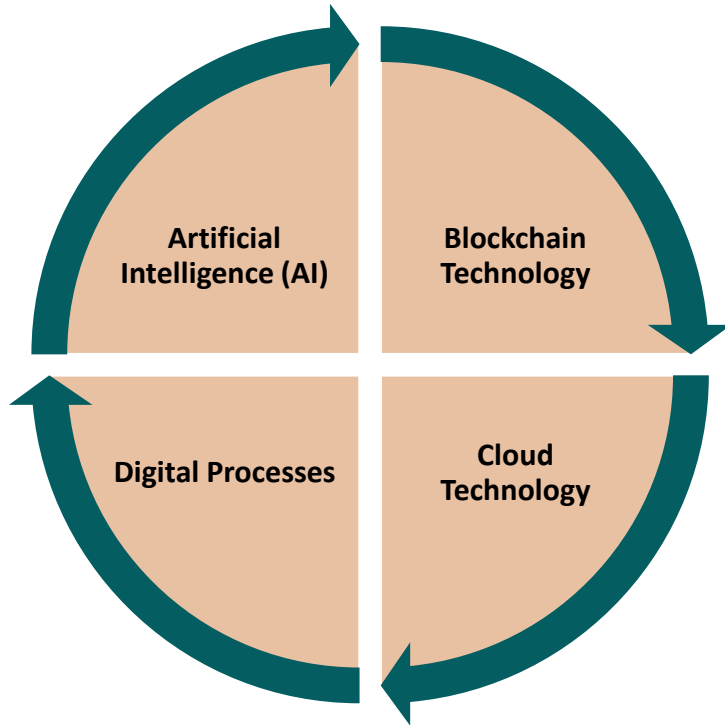
R&D Spending by Top Indian Pharma Companies - FY23 (USD Mn)



Source: RBSA.

Drugs & Pharmaceuticals Industry – Technology & Emerging Innovations (1/2)

The technology trends shaping the pharmaceutical sector include Artificial Intelligence (AI), Blockchain Technology, Cloud Technology, Digital Processes, and other Industry innovations that are driving progress and transformation within the industry.

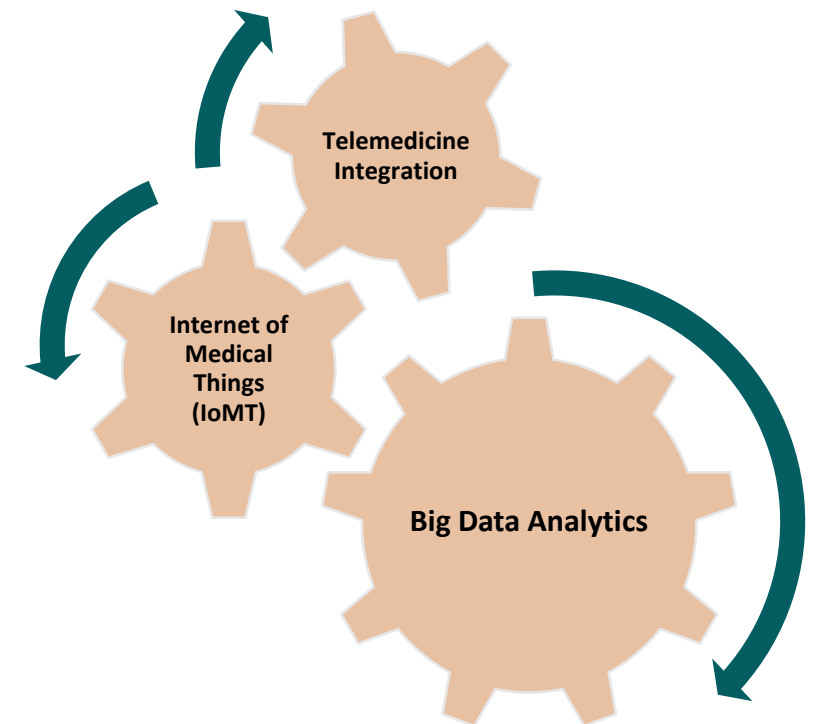


- AI and machine learning algorithms are employed in drug discovery and development to analyze large datasets, identifying promising drug candidates and optimizing their design. This approach helps to significantly reduce the time and cost involved in bringing new drugs to market
- In clinical trials, AI is utilized to enhance patient recruitment, track trial progress, and analyze outcomes, thereby improving the efficiency and success rates of trials. For example, Pfizer leverages AI to monitor safety profiles throughout their clinical studies.
- Blockchain technology improves transparency and security in the pharmaceutical supply chain, playing a key role in the fight against counterfeit drugs. It guarantees that all transactions are recorded in an immutable ledger, creating a trustworthy audit trail
- In clinical trials, blockchain is used to safeguard data integrity, ensuring that the information collected during trials remains accurate and tamper-proof, which is essential for regulatory submissions
- Cloud technology offers scalable data storage solutions that support extensive data analysis, while ensuring both security and accessibility across organizations
- Cloud platforms also enhance collaboration among research teams by providing shared access to data and analytics tools, facilitating more efficient teamwork and communication

Drugs & Pharmaceuticals Industry – Technology & Emerging Innovations (2/2)

The Indian healthcare and pharmaceutical sectors are driven by transformative initiatives like Ayushman Bharat, the National Digital Health Mission, the National Health Policy, and the Pradhan Mantri Rashtriya Swasthya Suraksha Mission, all contributing to a healthcare revolution. Pharmaceutical companies are adopting cutting-edge technologies to overhaul operations and manufacturing. In 2024 and beyond, this transformation will be characterized by innovative advancements in AI, IoMT, Telemedicine and Big data analytics, which are set to drive patient care, drug development, and operational efficiency.

- IoT devices facilitate better patient recruitment and retention by enabling real-time data collection from participants. This leads to more robust data analysis and improved communication between sites and sponsors
- Manufacturing Optimization: IoT sensors monitor production processes, ensuring compliance with regulatory standards and improving supply chain efficiency by tracking product conditions throughout distribution
- Big data analytics enables the analysis of genomic data to develop tailored treatment plans for patients, enhancing efficacy and reducing side effects
- Market Insights: Companies use big data to understand market trends and patient needs better, allowing for more strategic decision-making in drug development and marketing
- Digital therapeutics provide patients with software-driven interventions that can complement traditional drug therapies, potentially reducing reliance on medications
- Patient Engagement: These platforms enhance patient engagement by offering personalized treatment plans that can be monitored remotely



Drugs & Pharmaceuticals Industry - Recent Events & Developments (Past 2 Years) (1/3)

GCC

Sanofi announced to invest USD 435 million over the next six years to enhance its global capability center (GCC) in Hyderabad, India, by increasing the workforce and further developing the facility.

24 M&A deals

In the Indian pharmaceutical sector, 24 mergers and acquisitions were announced in the first quarter of 2024, with a combined value of USD 456.3 million.

2127 Pharma Startups

As of June 30, 2024, the Department for Promotion of Industry and Internal Trade (DPIIT) has identified a total of 140,803 entities as startups, including 2,127 from the pharmaceutical sector.

Partnership

MedGenome has taken a stake in GenX Diagnostics, a diagnostic lab chain in Odisha. This strategic partnership merges MedGenome's advanced scientific and technological expertise with GenX's leadership in diagnostics in the East, enhancing support for clinicians in Odisha.

Bulk Drug Parks

In March 2024, Union Minister for Chemicals and Fertilizers, Health and Family Welfare, Dr. Mansukh Mandaviya, launched 27 greenfield bulk drug park projects and 13 greenfield manufacturing facilities for medical devices.

Drugs & Pharmaceuticals Industry - Recent Events & Developments (Past 2 Years) (2/3)

Cipla

Cipla has obtained approval from the Central Drugs Standard Control Organization (CDSCO) to market the novel antibiotic plazomicin in India for treating complicated urinary tract infections (cUTI), which affect around 150 million patients annually.

FDI

FDI of up to 100% is permitted through the automatic route for Greenfield pharmaceutical projects. For Brownfield pharmaceutical projects, FDI is allowed up to 74% via the automatic route, with any investment beyond that requiring government approval. The cumulative FDI equity inflow in the Drugs and Pharmaceuticals industry is USD 22.52 bn during the period April 2000-March 2024.

Lupin

In November 2023, Lupin Ltd. had launched the world’s first fixed-dose triple combination drug for the management of chronic obstructive pulmonary disease (COPD).

Jan Aushadhi Kendras

Prime Minister Narendra Modi had announced the government's plans to expand the number of 'Jan Aushadhi Kendras' from 10,000 to 25,000.

Emcure Pharmaceuticals

Emcure Pharmaceuticals Limited has become the first company to introduce Orofer FCM 750, an extension of its parenteral iron brand that contains Ferric carboxymaltose (FCM). This dosage is designed to meet the needs of most Indian patients suffering from iron deficiency and iron deficiency anemia.

Drugs & Pharmaceuticals Industry - Recent Events & Developments (Past 2 Years) (3/3)

Glenmark Pharmaceuticals

Glenmark Pharmaceuticals Ltd., an innovation-focused global pharmaceutical company, is the first to introduce a unique intravenous injection formulation, Akynzeo I.V., in India for the prevention of chemotherapy-induced nausea and vomiting (CINV). This launch is part of an exclusive licensing agreement with Helsinn, a Swiss biopharma group.

BDR Pharmaceutical

BDR Pharmaceutical launched the first generic apalutamide (brand name Apatide) in India to treat both metastatic castration sensitive prostate cancer as well as non-metastatic castration resistant prostate cancer.

Drugs & Pharmaceuticals Industry - M&A & Private Equity Deals

| Date | Acquiring Company | Target Product/Company | Acquired from | Deal Value (Cr. INR) |
|----------------|-------------------|--|-------------------|----------------------|
| June 2020 | Dr Reddy's | Portfolio of 62 brands in respiratory, neurology, VMS, dermatology, gastro, pain and vaccines | Wockhardt | 1,850 |
| January 2022 | JB Chemical | Probiotics, nutra & reproductive brands | Sanzyme | 628 |
| Febuary 2022 | Dr Reddy's | Distribution of Voveran, calcium range, Methergine | Novartis | Not Disclosed |
| April 2022 | Dr Reddy's | Cidmus (cardio - heart failure) | Novartis | 450 |
| May 2022 | Eris | Oaknet Healthcare | Oaknet | 650 |
| September 2023 | Torrent | Curatio Healthcare | Curatio | 1,885 |
| August 2023 | Lupin | Anti-diabetes brands - Ondero, Ondero - Met | Boehringer | 235 |
| December 2023 | JB Chemicals | Novartis's opthal brands (3 years in license then acquisition in Jan'27, Rs 9.6 bn payable by Dec'26) | Novartis | 1,085 |
| Febuary 2024 | Eris Life | Acquired 51% stake in Swiss Parenterals Limited; An additional 19% stake in Swiss will be acquired at closing by the Eris Promoter Group for INR 2,375 mn –hence collectively 70% equity stake to be acquired by Eris and its Promoter Group | Swiss Parenterals | 637 |

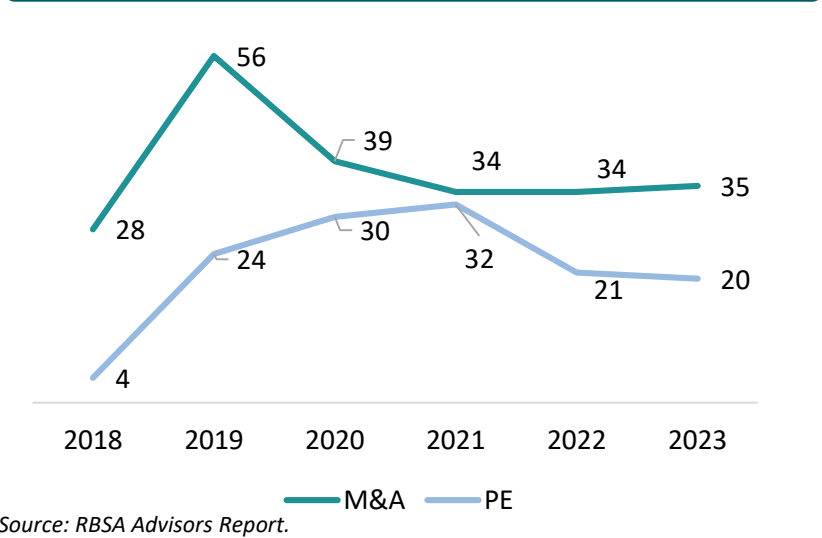
Sources: HSIE Research, IQVIA.

Mergers and acquisitions and private equity activity in India's pharmaceutical sector have seen good traction in the last few years, driven by a number of factors, including:

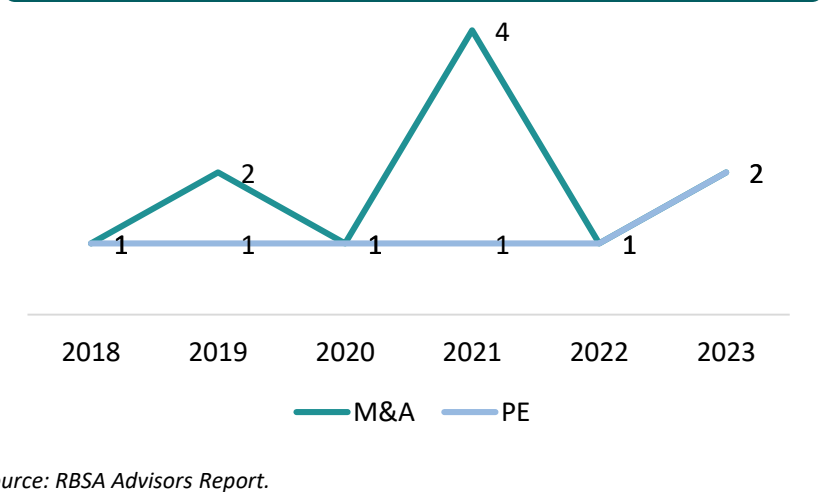
- **Growing demand for healthcare** - Factors like an aging population, higher disposable income, and increased health awareness are driving demand for quality healthcare services
- **Government support** - India's favorable government initiatives and the resilience of the industry attract investors
- **Manufacturing capabilities** - India's manufacturing capabilities are a factor in the sector's investment potential

Sources: Venture Intelligence, IQVIA.

Formulations Sector – Deals (Pharmaceutical Sector)



API Sector – Deals (Pharmaceutical Sector)



Drugs & Pharmaceuticals Industry - Top Industry Players

| S. No. | Company | Net Sales (Rs. Crore)* | Net Profit (Rs. Crore)* | EPS* | Debt Equity Ratio* |
|--------|------------------------------------|------------------------|-------------------------|--------|--------------------|
| 1 | Sun Pharmaceutical Inds. Ltd. | 28,905 | 5,578 | 39.90 | 0.04 |
| 2 | Serum Institute Of India Pvt. Ltd. | 10,190 | 4,187 | - | 0.02 |
| 3 | Cipla Ltd. | 26,521 | 4,122 | 51.05 | 0.01 |
| 4 | Aurobindo Pharma Ltd. | 29,559 | 3,173 | 54.16 | 0.21 |
| 5 | Dr. Reddy's Laboratories Ltd. | 28,905 | 5,578 | 335.22 | 0.06 |
| 6 | Sun Pharma Laboratories Ltd. | 10,264 | -1,351 | - | 0.01 |
| 7 | Glenmark Pharmaceuticals Ltd. | 12,653 | -1,502 | -53.22 | 0.13 |
| 8 | Lupin Ltd. | 20,131 | 1,914 | 42.05 | 0.00 |
| 9 | Mylan Laboratories Ltd. | 10,713 | 480 | - | 0.66 |
| 10 | Intas Pharmaceuticals Ltd. | 11,885 | 1,953 | - | 0.00 |

**Note: Data as of FY 2024.
Except Data for Serum, Mylan, Intas, Sun Laboratories as of FY 2023.*

Source: CMIE, Company Reports, Economic Times.

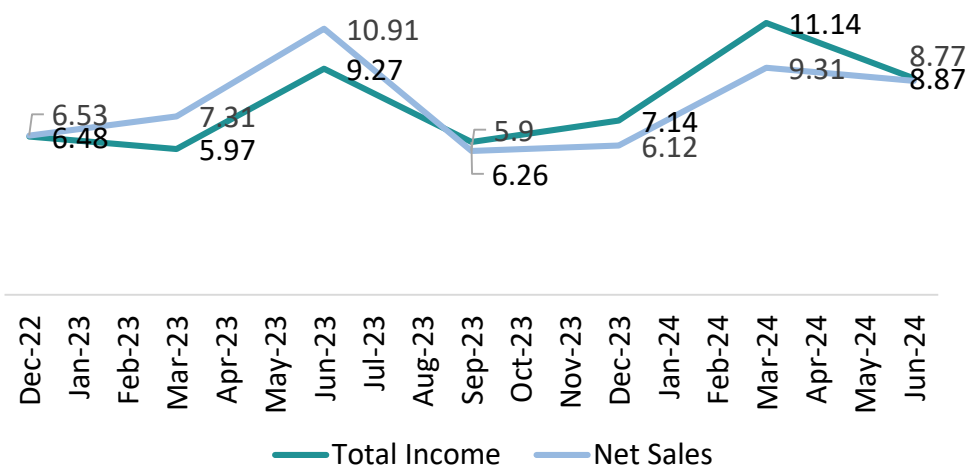
Drugs & Pharmaceuticals Industry - Key Financial Ratios (Industry)

| S. No. | Ratios | Unit | 2018 - 19 | 2019 - 20 | 2020 - 21 | 2021 - 22 | 2022 - 23 |
|--------|------------------------------------|-------------|------------|------------|------------|------------|------------|
| 1 | Debt to equity ratio | Times | 0.27 | 0.23 | 0.2 | 0.17 | 0.19 |
| 2 | Interest Coverage ratio | Times | 9.78 | 11.22 | 15.12 | 15.21 | 12.44 |
| 3 | Debt service coverage ratio (DSCR) | Times | 1.02 | 1.18 | 1.55 | 1.6 | 1.6 |
| 4 | Net Working Capital | Rs. Million | 410,800.40 | 460,047.00 | 613,572.50 | 685,278.70 | 780,392.50 |
| 5 | Current Ratio | Times | 1.57 | 1.64 | 1.8 | 1.8 | 1.9 |
| 6 | PBDITA as % of total income | % | 21.16 | 23.97 | 27.91 | 28.35 | 21.03 |
| 7 | PAT as a % of total income | % | 8.49 | 11.43 | 15.74 | 16.21 | 10.06 |
| 8 | Debtors turnover | Times | 3.46 | 3.49 | 3.69 | 3.95 | 3.92 |
| 9 | Creditors turnover | Times | 3.17 | 3.25 | 3.28 | 3.45 | 3.36 |
| 10 | PAT as a % of capital employed | % | 7.15 | 9.75 | 14.49 | 16.03 | 8.53 |

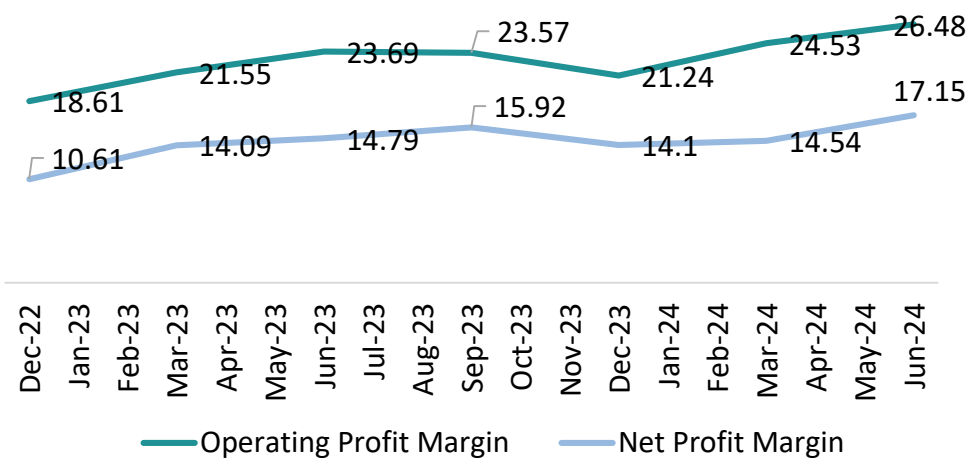
Source: CMIE.

Drugs & Pharmaceuticals Industry - Key Financials Yearly Trends (Industry)

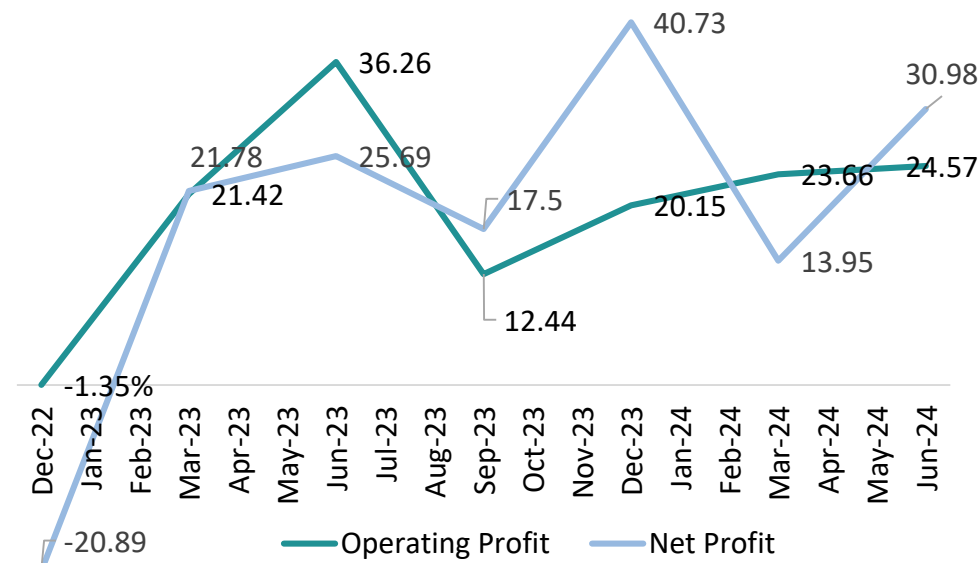
Total Income & Sales - Y-o-Y % Change (Industry)



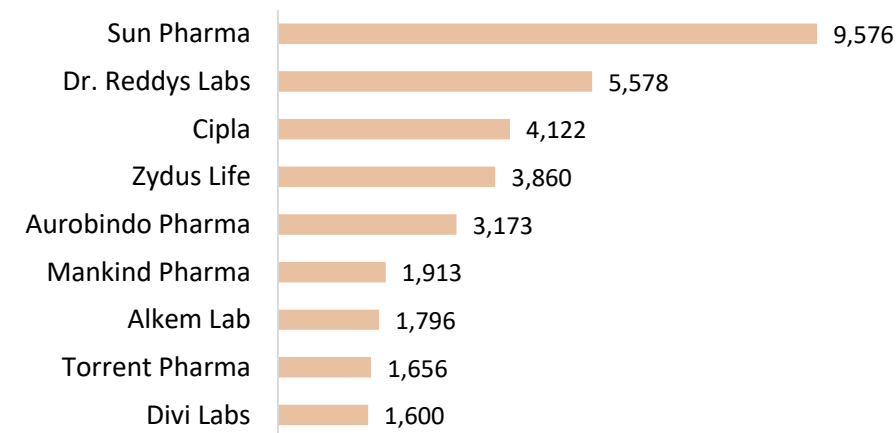
Operating Profit Margin & Net Profit Margin - Y-o-Y % Change (Industry)



Operating Profit & Net Profit- Y-o-Y % Change (Industry)



Top Pharmaceutical Companies 2024 - Net Profit (Rs. Crore)



Sources: Company Reports, CMIE, Economic Times.

Drugs & Pharmaceuticals Industry - Risks & Challenges

Counterfeit Drugs

- Counterfeit drugs significantly impact sales for legitimate pharmaceutical companies. According to the World Health Organization, the global pharmaceutical industry suffers an estimated annual loss of about USD 431 bn due to counterfeiting
- In India, counterfeit products account for roughly 20% of the market, resulting in considerable revenue losses for authentic manufacturers
- The widespread issue of counterfeit medications not only threatens public health but also undermines the reputation of legitimate companies. Addressing this risk requires effective anti-counterfeiting strategies and technologies, such as blockchain, for tracking and verification

Financial Risks

- Companies need to invest significantly in anti-counterfeit measures, including technologies for detection and prevention, which can divert funds away from research and development
- This financial strain can hinder innovation and the creation of new drugs, ultimately impacting long-term profitability

Market Positioning

- The existence of counterfeit drugs erodes consumer trust in pharmaceutical brands. When patients are given ineffective or harmful medications, not does it only put their health at risk but also damages the reputations of the companies involved. Rebuilding this trust can take years and often necessitates substantial marketing efforts and investment
- As India seeks to establish itself as the "Pharmacy of the World," instances of counterfeiting can harm its global standing. This reputational risk may deter international partnerships and investments, further affecting profitability

Regulatory and Legal Risks

- The pharmaceutical industry functions within a highly regulated landscape, governed by various regulatory bodies globally. Adhering to evolving regulations is essential for maintaining a pharmaceutical company's reputation and avoiding legal repercussions. Non-compliance can lead to significant fines, prosecution, and even imprisonment of individuals
- Regulatory agencies around the world are continuously updating their guidelines to address emerging threats. Staying informed about these changes and utilizing technology will be vital for companies aiming to protect their products and reputations. Security teams require a comprehensive solution that encompasses security, brand protection, and regulatory compliance to meet these new requirements

Supply Chain Challenges

- The industry is significantly exposed to operational risks, including supply chain disruptions. Issues such as shortages of key medications and fluctuating drug prices due to policy instability also contribute to this risk category

Drugs & Pharmaceuticals Industry - Outlook

Indian Drugs & Pharmaceuticals is expected to achieve CAGR of 10% to 12% over the next few years.

India's pharmaceutical sector is expected to experience compound annual sales growth of 10% to 12% over the next few years, driven by increased volumes and the introduction of new products. Leading companies are set to outpace the India Pharma Market (IPM) by employing strategies such as mergers and acquisitions, expanding their sales teams, and launching new products.

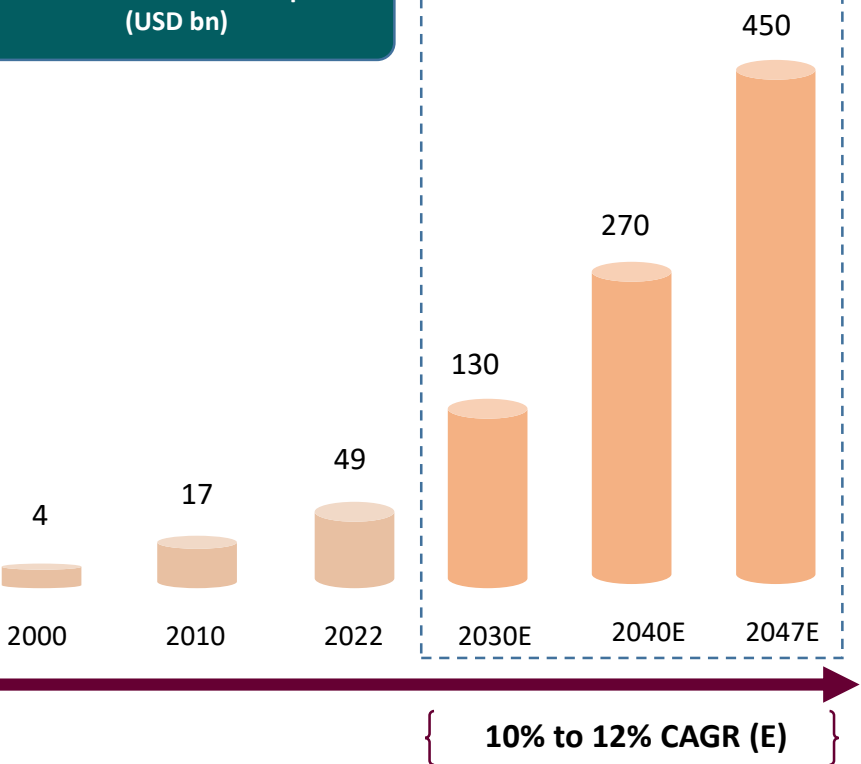
As companies advance into next-generation therapeutics, India's pharmaceutical industry is expected to grow to USD 130 bn by 2030 and exceed USD 450 bn by 2047.

The primary segments driving the growth of India's pharmaceutical sector will be patented drugs, branded generics, and trade generics. Although patented drugs currently account for a smaller share of the market, they are expected to expand to Rs 15,500 crore by 2030. Branded generics, which make up 87% of the market, were valued at Rs 2.1 trillion in 2023 and are anticipated to grow to Rs 3.71 trillion by 2030.

The trade generics segment, which aims to serve underserved populations through initiatives like Jan Aushadhi stores, is projected to grow from 0.5% to 1.1% of the market by 2030. The distribution sector is also advancing, with an increase in organized stockists improving the efficiency of drug delivery.

According to estimates, the total value of domestic sales and exports is anticipated to reach USD 130 bn by 2030 and USD 450 bn by 2047.

Total Value of Sales & Exports
(USD bn)



* Views are personal

Authors

Manasvi Joshi, Research Analyst
Girish Basantani, Senior Research Analyst
Abhishek Das, Senior Research Analyst
Vikrant Chaturvedi, Senior Manager – Research

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