

Indian Pharmaceutical Industry

Overview and Way Forward

August 2023

वसुंघेव कुटुम्बकम्

ONE EARTH • ONE FAMILY • ONE FUTURE



Indian Pharma: Global Manufacturing Powerhouse

Global Trade



20%

of total global exports of generic drugs



3rd largest

Volume Terms



14th largest

Value Terms

Economic Outcomes



2.7 Mn

Jobs created directly and indirectly



USD 17.5 Bn

Annual trade surplus; One of the top 5 sectors reducing trade deficit



USD 50 Bn

Total market size in 2021-22



India has played a significant role in global healthcare



36%



95%



100%

Lower per person disease burden in India (DALY, 1990-2016)³

Lower treatment costs of life-threatening diseases (Hep-C, Leukemia)¹

Eradication of Polio by collaboration between all stakeholders²



60%



37%



1 of 3

Global vaccine demand Supplied by India⁵ With access to affordable AIDS treatment in Africa in 2009 through ARVs V/s 2% in 2003⁶

Pills taken in the US are by Indian manufacturers⁴

¹ Access to Costly New Hepatitis C Drugs: Medicine, Money, and Advocacy, Oxford Journals, Vol 61, Issue 12; Changing the cost of care for chronic myeloid leukaemia, PMC, October 2015; 2 Press Information Bureau, WHO; 3 Measured as Disability Adjusted Life Years (DALYs) after adjusting or changes in population age structure; ICMR, Public Health Foundation and Institute of Health Metrics and Evaluation; 4 IQVIA 2019; 5 Press Information Bureau; IDMA report.

6 African Business Magazine 2012;

⁷ Export Import Data Bank, Department a Commerce, PHARMEXCIL, IDMATER of ton "Journey towards Pharma 2020 & beyond"

an life sciences: Vision 2030, FICC June 20,5, Growth estimated by IHS Market;

The pharma industry has evolved over a period of time



Pre-1970s

1970 - 2005

2005 - 2020

2020 onwards

Prior to process patent regime

 Limited penetration; market dominated by innovators

Post impln. of process patent

- Decades of strong growth and penetration, driven by low cost process reengineering and manufacturing
- Balance tilted towards local players
- Export initiatives taken

Post reform & product patent

- Gradual rerating of growth from 8-9% to 13-15% levels
- Driven by growth in affordability and some progress in access
- Liberalized market
 -Indian companies
 going beyond India

The next decade

- Innovation and Quality
- Building API Self-reliance
- Ease of Doing Business
- Significant build-up in accessibility and acceptability
- Global strategic alliance

COVID-19: Most unprecedented humanitarian crisis



- Indian Pharmaceutical industry showed resilience, supplied quality-assured medicines to over
 150 countries
- ☐ The Industry, Government and Regulators worked together and constantly adapted to meet the challenging environment: Collaboration among all stakeholders across the world
- Biggest vaccination program in the world -

44.9 Million

Total Cases in India

0.53 Million

Total Deaths in India

2.2 Billion

Total Vaccination in India

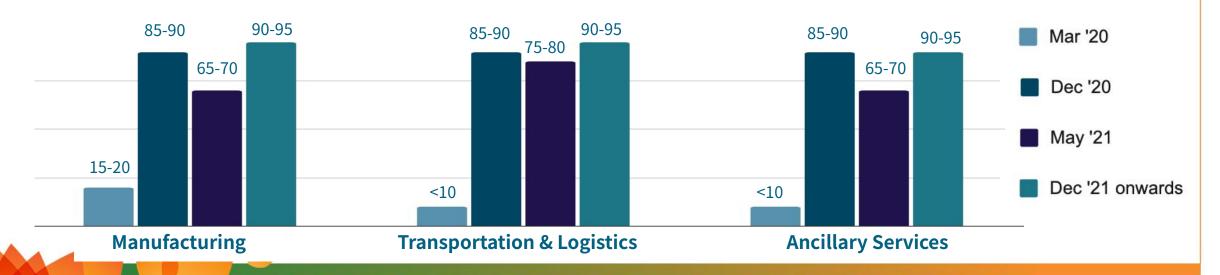
Note: Data as on 12 August 2023



India ensured an uninterrupted supply of medicines



- □ Industry stepped up to the plate to meet the challenges posed by COVID-19 with **thrust on digitalisation**and collaboration
- High-level of engagement with the Government of India: Pharmaceuticals recognized as Essential Goods;
 Permissions granted for ensuring continuity of Transport and Logistics
- ☐ Coordination with industry associations in India and with WHO, IGBA, AAM and others







Successful implementation of safety protocols across the industry has limited the spread of COVID-19



Integrated efforts to upgrade and share the best practices





In context of the recent coronavirus outbreak

February 2020

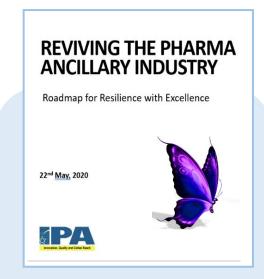


White paper on Reviving the domestic API Industry

Policy initiatives for self-reliance on API



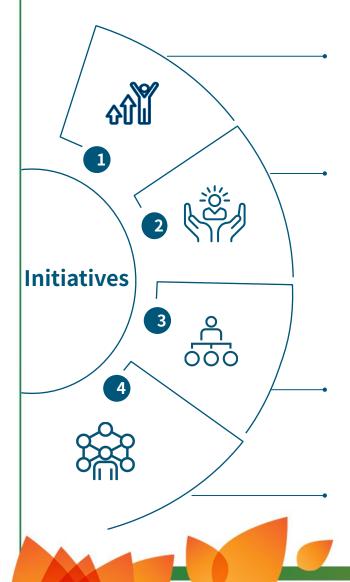
- A benchmark for digital infrastructure for world's largest vaccination drive
- E-governance for faster approvals of drugs, vaccines



White paper on Reviving the Pharma Ancillary Industry

Key initiatives by the Government of India





Policy to boost manufacturing of APIs/KSMs and thrust on value-added formulations

R&D Policy to enable an **innovation ecosystem** in the country:

- Industry-Academia Collaboration
- Regulatory Reforms
- Building Infrastructure
- Funding Mechanism in progress

High-level Regulatory Committee Setup for regulatory reforms and **ease of doing business**

National Digital Health Mission announced for building a digital health ecosystem

The global healthcare ecosystem is undergoing a paradigm shift





Shift in disease burden: from acute to chronic and in future degenerative diseases



Technology Advancement: Convergence and emergence of newer innovative research platforms across drugs, devices, delivery



Volatility in the environment because of the changing geopolitical landscape; Uncertainty in pricing



Consumerization of holistic health: physical, mental and spiritual well being



Environmental, Social and Governance (ESG) Agenda

Opportunity in India: Robust healthcare ecosystem



- □ Demographic, Digital and Democratic Advantage
 - Demographic advantage with largest working population (65% of India's population less than 35 years) to continue for next 30 years
- STEM Talent graduating every year: 110,000+ doctors (Current 1.4M + Doctors); 400,000+ pharmacy (Current 1.7M+ Pharmacists); 15,00,000+ engineers
- ☐ Conducive Policies: Regulatory Reforms with focus on quality, Self reliance in API, Thrust of R&D through incentivizing innovation and industry-academia collaboration
- ☐ Service Delivery: CDMO, Clinical Trials and IT Services
- ☐ Global Lighthouse Network: Cipla and Dr Reddy's plants declared by World Economic Forum

Way Forward: Building resilient & sustainable global supply chains

- Creating a global cooperative framework among nations with investments in critical areas, technology exchange and procurement commitment:
 - o **Health emergency prevention, preparedness and response** with a focus on antimicrobial resistance and the One Health framework
 - o **Strengthening cooperation in the pharmaceutical sector** with a focus on access and availability to safe, effective, quality and affordable medical countermeasures (VTDs)
 - o **Digital health innovations and solutions** to aid universal health coverage and improve healthcare service delivery

Way Forward: Building resilient & sustainable global supply chains

- Augmenting digital infra: Tech-enabled platforms for disease profiling and better flow of goods and services etc
- ☐ Developing Government-2-Government information-sharing and crisis-response mechanisms: Address supply chain vulnerabilities
- Strengthening **supply chain & logistics infras**: Integrating land, air, waterway, the maritime and port facilities
- ☐ Establishing **transparency in the supply chain**: Balance between corporate risks and ESG agenda



Thank you