Healthcare Accelerated



OPPI

54th Annual Report 2020

Content

It may have something to do with home schooling three children, but Lakshmi is suffering more frequently from headaches at the moment, and relies on paracetamol to help her through.

Now, as an integrated pharma supply company, ACG may not actually make the medication Lakshmi uses. But we do provide the capsules her medication is packed into, the blister packs used to protect them, and equipment used to pack and track them – ensuring they always arrive safely in her hands.

The benefits of using an integrated supplier go beyond things simply working better together. It also means having a single source of supply. So, while you help Lakshmi cope with her headaches, you should experience far fewer too.

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Sharad Tyagi
President, OPPI

Reimagining India's Healthcare in the Next Decade

The significant impact of the pandemic challenged the healthcare industry from all directions but it also threw up an understanding of the opportunities that exist in the country to progress as a nation and build a resilient healthcare system for its people and their well-being. Addressing access, expanding healthcare infrastructure, digital health innovation, need for innovation and collaboration and healthcare financing emerged as a few critical areas.

The Centre is committed to increase India's public financing for health to 2.5 percent by 2025. It is estimated that the States, too, need to ramp up healthcare spending to at least 8 percent of their budgets. While Ayushman Bharat has been a breakthrough innovation in universal healthcare in India there is still a clear need to do more. We need Ayushman Bharat 2.0 and 3.0 which will expand the depth and width of healthcare financing and insurance and bring outcome linked payments for payers that will create innovative solutions.

The much-needed emphasis of increased investments and ramp-up of health and wellness centers will play a crucial role in disease management and preventive care while ensuring improved healthcare access to all.

Powering digital health innovation

A 2019 McKinsey Global Institute report, 'Digital India: Technology to transform a connected nation', stated that India could save almost $10 billion by 2025 if 30–40% of in-person consultations were replaced by telemedicine. Even as this happens, concerns are being raised about the security of online data. Within the coming decade, it is expected that 50 billion devices will transmit data to healthcare providers, patients and other stakeholders.

Despite a few challenges, digital technology can be a game-changer in healthcare. Moreover, digitization and automation can create new opportunities for integrating and safeguarding patients' health and overall well-being. By benefiting doctors running their practice as well as small and large healthcare networks, digitization and data analytics can help in delivering quality care via supply chain and human resource management as well as proper financial planning.

Success stories of the early adopters are inspiring for others to embrace digital for its varied benefits. The COVID-19 lockdown has highlighted the multiple benefits of digital platforms, such as safety, accessibility, ease and convenience, even when people remain confined to their homes. As a result, the time for India's Digital Health Mission may have arrived.

Driving innovation and collaboration

The crisis has led for the emergence of a new normal for the pharma industry all around the world and it will certainly result into a lot of innovation, not just in the development of drugs or vaccines but in the way the industry interacts with its stakeholders whether it is governments or patients or doctors, there will be a lot of innovation and of course digital is going to be a part of it. The other change that will happen is that the industries will collaborate much more and this will be within the industry, companies collaborating with each other and as well as with the government and stakeholders. The focus and realization has dawned on the industry that innovation and collaboration is the key, as a result of this crisis.

From the outset of the pandemic, in line with OPPI's patient-first approach, we started working with the Government of India to address COVID-19. I am greatly appreciative of the Prime Minister's efforts in managing the current COVID-19 situation in a comprehensive manner. Also, the swift and responsive action of the representatives from DoP, MoHFW, PMO, MoC&F and other relevant departments in resolving industry issues ensured medicines are available to the patients who need them the most

OPPI member companies reviewed their drug and vaccine portfolios to see if there is any research that could be of help. Analysis of drugs and vaccines portfolios involved scientists searching for potentially useful assets that could help with the development of new or repurposed treatments or vaccines to fight against the novel coronavirus. The member companies remained committed to ensuring continuity in the pharmaceutical supply chain through continuous and focused engagement with critical stakeholders.

I am of the opinion that the research-based pharmaceutical industry clearly has a role to play in developing new and improved medicines and vaccines to help respond to this pandemic and we are working together to achieve this common goal.

I believe that earlier healthcare didn't figure in as the primary focus in the ways of measuring success and that will change now. While we focused on the traditional ways of measuring success, economy, well-being, healthcare will be a new introduction. People will start realizing that no country can have a true sense of well-being and happiness unless its citizens remain healthy. The pharma industry will play a key role here, in helping to shape the right policies with the governments, partnering with them as well as ensuring that the right kind of products and solutions are found so that people can all be healthy and be better prepared for any such crisis that might come up in future.

Sharad Tyagi
President, OPPI
12th February 2021
Mumbai

KG Ananthakrishnan
Director General, OPPI

Refreshing Research

Over the years, India has carved a pivotal position in the global pharmaceuticals market, renowned as the Pharmacy of the World. From being the world's largest provider of generic medicines to providing 62% of vaccine supplies globally, India is steadily progressing towards emerging as an innovation hub.

As per the Global Innovation Index 2019, India ranks No.52 as the most innovative country worldwide. To an extent, this proves we have the capability, capacity and talent pool required to become a powerhouse of innovation. Additionally, the government's forward-looking initiatives such as the Rs 50,000 crore National Research Foundation (NRF) planned to fund research across science and technology, among others, would help tremendously in nurturing innovation.

For India to evolve as an epicentre of biopharmaceuticals research, however, it's imperative to focus on nurturing high-risk innovation; strengthening government-industry-academia partnerships; as well as providing opportunities for investments in high-risk innovations.

India already has a thriving ecosystem in the pharmaceutical sector with drug manufacturing, clinical research operations, medical data analytics, and a large talent pool of technicians, scientists and researchers. The missing pieces in the jingle, however, are many. It includes segments of Drug intermediary and API, research-based molecule discovery, biosimilar efforts, a healthy patent regime and so on. Strong focus and reforms are necessary to encourage innovation in these areas that matches global standards.

The COVID-19 pandemic has galvanised the pharma sector globally to rethink and redesign its strategies while collaborating with industry players, academic institutions, government and other relevant stakeholders, making it the most opportune time to for India to take relevant steps to emerge as one of the largest pharmaceutical innovation hubs.

Roadmap to innovative transformation

According to the EY-FICCI *Indian Pharmaceutical Industry 2021: Future is now* report, the time is ripe for India's pharma industry to consolidate its advantages and undertake fundamental reforms for promoting innovation-led industrial growth. This will help it touch US$130 billion by 2030 from US$41.7 billion in 2020 – denoting a CAGR of around 12%.

Well-funded, government-backed hubs with a well-defined policy, including IP protection and innovation-driven private enterprises, will go a long way in creating centres of excellence. The secret sauce of recognition and reward will be crucial to attract the finest minds in India and abroad to be part of this enabling environment.

Moreover, India needs an ecosystem built on the foundations of its distinctive capabilities in key areas of the value chain, such as manufacturing, product development and process innovation. The EY-FICCI *Indian Pharmaceutical Industry 2021* report notes that less than 0.5% of Indian students pursue a PhD or equivalent degree of education. Till 2018-19, only 35% of higher academic institutions in India offered postgraduate programs and barely 2.5% had PhD programs. India also trails other countries in the number of researchers. Going by a recent Brookings India report, the country has only 216.2 researchers per million population versus 1,200 in China, 4,300 in the US and 7,100 in South Korea.

India is world's third-largest drug manufacturer in volumes and ranks No.14 in value terms. Consequently, the nation needs to move up the value chain by focussing on the opportunities in speciality pharma, complex generics, biosimilars and novel biological vaccines, drugs and preventives, including other spheres of unmet needs.

Undoubtedly, both public and private entities in the Indian pharma space need to invest in developing an innovation-oriented mindset and the allied skills augmentation, infrastructure and ethos to transform the nation into the world's leading pharmaceutical innovation hub.

All this calls for steadfast commitment towards the research and development of diagnostics, novel medicines and vaccines that permit patients to live fuller, healthier and happier lives.

There are multiple prerequisites in achieving the overarching objective of greater innovation in R&D. These include setting reasonable expectations initially while promoting frequent conversations within the ecosystem and providing competent training to facilitate the trust needed to achieve the vision of India emerging as a preferred destination for pharmaceutical innovation.

The role of innovation is to make one think of the future and help fill in the gaps. Being future-ready is all about innovation and advancing the development of new treatments and novel cures to address unmet medical needs.

It will call for immense experimentation, as well as some failures, which are merely stepping stones to eventual achievements.

Let's wish to have this journey started in no time.

KG Ananthakrishnan
Director General, OPPI
12th February 2021
Mumbai

IQVIA

India Pharma Market

Growth Prospects

FOREWORD

Amit Mookim
Managing Director, IQVIA South Asia

The COVID-19 pandemic has posed unprecedented challenges in predicting market trends in our industry. It had an adverse impact on drug sales during the lockdown, given supply chain disruptions and a steep decline in practicing HCPs. However, since the lockdown was relaxed in June, the market has seen a sharp recovery in terms of sales growth and therefore, coming back to the original growth trajectory of ~9% growth year on year. There remains a significant uncertainty about the evolution of the COVID-19 pandemic and its impact on pharmaceutical market forecasts. While there appears to be headwinds and uncertainties related to the pandemic, return to work and vaccination, here I want to focus on three key themes which will guide the path for the Indian pharmaceutical sector as it evolves in the near to mid-term.

First, the Indian government will continue to invest in better healthcare access. The flagship program PMJAY, has expanded significantly with over ~17 Mn admissions and 24K+ hospitals empaneled, while also focusing on improving access to government healthcare facilities e.g., consolidation among Railways and ESIC healthcare schemes. In a bid to strengthen the primary healthcare system and address gaps, Budget 2021 allocated funds to health spend through Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs).

Second, a "digital-first" way of seeking healthcare will ensure better access. E-pharmacies and telemedicine players saw strong growth during the COVID-19 period, now reaching 15% share in some metro cities. The Government too launched the National Digital Health Mission on 15th August 2020, and while the impact of the same may be longer term, we do expect the industry to shift in terms of building a digitally-enabled ecosystem of providers, pharmacies, HCPs and life sciences/medtech organizations. Access and financing will gain further importance as we move forward into 2021 and beyond

Third, the ongoing development and rollout of COVID-19 vaccines in India will ensure that benefits of the industry's painstaking efforts over the past few decades are realized and showcase examples of successful multinational and Indian collaboration. Multiple companies have entered into partnerships for R&D and manufacturing, ensuring reduction in global healthcare costs associated with COVID-19 and cementing India's positioning as the "pharmacy of the world". And India's own vaccine rollout, which is one of the most expansive rollouts ever and will help the recovery process, can ensure limited disruptions to the economy.

We hope you find this report to be both informative and interesting and provides a glimpse into opportunities that exist in this dynamic market.

TABLE OF CONTENTS

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INDIA PHARMA MARKET OVERVIEW

What is the context in which the Indian pharma market operates?

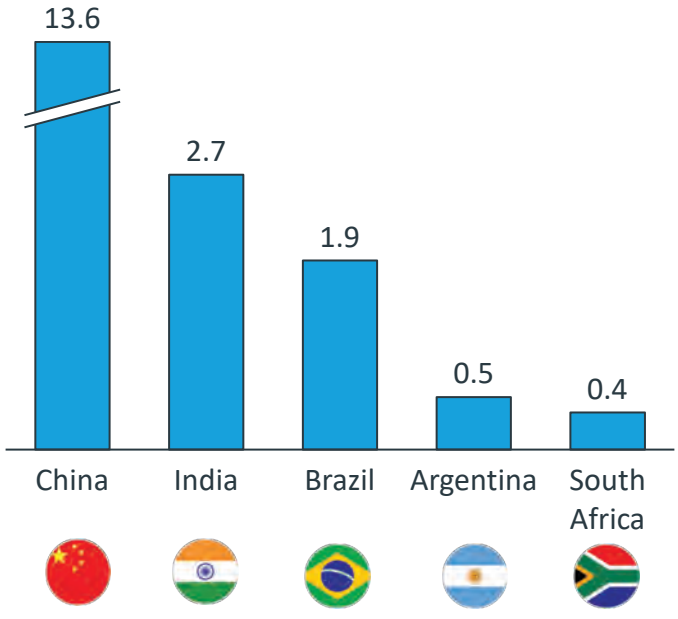
- Indian **economy is growing and** is **expected to maintain its trajectory**
- India is the **largest exporter of pharmaceutical medicines** and has a **vibrant domestic pharma market**
- The market is **focused on generic exports**, and is locally **dominated by branded generics; has seen increasing uptake of biosimilars as well**
- Market is **slowly consolidating** distribution and retail, with increasing **relevance of e-pharmacies** and **increasing regulation** in pharma promotions
- **Healthcare delivery is a challenge** given the self-pay nature of the market and is dominated by private care providers
- The **government is taking key initiatives** such as **Ayushman Bharat** for provision of care and has also enabled access to medicines through government owned stores

INDIAN ECONOMY

- India is a USD ~3 trillion dollar economy (See Fig. 1) with attractive growth prospects which has seen rapid strides in Ease of Doing Business (See Fig. 2) and all time high FDI investments

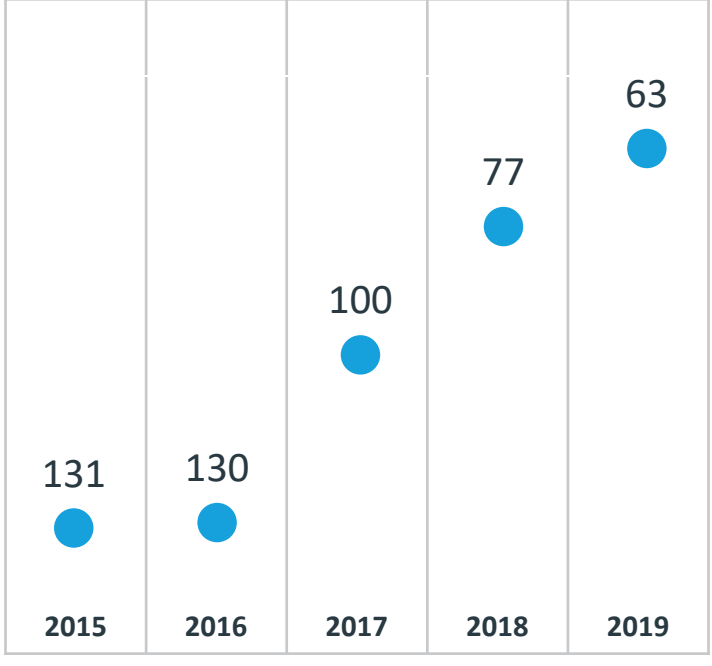
- There's been a high emphasis on financial inclusion, getting as much of the population into the formal economy to ensure growth dividends to the population. Key initiatives include -
  - Aadhar - A 12-digit unique identification number obtained voluntarily by Indian citizens based on demographic and biometric data. Over 1,250 million[1] Aadhar holders in India by 2020 were expected
  - Pradhan Mantri Jan Dhan Yojana (PM-JDY) - A scheme to open bank accounts for population in the lower strata and over 400 Mn[2] accounts had been opened by 2020

Fig 1. GDP - Developing Countries, USD trillion, 2018



Source: World Bank

Fig 2. Ease of Doing Business Ranking - India, Out of 190 economies, 2015-2019



Source - World Bank

- With high economic growth, there has also been rapid growth in wealth and purchasing power of Indians. For example, the median wealth per capita in India is growing substantially fast with a growth rate of 11%[3]

- Further, the average savings rate in India at 32.2%[3] is amongst the highest in the world

- To ensure healthy citizens, the Government is focused on increasing public healthcare spend to 2.5% of GDP[1] by 2025 through infrastructure development and improving access

- India is also home to the some of largest generic manufacturers in the world and has a fast growing domestic pharmaceutical market as well

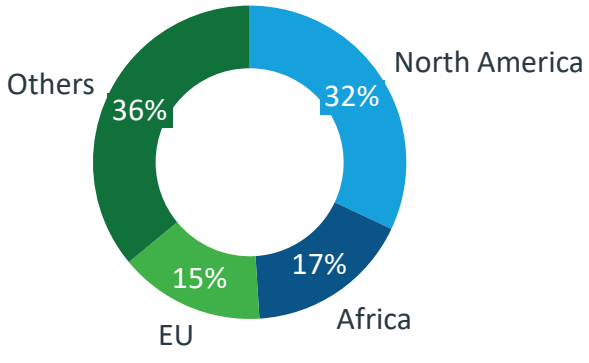
Sources 1. Govt Releases, 2. Govt Websites 3. Secondary Research

PHARMACEUTICAL TRADE & DOMESTIC INDUSTRY

Pharmaceutical Trade

- India is the among the largest suppliers of generic drugs globally. The country accounts for approximately one-fifth of global generic exports by volume. Four Indian companies (Sun Pharma, Aurobindo, Cipla & Lupin) are among the ten biggest generic manufacturers globally
- Around half of the local industry's output, by value, is exported and sales generated in export markets are critical for many large domestic manufacturers
- Amongst the different regions, North America, Africa & EU form the major export destinations (See Fig. 3). Sales to the US alone generate more than 30% of India's pharmaceutical export revenues
- Drug formulations and biologics accounted for 71% of export sales, with bulk drugs and intermediates responsible for a further 20%
- According to the Department for the Promotion of Industry and Trade (DIPP), the Foreign Direct Investment (FDI) in the Indian pharmaceutical market totaled approximately US$ 16.86 billion between April 2000 and September 2020

Fig 3 - Export Shipment, by value (FY2019)



Source: Pharmexcil, IQVIA Analysis

Domestic Industry

- The domestic market size is around USD 20 bn[1] and is dominated by local players. MNCs have around 20% share[1] in the market
- The domestic industry comprises of 8000+ manufactures[2], mostly, small players. The market is dominated by 300 of these manufacturers, with products ranging across therapy areas. The domestic market portfolio is majorly dominated by branded generics
- Companies typically make huge investments to promote, either to maintain or increase their existing market shares. However, the promotional spend capacity and supply chain capabilities determine the success of these efforts
- Leading domestic manufacturers have become key exporters of generics and have established an international presence now
- With new rules coming into play wherein the liability for the quality and safety of drugs would be extended from the manufacturers (including third party manufacturers) to the marketing companies, this can have a direct impact on the contract manufacturing opportunities for domestic consumption
- Multinationals are entering co-marketing deals with domestic partners to deepen their reach and ensure faster uptake for innovator medicines especially in Diabetes and Oncology medicines

Sources 1. IQVIA Audits, 2. Secondary Research

R&D, GENERICS, BIOSIMILARS

Research and Development

- Few domestic companies are conducting original research on new drugs and biologics. Most of the R&D expenditure is on the development of generics. In the past decade, leading local companies have increased the proportion of revenue diverted back into R&D – from an average of 5% to more than 8%. (See Fig. 4)
- The New Drugs and Clinical Trials Rules 2019 were revised to address existing bottlenecks and streamline the process for clinical trials in India. Also, exemptions from Drug Price Control Orders(DPCO) price controls have been extended to foreign patented drugs

Generics

- Branded generics dominate the prescription pharmaceutical market in India, accounting for around 80% of sales[1] by value
- While leading branded generics are promoted heavily in order to gain and retain market shares, some products – known as trade generics or 'generic generics', even though they are branded – are sold under a different model that relies on discount-driven substitution rather than promotion-driven prescribing
- The amendments to the Drugs and Cosmetics Act, which are scheduled to take effect in 2021, will have additional implications for many generic manufacturers

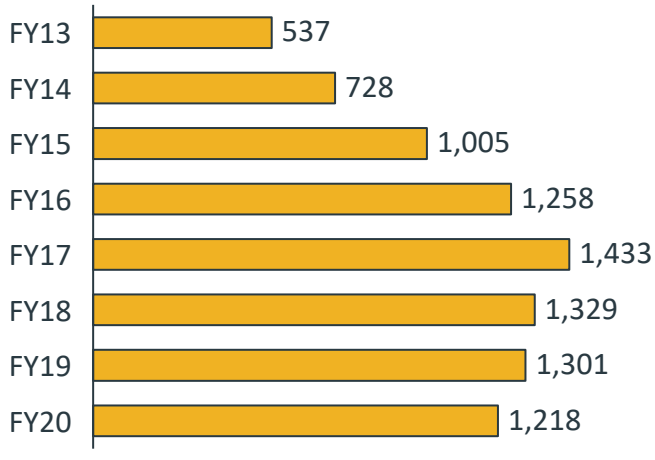
Sources 1. IQVIA Audits, 2. Secondary Research

- The access to new generic candidates has been reduced by the clampdown on irrational FDCs, as well as by the 2005 Patent (Amendment) Act, which triggered the reintroduction of pharmaceutical product patents, and is driving a gradual increase in the number of original brands protected by patents in India

Biosimilars

- In the year 2000, India launched its first biosimilar and around 100 biosimilars[2] also known as 'similar biologics' have been approved by regulators till date

Fig 4. – Select Indian Pharma Co's[1] Cumulative R&D Expenditure, USD Mn



Source: Financial Reports, vccedge
1. Sun; Cipla; Lupin Limited; Torrent Pharma; Intas Pharma; Zydus Cadila; Dr Reddys Labs; Glenmark Pharma; Wockhardt

DISTRIBUTION & PROMOTION

Distribution

- The pharmaceutical distribution chain is multi-layered and highly fragmented. There are an estimated 600-700 CFAs[1], around 30,000 stockists[1] and a similar number of sub-stockists
- Large distributor groups are on an acquisition spree to build pan-Indian distribution businesses. At national level, market shares held by these players are at approximately 7%[1] with significant concentrated coverage in certain cities

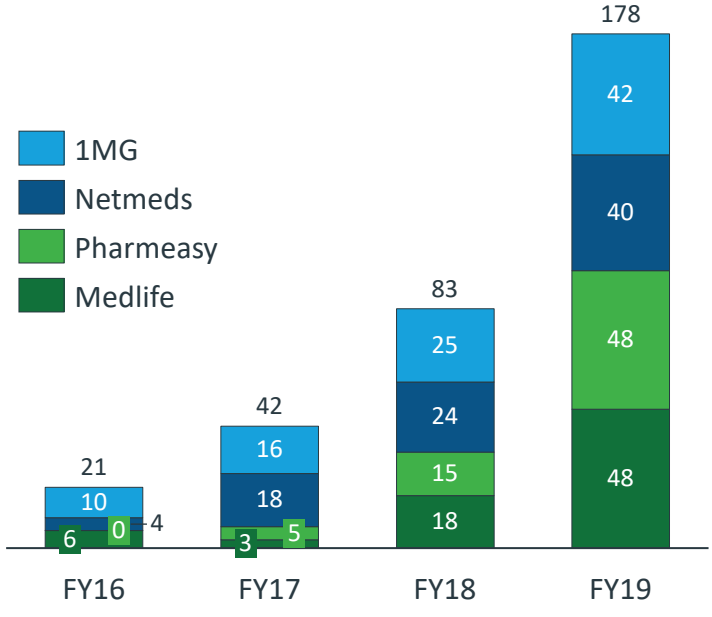
Retail Pharmacy

- The retail pharmacy sector is estimated to comprise at least 600,000 licensed outlets[2]. Most are small, independent businesses
- Pharmacy chains and online pharmacies both pose challenges for small, independent retailers by pursuing aggressive expansion initiatives to increase the number of store counts with focus on prime urban locations
- The pharmacy chains are focused on selling heavily discounted generics. Publicity surrounding the government-funded Jan Aushadhi low-cost dispensing network is also working in favor of their strategy

E-Pharmacy (See Fig. 5, Table 1)

- E-pharmacies have emerged as a new, potentially major source of competition for bricks-and-mortar pharmacies. Their position has been strengthened appreciably by the COVID-19 pandemic, which triggered a sharp rise in the number of patients purchasing drugs online
- This segment has been very active with hundreds of new start-ups emerging and several having undergone consolidation rapidly within a short period of time. The sector now comprises some 50 platforms, dominated by PharmEasy, MedLife, NetMeds and 1mg

Fig 5. – E-pharmacy Total Income, FY 16-19, USD Mn



Source: Financial Filings
Exchange Rate – 1 USD = 76 INR

Table 1. – Recent Transactions

Target	Deal Type	Buyer	Details
Medlife	Merger	Pharmeasy	2020
Netmeds	Acquisition	Reliance Retail	2020, for USD 83 Mn

Source: Secondary Research

Sources 1. Secondary Research

DISTRIBUTION & PROMOTION

Fig 6. – HCP promotion related preferences during the COVID-19 pandemic

77%

Doctors believed that it is important to maintain contact with pharma companies during the COVID-19 pandemic

Information that doctors sought from pharma cos during the 1st Lockdown

Product related

Scientific update on new drugs
66%

Safety profile information
42%

Clinical trial data
42%

COVID-19 related

Development in diagnosis of COVID-19
51%

Drug development updates
48%

Vaccine development updates
41%

Services related

Free gloves and masks
53%

Free online information to share with patients
34%

Door delivery of drugs to patients
33%

Source: HCP survey, Survey of 500 HCPs, during 5th – 9th April 2020

Sales and Promotion

- Traditionally, face-to-face physician detailing has been a key approach for sales and promotions. However, with the reduced visit times, restricted visiting hours and many other factors, leveraging innovating technology is becoming crucial. (See Fig. 6)

- The physician detailing process must become more selective and a more sophisticated approach is required since the physicians are now looking for a science-based, value-added promotional message

UCPMP

- The code remains voluntary for the time being, but it has impacted many leading companies. Promotional activities are a subject of growing scrutiny and therefore most companies have internally regulated it. However, the compliance to the code is not uniform across

- In order to tighten the internal compliance processes, most companies have taken a series of measures like terminating target-based incentives for sales reps, cessation of sponsorships to physician participation to meetings. Even the detailing materials have been made more scientific in nature

HEALTHCARE DELIVERY

Healthcare Delivery (See Table 2)

India's advantage lies in its cost competitiveness and large pool of well-trained healthcare professionals.

India ranks at 145th for the quality and accessibility of healthcare amongst 195 countries.[1]

The healthcare delivery is across two major categories – public and private.

The public healthcare delivery largely focuses on providing basic healthcare facilities largely in rural areas and limited secondary and tertiary care in key cities.

The Government is working to reduce OOP expenditure, and improve access to super-specialty care along-with several retail oriented initiatives to ensure access to affordable medicines.

The private healthcare deliveries present in cities consists of mainly corporate chains and large hospitals which have a main role in providing high-end tertiary and specialized care.

Beyond this, the private unorganized sector including nursing homes and small HCP owned hospitals, also form an important part of healthcare delivery landscape. (See Fig. 7, next page)

There is increasing focus on quality of care with the government as well as private insurers focusing on onboarding quality certified hospitals to their reimbursed networks.

Sources 1. Secondary Research

Table 2. – Key Challenges to Effective Healthcare Provision

Issue	Challenges
Funding	Government spending on healthcare is equivalent to little more than 1% of GDP, though plans are underway to increase it.
Health insurance	Most patients lack health insurance, while benefits offered by many schemes are limited. As a result, patients continue to foot the majority of their healthcare costs on an out-of-pocket basis.
Staffing	Nationally, the ratio of qualified doctors, nurses and other trained healthcare professionals to the patient population remains below WHO recommended levels. Most doctors work in the private sector, and there are shortages in public facilities in rural areas.
Demographic and epidemiological trends	The population is aging, while lifestyle factors are driving up the prevalence of chronic, non-communicable diseases. India now has almost 80 million diabetics and is reporting close to 800,000 deaths from cancer every year.

HEALTHCARE DELIVERY

Recently, In the union budget for 2020-21, government has announced USD 9.1 bn for the healthcare sector.

This includes USD 842 Mn for PM-JAY. For the nutrition-related programs USD 4.6 Bn has been allocated.

With the evolution of technology and government's focus on digital India, an innovative telemedicine solution eSanjeevani has been in focus enabling patient-to-doctor consultation and more than 1 million teleconsultations have been registered.

India with its diverse healthcare portfolio across payer, provider and medical technologies, offers vast opportunities for healthcare investments.

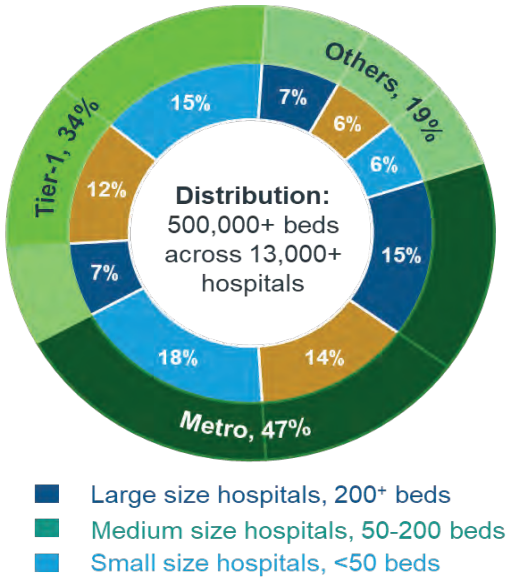
The government is also planning to increase its public health spending to 2.5% of the country's GDP by 2025.[1]

There are key initiatives by the government to improve access to healthcare among the Indian population including

- To reduce catastrophic health expenditure, the government has rolled out a massive healthcare coverage program christened Ayushman Bharat, which is envisaged to improve both in-patient and out-patient care for the population

- To enable access to medicines, state and central government have rolled out pharmacies to ensure broader availability of relevant generic medicines, several of these pharmacy programs exist at various stages of rollout

Fig 7. – Distribution of Private Sector Hospital Infrastructure



Source: Secondary Research IQVIA Analysis

- To ensure access to quality healthcare, the central government is expanding healthcare infrastructure as well, including super-specialty hospitals, AIIMS (All India Institute of Medical Sciences) across the country, with over 13[2] such institutions existing in the country as of now

Sources 1. Govt Releases, 2. Govt Websites

GOVT INITIATIVE: AYUSHMAN BHARAT

Ayushman Bharat, a flagship scheme of Government of India was launched as recommended by the National Health Policy 2017, to achieve the vision of Universal Health Coverage (UHC). This initiative has been designed to meet SDG and its underlining commitment, which is "leave no one behind".

Ayushman Bharat is an attempt to move from sectoral and segmented approach of health service delivery to a comprehensive need-based health care service. Ayushman Bharat aims to undertake path breaking interventions to holistically address health (covering prevention, promotion, and ambulatory care), at primary, secondary and tertiary level. Ayushman Bharat adopts a continuum of care approach, comprising of two inter-related components, viz:

- **Health and Wellness Centres (HWCs):** In February 2018, the Government of India announced the creation of 1,50,000 Health and Wellness Centres (HWCs) by transforming existing Sub Centres and Primary Health Centres. These centres would deliver Comprehensive Primary Health Care (CPHC) bringing healthcare closer to the homes of people covering both maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services. Health and Wellness Centers are envisaged to deliver an expanded range of services to address the primary health care needs of the entire population in their area, expanding access, universality and equity close to the community

- **Pradhan Mantri Jan Arogya Yojana (PM-JAY):** The second component under Ayushman Bharat is PM-JAY, which aims at providing health benefit cover of USD ~6600 per family per year for secondary and tertiary care hospitalization to over 107 Mn poor and vulnerable families (approximately 500 Mn beneficiaries) on cashless family floater basis. There is no cap on the family size under the scheme. This scheme was launched on 23rd September 2018 by the Hon'ble Prime Minister Shri Narendra Modi on PAN India basis. PM-JAY has been rolled out for the bottom 40% of poor and vulnerable population. The households included are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas respectively. The scheme subsumed the then existing Rashtriya Swasthya Bima Yojana (RSBY), launched in 2008 and Senior Citizen Health Insurance scheme, launched in 2017. Therefore, the coverage mentioned under PM-JAY also includes families that were covered in RSBY but were not present in the SECC 2011 database. PM-JAY is completely funded by the Government, and cost of implementation is shared between Central and State Governments. The government PM-JAY program has brought a paradigm shift with demand side intervention by providing coverage for 65 crore Indians. PM-JAY program has transformed within its network at multiple levels and has onboarded over 24,000 hospitals and has crossed a significant milestone of 16 Mn hospitalizations[1]

Sources 1. Govt Releases, 2. Govt Websites

GOVT INITIATIVE: AYUSHMAN BHARAT

Key features of PM-JAY (See Fig. 8)

- World's largest health insurance/assurance scheme fully financed by the government
- Provides benefit cover of USD ~6600 per family per year, for secondary and tertiary care hospitalization across public and private empaneled hospitals in India
- Over 107 Mn poor and vulnerable entitled families (approximately 500 Mn beneficiaries) are eligible for these benefits
- Provides cashless and paperless access to health care services for the beneficiary at the point of service
- Will help reduce catastrophic expenditure for hospitalizations, which pushes 60 Mn people into poverty each year, and will help mitigate the financial risk arising out of catastrophic health episodes
- No restrictions on family size, age or gender
- All pre-existing conditions are covered from day one
- Covers up to 3 days of pre-hospitalization and 15 days post-hospitalization expenses such as diagnostics and medicines
- Benefits of the scheme are portable across the country i.e. a beneficiary can visit any empaneled public or private hospital for cashless treatment

Fig 8. – PMJAY Progress and Key Metrics

140 Mn +
Ayushman Cards
(incl 48 Mn e-cards issued by state IT systems)

 # 16.5 Mn +
$ USD 2.7 Bn
Hospital Admissions

24,412
(45% Private)
Hospital Empanelment

2.4 Mn
Mobile App Downloads

 # 170K +
$ USD 48 Mn
Portability Cases

General Medicine
General Surgery
Top Specialties
(by count of pre-auths requested)

700K
Inbound Calls on 14555 Answered

Female – 47%
Gender Parity

Source – Govt Releases

Updated – Jan 2021

GOVT. PHARMA RETAIL

Typically, drugs prescribed to inpatients in public hospitals are also subsidized in full, while the National Rural Health Mission (NRHM) provides access to free care in public hospitals for specific conditions.

Pharmaceutical costs are a substantial contributor to patient healthcare spending, and, according to a 2013 IQVIA study, account for:

- An estimated 40% of out-of-pocket expenditure on inpatient care
- An estimated 60% of OOP spending on outpatient treatment

Acknowledging the burden that this places on patients, State and Central Governments have attempted to broaden patient access to free or heavily subsidized medicines. (See Table 3)

Table 3. – National and State Provision of Free or Subsidized Medicines

Scheme(s)	Details
State programs	Tamil Nadu spearheaded developments at the state level, making a range of drugs available free in public hospitals and health centers. Its ability to do so – which triggered a sharp rise in the number of patients being treated in government facilities – was based on the establishment of a Medical Services Corporation (MSC). The corporation wields considerable purchasing power, enabling it to lever substantial discounts on drug purchases. It also oversees the storage and purchase of medicines, which has resolved supply issues that have traditionally plagued the public sector. Several states (notably Andhra Pradesh and West Bengal) have followed Tamil Nadu's lead.
Jan Aushadhi	By April 2020 the Jan Aushadhi network comprised around 6,300 stores dispensing a range of approximately 900 drugs, which can be purchased at prices 50-90% below those prevailing in the retail sector. Jan Aushadhi sales were worth USD ~40 Mn in 2019 – by which time the government said its scheme had saved patients an aggregate of USD ~289 Mn.
AMRIT	Launched towards the end of 2015, the Affordable Medicines and Reliable Implants for Treatment (AMRIT) program involves the sale of heavily-discounted hospital drugs – including treatments for cancer, cardiovascular disease and diabetes – from selected hospital pharmacies. It is administered by the government-owned company, HLL Lifecare Ltd. 125 stores were operating as of July 2020 with more than half of those located in Gujarat and Assam.

Source: IQVIA Research

INNOVATOR MNCs' FOCUS

How has Innovator MNCs' focus been in the Indian market?

- **Innovator therapies are gradually taking hold** in the market and are expected to contribute to the market growth

- **Patented launches are happening on a consistent basis** and some MNCs are focusing exclusively on innovator therapies

- **Several super-specialty medicines are in pipeline** and are expected to launch in the near-to-mid term and the time lag between introduction in developed markets like US and EU5 vs India is decreasing

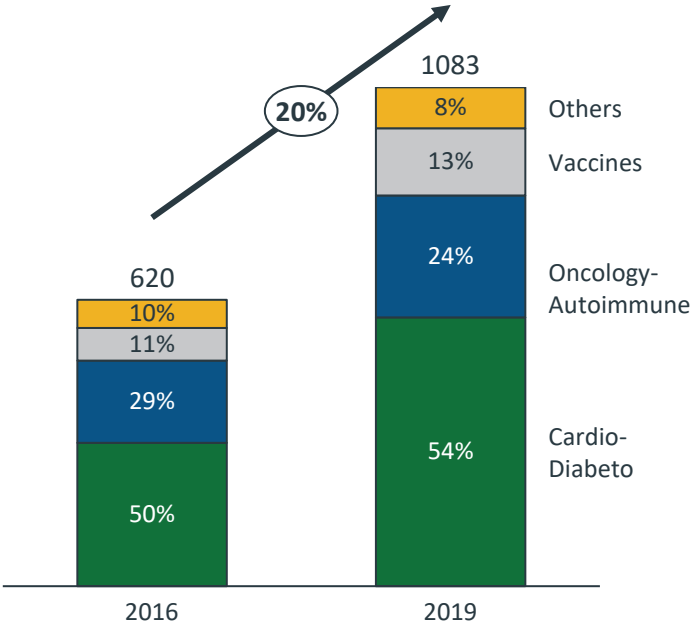
- This has been **enabled by** introduction of the **New Drugs and Clinical Trials Rules, 2019**, which **streamlined and made guidelines for clinical trials in India more robust**

- MNCs are also conscious of the self-pay nature of the Indian market and have consciously enabled **reduced therapy prices in India**

- Further, most expensive medicines are **supported by patient support programs**, which enable further access to those patients in need for financial assistance

INNOVATIVE THERAPIES' SIZE & GROWTH

Fig 9. – Innovative Drugs by therapeutic area



Brand	Sales USD Mn	Launch Year
Pneumococcal Vaccine	$ 49 MN	2010
Hexavalent Vaccine	$ 18 MN	2018
Leading PDL1 Mab	$ 20-25 MN	2017
Leading Anti-psoriatic Mab	$ 18 MN	2017
Leading DPPIVi	$ 130 MN	2008
Leading SGLT2i	$ 75 MN	2015

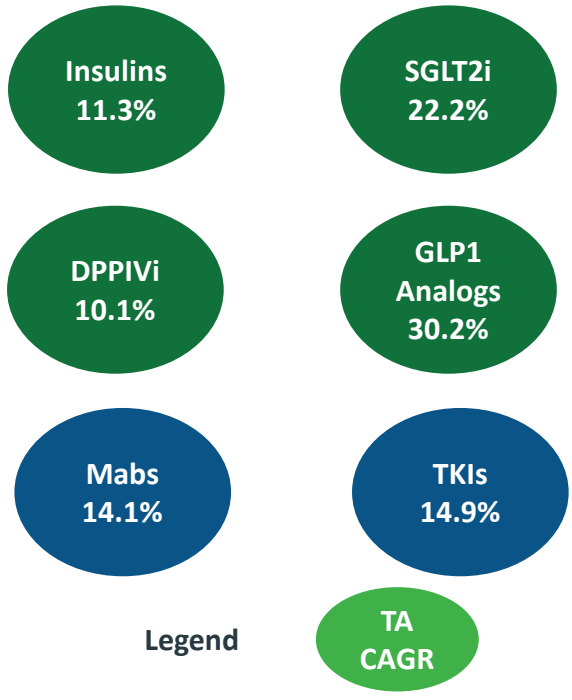
All Numbers in USD Mn
Source: IQVIA TSA Audit – Jan 20, IQVIA Analysis

Sales of innovative therapies has rapidly increased in the past few years (See Fig. 9) with products gaining substantial sales within 4-5 years of launch.

Key therapy areas are Cardio-Diabetic and Oncology-Autoimmune, contributing most to the overall novel therapies and thus to the growth of the market.

With increasing prevalence of Non-communicable diseases (NCDs) in India like diabetes and cancer, these therapy areas are expected to drive the growth in the market in the future as well (See Fig. 10)

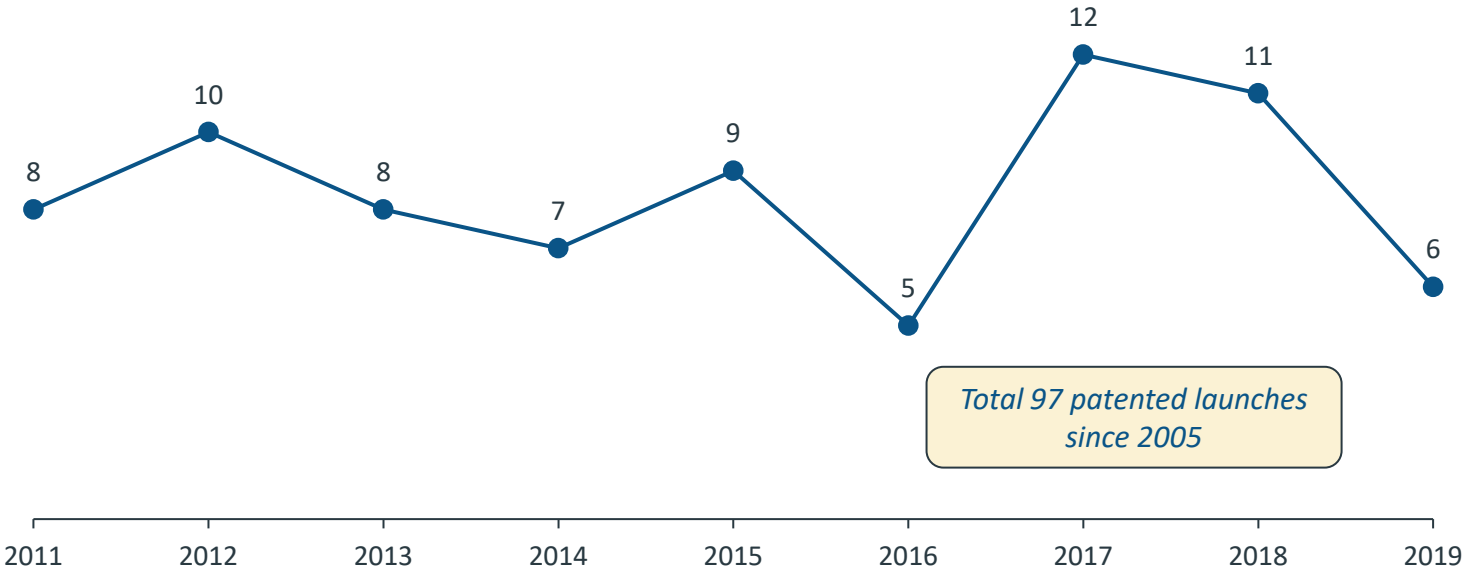
Fig 10. – Select Therapy Areas expected to drive growth



CAGR from 2019 - 2024
Source: IQVIA Analysis

PATENTED DRUG LAUNCHES

Fig 11. – Patented Launches over the years



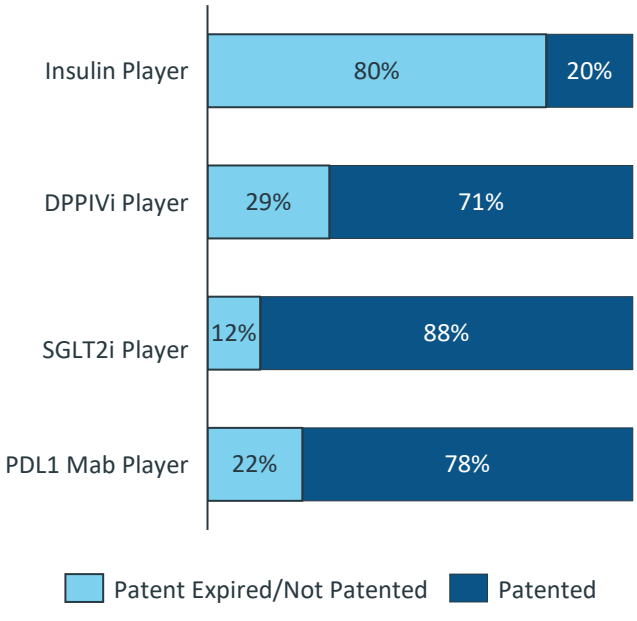
MNCs considered -Astellas; AstraZeneca; Boehringer Ingelheim (BI).; Eisai.; GSK; Janssen; MSD; Novartis; Pfizer; Roche; Sanofi, BMS
Source: IQVIA TSA Audit – Mar 20, IQVIA Analysis, Secondary Research

Patented drug launches in India has increased steadily, with around 97 patented products launched in the market since 2005 (See Fig. 11)

Attractiveness for patented launches comes with India being TRIPS (Trade Related Aspects of Intellectual Property) compliant.

For MNCs, the sales of the patented products is increasing as well as the share of patented product sales in overall sales is also increasing (See Fig. 12), indicating increasing focus and attractiveness of novel therapies in Indian market.

Fig 12. –Select MNC sales distribution – patented vs non patented



Source: IQVIA TSA Audit – Mar 20, IQVIA Analysis, Secondary Research

PIPELINE PRODUCTS

Table 4. – Trial Registration for Select Products in Auto-immune Indications

Year of registration of Trial in CTRI

Molecule	Indication	Innovator	# Trials	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Baricitinib	AD	Lilly	3										2		1
Baricitinib	**RA**	Lilly	3					2	1						
Filgotinib	Crohn's	Gilead	2									2			
Filgotinib	RA	Gilead	4									2	1	1	
Filgotinib	UC	Gilead	3									2	1		
Golimumab	**Ankylosing Spondylitis**	Janssen	2			1							1		
Golimumab	**RA**	Janssen	3	1					1		1				
Golimumab	**UC**	Janssen	3								1		1		1
Ixekizumab	**PsA**	Lilly	1									1			
Mirikizumab	UC	Lilly	2										2		
Secukinumab	Ankylosing Spondylitis	Novartis	1												1
Secukinumab	**Psoriasis**	Novartis	7			2	1				2	1			1
Secukinumab	RA	Novartis	3			1			2						
Tocilizumab	Ankylosing Spondylitis	Roche	3			2									1
Tocilizumab	**RA**	Roche	2	1			1								

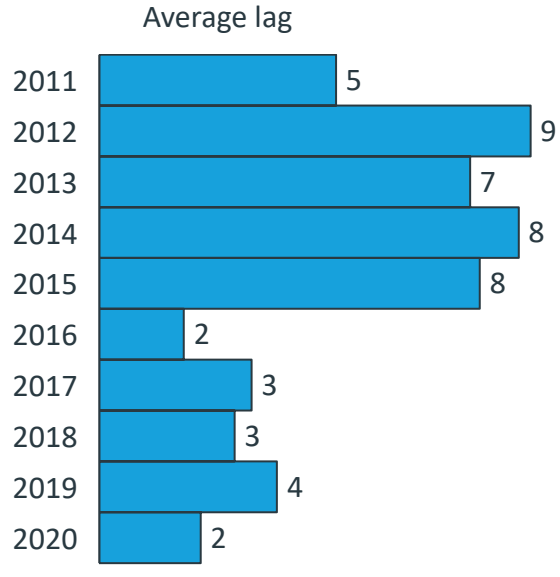
Not approved globally | Pre-launch period | Post-launch period

Approved indications in **Green,** Launched Outside India in **Blue,**
Source**:** Clinical Trial Registry of India, clinicaltrials.gov, Secondary Research

Increasingly MNCs are including India as a part of their global trials for blockbuster innovative products in key therapy areas. This is typically seen in therapeutic areas like Diabetes, Oncology and Auto-immune diseases, in-line with global pipelines of major MNCs. (See Table 4)

This inclusion in clinical trials has reduced the time lag between product launches in US/EU and corresponding launch in India (See Fig. 13), providing faster access to innovative and life-saving drugs for serious and chronic conditions.

Fig 13. –Time Lag between US/EU and India launch, selected patented products



Source: IQVIA TSA Audit – Mar 20, IQVIA Analysis, Secondary Research

REGULATORY CHANGES & IMPLICATIONS

Recent regulatory changes, especially the New Drugs and Clinical Trial Rules 2019, aim to drive an increase in clinical trial activity through a more predictable, seamless and robust process

Select Rules/Changes
• The New Rules (2019) provide the opportunity for applicants to seek pre-submission meetings with CDSCO officials, enabling them to obtain guidance on, among other things, clinical data requirements
• Central Licensing Authority (CLA) reviews and decisions regarding clinical trial approval for a new drug or an investigational new drug are now mandated within 90 working days

• Local clinical trials waivers are now possible in the following conditions:
  • New Drug is approved or marketed in countries, as specified by DCGI – primarily the major ICH countries and no major SUSARs[1] associated with the product
  • Where India has been included in clinical development of the product (Phase 2/3 Global Studies), or is part of ongoing studies
  • There is no probability or evidence of difference in Indian population with respect to ADME, PK-PD, safety and efficacy of the new drug
  • Applicant provides undertaking to conduct Phase IV clinical trial
  • If the drug is indicated for life threating diseases/diseases of special relevance to Indian Health scenario/diseases for a condition which is unmet in India/Orphan Drug

• Any drug discovered in India or R&D of the drug is being done in India and which is proposed to be manufactured and marketed in the country, will be deemed to be approved for clinical trials within 30 working days by CLA; even If no communication has been received from the CLA to applicant
• The regulations provide clarity regarding compensation to be provided to subjects in cases of research related injury and the compensation rules are balanced and well implemented
• Clinical trial sites that do not have their own Institutional Ethics Committee (EC) can use registered ECs of another trial site or a (registered) independent EC that is located within a close vicinity

Note: 1. SUSAR – Suspected Unexpected Serious Adverse Reaction
Source: Secondary Research

CLINICAL TRIAL WAIVERS

Table 5. – Select Clinical Trial Waivers

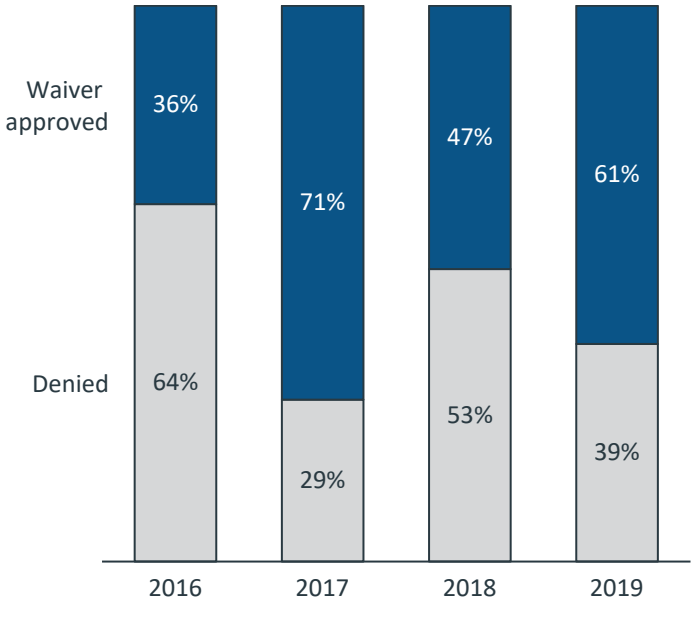
Molecule (Year) **Pharma Co**	Dacomitinib (2019) Pfizer	Olaparib (2018) AZ
Indication	Metastatic non small cell lung cancer	Ovarian and breast cancer
Current status	Phase IV	Commercialized
Reasons for waiver	• Unmet medical need • Regulated market approved • Orphan drug status by USFDA	• Unmet medical need • Regulated market approved • Orphan drug status by USFDA
Waiver Conditions	• Phase IV clinical trials on 100 patients • Submission trial results within 2 years of approval	• Phase IV clinical trials on 200 patients • Submission trial results within 2 years of approval

Source: Government Websites, Secondary research, Minutes of SEC Committee, IQVIA Analysis

In the past, Clinical Trial waivers had been issued on a case-by-case basis. Now local trial waivers are granted in accordance with explicit provisions for drugs already approved in countries recognized by the CDSCO (see Fig. 14) where:

- The drug is indicated for treatment of a life-threatening or serious disease, there is unmet need in India, or the drug meets orphan drug designation criteria (See Table 5)
- No major unexpected serious adverse events have been reported
- The applicant agrees to conduct a Phase IV clinical trial to establish the safety and effectiveness of the drug

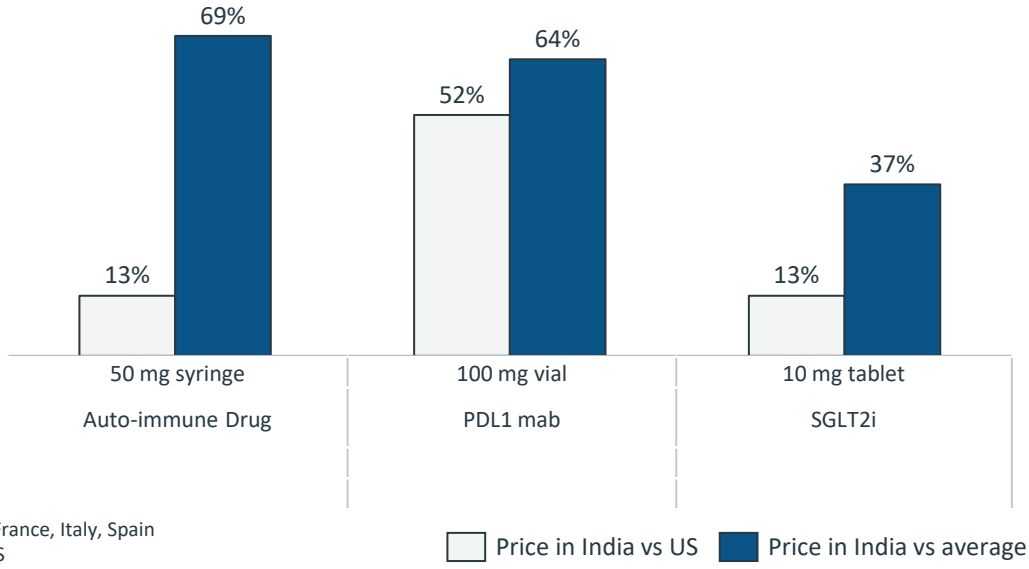
Fig 14. – Waiver Trend for Past 4 Years, Based on Application



Source: Government Websites, Secondary research, Minutes of SEC Committee, IQVIA Analysis

PRICING

Fig 15. – Select Molecules price comparison to US/EU5/Japan



EU5: UK, Germany, France, Italy, Spain
Source: IQVIA MIDAS
Note: Ex-Mnf used for comparison. All prices are price per unit

To increase access to medicine, MNCs typically price products in India at a discount compared to their counterparts in regions like US, EU5, Japan. (See Fig. 15)

This is in consideration of the fact that India is predominantly a self-pay market compared to other regions where role of reimbursement is high.

Pricing of drugs is closely monitored by Indian pharma regulatory bodies to ensure access to healthcare for patients.

Price control is typically not applied to innovative and patented medicines in India.

For Branded Generics, the NPPA, for example, sanctioned increases of just under 1.9% in the Maximum Retail Price of 883 drug formulations in Schedule 1 of the DPCO in April 2020[1]. With the consumer price index having risen by over 6% in calendar 2019, approved hikes remained well below inflation.

NPPA also capped the MRP of 51 non-scheduled cancer drugs by limiting their total trade margin to 30% in 2019[1], recalculating the MRPs of affected products based on the price at the first point of sales .

Ceilings could also be imposed on drugs in other therapeutic categories where prevailing margins are particularly high.

Sources 1. Govt Releases

INDIA PHARMA MARKET GROWTH

How is the market expected to fare in the future?

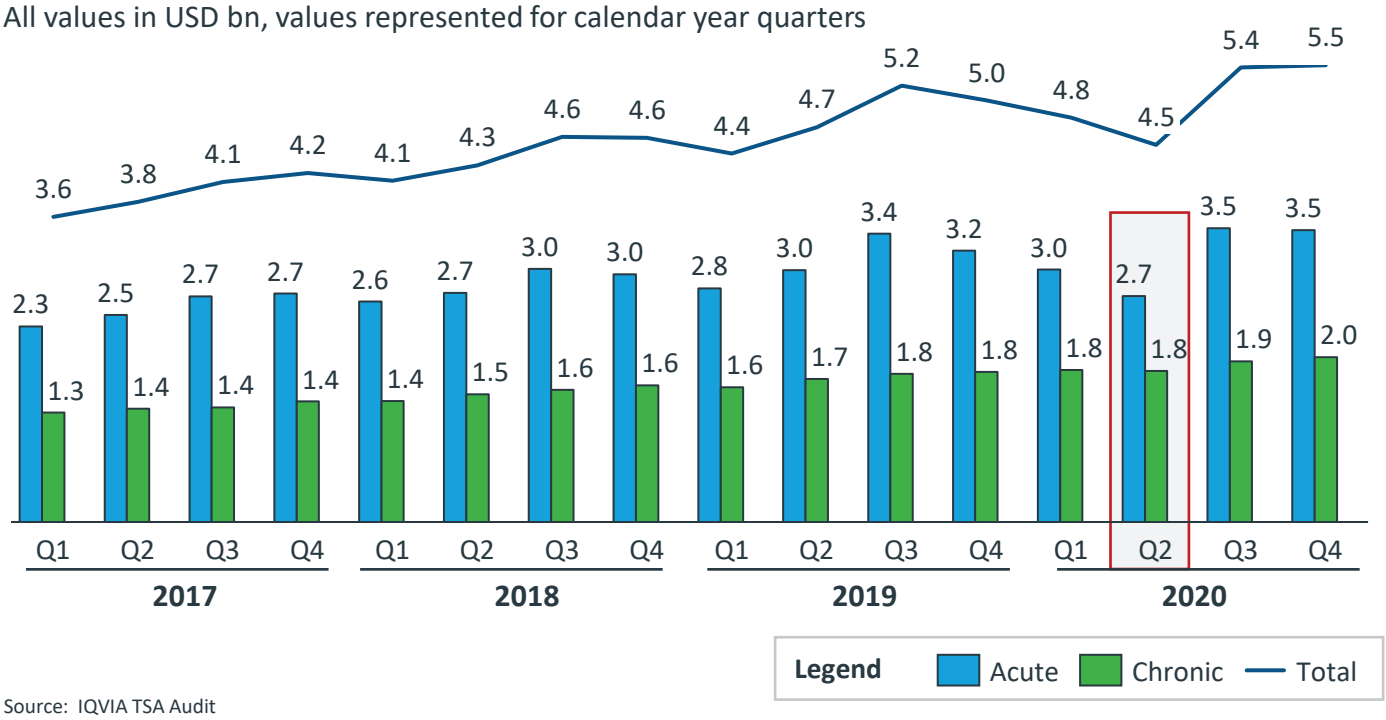
- **The COVID-19 pandemic has impacted market growth** in the past year and had an impact on acute therapies
- India has **2 vaccines (Covishield and Covaxin) approved for emergency use** (as on February 2021), with several COVID-19 vaccine clinical candidates in development
- India has been **exporting vaccines** as well with millions of doses exported till February 21
- With COVID-19 pandemic expected to **accelerate market consolidation** due to unprofitability of smaller players. The G**overnment is taking steps to ensure market dynamics remain in check,** including reviewing FDI rules and incentives for local API production
- **Genericization for small molecules and biosimilars** is expected to increase in the future
- **Consolidation** is also expected to **increase in the distribution channel as well as in the pharmacy segment** bolstered by COVID-19; e-pharmacies are also expected to increase their share in the market and several have undergone consolidation in the recent past
- **Co-marketing agreements are expected to increase** as more patented medicines are launched in India and the model becomes established
- **Pharma promotion would also move to the virtual side** as market becomes more tech driven
- Market **growth is expected to bounce back post COVID-19 this year onwards,** at a **growth of ~9% per annum**

COVID-19 IMPACT ON IPM

- Limited access to HCPs in Metro/TC1 due to stricter lockdown, reverse migration, lower inter-district travel for medicine purchase and increased focus on rural markets are potential drivers for rural growth
- Going forward, health systems to be mindful of increasing co-morbidities/new diagnosis in COVID-19 recovered patients
- Newer innovative delivery models such as e-pharmacies and chain pharmacies have come into the full play
- COVID-19 impacted healthcare delivery due to fear of spread of illness as well as government-imposed regulations
- Impact was higher as the lockdown period overlapped with monsoon seasons which typically are growth drivers for acute Therapeutic Areas
- However, recovery was seen in the last quarter driven by growth in most Therapeutic Areas
- With limited face-to-face detailing, new launches were either delayed or saw lower uptake
- All Acute TAs were significantly impacted (See Fig. 16) with AI, Pain and Gynae showing negative growths in 2020
- Vitamins have shown strong recovery driven by consumer awareness and their role in immunity building for COVID-19 (driven by Vit. C, D, Multi-vitamins and Tonics)
- Several cardiac co-morbidities have been documented to affect patients, post COVID-19 formation of a new pool of patients across a spectrum of cardio-vascular indications

Fig 16. – IPM's growth was disrupted in 2020 with COVID-19 leading to decline in acute growth primarily during the lockdown (Apr – Sep)

All values in USD bn, values represented for calendar year quarters



Source: IQVIA TSA Audit

COVID-19 VACCINE DEVELOPMENT

Table 7. – Vaccine candidates in development /rolled out in India till date

Development stage	Vaccine Name	Developed by	Current Status	Technology
Approved , restricted use in emergency situations	Covishield	Oxford University and AstraZeneca	Approved , restricted use in emergency situations	Adenovirus vector
	Covaxin	Bharat Biotech + ICMR + NIV, Pun)	Approved , restricted use in emergency situations	Inactivated virus
Late stage (Phase 2/3 ongoing)	ZyCoV-D	Cadila + Deptt. of Biotechnology	Phase 3 trials ongoing	DNA platform
	Sputnik V	Dr Reddy's Lab + Gamaleya Institute, Russia	Phases 2 /3 ongoing	Adenovirus vector
In consideration for late stage	NVX-Cov 2373	Serum Institute of India + NovaVax, US	Considered for Phase 3 trials	Prefusion protein
	Biological E's vaccine	Bilogical E + Baylor College of Medicine, Houston + Dynavax Technologies, US	late-stage trials expected to start in April, Phase 1 trials in Jan '21	Recombinant protein antigen
Early Stage	HGCO19	Gennova + HDT Biotech, US	Approved for Phase 1	mRNA
	Bharat Biotech's second vaccine	Bharat Biotech + Thomas Jefferson University, US	Pre-clinical	Rabies vector
	Aurobindo Pharma vaccine	Auro Vaccines (Aurobindo pharma's US subsidiary)	Pre – clinical	recombinant vesicular stomatitis virus (RVSV) vector

Source: Secondary Research

Updated – Feb 2021

India has formally approved the emergency use of two vaccines against the coronavirus disease (COVID-19) - Covaxin and Covishield.

In addition to these, Pfizer had applied for a trial waiver for its mRNA vaccine. However, an expert committee of the DCGI declined to approve the Pfizer-BioNTech m-RNA vaccine without a trial in the Indian population after some reports of adverse events in other countries. Pfizer has withdrawn its application for the same.

There are several other vaccine candidates in pipeline for India, at different trial stages. (See Table 7)

Further, India's exports of the COVID-19 vaccine stood at around USD ~43 Mn till February 8. Paid exports of 10.5 million doses were valued at about USD ~28 Mn whereas, Government of India grant stood at 6.2 million doses with FoB (free on board) value of about USD ~15 Mn.[1,2]

Sources 1. Govt Releases, 2. Govt Websites

COVID-19 VACCINE EXPORTS

Table 8. COVID – 19 Vaccine exported from India

Country	Doses as Grants (Mn)
Bangladesh	2
Myanmar	1.5
Nepal	1
Bhutan	0.15
Maldives	0.1
Mauritius	0.1
Seychelles	0.05
Srilanka	0.5
Bahrain	0.1
Oman	0.1
Afganistan	0.5
Barbados	0.1
Dominican Rep.	0.07
Total	6.27

Country	Doses Sold (Mn)
Bangladesh	5
Brazil	2
Morocco	2
Egypt	0.05
Algeria	0.05
South Africa	1
Kuwait	0.2
UAE	0.2
Total	10.5

Source: Secondary Research

Updated – Feb 2021

The exports went to countries in the immediate neighborhood to West Asia Africa and the Americas.

Data released by the Union Ministry of Health shows India will earn revenue from shipments of about 63% of the vaccines sent to UAE, Kuwait, South Africa, Algeria, Egypt, Morocco, Brazil and Bangladesh. (See Table 8)

37% of the exported doses are grants. Other than the countries in the immediate neighborhood, India has gifted another 0.6 Mn doses cumulatively to Maldives, Mauritius, Seychelles, Bahrain, Oman, Barbados and Dominican Republic.[1]

Sources 1. Govt Releases

RECENT DEVELOPMENTS & TRENDS

1. **COVID-19 pandemic Impact on individual companies –** The impact of the pandemic on individual companies has been highly variable depending on the size of companies, also reflecting the structure of their respective portfolios and their ability to react rapidly to unprecedented challenges.

- Owing to the brand recall and availability, the larger manufacturers have generally fared well due to a greater impact on prescribing and purchasing decisions during the pandemic
- The disruptive impact of the pandemic on smaller domestic manufacturers has been grave. This is in addition to the impact posed by the tight regulations of the industry. There are rising doubts over the sustainability of some of these players if the pandemic persists
- The companies which generate a substantial proportion of their revenues from outside the country's major cities have weathered the COVID-19 storm better than their competitors. This was primarily because the major cities were the worst affected by the virus in the first half of 2020
- Other manufacturers have also started to expand their geographical footprints as commercial opportunities in smaller towns and cities increase

2. Exports declined in Q1 2020 and recovered – Exports grew to US$ 20.58 billion, growing by 7.5% in the year to March 2020, but missed the projected target of US$ 22 billion (Pharmexcil). During April-December 2019, the exports grew by 11.5% but they declined by 3% during the Q1 2020 on account of the disruption of supplies of raw materials due to outbreak of COVID-19 in China. The total pharma exports during April-December 2020-21 reached USD 17.6 billion, registering a growth rate of 12.4% compared to the same period last year.

3. Amendment of FDI Rules – The government tweaked the Foreign Direct Investment (FDI) rules in May 2020 amid concerns that the disruptive impact of the pandemic could lead to opportunistic acquisitions of large Indian companies. The new rules mandate government approvals for mergers and acquisition (M&A) transactions by companies from countries bordering India. This is primarily aimed at regulating investments from potential Chinese investors.

- Dr Reddy's completed its acquisition of parts of Wockhardt's branded generics business in India and some overseas markets in June 2020. Some other highly leveraged local companies were forced to shelve their local and overseas M&A plans owing to the uncertainty caused by the COVID-19 pandemic

4. Incentivization of Local API Production – The local industry's heavy dependence on API imports from China were highlighted when supply chains were disrupted during the initial phase of the COVID-19 crisis.

- The Government of India has earmarked USD ~1.3 Bn to incentivize local production of more than 50 APIs, of which USD ~600 Mn has been approved to fund the establishment of pharmaceutical parks where investors in API manufacturing will benefit from substantial government funding [1]
- Around 70% of funding (USD ~913 Mn) has been set aside for incentivizing manufacturers that increase production of critical APIs over the next six years[1]

5. R&D – While several leading Indian companies have scaled down in-house R&D activities, a few continue to work on the development of novel proprietary drug candidates.

Sources 1. Govt Releases

RECENT DEVELOPMENTS & TRENDS

6. Generics – While branded generics will continue to dominate the Indian market, shares of the sector will be consolidated increasingly in the hands of leading domestic manufacturers. Smaller players will be hit hardest by moves to drive up quality standards, tighten price controls and rid the market of 'irrational' combination drugs

- Significant expansion of coverage by schemes such as the AB-PMJAY and the Jan Aushadhi network of low-cost dispensaries could also impact generic margins – principally by shifting a larger proportion of generic sales out of the retail market and into channels where tender-based purchasing of lower cost products prevails.
- The expiry of patents on high-profile brands is expected to trigger competition for shares of the new markets available to generics manufacturers

7. Biosimilars – There are already around 100 biosimilars[1] on the Indian market, while approximately 50 local companies[1] have biosimilar candidates in their development pipelines (See Table 9 for commercialized examples)

- Given the low priced biosimilar availability, leading players which are commercializing biosimilars globally through international partnerships will be best placed to absorb pressure on prices in their home market

8. Further consolidation of the distribution sector – The pandemic has led to driven up operating costs. Many smaller wholesalers were forced to cease trading completely in the face of staffing and cashflow problems. This enabled remaining players to reduce discounting levels, helping them to offset increases in the cost of doing business during the pandemic

- If disruption caused by the pandemic persists, it may force a proportion of small stockists out of business completely, paving the way for further consolidation of the distribution sector

9. New Distribution Market Entrants – Stockists pursuing dominant positions in the distribution market may face competition from new entrants to the sector. Some online pharmacy businesses have already begun to pursue the acquisition of in-house distribution capabilities, while the anticipated entry of giants such as Reliance Jio and Amazon into the online pharmacy sector could transform the existing dynamics of the distribution market

Table 9. – Select Biosimilar Launches

Molecule	Innovator Brand	Biosimilar Brands
Trastuzumab	Herceptin (Replaced by Herclon)	Traturel (Relaince) Hertraz (Mylan) Vivitra (Zydus Cadilla)
Bevacizumab	Avastin	Bevatas (Intas) Cizumab (Hetero) Versavo (DRL)
Adalimumab	Humira (Not launched)	Exemptia (Zydus Cadilla) Adfrar (Torrent) Adalipca (Ipca Labs)

Note - Top 3 biosimilar brands shown for select molecules
Source: IQVIA TSA Audit

Sources 1. Secondary Research

RECENT DEVELOPMENTS & TRENDS

10. Pharmacy Chains will continue to expand

- Pharmacy chains will continue to expand footprint, increasing the number of outlets, often based in key locations, while also strengthening online presences. Apollo Pharmacy, which now boasts 3,700+ stores across the country, added 380 outlets in FY20 and achieved USD ~634 Mn as revenue during the 12 months to 31 March 2020, a 24% rise from the previous period. The company has projected an addition of 300-350 outlets annually over the next years[1]
- Apollo's biggest rival, MedPlus which has 1,650+ stores in 300 cities, is eager to expand into the western part of the country, and aims to establish up to 40 stores in Mumbai during 2020 [1]
- While smaller, local chains are also seen to be expanding, the specialized generic chains have also shown a noticeable presence. For example, Mumbai-based Generico that specializes in sales of generics and operates around 50 stores, was reported to have raised USD 1.4 Mn in early 2020 and is planning to drive up its store count to 150 and expand its footprint to Pune

11. E-Pharmacies on the rise

- The COVID-19 pandemic has fueled the sales for e-pharmacies sales, which were already rising rapidly. This growth can be attributed to millions of first-time customers who started to order medicines online during the lockdown, including in non-metro cities
- The integration of telemedicine and diagnostic facilities on the e-pharmacy platforms has contributed to increased patient compliance. The share of e-pharmacies in the retail market is currently pegged to be around 5% on an all-India basis, but shares are topping 15% in some major metros and cities[1]
- The MOHFW also recognized the importance of the service during the pandemic. And thus, in March 2020, MOHFW issued a notification permitting home delivery of drugs to patients subject to collection of a physical or e-mailed valid prescription

11. OTC Market – Ex-manufacturer sales of non-prescription bound medicines grew by 11% in 2019 to reach US$ 3.8 billion (at constant exchange rates), a slight slowdown from growth of 13% in 2018. Growth was driven by new product launches and line extensions, while volume growth (in units) was slower at 4%.[1]

- The sector is dominated by vitamins, minerals, and nutritional supplements and tonics; cough, cold and respiratory remedies; and pain relief products. Together, these three categories account for 70% of non-prescription product sales by value[1]

Sources 1. Secondary Research

RECENT DEVELOPMENTS & TRENDS

12. Partnerships – The number of partnerships and co-marketing activities between Indian and foreign companies are expected to increase, depicting the synergistic benefits that can be unlocked for both originators and local partners. Successful co-marketing agreements are expected to be used as a template by different players, leading to improved synergies generated by the approach. (See Table 10 for examples)

13. Sales and Promotion – The national COVID-19 lockdown in March resulted in a sudden halt to the physician detailing activities. Some local companies resumed detailing towards the middle of the year, albeit at much-reduced levels

- With detailing activity either curtailed or halted entirely, the importance of brand recall was highlighted by figures which showed sales of leading established products holding up best
- Most product launches in the competitive categories have been put on hold or postponed by the local companies owing to lack of support by face-to-face detailing
- **Shift to Virtual Promotion** – Manufacturers rapidly adopted the digital promotional tools, including phone and video calls with physicians, webinars, and messaging through platforms such as WhatsApp. Even though the overall results are mixed, some physicians have been receptive to this shift which potentially can trigger a permanent change in the promotional models
- Face-to-face detailing is expected to remain a key part of the long-term promotional mix but there is going to be a shift in the skillset needs of sales representatives, with more importance on the ability to communicate effectively through digital channels/media

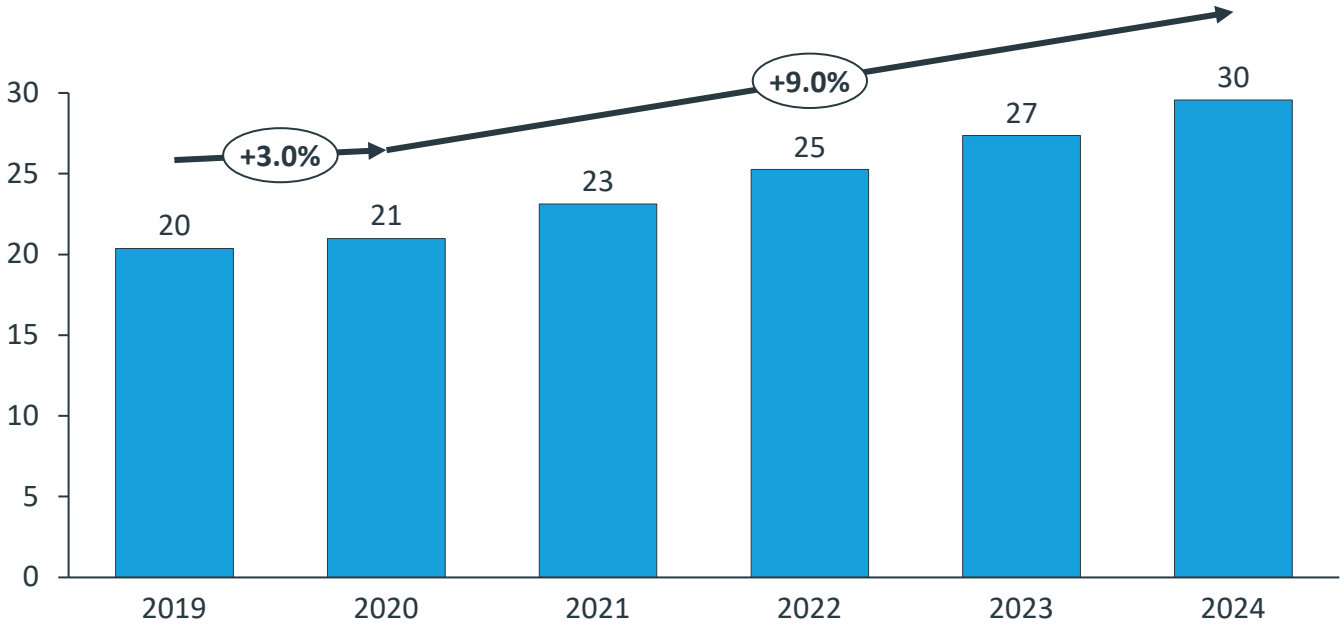
Table 10. – Select Co-Marketing Deals

Molecule	Product (Parent Company)	Product (Indian Company)
Dulaglutide	Trulicity (Eli Lilly)	Aplevant (Lupin)
Empagliflozin	Jardiance (Boehringer Ingelheim)	Gibtulio (Lupin)
Dapagliflozin	Forxiga (Astrazeneca)	Oxra (Sun Pharma)
Dapagliflozin + Metformin	Xigduo (Astrazeneca)	Oxramet (Sun Pharma)

Source: Secondary Research

PHARMA MARKET SIZE & FORECAST

Fig 17. – IPM Projected growth, USD Bn



Source: IQVIA Audits, Estimates

The Indian Pharmaceutical sector has emerged as the largest provider of generic drugs for global needs by offering supplies of more than 50% all vaccines, 40% generic needs in US and 25% medicine needs in UK.[2]

The Indian Pharma Market (IPM), sized at USD 20bn, is expected to grow at a CAGR of 7.7% between 2019 and 2024 reaching 30 Bn LCD by 2024 (See Fig. 17)

The COVID-19 pandemic had a highly disruptive impact on pharmaceutical sales. The lockdown resulted in subsequent decline of patient flow and concomitant decline in prescriptions and new prescription initiation. This led to a 3.8% drop in retail pharmacy sales and a 6.5% drop in hospital sales.[1]

However, since the lockdown was relaxed in June, the market has seen a sharp recovery in terms of sales growth and therefore, coming back to the original growth trajectory of ~9% growth year on year.[1]

The COVID-19 pandemic has posed unprecedented challenges in understanding pharmaceutical market trends and building reliable forecasts. While the absolute numbers of COVID-19 cases are high, India's mortality rate is relatively low. There remains a significant uncertainty about the evolution of the COVID-19 pandemic and its impact on pharmaceutical market forecasts.

Sources 1. IQVIA Audits, 2. Secondary Research

CONCLUSION

Indian pharma market overview

- The Indian **economy is growing** & is **expected to maintain trajectory**
- India is the **largest exporter of pharmaceutical medicines** and has a **vibrant domestic pharma market**
- The market is **focused on generic exports**, and is locally **dominated by branded generics**; and **has seen an increasing uptake of biosimilars as well**
- The market is **slowly consolidating** distribution and retail, with increasing **relevance of e-pharmacies**, and **increasing regulation** in pharma promotions
- **Healthcare delivery is a challenge**, given the self-pay nature of the market and is dominated by private care providers
- The **government is taking key initiatives** such as **Ayushman Bharat** for provision of care and has also enabled access to medicine through government owned stores

MNCs' focus

- **Innovator therapies are gradually taking hold** in the market and are expected to contribute to the market growth
- **Patented launches are happening on a consistent basis** and some MNCs are focusing exclusively on innovator therapies
- **Several super-specialty medicines are in the pipeline,** are expected to launch in the near-to-mid term and time lag between introduction in developed markets like US and EU5 vs India is decreasing
- This has been **enabled by regulatory changes including trial waivers for therapies with unmet needs** or medicines for rare diseases
- MNCs are also conscious of the self-pay nature of the Indian market and have consciously enabled **reduced therapy prices in India**
- Further, most expensive medicines are **supported by patient support programs**, which enable further access to those patients in need for financial assistance
- The COVID-19 pandemic is expected to **accelerate market consolidation** due to unprofitability of smaller players, **government is taking steps to ensure market dynamics remain in check** including reviewing FDI rules and incentives for local API production
- **Consolidation** is also expected to **increase in the distribution channel as well as in the pharmacy segment** bolstered by COVID-19; e-pharmacies are also expected to increase their share in the market, and several have undergone consolidation in the recent past
- **Co-marketing agreements are expected to increase** as more patented medicines are launched in India, as the model becomes established
- **Pharma promotion would also move to the virtual side** as the market becomes more tech driven
- Market **growth is expected to bounce back** regain a **growth of ~9% per annum this year onwards**

Protect yourself and others from COVID-19 Don't forget to:

ACG's CSR support during COVID-19

ACG initiated its response to COVID-19 through its CSR arm ACG Cares Foundation (ACF). Guided by ACG's principle of 'Inclusion', rapid need assessment was done before initiating a response. Respective Govt. departments, local NGOs, and community representatives were consulted before finalizing areas and initiatives.

The response was launched into three broad areas:

1. Awareness Building
2. Support to Govt. Healthcare Centers
3. Support to community

Awareness Building

At the onset of COVID-19 in India, the response was primarily focused on building awareness about coronavirus. ACG runs the 'Mobile Healthcare Van' project in 36 villages around Shirwal, Talegaon, Boisar, and 12 slum pockets in Mumbai for the past 3 years. These vans are equipped with a qualified doctor, attendants, basic equipment and provide free of cost consultation and medicines. These vans undertook an additional responsibility of awareness building though-

- Posters, banners, pamphlets in local language
- Announcements for people who cannot read (this was very useful in rural areas)
- Corner meetings
- Door-to-door messaging
- Hand-wash training in schools

Trainings in schools

Posters and corner meetings

Support to Govt. Healthcare Centers

Equipment supports:

As the bigger healthcare entities (Govt./Pvt) were gearing up to augment their infrastructure and equipment. Govt. Primary Healthcare Centers in rural areas were operating on comparatively much lesser resources. ACG chose to work with 20 such centers that fall under the villages where ACG is

already working. On consultation with the medical staff, a Healthcare Center Kit was conceptualized which included sanitizer, masks, gloves, and infrared thermometers.

During unlock phases, other OPD cases started surfacing as usual. ACG augmented the centers with high-end equipment such as x-ray machines, delivery beds, and immunity booster medicines.

Healthcare Center Kit

Govt. Healthcare Centre upgradation

X- ray machines

Delivery beds

Consultation and treatment:

During the lockdown phase, with the panic mode on coupled up with more people returning to villages, the Govt. Primary Healthcare Centers in villages experienced additional workload. Mobile Healthcare Vans continued their operations in 36 villages and 12 slum pockets which were instrumental in reducing the load on Govt. Healthcare Centers by providing OPD services for cases reporting with non-COVID symptoms

Ambulance service:

4. Mobile Healthcare Vans and 2 fully equipped tertiary care ambulances were deputed to nearby Govt. centers as ambulances to be used for transportation of COVID-19 cases and pregnant women in lockdown time.

Support to community

Community support was implemented based on two important needs- 'hygiene' and 'food' that had surfaced during the rapid assessment.

Hygiene Support:

Considering transmission risk, the use of masks and sanitizer is quite crucial. However, due to either non-awareness or cost factors, many people in rural areas were not using these for personal protection.

Hence, ACG distributed 15,000 family-level hygiene kits in 36 villages and 12 slum pockets. Each kit was meant for a family of 4 and contained reusable masks and bottles of sanitizer.

Hygiene kits

Distribution in progress

Food Support:

Lockdown posed great difficulties to people who were dependent on a regular flow of income. While extending food support, the principle of reaching out to the most marginalized' was adopted. The gram panchayats conducted surveys of their respective villages and prepared lists of marginalized people (old, widow, migrant, daily wage earner, without ration card, without farmland) to be supported on priority.

3000 families from 10 villages were supported with dry ration kits containing rice, dal, sugar, salt, oil, and spices for a family of 4 for a month.

In Pithampur SEZ, for stranded migrant workers each day 500 cooked meals were provided for 30 days summing up to support of 15000 meals.

Dry ration kit distribution in progress

Cooked meals

Ration kits

COVID-19 Response

AstraZeneca India is responding to the COVID-19 (novel coronavirus) outbreak, consistent with our values to follow the science, put patients first, and do the right thing. Our priorities are to ensure the continued supply of our medicines to patients and to safeguard the health and wellbeing of all our employees and communities.

Our medicines supply chain is robust, and we continue to monitor the situation closely. Our stringent quality management system ensures the safety, quality, and efficacy of all our medicines always.

As a science-led biopharmaceutical company, our clinical research is crucial to the development of innovative new medicines, and we have taken appropriate measures to ensure continuity and mitigate any impact on our research and development programmes.

Through our scientific expertise in infectious disease and proprietary antibody discovery technology, we have rapidly mobilised our research efforts to discover novel coronavirus-neutralizing antibodies as a treatment to prevent COVID-19 disease. Our teams are now focused on identifying monoclonal antibodies to progress into the clinical trial evaluation. We look forward to providing more updates on our research soon.

Serum Institute of India (SII) is one of the world's largest vaccine manufacturers by the number of doses produced, supplying vaccines in around 170 countries across the globe. Our partnership with SII is a sub-licensing agreement for SII to manufacture and supply up to 1 billion doses to low-and middle-income countries.

AstraZeneca has committed to making the potential vaccine available to as many countries as possible at no profit during the pandemic period.

CSR response to COVID-19

Employees of AstraZeneca India came together to contribute $6.625 million towards the PM CARES Fund, a dedicated national fund that provides relief to those affected by emergencies, such as COVID-19. AstraZeneca India also facilitated the sharing of clinical experience regarding the treatment and care of COVID-19 patients via webcasts with experts from China, Korea, Japan, Italy, and Singapore, where close to 10,000 Indian healthcare practitioners took part. Besides, 130,000 N95 masks were also donated to Central & State Health departments to be distributed to frontline healthcare workers and other workers fighting against COVID-19. AstraZeneca India also helped premier medical institutions like All India Institute Of Medical Science (AIIMS), The Tata Memorial Hospital (TMH) & Govt. of Karnataka to procure 300,000 masks at the critical purchase price.

Bayer India supports fight against COVID-19

In India, The Bayer Group had a strategic approach to maximize outreach during Covid-19. Our response to the situation was immediate, highly scalable, and deployed across the country.

We work closely with the Government of India on potential medical solutions wherein we expressed willingness and support to share data, studies, expert opinions, trial results on Resochin, which was considered as a potential treatment drug in that period.

We collaborated with Maharashtra Government to develop a mobile application for self-assessment and overall management of the pandemic. The application was offered to other State Governments with necessary customizations.

Bayer has also partnered with Maharashtra Government to set-up a corona care facility at our site at Chittegaon, Aurangabad. A 4,500 square feet space has been made available at the site to help the Government establish 100 beds to treat COVID-19 patients.

1. Community outreach

It was very critical that the medical consumables required during the lockdown be of the right quality and matching the government set standards. We worked with our networks (internal and external) for identification of quality material, quick procurement, and dispatch, and responded in quick time to the needs of the community. Through our extensive vendor network, we ensured a robust, free supply of regular masks, N-95 masks, PPEs, and any other medical supplies.

With the active engagement of our employees, we reached out across 28 locations and ensured the provision of dry ration, food to frontline workers and COVID-19 patients, safety gear to the community, and followed up with COVID-19 awareness sessions.

Bayer also contributed to the PM CARES Fund and various CM relief funds (Karnataka, Maharashtra, Gujarat, Telangana, Andhra Pradesh).

2. Creating sustainable solutions for distressed farmers

Maharashtra is famous for grape cultivation and its export-quality grapes that are transported to several global markets. With the closure of local mandis due to the COVID-19 lockdown and exports being banned temporarily, grape farmers in the state were struggling to sell their produce. Bayer stepped in to link grape farmers to off-takers such as DeHaat and AgriBazaar to sell their produce.

Grape cultivation is costly and resource intensive. Once harvested, grapes have a limited shelf life and need cold storage for extended shelf life. During the lockdown due to COVID-19, cold storage facilities were overbooked or were limited. If sustainable solutions had not been thought of and support not provided to grape farmers, they would have incurred huge losses and in the worst scenario would have been for farmers to destroy their harvest.

Develop and strengthen the network

We created a platform to connect other companies with our governmental connections, networks in the medical fraternity, medical expertise, vendors, and suppliers.

The initiative to fight against COVID-19 was a collaborative effort of Bayer and Bayer Foundation India, a section 8 company and non-profit organization of Bayer in India, which undertakes Corporate Societal Engagement (CSE) activities.

Food packets ready for distribution to migrant labourers

Sanitizers distributed to police station near Thane Head Office

Distribution of ration kits to migrant workers living around Bayer Vapi site

Ration distribution to families around the Corn Breeding site at Udaipur, Rajasthan

Distribution of food packets to migrant workers at Jalna, Maharashtra

Distribution of masks, disinfectant and hand sanitizer to the police station at Chandippa, Telangana

Anand Bhavsar (right) & Mahendra Changotra (left) from Bayer hand over face masks to the official at Tata Memorial Hospital, Mumbai

Breakfast packets for police personnel near Thane Head Office

Boehringer Ingelheim India's health and sustenance programmes provide life continuity to children and other underserved communities

Boehringer Ingelheim India adopted a multi-benefit programme for several classes of underserved communities across India in 2019-20. The focus was on children's nutrition and education, with aiding therapy for the blind and enabling health infrastructure for rural access constituting other projects we undertook as part of our Corporate Social Responsibility (CSR) programme. Towards the end of the financial year, with the onset of the COVID pandemic, our CSR initiatives expanded to provide specific support for communities negatively impacted by the lockdown.

Marked by partnerships with several non-profit organisations, our CSR and social benefit initiatives during 2019-20 are listed below -

- **Digital Learning for children** in rural areas of Maharashtra: Establishing digital learning modules for the children and infrastructure for a learning environment benefitted over 600 children in Panvel, Raigad District of Maharashtra.
- **Mid-day meals to children in various schools belonging to the marginalized sections of the society.**
- **Special education and visual rehabilitation therapy** for 22 children (up to 18 years of age) with multiple disabilities and visual impairment.
- **COVID response:** Provided 1000 frontline healthcare workers in Municipal Capacity Building and Research (MCMCR) with PPEs, in addition to oxygen concentrators for patients in Dharavi, Mumbai.

United Way, Mumbai, Akshaya Patra, Muskaan Foundation, and AmeriCares were our implementation partners delivering these care programmes to communities.

Over the course of 2020, Boehringer Ingelheim globally and in India significantly enhanced its support to the fight against COVID-19, through diverse initiatives including setting up of Global Support Program to bring more financial relief, protective materials, and medicine donations to healthcare institutions and communities in need around the world.

Oxygen Concentrators donated to Support Critical COVID-19 Patients in G North Ward i.e. Dharavi Area of Mumbai




Mid – day meals being cooked and served to children migrant labourers




Special Education and Visual Rehabilitation therapy being imparted to children with multiple disabilities

CSR Activities Conducted from March'20 to Feb'21

Eisai Pharmaceuticals India Pvt. Ltd (EIL) has been actively promoting CSR activities in line with its corporate philosophy of human healthcare (hhc). In line with this philosophy, Eisai India, as part of its corporate social responsibility (CSR) commitment will make social and environmental investments to build a strong India. The CSR activities of Eisai India are an offshoot from its values of service towards society and empathy towards every individual in the society.

Eisai India is committed to continually improve its CSR and sustainability activities, has formulated, and adopted a comprehensive CSR Policy. This Policy will help in driving our business towards sustainability by institutionalizing processes to bring into practice the concept of shared value. This policy includes projects/ programs that are to be undertaken by the Company as specified in Schedule VII of the Companies Act, 2013.

Despite the prevailing pandemic situation, EIL continued to carry out CSR Activities and provided support to those stakeholders who needed support the most.

Some of the activities carried out by EIL during the past year are as follows:

Contribution to Prime Minister's Relief Fund

- EIL contributed Rs.1 Crore towards the Prime Ministers Relief Fund set up to fight COVID-19

Support to the front-line workers during COVID-19

- EIL provided N95 face masks, 3 ply facemasks to the front-line district administration workers in Visakhapatnam and Vizianagaram districts. Hand Sanitizing solution was provided to the Police Department, Health department and Electricity departments

Village Sanitation

- EIL continued to support Sanitation activities in the adopted villages of Yarada, Kasimkota, Gudem and Pedapenki
- EIL team monitored the sanitization activities such as such as cleaning of drains, Mosquito repellant spraying, and clearance of garbage to ensure cleanliness

Continuation of support to Memory Clinic

- EIL supported the Memory Clinic in Vizag despite the Pandemic situation. EIL sponsored psychologist assessed the patients for Dementia/Alzheimer's disease at King George Hospital

Digital Education Infrastructure Support

- The digital education kits provided by EIL through "Grameena Vidya" helped the students in the adopted villages of Yarada, Parawada, Pedapenki to be in touch with the teachers as these kits were very useful for conducting online classes

Supply of Masks, Soaps and Disinfectants

- EIL provided facemasks, antiseptic soaps, and disinfectants to the households in the adopted villages and ensured that they are protected from COVID-19. EIL also facilitated the sharing of COVID-19 guidelines to the volunteers in these villages

Supply of Personal Hygiene kits

- EIL was providing sanitary napkins to the girls in government schools so that they do not miss the school and the same continued during the school shut down too. EIL sent these to the School Headmistress/teachers who distributed it to the girl students. These sanitary napkins are procured from an NGO that employs handicapped women

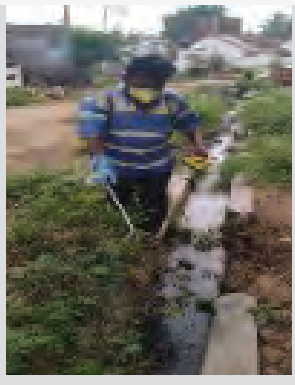
Support to Grit for life Initiative

- "Grit for Life" is a unique fundraising endeavour to support economically underprivileged cancer afflicted Indians. This event was intended to raise funds for active Prevention, Diagnosis, Treatment of needy patients drawn from all age groups, sexes, races, ethnicities & religion across India. EIL was one of the sponsors of the Grit for Life desert cyclothon. This event was organized in November '20

Supporting the Environment

- EIL continued its environmental protection initiatives with the plantation of 5000 saplings this year contributing to the program "Vanam Manam". These saplings were planted at Atchutapuram, 25 kms from Visakhapatnam. Plantation initiated in Feb'21

Support to the front-line workers during COVID-19



Village Sanitation

Supply of Masks, Soaps and Disinfectants

Support to Grit for life Initiative

Supporting the Environment

Eli Lilly and Company India CSR Initiatives

At Lilly, Corporate Social Responsibility (CSR) aligns business operations with social values: integrating the interest of all stakeholders into the company policies and actions. In India, we are committed to improving the world around us, and demonstrate that commitment via education & healthcare focused corporate responsibility projects, tackling education of migrant children & non-communicable diseases such as diabetes and hypertension. It reinforces our commitment to operating ethically and fairly and with respect for the needs of local communities and of society at large.

With the occurrence of the COVID-19 pandemic, many people lost their livelihoods, schools were conducting online classes and healthcare infrastructure needed to be upgraded. Lilly India played a key role in responding to the impact of COVID-19 in the surrounding communities. Two projects were undertaken under the banner of CSR in FY 2020-2021.

1. Lilly India in Partnership with United Way Delhi to contribute to the COVID-19 emergency response fund for LNJP hospital for the purchase of lab equipment.
2. Lilly India also contributed to the PM Cares fund.

Beyond our medicines, Lilly has a longstanding history of social impact through our efforts to strengthen communities around the world. Lilly's Global Day of Service is one way to support employee volunteerism. Every year, thousands of Lilly employees volunteer in local communities around the world, partnering with local organizations to advance their efforts to promote **healthy lives, healthy minds**, and **healthy communities.** The Lilly Global day of Service 2020 was held virtually as employees contributed their time and efforts to positively impact approximately 680 lives. Employees participated in several activities such as. :-

1. Storytelling for young children
2. Spreading awareness amongst school children – what are the precautions that should be taken during COVID-19
3. How to take care of your health and nutrition, safe hygiene practices that should be followed.
4. One on one mentoring with adults on how to manage their finances

Through virtual volunteering activities, employees were able to help the surrounding communities during these challenging times.

Storytelling for young children

Snapshot- Virtual Volunteering Activities

Key highlights of GSK Pharma's COVID-19 related CSR contribution

- Responded to a call by the State Health Minister (Maharashtra) to contribute essential medicines (Augmentin) and medical equipment (Ventilators, PPEs)
- Initiated a voluntary contribution by employees towards the PM CARES fund, with GSK India matching the amount contributed by the employees. Nearly Rs. 50 lakhs contributed.
- As a part of our continued social responsibility to fight COVID-19, donated more than 65,00,000 tablets of Calpol 650mg to Bureau of Pharma PSUs of India
- #ThankfulThursdays campaign launched to recognize contributions of our colleagues and their loved ones to fight against COVID-19

Essential medicines supply

Ventilators and PPE kits supply

Caring for the community every day, in every way

At Johnson & Johnson, we blend heart, science, and ingenuity to profoundly change the trajectory of health for humanity. Our Credo guides us to use our unique capabilities and resources for good, working with partners to forge a healthier and more equitable future for those we serve.

As concerted efforts to combat COVID-19 took shape in India and around the world, Johnson & Johnson stepped up to play its part at the very outset touching around **17,00,000 lives in India.** Efforts included:

Producing testing swabs for COVID-19: Johnson & Johnson India partnered with nine government ministries and scientific bodies, Reliance Industries and Adi Enterprises (MSME), to manufacture **Covid-19 testing swabs** that were in critical short supply in the early days of the outbreak. **We provided our scientific expertise and production capacity at no cost** to build MSME capabilities for manufacturing high-quality swabs. This was achieved in record time and at 10% of the cost of the imported swabs.

Backing the Front Line: Frontline health workers are integral to the response to COVID-19. To support our heroes on the front lines, Johnson & Johnson Family of Companies and Johnson & Johnson Foundation committed US$50 million globally to help organizations and health workers around the world in battling the pandemic. In India, Johnson & Johnson Private Limited supported impacted communities by **providing the Ministry of Public Health & Family Welfare, Government of Maharashtra, Telangana, and district Administration of Madhya Pradesh,** with N95 Masks, surgical Mask 2/3 ply Masks, and Personal Protective Equipment (PPE) Kits. **As part of our efforts, we have donated 17 lakh+ surgical masks, 85,000+ sanitizers, and 13,000+ PPE kits & other protective gear.** The company also extended its support to Americares India Foundation with 3 Ply masks, hand sanitizers, PPE Kit, face shields, and reusable gloves to equip the frontline hospital staff, health workers, Mumbai waste collectors, and Mumbai police personnel.

Recognizing the tremendous pressure and stress that health workers were facing on the front lines, we collaborated with UNICEF to provide them with dedicated psychosocial support. The project focuses on improving healthcare workforce resilience in India by ensuring that 45,000 healthcare workers across about 6,500 dedicated COVID-19 hospitals and 1,200 COVID-19 health care centers have access to a Mental Health and Wellness program.

The Indian Red Cross Society Bel-Air Hospital: With support from Johnson & Johnson, the Indian Red Cross Society run- Bel-Air Hospital at Panchgani, Maharashtra, was converted into a major nodal center in Satara District in responding to the COVID-19 outbreak. 4592 houses and 4867 people were put under house quarantine. Surveillance and health check-up of the quarantined people were carried out during the visits. 620 COVID positive patients were admitted in the COVID Care Center and COVID Health Center at Bel-Air.

Women personal care products for menstrual health and hygiene: The COVID-19 movement restrictions have affected women and girls' access to menstrual health and hygiene services. In India, we donated 44,000 sanitary pads to women and girls in COVID-19 containment zones, informal settlements, and urban slums.

Providing Meals: Worked with the International Society for Krishna Consciousness (ISKON) to provide meals for 24,390 poor and needy beneficiaries during the lockdown.

Employee volunteering: Our employees contributed time and effort in fundraising and volunteering. 200 employees contributed through payroll giving to Americares India Foundation. This received a matching contribution from the Company and helped provide PPE kits, masks, gloves, and hand sanitizers to hospitals, frontline healthcare workers, and communities in need.


B.Y.L.NAIR HOSPITAL,MUMBAI.
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VICTORY INDIA NATIONAL ORGANISATION
V.P.O. GUGLEHAR, TEH. GHANARI, DISTT. UNA (H.P.)
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BeamMED

Novartis India: Contributing to India's fight against COVID-19

COVID-19 changed the world in an unprecedented manner. It radically modified the ways in which people, communicate, work and live. The four-hour notice lockdown in India threw many challenges at government, industry, and the public alike. The biggest concern was the ability of the healthcare infrastructure to cope with rising cases.

At the onset of the pandemic, many individuals from challenging eco-social backgrounds were pushed deeper into poverty. Lack of awareness of COVID-19 symptoms and resources for prevention, posed a severe health and livelihood risk for people, mainly from the unorganized sectors. Our public health systems needed equipment – most essential at that time were PPE kits and N-95 masks – both of which were in short supply – to enable frontline workers perform their duties.

The fight against the pandemic showed us the true power of collaboration when companies, non-profits and individuals came together to support the government in relief and rehabilitation efforts. Given the healthcare challenges in a country like ours, we at Novartis India understood the importance of speed and were very quick to move. We collaborated with non-profits to make available supplies that were the need of the hour, primarily in the states of Maharashtra and Telangana, where we have the largest footprint. We engaged with our own associates through a voluntary contribution, helping bolster our efforts. We also engaged with our global associates who raised funds for backward areas of Odisha. Associates in Hyderabad volunteered their time to step out of their homes, laud worthy given the fear of the virus that had gripped the nation, and packed supplies that went to homes for the elderly and daily wagers.

From safety and hygiene kits, including PPE kits, N-95 masks, 3-ply masks, 2-ply masks, face shields, nitrile gloves, soaps, hand sanitizers and disinfectants, to thermal guns, pulse oximeters, air pillows, air beds and bedsheets, to ready meals and dry ration, Novartis affiliates in India covered the gamut with a total company funding of >INR 6 crore with local and global support. Novartis affiliate Sandoz did similarly and upgraded a hospital in Sinnar (Nashik district, Maharashtra) which became a dedicated COVID-19 hospital and is in the process of providing IT infrastructure to law enforcement in Navi Mumbai to keep track of COVID-19 positive patients. Novartis India is currently supporting the Tata Memorial Hospital set up a COVID-19 ward for cancer patients. Through its social business arm Arogya Parivar, Novartis India is also conducting awareness sessions on COVID-19 in rural India especially on the importance of wearing a mask, washing one's hands, and maintaining social distance.

Through these various initiatives and in partnership with select non-profits (Americares India Foundation, Annamrita Foundation, Lok Kala Bikas Kendra and The Medics) and partners across the spectrum including the India Postal Department, T-SIG and the Sarvodaya Mithra Mandali, we have been able to touch the lives of 2.2 million people. 80% of beneficiaries were from BPL households, including daily wage workers, differently abled people, widows, and transgenders; the balance were frontline staff, including healthcare workers and law enforcement officials, including the army and police.

What we did was perhaps a drop in the ocean in comparison to the great need. However, we do believe that what we did was timely and addressed the need of the hour. At Novartis, corporate responsibility is endorsed and ingrained at the highest level and is central to how we run our business. We have a strong sense of corporate responsibility and our focus in India is on leprosy and sickle cell disease while also tackling non-communicable diseases among the slum population, addressing the disadvantaged in rural India through health awareness programs across 14 states and 21,500 villages, launching a watershed project to achieve water neutrality and impacting the lives of the youth through education. Yes, we at Novartis India want to make a difference.

OPPI – Americares Partnership

The requirement for the equipment, manpower, and resources to tackle the pandemic of this magnitude required a participatory and collaborative approach. The Central, State, and as well as local governments had appealed to the industry bodies, social organizations, and individuals to come forth and support the COVID-19 response measures.

In line with the above, Americares India reached out for support to the Organisation of Pharmaceutical Producers of India (OPPI) for COVID-19 Emergency Response Interventions i.e., augmenting the COVID-19 testing capacity of Sion Hospital with CBNAAT and equipping the frontline hospital staff fighting COVID-19 pandemic with personal protective equipment like N95 Masks.

COVID-19 Support to Mumbai & GoM Hospitals

OPPI supported the frontline Staff of the Government of Maharashtra Hospitals in fighting the COVID-19 by providing them with the critical personal protective gear, N95 Mask. The support supplies were given to Haffkine Bio-Pharmaceutical Corporation Limited which provided medical supplies to all the Government of Maharashtra Hospitals.

The HOD Microbiology, LTMG Sion Hospital, and the Public Health Department had requested support through donating GeneXpert machines which process these swabs faster. The Cartridge Based Nucleic Acid Amplification Test (CB-NAAT) machine is a revolutionary rapid molecular test that is fully automated and provides results within two hours. Based on the above need OPPI supported the LTMG Sion Hospital with CBNAAT GeneXpert Machines for augmenting the hospital capacity for COVID-19 testing.

COVID-19 Support to Kerala Government Hospitals

OPPI supported frontline Hospital Staff in fighting the COVID-19 pandemic by equipping them with the critical personal protective N95 Mask. The support supplies were given to KMSCL which provided the N95 supplies to the frontline hospital staff.

Kerala Medical Services Corporation (KMSCL) is a fully owned Government Company for providing services to the various health care institutions under the department of Family Welfare as per Section 617 of Companies Act; 1956. The company was incorporated on 28th December 2007. One of the key objectives of the KMSCL is to act as the central procurement agency for all essential drugs and equipment for all public healthcare institutions under the department.

COVID-19 Support to Government Hospitals, North West Delhi

OPPI also supported the frontline Staff of government hospitals in North West Delhi District in fighting the COVID-19 pandemic by providing them with the critical personal protective gear N95 Mask. The four hospitals getting N95 Mask support through North West Delhi District Magistrate-

1. Dr. Baba Saheb Ambedkar Hospital, Rohini Sec-6, Delhi
2. Sanjay Gandhi Memorial Hospital, Mangol Puri, Delhi
3. Bhagwan Mahavir Hospital, Pitam Pura, Delhi
4. Deep Chand Bandhu Hospital, Ashok Vihar Ph-IV, Delhi

OPPI N95 Mask Support to KMSCL Kerala

COVID-19 Support to Government Hospitals,
North West Delhi

COVID-19 Testing Support to LTMGH- CBNAAT Gene Expert

Pfizer's CSR response to COVID-19

For the last 70 years, we at Pfizer, have been applying science and our global resources to bringing therapies to people that extend and significantly improve their lives.

For the whole of 2020, Pfizer has been leading the effort to discover therapeutics and vaccines to counter COVID-19 globally. Meanwhile, the India team, has been actively supporting government relief efforts as well as providing a conducive environment to continue manufacturing and supplying medicines to our patients across the country.

Supporting government efforts

Pfizer in India has deployed an estimated amount of Rs. 2.5 crores towards various COVID-19 relief efforts. Some of our prominent interventions include supporting frontline healthcare workers across the country with protective N95 masks, supporting the Government of Maharashtra in various initiatives towards setting up containment facilities, treatment facilities and equipment and donating essential Azithromycin tablets for use by the Central Government.

Donation of over 3 lac protective N95 Masks

Our frontline healthcare workers are performing a remarkable duty to provide healthcare services to patients across the country. Most often, they are at a considerable personal risk of contracting infections, including COVID-19. In order to provide relief to such personnel, Pfizer has funded NGOs to donate close to 3 lacs certified N95 protective masks and 1 lac 3ply masks for use by frontline workers and supporting healthcare personnel across 15 cities in India.

Providing 5 State-of-the-art ventilators

As the number of COVID-19 cases rapidly increase in Maharashtra, the MCGM Disaster Management Cell along with the Health Department are ramping up the testing and isolation facilities currently available. Pfizer has partnered with the NGO Americares to provide 5 high quality Macquet Servo-I Ventilators to three key Government hospitals with COVID-19 facilities: the 20-bed ward at the HBT Trauma Care Centre, Jogeshwari; the 10-bed ward at Bhabha Hospital, Bandra; and the 20-bed ward at Rajawadi Hospital, Ghatkopar, all located in densely populated suburbs in Mumbai.

Assisting migrant workers with food relief

Goa is home to Pfizer's manufacturing plant. Being an industrial state, it is also home to a large migrant population that would require basic food relief and support at this time. Through its NGO partners, Pfizer has provided food and grocery packets containing rice, dals, wheat flour, poha, sugar, oil and other essentials for those in need in the talukas of Sattari and Valpoi in Goa.

Donation of 75,000 tablets of Azithromycin

Responding to a call from the Government of India, Pfizer has partnered with HLL Lifecare Ltd. to donate 75,000 Azithromycin 500 Mg tablet for the treatment of COVID-19 patients under the care of Government facilities.

COVID-19 Treatment Facility for Police Personnel

In addition to the healthcare workers. our police personnel too are serving as COVID Warriors with courage and dedication. Unfortunately, their line of duty also places them at higher risks of contracting the illness. To support our Police Personnel, Pfizer has supported a 75-bed isolation ward at the Mumbai Police Kalina Hospital for the Maharashtra Police. Support was provided towards COVID-19 Emergency Response

Intervention for setting up of the temporary COVID-19 hospital dedicated to police personnel in Kalina. The support included critical lifesaving supplies such as Oxygen concentrators, Pulse Oximeters, Multipara Monitors, ECG Machines etc.

Supporting Quarantine facilities at Dharavi in Mumbai

As you are aware, Dharavi rapidly emerged as an epicenter of COVID-19 outbreak in Mumbai. The Government responded by stepping up its effort in setting up a quarantine facility to contain and control further spread of the disease. Pfizer supported the MCGM's efforts in setting up this facility by supporting critical care lifesaving equipment's such Blood Gas Analyzer Machine, ECG, Machine, Oxygen Concentrator etc. for COVID-19 patients and the frontline healthcare staff with critical protective gear like face shields.

Donation of Ventilators - 5 High quality ventilators to 3 Govt. Hospitals in Mumbai

Distribution of N95 Masks for frontline healthcare workers

Food Relief Distribution in Goa

Overcoming Pharma Supply Chain Complexities During The Pandemic

Pharmapoint (India) along with its subsidiaries, IMS and Absolute Distribution Solutions is a health-tech service provider. We currently have 16 distribution branches across the country and cover 300+ cities servicing hospitals, doctors, patients, retail chains, and pharmacies. We specialize in critical care medicine with a focus on ensuring cold chain maintenance till the last mile. The COVID-19 pandemic, presented a scenario that could never be foreseen. The sudden nationwide lockdown led to restricted mobility of goods and people, suspending all commercial activities. Several supply chain complexities were faced due to restrictions on intra and interstate movements. We were forced to go back to the drawing board, rethink our contingencies, and apply fresh strategies.

Our Mission was twofold:

- Every patient must get their required dose
- Safety of all employees while carrying on their duties

Each employee took it upon themselves to fulfil the mission, even if it meant putting themselves at risk by going into a high infection area and meeting unknown people.

Our People

- Prioritising our team's safety was of utmost importance. This was done by providing essential prophylactic medications along with covid tests, masks, sanitizer's, shields, PPE kits to staff and their family.
- SOPs were amended to include the government-mandated COVID-19 protocol of regular temperature, oxygen level checks of employees. Ensuring regular sanitization of all facilities and maintaining social distancing within the premises.

Managing the Supply Chain

At HQ

A Special covid response team was set up to tackle all operational issues. The scenario was dynamic, both the central and state governments were continuously changing their policies, overnight travel restrictions, state borders being closed, ambiguity in policies between government agencies. These created hurdles at every step of the supply chain. The covid response team at HQ had to be agile, available, and allow for quick decision-making to tackle these challenges. The team stuck to the basics and ensured that our products were adequately stocked at each branch. Since cargo flights were few with limited staff, our team spent odd hours at the airport making sure all consignments were dispatched to our branches. They also monitored and assisted the packing, labelling, and documentation process at the airport to ensure quality standards were not compromised.

At Branch

The branch team started working proactively to better plan demand and estimate the repeat/refill medication for the upcoming 15 days. The branch lead would list down required delivery schedules, make a route plan, apply for permissions, and assess the risk at stake and then assign the shipment. The team worked closely with hospitals to understand their protocol so that we could be aligned with them. Patients were engaged to check if they were able to reach a day-care activity center to take their dose. Information on the day-care

schedule was important as there was a dependency on product availability and patient's admission. Travel restrictions for the public became a challenge for patients reaching hospitals, as a result, the number of staggered single patient/institute dispatches quadrupled. Employees took their vehicles for deliveries and covered up to 500km a day to cater to patients in remote areas, for a large institute supplies vehicles were hired at much higher costs. Our team also adapted to the changing directives of the police/corporations to ensure timely supplies.

Looking Ahead -

The pandemic has had a significant impact on the attitudes and operations of our supply chains. We are committed to using technology and our learnings from the pandemic to help us adapt and be better prepared for any such future challenge.

Sanofi stands by the people of India in their fight against COVID-19

- When COVID-19 struck India, Dharavi, the largest slum in Mumbai was identified as the most vulnerable red zone in the city and state for COVID-19
- Sanofi through its NGO partner Americares supported the isolation wards (set up by Municipal Corporation of Greater Mumbai in the parking lot of Mahim) with equipment. The support extended by Sanofi was utilized for - thermal gun, auto BP apparatus, HGT machine, nebulization machine, pulse oximeter, bi-pap machine, ventilator, suction machine, defibrillator, surgical gloves, syringe pumps, latex gloves, piped oxygen supply, PPE kit and N95 masks
- In May 2020, Sanofi employees contributed their one day leave and ***Sanofi matched the contribution by adding twice the amount contributed by employees.*** The amount raised was donated to the PM Cares Fund

Managing COVID through CSR Initiatives

The COVID-19 Pandemic situation soon revealed its huge magnitude and called for urgent support towards equipment, manpower and resources to tackle the pandemic. The Central, State as well as local governments appealed to the industry bodies, social organizations and individuals to come forth and support their COVID-19 response measures.

SERDIA – AMERICARES Partnership Towards Covid 19 Response

In response to this situation, Serdia Pharmaceuticals (India) Pvt. Ltd, in collaboration with Americares India, stepped in for COVID-19 Emergency Response interventions to equip frontline hospital staff with personal protective equipment like 3 Ply Masks and sanitizers.

Serdia, by recognizing the need of the hour, for a participatory and collaborative approach, promptly came forth for this contribution.

Serdia Pharmaceuticals (India) Pvt. Ltd., through the Americares India Foundation, supported the Emergency Response Efforts towards COVID-19 with the following:

- 64,000 3 Ply Masks to Frontline, Govt. of Maharashtra Hospital Staff
- 36,000 3 Ply Masks to Frontline Govt. Hospital Staff of Raigad District
- 7,713 Nos. Hand Sanitizers (500ml) to Chhattisgarh Hospital Staff

Stock of 3 Ply Masks donated by Serdia, ready for dispatch

36,000 Units of 3 Ply Mask donated by Serdia at DHO, Raigad

Vehicle carrying Hand Sanitizers donated by Serdia getting Unloaded at CGMSCL Warehouse, Raipur

Handing over of Hand Sanitizer to CGMSCL General Manager & COVID-19 Team

Sample Photos of Hand Sanitizer received by CGMSCL General Manager & COVID-19 Team at CGMSCL Warehouse, Raipur

OPPI Member Companies Contribution to the 'Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund)

The COVID-19 pandemic is an unrivaled scientific and global health challenge. The unprecedented crisis impacted India socially, economically and above all it emerged as a major health crisis. In response to the pandemic, OPPI member companies have contributed to the 'Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund) ' in order to support the relief measures in managing COVID-19.

- AstraZeneca Pharma India Ltd
- Boehringer Ingelheim India Pvt Ltd
- Eisai Pharmaceuticals India
- Eli Lilly and Company (India) Pvt. Ltd
- Galderma India Pvt Ltd
- GlaxoSmithKline Pharmaceuticals Ltd
- Medreich Limited (a Meiji Group Company)
- MSD Pharmaceuticals Pvt. Ltd
- Sanofi India Ltd

Emerging technologies take healthcare to the doorstep of patients

DR KARTHIKEYAN PONNALAGU
Technical Director,
ARiSE Labs – AI in Software Engineering,
Robert Bosch Engineering and
Business Solutions.

How to bring healthcare more widely to the households who are either in need of prevention or post-hospitalization care or palliative care has been a riddle for a long time. The urgency comes because of the rise in costs of post-hospitalization care and the increasing frequency of hospital revisits. Monitoring patients beyond the operation rooms and ICUs may enable early detection of diseases and help in timely interventions.

The onslaught of the global pandemic only accelerated the need to assess the conventional healthcare models and explore the possibilities of technology-driven virtual patient care. Such a pre-engagement model is a significant paradigm shift, pushing technologies such as Artificial Intelligence, Machine Learning, Blockchain, and IoT into the center of the ecosystem. For instance, mature advancements in AI technologies today have considerably modified the search for innovative bio-active drugs and their therapeutic applications.

When viewed from a conventional disease cure perspective, technologies for improving quality of life, reducing healthcare waste, improving supply chain efficiency, and developing new drugs or treatments have already received considerable attention.

With so many technological advancements, what are the opportunities and motivations for researchers and technologists to bring innovations in this space? Let us look at a case in point. Sepsis is the leading cause of mortality in the ICU, responsible for 6% of all hospitalizations and 35% of all in-hospital deaths. There is a great application of Deep Reinforcement AI techniques to formulate individualized, safe, and aware treatment strategies here.

The promise of improving the diagnostic process is already one of AI's most exciting healthcare applications. Bosch, the organization I work for, has introduced corona diagnostic kits in the market that can detect virus, even if it is mutated. It takes less than 30 minutes to use its cloud-based analytics for diagnosing this. Bosch Healthcare has also designed a product named *'Vivatmo Breath Analyzer'* to measure the fractional exhaled nitric oxide (FeNO) in human breath. The test is quick, painless, and reliable and the measured value indicates allergic asthma.

Medical imaging is vital in diagnostics and each year in the US alone about 600 million imaging procedures are performed. Radiologists need to examine each image individually, while hospitals need to store them for several years. Image processing techniques are used to detect and diagnose diseases through Computerized Tomography and Magnetic Resonance Imaging. AI, Machine Learning and Analytics are helping researchers to identify patterns from a large pool of CT/MRI data and to pick up signals geographically and demographically.

Similarly, improvements in natural language processing help benefitting from extensive data extraction and to deploy outcomes in real life scenarios. To give an example, Desipramine, an antidepressant, has the ability to help cure certain types of lung cancer - an accidental discovery from NLP centric evidence extraction run on medical literature and patient records.

DSP-1181, a molecule of the drug for OCD (Obsessive Compulsive Disorder) treatment, was invented using AI-based techniques. Interestingly, the development of this molecule took a single year, while conventional pharmaceutical molecule development takes five years and more. In 2018, a team of Machine Learning researchers reported in the journal, Annals of Oncology that skin cancer could be detected more accurately with the help of deep learning convolutional neural networks. On average, human dermatologists accurately detect 86% of skin cancers from imaging, compared to 95% by Machine Learning driven Neural Network algorithms.

With the coronavirus pandemic, **Telemedicine has now become a standard service offered across all care settings**. Since February 2020, virtual care grew from less than one percent of primary care visits to nearly 43.5% in April 2020 and it will increasingly become the 'front door' to the healthcare system.

Blockchain technologies are employed by CDC to monitor diseases and report outbreaks in real-time. In this space, another technology poised for steep growth is Wireless Body Area Network (WBN) for remote health monitoring within or outside hospital premises. Wearable biosensors connected to such networks will enable virtual hospitals and real-time care, disease prevention, and disease detection.

The use of smart technology for end-users towards both preventive and corrective healthcare has been advancing steadily over the past several years. Today we have powerful devices like smart insulin pens, connected inhalers, asthma monitors, and more in the hands of everyday consumers. For example, the Philips Biosensor BX100 was installed first at the OLVG Hospital in the Netherlands, where it has been used to remotely monitor patients in isolation rooms who are diagnosed or suspected of COVID19 but don't need ventilation. Medtronic's Guardian Connect, a diabetes tracking system is the first AI-powered and FDA-approved continuous glucose monitoring (CGM) system. It can predict up to 60 minutes before the change event and give an alert of about 98% of hypoglycemic events.

In years to come, quantum computers fed by huge amounts of health parameters, genetic information, sensory data, and other personal health information, might be able to give a comprehensive prediction about a person's future health. This new normal, however, is going to put significant pressure on the data support and servicing requirements to do it effectively.

Research is beginning to focus on searching for new synthetic molecules and new immunopharmacological approaches to replace conventional drug therapies. Using AI techniques with robust algorithms enables researchers to quickly conduct millions of chemical, genetic, and pharmacological tests to rapidly identify active compounds, antibodies, or genes that modulate a particular pathway. Such high-throughput screening is increasingly becoming the technology of choice in drug discovery and is relevant to both Biology and Chemistry fields. Finally, are the technologies that are available to streamline and strengthen the health care supply chain management that is strained with pandemics and other economical constraints enough? New and emerging AI and Blockchain technologies can play a significant role in both planning and resource optimization, besides supply chain management.

Of course, the effectiveness of technologies like AI and Blockchain depends on access to data, abiding by the regulations on the collection of patient data. But the future of healthcare looks brighter than ever with this range of technologies supporting cell research, clinical research, precision therapies, critical health care, predicting epidemics, and above all avoiding preventable deaths.

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Health Meets Finance

AMIT MOOKIM
IQVIA
Managing Director, South East Asia

Healthcare sector has significantly transformed over the last few decades. However, there exists whitespaces to make public health systems more patient-centric, address financial affordability, accessibility and easier enforcement of universal health coverage. Prime Ministers Jan Arogya Yogna (PM-JAY), a flagship health initiative along with the other potential healthcare financing options and digital technology interventions are working simultaneously to achieve the goal of universal health coverage. This goal can be addressed by focusing on the faced financial challenges like high out-of-pocket expenditure, insurance coverage and access to the growing middle-income population.

COVID-19 pandemic has pushed the speed for innovation and has brought the healthcare eco system - payers, providers, policymakers, researchers and technology experts to collaboratively focus on patient centricity. 2020 has witnessed immense innovations on how outpatient care is delivered in health care practices. Insurers are working on novel models to support patients during the pandemic. Healthcare technology has played a major role to fast-track the launch of the vaccine from almost a decade to within a short span of ten months, through efforts of close collaboration between industry, researchers and regulators.

The catastrophic healthcare spend hits the lives of at least 50 million Indians. PM-JAY has been a transformational approach for funding healthcare and meeting the needs at the appropriate level of care required. Till date, PM-JAY program has transformed within its network at multiple levels to provide coverage for 65 crore Indians and onboarding over 25,000 hospitals (50:50 public v/s private). It has also crossed a significant milestone of 1.5 crore hospitalization through dedicated co-operation and support by each player i.e. – doctor, nurses, healthcare workers, paramedical staff and all the others associated parties.

Fintech has brought in the much-needed transparency, standardization, evidence-based care, analytics and transparent healthcare financing. However, the insurance penetration has been limited due to awareness around managing health risks, willingness to spend on health protection, complexity across the entire value chain and lack of trust. The entire ecosystem needs to collaborate with the changing patient care delivery system and adoption of technology – digital/remote monitoring.

Insurance Regulatory and Development Authority (IRDAI) regulator has been able to standardize the guidelines and has deployed COVID-19 specific benefit-based products such as Corona Kavach and

Corona Rakshak. It pushes its players continuously to innovate and build more need-based products. The technology interventions have reformed Health insurance claims and settlement by digitizing the entire process. The health insurance Industry has been growing at 25% YoY, but this does not currently cover the OPD financing. Drug spending accounts for 45% of household expenditure and is largely due to OPD prices.

The foundation to attain universal health coverage is set but now it needs to come into a full play to cover all the strata. In order to meet the unique needs, which were enforced due to the pandemic several ideas were applied. This must now be applied on an ongoing basis rather than be any event specific. The Pharmaceutical companies, medical devices and insurers needs to collaborate and co-create specialized products, network-based products, improved patient support services and build pharmacy benefit management model. Increasing the awareness level, solving the affordability issue, catering to the missing middle, digital innovation and leveraging all the distribution channels for an increased enrollment demands even more collaboration and concentrated approach to minimize the total healthcare expenses and overall objective to attain universal health coverage.

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Health Meets Trust

RAJITA KULKARNI
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Trust is the foundation of life. Every night we go to bed with the trust in the fact that we will wake up in the morning. Therefore, trust is the basis of what makes us live day after day. Healthcare, as is present in every aspect of life, is not far away from trust and especially because healthcare is all about life. Without trust, the healthcare industry can barely exist and survive. This pandemic has shown us more than ever before how the patients placed trust in the doctors, in the healthcare workers, and the first responders. When you are so vulnerable that you have no anchor left for yourself, for life, you place your trust in the healthcare system. Trust is foundational to life itself.

The fundamental chord of ethics suggests that it is "what you do", "how you behave when no one is watching you." Companies across the globe have rules, regulations, and compliances to follow which monitor the individuals working therein, but such frameworks are only as effective as the ability and intention of an individual to comply or follow those rules. The way an individual behaves when such rules and compliances are not in the picture constitutes the real fabric of the culture of an organisation.

Today the companies which are celebrated as having exceptional culture need not necessarily have many rules and regulations in place. Rather, they are built on day after day, act after act of individual integrity. It was rightly pointed out that individuals make an Institution. Also, despite having individual integrity if the Institutional framework does not allow an individual to express his/her integrity, then it becomes a challenge for creating a great culture at work.

Five key observations:

1. Corruption starts outside the boundary of our belongingness. We do not rob from our own or from those whom we feel are our own. As human beings, the more connected we are to the world around us and to the institution that we are a part of, the more ethically we behave. The fundamental ask of every leader in an institution is how can she makes her employees integrally connected to the Institution and its vision so that there is no pressure of creating policies for employees to make them behave ethically.
2. Individual and institutional ethicality: The point was explained considering an example of a large MNC which was charged with unethical practices. The CFO of the company narrated that as he was known for his integrity in the industry, he was chosen to give bribes with the belief that he would not cheat the company in handling bribes This was an apt example of how individual integrity was not

translated into institutional practice due to the lack of a favourable ecosystem. So, both aspects are interconnected.

3. Looking through the lens of the Financial Crisis of 2007-08, it is evident how unethical behaviour got acceptance in the business world as people started believing that it is business practice. Due to herd mentality, wrong behaviour was construed as a business practice. It has been witnessed in the financial markets, media, and pharmaceutical industry.

4. The grey area of the business where there is a little demarcation between right and wrong needs to be identified and properly dealt with.

5. The short-term versus long-term Paradox: To meet the short-term goals, many times we are tempted to do things that are not correct. The pandemic has forced us to look in the context of our lives, the short-term vs the long-term aspects. In the short term an unethical practice might pay, but in the long-run repercussions of unethical practices are detrimental. Capital flows to companies that are ethical in their conduct. On S&P 500, it is seen that ethical companies outperform in the long run.

Three things to change in the health care system:

1. In the context of building the first Integrated Medical College in India at Sri Sri University, it was experienced that only good intention is not enough and unfortunately there is bureaucracy at various levels of the system and a lot of which is duplicated across various health care streams. So, there could be one integrated solution offered to the people and left it to their choice to select rather than enforcing solutions upon them.

2. The ongoing debates on the vaccine for COVID-19 poses a big question on ethics. As some of the nations are not able to develop the vaccines on their own nor they can afford to buy from other nations, does that mean their lives of people of those countries are less precious than others?

3. Silos in medical treatment where doctors are ready to take responsibility for one part of the body and not sure of its impediments for the rest of the body parts leave the patients with more fear and less assurance.

Message

Mental health is an important aspect of the overall health of an individual. Take some time off every day to meditate and find your oasis of peace.
A strong Mind can carry a weak body, but a weak Mind cannot make a strong body survive.

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Health Needs Quality

ADIL ZAINULBHAI
Chairman, Quality Council of India (QCI)

"India using vaccine diplomacy to help other countries based on India's manufacturing prowess".

"India emerging as second largest PPE supplier in the world".

"India is the COVID pharmacy of the world".

These headlines over the past few months have highlighted how India has been able to achieve volume and quality when called upon to cater to the world. India's rapid ramp-up of testing, production of Personal Protective Equipment (PPE) kits and development of vaccines now serves as a testament to the prowess of the Indian healthcare sector to the world and has demonstrated its ability to deliver quality pharmaceuticals and medical devices in large volumes in times of acute need. Within a short period of two months, India went from being an importer of PPEs to becoming the second largest manufacturer of PPEs in the world; our hospitals have been able to provide a state-of-the-art treatment to those afflicted by COVID-19 at an affordable price; our pharma companies have been able to ramp up production of COVID medicines for the world; and now vaccine manufacturing and distribution is giving India a name in diplomatic circles.

To further galvanise the strides made during this time, the Government committed to increasing its expenditure on health by over 137%. While this is encouraging, certain challenges remain: how to merge prevention and care, and how to deliver these services at high quality. Our citizens' expectations on quality have grown, and the entire system must attain and uphold these standards.

Quality is need of the hour.

In current scenario, there is no official estimate of the number of hospitals; different stakeholders quote different figures as there is no accurate information available. Quality Council of India (QCI) and one of its constituent boards, National Accreditation Board for Hospitals and Healthcare Providers (NABH), have been trying to bridge this gap and have been successful in mapping and accrediting more than 7,500 healthcare units across India. Despite having a huge network, albeit fragmented, of healthcare labs, we have found that only the big chains emphasise quality by getting accreditation from National Accreditation Board for Testing and Calibration Laboratories (NABL). Till now NABL has accredited over 6,500 labs consistent with international standards but more than 1,00,000 small and medium labs are yet to be brought at par with global norms.

Government's push for Ayushman Bharat is in the right direction to achieve Right to Health for Indian citizens. The programme is moving at a substantial pace in expanding its reach to citizens and on-boarding large number of hospitals. QCI has partnered with National Health Authority to certify Ayushman Bharat empanelled hospitals with the aim of bringing quality to the forefront of the national programme.

Technology for ease of health services

Creative destruction is an inevitable part of any system, and the healthcare space is no exception. Here, technology will enable India to leapfrog current practises and deliver better quality healthcare at much lower costs. The rapid uptake of telemedicine in the midst of the lockdown is proof that technology can facilitate and democratise access to healthcare even in the remotest parts of the country: e-Sanjeevani OPD recorded upwards of a million consultations since its launch in April of 2020. India is at the precipice of a unique intersection: Government's push on digital learning combined with the technological disruption ushered by private players means that the time is ripe for solving the twin, tenacious problems of accessibility and availability. Additionally, the Government has started an ambitious project, the National Digital Health Mission, to build India's health stack and digitise all medical data. This data will further help to understand gaps in the sector and devise a targeted approach to utilise our resources.

For us at QCI, technological intervention has always been a priority. Our push to become completely paperless in our functioning and digitise healthcare programmes has yielded encouraging results: average time taken to certify hospitals has decreased substantially, duplicate records have been removed, payment process has been streamlined, and monitoring has become easier. We are also in the process of analysing key health parameters from healthcare providers to provide key insights to the nation and devise an actionable roadmap for the sector.

The current healthcare programmes are quite promising with their focus on quality. Should their objectives be realised, the tangible and intangible benefits will help to uplift quality of life and standard of living of Indian citizens. India's plan for an Aatmanirbhar Bharat has its foundation in quality and similarly it will be crucial for India's healthcare sector as well.

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Health Needs Tech

SRIRAM SHRINIVASAN
Health and Life Sciences Leader EY India and the Emerging Markets

The pace of digital transformation – before COVID-19 or after COVID-19 is like none other. It has fundamentally changed the way we socialize, shop, work and exercise. According to the *EY Future Consumer Index* released in July 2020, contact-less delivery systems and cashless payments are just a few of the consumer behaviours that could now become lasting changes. The Healthcare industry both globally and in India has been no exception; more so given its significance to society at large, the shift caused due to digital disruption feels intense and like never before.

Virtual Care adoption in the Covid-19 pandemic: "the new now"

Virtual care constitutes of tele-consult, telepathology, teleradiology and e-pharmacy and is experiencing an encouraging stimulus in India due to the pandemic. Virtual care has been prevalent since a while now and not a new concept in India. One of the oldest and largest multispecialty hospital in India runs a large telemedicine network. Likewise, telemedicine has been successfully used to conduct screening of eye diseases (tele–ophthalmology) in rural areas in the general population across various states in India. However, it has witnessed the highest adoption during the pandemic time. Closure of OPDs and social distancing meant other means of enabling doctor-patient interactions would be needed.

As per the *EY report,* globally, teleconsulting platforms in the US and China experienced 50%-100% uptake during Covid-19 pandemic times. Indian start-ups in health appointments experienced similar uptake during lockdowns including leading healthcare chains doing 200 - 500 tele-consults per day.

Government is also taking necessary steps through active policy making to develop the teleconsultation ecosystem and increase its adoption. In March 2020, the Medical council of India (MCI) released the telemedicine guidelines providing necessary impetus to teleconsulting. Digital policies including National Digital Health have given a boost to private entities also to participate in creating collaborative digital platforms. Moreover, increasing spend on medical infrastructure is likely to accelerate virtual care adoption rate.

As per the analysis from the *EY report,* Teleconsultation's market size in India is expected to grow from **US$100m to US$700m** in next five years at a CAGR of **48%**. The teleconsultation and e-pharmacy are likely to account for **~95%** of the total telemedicine market by 2025 in India which amounts to **US$5.2b**.

There is a need for a paradigm shift in the healthcare delivery system in India. About 75% of India's population living outside urban cities has access to only 31.5% hospitals and 16% hospital beds.1 Such dismal state of public health infrastructure combined with the pandemic, has pushed the country into the current state marked by limited access to healthcare in a mass health exigency. Teleconsultation shows the promise to bridge this gap with increased access to healthcare services.

However, there there are challenges towards its adoption. Some of the key challenges include patient data privacy concerns, trust issues, concern about substitution, counterfeiting, consultation limitations, lack of adequate infrastructure in rural, tier 2 and tier 3 cities etc. which need to be addressed through a collaborative ecosystem to make it sustainable and scalable.

Key factors to make health tech a success:

Patient experience will remain a key determinant for continued use of health tech or virtual care services. As one of the key pillars of the health ecosystem, pharmaceutical companies have a strong and significant influence on shaping the virtual care or health tech maturity cycle. They can play a crucial role towards creating a comprehensive virtual solution for doctors and patients to enable seamless patient care in a secure environment.

"Phygital" (physical along with digital) is likely to be the new normal with data being the backbone of this model. Indian regulatory bodies 'including' with 'and'. medical, industry associations and private players are collaborating to enable the transition. Navigating the emerging collaborative platforms may be challenging for the stakeholders but are a vital cog in achieving sustainability. The actions accomplished today have the potential of transforming the healthcare system of tomorrow and the fact that the most important aspect of Health is the Human aspect – Health needs Tech to progress the very foundations of our civilisation.

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Patients perspective- India's Healthcare Transformational Journey

DR RATNA DEVI
Chair of The Board of Trustees at IAPO, Founding member IPAG & CEO Dakshayani and Amaravati Health and education

Over the past few years, a lot of positive trends have been observed as far as patient groups and patient voice is concerned in India, the starting point being knowledge dissemination. A lot more information clearly and transparently is now available for patients, including from websites promoted by various government agencies where you could refer to as patient and seek the information you want. Public dialogues have improved significantly, and policy papers and other documents have been put in the public domain so that discussions, interactions, and giving opinions have become easy, in addition to participation by government officials in patient led events is much more.

The willingness to listen to has increased and chances of getting heard and valued for the patient perspective are now more than earlier, resulting in an enhanced patient voice. Patients are now invited to technical platforms, regulatory discussions, and committees in the government machinery. An example is the patient representative voice in the health technology assessment of India, ICMR bodies, patient safety and AMR stewardship.

The unprecedented crisis of COVID-19 has brought some positives and negatives for the patient community. Amongst the positives was the collaboration and work done by the government, industry, and associations to achieve outcomes at scale. While the government was putting together measures to manage the most sick and vulnerable, civil society, healthcare sector, not for profit organizations gave the fastest response - distributing food, ration, clothes, medicines etc. Several Patient groups came forward and distributed medicines for emergency care for people who could not reach hospitals, transport was arranged, online physiotherapy and counseling sessions were arranged and community support to lost, stranded and lonely people was provided with great magnanimity.

As with everything else, healthcare also went digital and proved to be a lifesaver with travel restrictions and fear of infection in every household limiting access to doctors and other healthcare specialists. However, many people faced challenges in understanding access and use of the digital platform, due to language barriers, limited connectivity etc. The digital transformation brought new excitement amongst the patient groups, as the teleconsultation and telemedicine ecosystem transformed access to the specialist healthcare services and bridged the urban – rural divide. Linked to digital, Electronic Health Records (EHR) can play a critical role in tracking, tracing, and maintaining patient health records that can be used for epidemiological predictions and other public health measures.

While the pandemic has positively stimulated the healthcare sector and its transformation in the last year was commendable, several areas remain uncovered, with investment in health sector still being dismally low. Without the right fiscal stimulus, making healthcare accessible for all will remain an aspiration. The poor and marginalized are covered under the Pradhan Mantri Jan Arogya Yojana (PMJAY) but several millions still struggle to make simple choices for healthcare as cost of care is rising steeply and government infrastructure is unable to meet the demand.

A big area of focus that remains neglected is investment in research. Academic institutions are not investing or promoting application-based curriculum that promotes research and patient-led research, publications by patient groups as lead authors and peer reviewers is completely missing. Behavioral and social research is almost negligent, missing out on aspects of human behavior, vital to design and implement of prevention programs. While standards of care guidelines, treatment protocols etc are now being published by the government, adoption, and adherence to these protocols by the physician community, remains a matter of concern.

For healthcare to be truly transformational, systems should be truly resilient, adaptable, and agile. A system ready to meet the increasingly diverse and complex challenges of the modern world. This can happen when patients are a core focus and healthcare, and health systems are co-created, co-produced and co-delivered. **Patients must move up the value chain from being passive participants to active influencers.**

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Whitepaper: Good Distribution Practices (GDP) for Pharmaceutical Products

Summary

OPPI, along with Nexdigm (SKP), has recently published a whitepaper on 'Good Distribution Practices for Pharmaceutical Products' to explore a critical theme in the current global landscape.

While COVID-19 has brought global and national healthcare under scrutiny, the world continues to depend on Indian pharmaceutical and vaccine manufacturers substantially for their supply of medications. The Indian pharmaceutical industry has an important role in promoting local and global health goals.

Rightly hailed as the 'Pharmacy to the World,' Indian pharma is home to over 3,000 manufacturers and ~10,500 manufacturing units, with domestic annual revenue of USD 20 billion as of 2019. The world's 3rd largest manufacturer by volume, India's role in manufacturing medicines, particularly generics, makes the industry critical in the global landscape.

An industry with strong continuing growth prospects, Indian pharma still has considerable room to improve in the area of quality standards for distribution practices. With patents valued at ~USD 200 billion expected to expire in the next 4-5 years experts suggest that the industry could grow to ~USD 100 billion in value by 2025. There is a clear need for strengthening domestic and global supply standards to unlock such potential.

Ensuring uniform product availability and quality across India's large and diversified geography is an immense challenge for manufacturers. The unique structure of the Indian pharma supply chain, with a plethora of stakeholders involved, each with unique challenges and systems, further adds to this complexity. The emerging, disruptive adoption of e-pharmacies further adds to the concerns around storage and transportation procedures, product quality and safety, and traceability for manufacturers. Currently, the downstream supply chain consists of nearly 65,000 distributors and 550,000 pharmacies.

A pharmaceutical product label is a critical part of the product package and also specifically approved by the regulator. The label provides details regarding product composition, indications and usage including dosage, manufacturing batch details/other identifiers like barcodes, expiry date, storage conditions, any special warnings or guidance etc. This label information is crucial for the distributors, retailers and consumers and it is essential that the product is transported, stored and used as defined in the label for safe and effective usage.

Good Distribution Practices or 'GDP' aims to establish standards to help maintain the quality and integrity of pharma products across the supply chain. As GDP would cater to a wide range of products with different storage requirements and shelf lives, this challenging initiative requires close collaboration between policymakers, industry and all other stakeholders in the distribution chain. India's complex Supply Chain, which has limited traceability and a highly localized and fragmented last-mile delivery network, further compounds the challenge. Cold chain requirements across products are also an important consideration for maintaining the efficacy of a number of drugs.

Effective management of product distribution is globally recognized as a critical issue and receives continuing focus and attention from major stakeholders and regulators. Global regulators have identified and addressed it, with the USFDA, WHO, EU, and PIC/S issuing GDP guidelines in their respective jurisdictions.

Overall, these guidelines focus on critical areas like quality management, warehouse management, and storage standards, product transportation and tracing, training and workforce development, among others. India's pharmaceutical GDP journey was initiated by the Central Drugs Standard Control Organization (CDSCO) in 2018, with the release of draft guidelines. The areas covered under these guidelines include, but are not limited to, purchase, storage, distribution, procurement, documentation transportation, and record-keeping practices. These now need to be reviewed and finalized, followed by quick well-governed implementation.

Establishing and abiding by detailed and well-structured GDP would go a long way in solidifying the global aspirations of Indian pharma. Not only can GDP help improve patient health outcomes, but it can also help address reputational, litigation, and financial risks for pharma manufacturers. This includes managing product recalls, reducing counterfeiting, or ensuring compliance with local permissions, among others. The supply chain needs an overhaul, and a regulatory impetus can certainly catalyze the change.

The paper ideates on several areas and shares recommendations to strengthen India's GDPs across Quality Management, Premises, Warehouse and Equipment, Traceability, Personnel, Documentation and Transportation.

For **Quality Management,** documented policies on distributor requirements, procurement and release procedures, and product tampering, as well as a defined system that lays out roles, responsibilities, audits, and pre-emptive risk assessment, sponsored and supported by the top management, are to be to implemented.

In terms **of Premises, Warehouse and Equipment** management, GDP guidelines need to specify policies and procedures regarding premise quality, access restriction on-premises, SOPs for cleaning and pest control, separation of storage areas for various categories (commercial, quarantine, counterfeit, rejected, etc.), implementation of FEFO (First Expiry/First Out), temperature recording and monitoring, among others. This stage is critical for maintaining quality and the need to avoid risk of contamination, as well as ensuring preventive maintenance of critical equipment to avoid deviations.

Traceability is a critical consideration and should span seamlessly across stakeholders by laying out procedures to ensure documentation and tracking of products. All the stakeholders in the supply chain should be identifiable and responsible for maintaining the legibility of batch numbers while handling products. Retailers should record and maintain patient details for prescription medicines. Additionally, internationally compatible product codes and identification systems should be developed in collaboration with involved parties.

All involved **Personnel** should receive periodic training about the requirements of the GDP guidelines, covering documented standard operating procedures (SOPs) for GDPs, including roles, responsibilities, and accountability. The Government and industry bodies will need to make long-term investments to develop skill and capability building initiatives to ensure the availability of such workers. Personnel dealing with medicinal products requiring more stringent handling, presenting special risks of abuse, or temperature-sensitive products should be given specific training. Moreover, emergency responders who can be contacted outside of regular office hours for emergencies should be identified to manage emergencies.

Maintain 'good' **Documentation,** which includes maintaining comprehensive and easily understandable records of all distribution activities, and personnel should get ready access. Mechanisms or systems to facilitate the transfer of information should also be developed. The national legislation should include the recommendation for the retention of documents for a specific period.

The vehicles used for product **Transportation** should be equipped to prevent pilferage, contamination, or adulteration, maintain special storage conditions (e.g., temperature and relative humidity), and relay movement data with GPS-enabled tracking devices. The responsible individuals should be informed about all relevant conditions for storage and transportation, and any deviations in the delivery route or schedule of delivery should be intimated to the distributor and recipient immediately. Products should be appropriately segregated during the movement, and the available space should be optimized to cut down costs and the risk of damage.

As India moves to achieve the goal of 'One Nation, One Drug,' the quality gap between export and domestic markets needs to be eliminated, and GDPs can go a long way in enabling this change. While the initiative requires significant monetary and policy investment, the clear and tangible benefits to stakeholders in the medium to long run certainly justify it.

OPPI

PRESENTS

Digital Knowledge Series

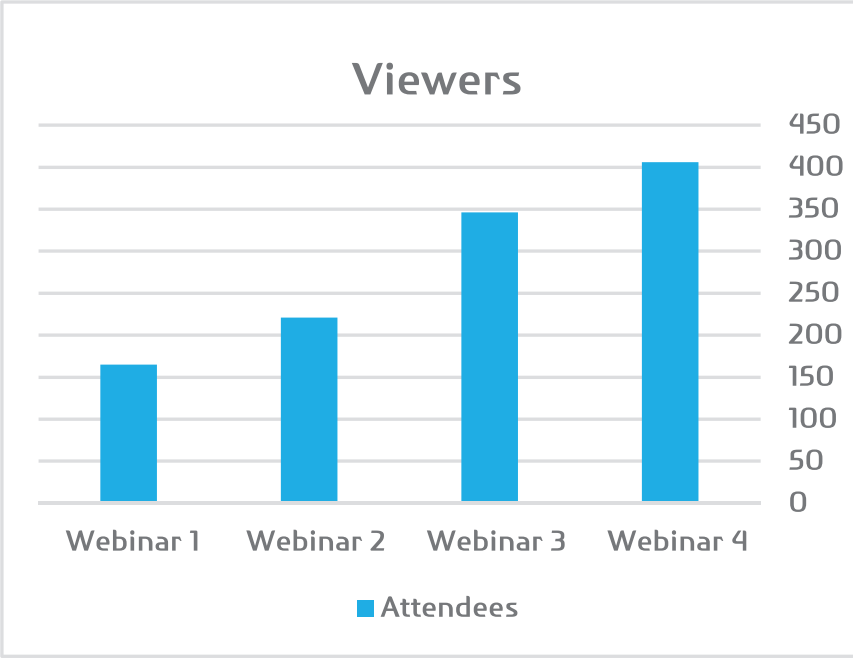
IN COLLABORATION WITH

The COVID-19 pandemic has redefined engagements among the external and internal audience, alike. Digital engagements are becoming increasingly critical. And credibility, authenticity, and trustworthiness are emerging as the key themes for digital engagements to become meaningful. Webinars are becoming increasingly useful in keeping the audience engaged and these conversations are now the new fuel for thoughts.

In a pan-industry collaborative initiative, OPPI embarked on a digital knowledge series, with IPA and IDMA, in the interest of the entire industry. The knowledge series kickstarted during the peak of the COVID-19 lockdown - April 29, 2020. The series comprised seven webinars and concluded on July 10, 2020.

The series covered topics of relevance and interest. OPPI drove this initiative through knowledge partners who were the subject matter experts.

Fully designed and executed in-house by the OPPI Communications team, the webinar was supported by the OPPI Executive Committee. Several OPPI EC members participated in it and shared their views on the topics and their importance and served to moderate questions with the panellists. Mr. G Sathya Narayanan, Managing Director – South Asia, Galderma India Private Limited has been closely involved with all the webinars along with Mr. Rajaram Narayanan, Managing Director, Sanofi India Limited; Mr. S. Sridhar, Managing Director, Pfizer Limited; Mr. Sarthak Ranade Managing Director, Janssen India The Janssen Pharmaceutical Companies of Johnson & Johnson; Mr. Manoj Saxena, Country Division Head South Asia, Bayer Pharmaceuticals Pvt Limited; Mr. Suresh Pattathil, General Manager AbbVie India; Ms. Ashwini Deshpande, General Manager India, Bristol- Myers Squibb India Private Limited; Mr. Anandram Narasimhan, Managing Director, Merck Specialities Private Limited; Mr. Vikrant Shrotriya, Managing Director and Corporate Vice President, Novo Nordisk India Pvt Limited and Mr. Milind Thatte, Managing Director, Procter & Gamble Health Limited; who have all been a part of these series. Beginning with a modest attendee list of 133 participants, the knowledge series became immensely popular because of its content-rich format and subject experts. The webinars have received an overwhelming response and many industry colleagues have expressed their interest to hear more from OPPI as credibility and authenticity have augmented our position as thought and knowledge leaders.



With increasing engagement and content, the participation grew by over 200%

1. Creating a Resilient and Future - Ready Supply Chain

Date- 29th April,2020

Dhaval Buch
Senior advisor, Blackstone
Former Chief Procurement Head, Unilever

The webinar focussed on critical factors to be considered and major pillars to track, manage, and collaboratively resolve supply chain issues that were faced in hard times to be able to alter current operations into developing an agile and future-ready supply chain.

The concept of having a **"War Room" or "Crisis Room"** was introduced. An agglomeration of people dedicated to managing different aspects of the supply chain. The people involved must be dedicated to their allotted sub-disciplines, and everyone must continue to have a sense of context and understanding about their area all through the period that the War Room has been created for. To set this up in the operations of an organization seamlessly, one must start with considering different business planning scenarios.

This involves critical focus SKUs considering geographies, customers, the demand of the product, etc. The continuing of such category of operations in a stable supply chain of the future, with the same focus

and level of concentration. These are called “Control Towers”, which in the supply chain context are **Planning, Logistics, and Manufacturing Control Towers.**

- The Planning Control Tower
- The Logistics Control Tower
- The Manufacturing Control Tower

Putting these pillars in place will give immense agility to the supply chain, something that is critically required at this point. This is also the first place where digitization can happen in the future, to make a modernized supply chain.

2. Organisational leadership in the post COVID-19 world

Date-5th May, 2020
Knowledge partner- Korn Ferry

Gurprriet Singh
Senior Client Partner
Korn Ferry

Nishith Mohanty
Client Partner,
Korn Ferry

To improve is to change, to be perfect is to change often. Leaders are preparing for 4 phases to respond to the unprecedented crisis.

1. SURVIVE- Respond to the crisis and protect the business.
2. RETURN- Ensure business continuity and prepare for the return.
3. REBOUND- Out race and outsmart the competition.
4. REIMAGINE- Transform your business for the future.

In the near-term leaders should prioritize immediate customer needs/demand and plan to restart manufacturing selectively so that supply is ensured, and weak links are strengthened. Prioritize key partners, vendors, suppliers, and distributors. Ensure manpower, availability across key locations and functions.

In the medium to long run, a leader should consider alliance scan to engage into differentiator partnerships- what was Anathema once, is relevant now and a vulnerability scan to detect and protect the downsides should be looked at by the leaders. Key learnings from the crisis which will be adopted as a way of life and which will affect the business model in the future is another critical aspect to be considered in the hands of organizations’ leadership.

The webinar also discussed 4 successful personas/ archetypes of leaders-

The Light house

- Early alarmist
- Assertive
- Independent
- Courageous

The Empathetic leader

- Humility
- Balancing stakeholders
- Valuing differences

The Prescriptive Leader

- Confidence
- Assertiveness
- Ensures accountability.
- Communicates effectively.

The Multiplier

- Sociability
- Affiliation
- Builds network.
- Drives engagement.

3. CONSUMER SENTIMENT DURING AND POST COVID-19

Date-12th May, 2020
Knowledge partners- Bain & company

Parijat Ghosh
Partner
Bain & company

Nikhil Prasad Ojha
Partner
Bain & company

As the world is beginning to turn the page to write a new chapter of Covid-19, a chapter which depicts not only how their lives are different today than they were yesterday, but also how the pandemic has changed their way of living for tomorrow and forever. As the economy is slowly recovering the new challenges for companies and businesses are to meet the new preferences and expectations of their consumers.

The webinar asked for open opinions of participants, about their sense of COVID-19 FY21 impact vs. FY2020 on their businesses?

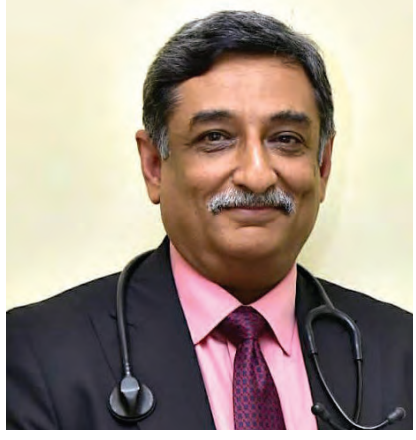
And a response in unison was expected upward growth trajectory of business followed by other responses. The baseline of one part of the webinar was concentrated on that 2/3rd of consumption is from low and lower mid-income groups and that there was a secular decline in the spending driven by future uncertainty. Safety and risk avoidance were top concerns; key insights like risk reduction, affiliation with national, social, and other groups are high, etc. would remain persistent.

An in-depth discussion on changing consumer habits and behaviours covered topics like spend on healthcare, recovery patterns, the digital engagement between patients and HCP's, connected care for patients, flight to value and quality, down trading, and premiumization. Factors influencing changes in HCP behaviour in India, an increase of digital health usage, and evolving need for health maintenance and convenience.

4. CAN TELEMEDICINE MOVE MAINSTREAM- Perspectives from The Experts

Date-19th May, 2020
Knowledge partner- Havas Life Sorento

Dr Ajay Nair
Healthcare Entrepreneur,
ANC



Dr Manoj Chadha
Consultant Endocrinologist,
P.D. Hinduja Hospital, Mumbai

Salil S Kallianpur
Founder & MD,
ARKS Knowledge Consulting

A new ocean cannot be discovered unless you dare to leave the sight of the shore. Telemedicine is the new ocean, which is the next big disrupter in healthcare. The telemedicine market in India is expected to reach $5.4 billion by 2025 with a compounded annual growth rate of 31%. Innovations like telemedicine are allowing health organizations to enhance access and reduce the burden on hospitals through real-time consultations with doctors and experts.
The webinar answered some of the key questions like-

1. What are doctors' apprehensions before getting into telemedicine?
2. What are patients' apprehensions on telemedicine?
3. How are hospitals adapting to telemedicine consultations post COVID-19 scenario?
4. What kind of regulations is expected in terms of telemedicine?
5. Adoptions of telemedicine?

6. How can pharma companies look at telemedicine and what they should be doing?
7. Which specialties would be more active on telemedicine?
8. How can we make the entire telemedicine consultation better for HCP's and patients?
9. How telemedicine can be created which are easy to be used?

Telemedicine bridges the gap of inequities in healthcare. Trust, identification, consultation changes, in the long run, follow-ups, regulations in telemedicine, design thinking, bringing in AI and IoT, targeting within different segments, etc are some of the subjects which need utter work while we think of making telemedicine go mainstream.

The immense scope for the pharma industry in telemedicine, building supply network into rural markets, working with doctors on teleconsultations as knowledge partners, and working with e-pharmacy programs the three seas to dive in.

5. DIGITAL MARKETING-THE NEXT BIG THING IN PHARMA MARKETING

Date-28th May, 2020
Knowledge partner- IQVIA

Amit Mookim
IQVIA, Managing Director, South East Asia

S V Rajagopal
Principal, Digital, IQVIA

The pharmaceutical industry which is considered laggards is boarding digital technology in terms of process, connecting with the customers, as well as with markets where regulators and payers play a significant role.

Engaging HCP's and patients who are the core stakeholders and their adaptation to digital was the centre of this discussion - In a period of 6 years there has been a gradual increase and shift in doctor's behaviour of consumption of information and other services via digital platforms, and not only a shift of gadgets but also a 50% increase has been recorded on the screen time. The pandemic stimulated the germination of new engagement initiatives like diffusion of information over WhatsApp, connecting with med reps over WhatsApp calls and emails, webinars, sponsoring online CME's. An upsurge in the digital usage of patients by leveraging online platforms for their care needs was also observed.

Programmatic path of digital in pharma marketing

- The Programmatic approach deals with the digital strategy starting from the care journey which is the fundamental building block in the digital space
- A case study of a company revealed about influence points to intervene
- The innovative pharma products that are leveraging their value stories were discussed
- How sales of various therapeutic segments have been affected due to COVID-19and what was the impact of digital engagement
- The KPIs link with digital business

And the Q&A session concluded the webinar with answers to following questions -

1. How sustainable is the shift?
2. Can pharma leverage the public health ecosystem?
3. Will different touchpoints become interconnected?
4. Who owns the digital vision?

6. Digital Skilling & Reskilling

Date-2nd June, 2020
Knowledge Partner- Korn Ferry.

Sharad Vishvanath
Senior Client Partner,
Korn Ferry

Nishith Mohanty
Client Partner,
Korn Ferry

Future belongs to those who learn more skills and combine them in creative ways; the future is all about fast beating the slow, it is about adapting, re-inventing, and responding to the changing business dynamics. Today we live in a data-driven world that requires digital dexterity and customer-first innovation is all about a robust digital agenda. The main agenda of the webinar was to bring out what digital means to life science, executing a mindset, culture, and capability change.

Digital today is not just about technology or digital marketing, but it brings together wider aspects like impact on the customer journey, deploying data and analytics to make a better decision, driving innovation, leading, and influencing suitably to digital future, enabling digital commerce, creating products and services for the digital age, and leveraging digital for better and efficient operations. The

lockdown has been an opportunity for employees to re-invent and re-skill themselves. It is critical to ensure we build digital skills enabling 5 segments, i.e., future talent, known critical, new critical, high volumes, and core professionals to complement each other and not create silos between digital and non-digital talent. The digital capability transformation is dependent on 3 factors – digital mindset, digital confidence, and digital literacy.

The major challenges faced by a life science company are pressure on employees, complex changes in the environment, an environment that demands agile learners, and a need to rapidly build and accelerate shifts at scale.

It is not about doing digital it is about being digital. As the pharma industry, we are quite late to adopt digital technology, but now we can leverage this to ensure that we are increasingly efficient and focus our energy and efforts towards serving patients faster and better.

7. Future of field force in a post COVID-19 world

Date-9th June, 2020
Knowledge partner- IPSOS

Monica Gangwani
Executive Director and
Service Line Leader Healthcare,
IPSOS

As per the surveys conducted it is evident that salesforce teams will continue to play a critical role in the engagement models. As it is rightly said content is the king and engagement is the queen and the queen rules. The coming new normal is a blended mix of channels and the pharma marketing playbook will need another chapter to it. Strategic use of digital tools along with the understanding of the digital mindset of the patients and HCP's will emerge as a key ingredient in the new marketing concoction.

Even before the pandemic, high saliency was observed for digital healthcare technology in India. Doctors expect pharma companies to ensure business as usual in terms of medical supplies and patient support programs. HCP's have also started tracking patient health remotely using wearables and sensor technologies.

During COVID-19 times though the doctors have experienced telephonic, WhatsApp, and e- detailing, but the preferred mode of interaction is still in-person visits of the medical representatives. Remote detailing is perceived to be effective and convenient by the doctor. And therefore, for productive and effective field force engagements, the new trend will be the combination of face-to-face engagements and digital interactions. The future role of a medical representative is where he/she will wear multiple hats- take on the responsibility of scientific officer for doctors, be adept at telephonic and e-detailing, facilitate doctors to navigate digital platforms and their interactions with patients, etc.

8. Power of organisational culture in shaping business.

Date-10th July, 2020
Knowledge partner- Stanton Chase

Egbert Schram
Group CEO
Hofstede Insights

Akhilesh Mandal
Managing Director
Hofstede Insights India

Culture is driven by purposes and values. It is the only point of sustainable difference as strategy or tactics can be copied but culture cannot. if we must search for a common trait in all successful organizations, a strong culture is an inarguable answer.

The world has become increasingly complex and to survive as a business, the ability to assimilate cross-cultural differences at an organizational level plays a vital role in the successful implementation of strategic goals. The webinar presents a case study where the culture of the organization is measured (by using the Geert Hofstede model) and is aligned with the strategic goals of the participating companies, and productivity was found to have increased in a compounding fashion and strategic goals achieved. Companies should be explicit during the joint working practices as national cultures impact the meaning of words and with that, the actual behaviours and emotions attached.

Consideration of the business environment is the key to an enabling culture. Strategic goals aligned with the organizational culture increase ROE and EBITDA. A combination of dimensions in the multi-focus model of organizational culture will determine to which extent behaviour measured supports strategy execution.

Multi focus model of organisational culture.

EFFECTIVENESS Means Vs Goals	FOCUS/SOCIAL CONTROLL Local Vs Professional
CUSTOMER ORIENTATION Internal Vs External driven	APPROACHABILITY Open Vs closed system
CONTROL Easy going Vs Tight work control	MANAGEMENT PHILOSOPHY Employee Vs work orientation

OPPI ACCOLADES

MarCom Awards 2019

Winner of Platinum for
'In Science We Trust'

Winner of Gold for
'InclUsion'
under Prestige Publication

Hermes Creative Awards 2020

Winner of Platinum for
'Medicine Box under Podcast category

Winner of Platinum for
'Know Your Pill' under Publication category

Winner of Platinum for 'In Science
We Trust' under Publication category

59th ABCI Awards 2020

Winner of Gold for 'In Science We Trust'
under Illustration category

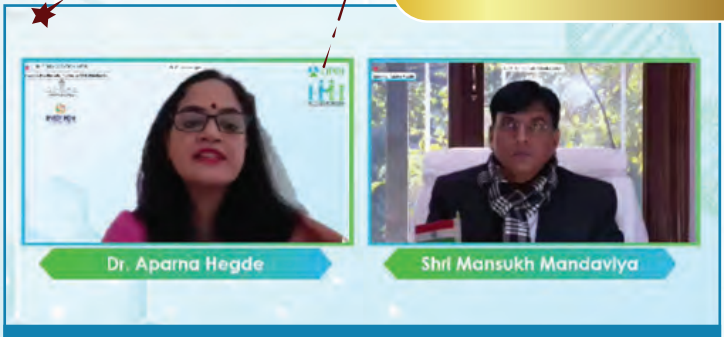
Winner of Silver for 'In Science We Trust'
under Prestige Publication category

ANNUAL AWARDS

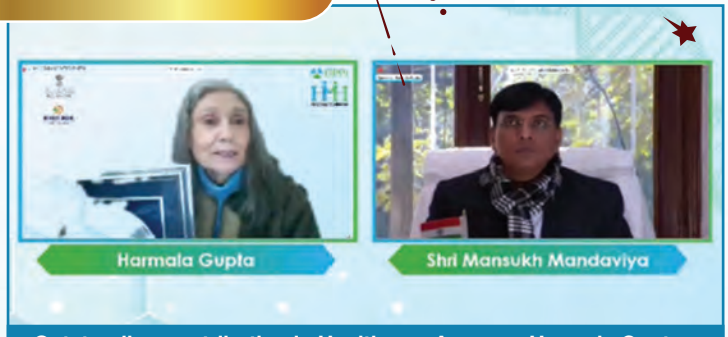
The OPPI Healthcare Access Awards recognises the highest contribution by an individual or Institution on Access to Healthcare with consideration for patient safety and adherence to quality.

Congratulations
to the winners of 2020

OPPI Healthcare Access Awards



Outstanding contribution in Child Health - Dr Aparna Hegde, Founder, Chairperson and Managing Trustee of ARMMAN



Outstanding contribution in Healthcare Access - Harmala Gupta, Independent Non-Profit Organization Management Professional, Founder & President, CanSupport

OPPI Lifetime Achievement Award

Dr Y.K. Hamied, Founder of Cipla Ltd

OPPI Special Recognition Award

Dr V G Somani, DCGI, Ministry of Health & Family Welfare

OPPI Scientist Awards

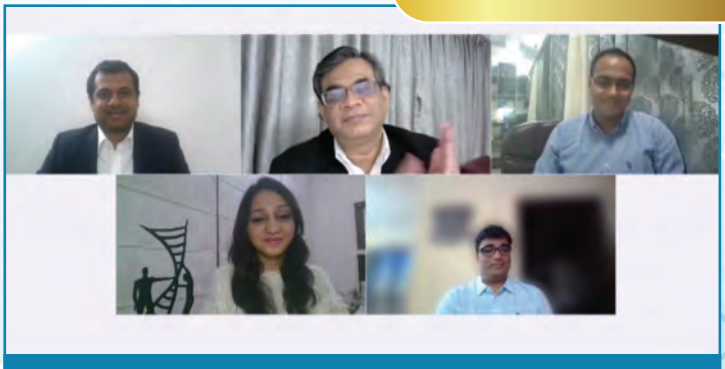
Winner of Scientist Award - Dr Debabrata Dash,
Banaras Hindu University, Varanasi

Winner of Woman Scientist Award - Dr Rituparna Sinha Roy,
Indian Institutes of Science Education and Research (IISER), Kolkata

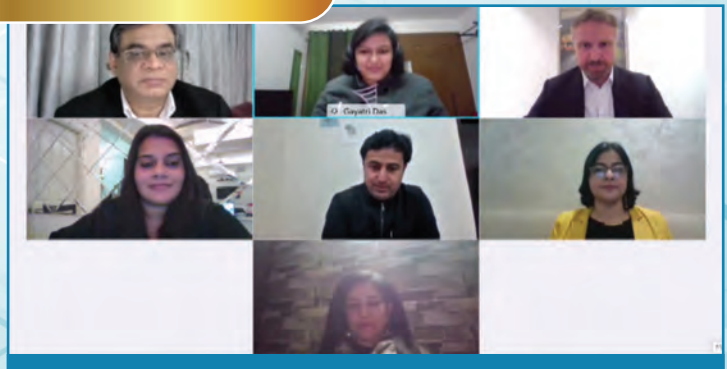
Winner of Young Scientist Award - Dr Arun Kumar Shukla,
Indian Institute of Technology, Kanpur

OPPI has instituted Annual Awards for excellence in Research, Sales, Marketing, Medical Excellence and Healthcare Communications. These awards have now become the gold standard of the pharmaceutical industry.

OPPI Annual Awards



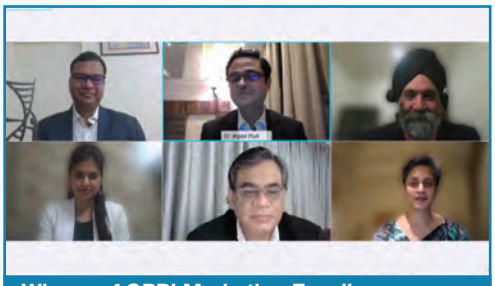
Winner of OPPI Healthcare Communications Award - Janssen
India Pharmaceutical Company of Johnson & Johnson Ltd



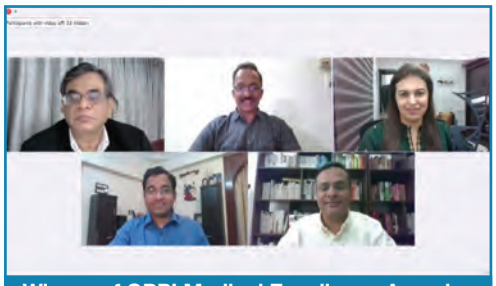
Winner of OPPI HR Diversity & Inclusion Award - Eli Lilly and
Company (India) Pvt. Ltd

Winner of OPPI HR Excellence Award -
Eli Lilly and Company (India) Pvt. Ltd

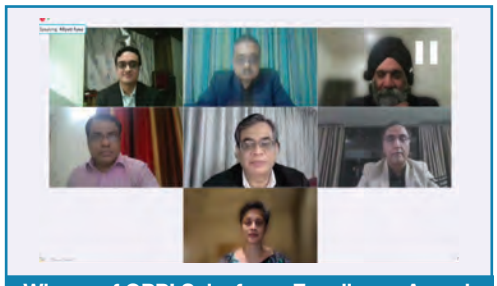
Winner of OPPI Marketing Excellence Award -
Existing Product - TRAJENTA - Boehringer Ingelheim India Pvt Ltd



Winner of OPPI Marketing Excellence Award - New Product - GLYXAMBI - Boehringer Ingelheim India Pvt Ltd



Winner of OPPI Medical Excellence Award - Novartis India Ltd



Winner of OPPI Salesforce Excellence Award - Boehringer Ingelheim India Pvt Ltd

Well done Winners of the 2019 Awards

OPPI Scientist Awards

Winner of Scientist Award - Dr Gajendra Pal Singh Raghava, Head Computational Biology, Indraprastha Institute of Information Technology, New Delhi

Winner of Woman Scientist Award - Dr Nirmala Jagadish, Staff Scientist, Cancer Research Program (CRP), National Institute of Immunology, New Delhi

Winner of Young Scientist Award - Dr Sandip B Bharate, Principal Scientist, Medicinal Chemistry Division, CSIR - Indian Institute of Integrative Medicine, Jammu

OPPI Annual Awards

Winner of OPPI Healthcare Communications Award - Janssen India Pharmaceutical Company of Johnson & Johnson Ltd

Winner of OPPI HR Excellence Award - GlaxoSmithKline Pharmaceuticals Ltd

Winner of OPPI HR Diversity & Inclusion Award - Eli Lilly and Company

Winner of OPPI Marketing Excellence Award - New Product - Xeljanz - Pfizer Ltd

Winner of OPPI Marketing Excellence Award - Existing Product - Jardiance - Boehringer Ingelheim India Pvt Ltd

Winner of OPPI Medical Excellence Award - Novartis India Ltd

Winner of OPPI Salesforce Excellence Award - Boehringer Ingelheim India Pvt Ltd

Member Recognitions and Awards

This section showcases the achievements and recognitions received by our members in their pursuit of creating a responsible and collaborative healthcare ecosystem.

Kudos to the winners!

BAYER

Winner of the EFI National Award for Excellence in Employee Relations 2019 at 5th Edition by the Employee Federation of India

Recognized for Excellence of performance in various facets of chemical industry by the Indian Chemical Council

Bayer was chosen to be one of the 100 Best Companies for Women in India by AVTAR Group & Working Mother

Awarded with the Safety, Health and Environment Excellence & Innovation Award by the Confederation of Indian Industry for Western Region

Awarded for the Responsible Business Of The Year by Grant Thornton Bharat SABERA

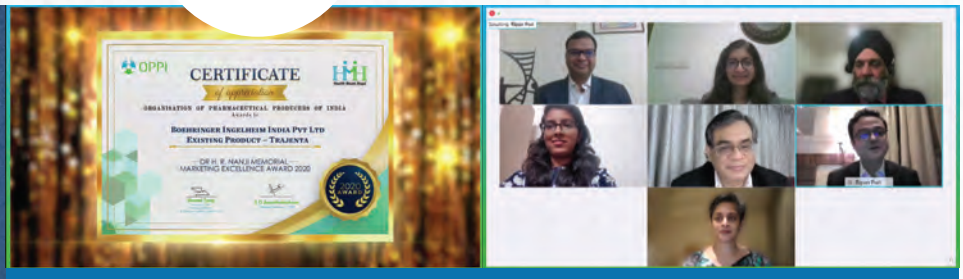
Winner of the HR Showcase 2020 for Best HR Practice by NHRD Bangalore Chapter

Winner of the The Best Diversity & Inclusion Practices of Asia Seminar and Awards 2020 by the Women Leadership Forum of Asia

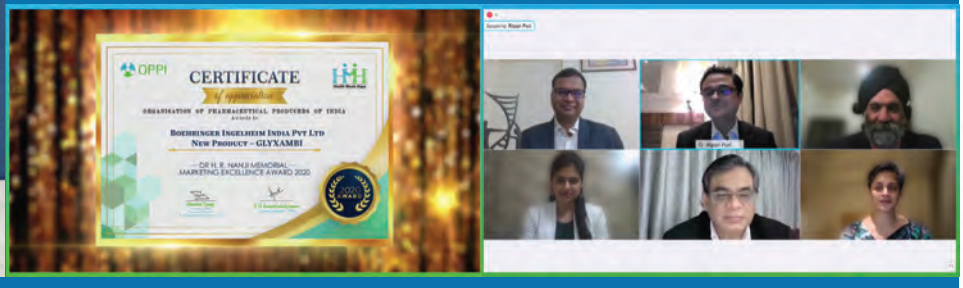
Awarded for Delivering Business Impact through the Innovative People Practices by the Shared Service Forum India

Boehringer Ingelheim

Awarded for Excellence in Rollout of the Veeva Engage remote meeting solution

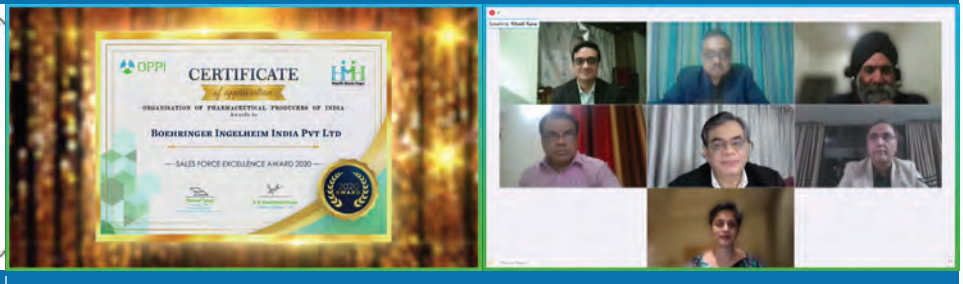


Winner of OPPI Marketing Excellence Award - Existing Product - TRAJENTA



Winner of OPPI Marketing Excellence Award - New Product - GLYXAMBI

Recognised as the _Working Mother & Avtar 100 Best Company for Women in India



Winner of OPPI Salesforce Excellence Award

Lilly

Recognised by Ask Insights for the 3rd time in a row, for our initiatives towards Diversity Equity Inclusion

Consistent efforts on D&I recognised by AVTAR, as one of the 100 best companies for women in India

Certified with the prestigious- 'Great Place to Work' for the 3rd consecutive year

"Best Employer Brands 2020"
15th Employer Branding Awards held by World HRD Congress

Cetaphil Wins Economic Times "Best Healthcare Brand 2019" Award

G Sathya Narayanan wins an award for Best CEO with HR Orientation at World HRD Congress 2019

G Sathya Narayanan awarded as"Business Leader of the year 2020"

Winner of CSR Health Impact's Swasth Bharat award for its support to help end TB in India- 2019

Winner of Porter Prize for creating shared value through its Tuberculosis program in India -2019

Winner of Best Public Health Initiative award at the ETNOW 2020 World Health & Wellness Congress Awards for its efforts to support India's TB eradication plan

Winner of Gold CSR Health Impact Award 2020 for raising TB awareness in India

Winner of ET Now World CSR Day Award 2020 for Capacity Building of Frontline Workers to Enhance Maternal and Child Health in India

Winner of the Dalmia Bharat CSR Impact Award 2019 for its Auxiliary Nurse Midwives training program

Winner of the Quality Excellence Award 2020 at the 9th Manufacturing Supply Chain Awards

Winner of the Indian Pharma Award in the category of Operation Excellence in Supply Chain 2019

Winner of the Times Jobbuzz Workplace 2025 Award

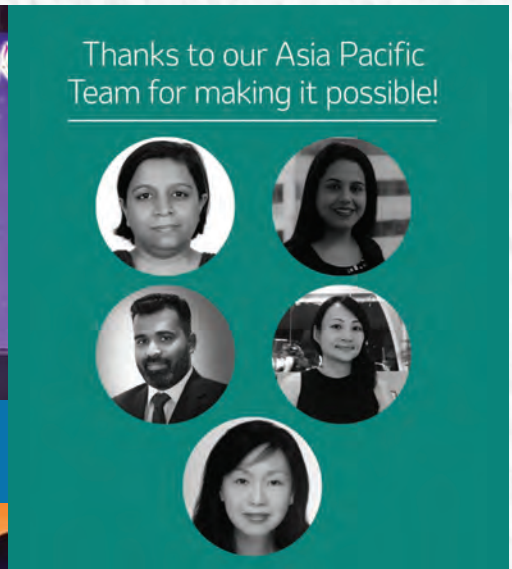
Conferred the six Celerity Supply Chain Leaders of Tomorrow Awards in 2019

Skin Diaries

Skin Diaries Campaign won 2019 Indian Pharma Award and OPPI Healthcare Communications Award

Working Mother & AVTAR 100 Best Companies for Women in India for 2019 & 2020

Recipient of the Global Best Employer Brand Award 2020

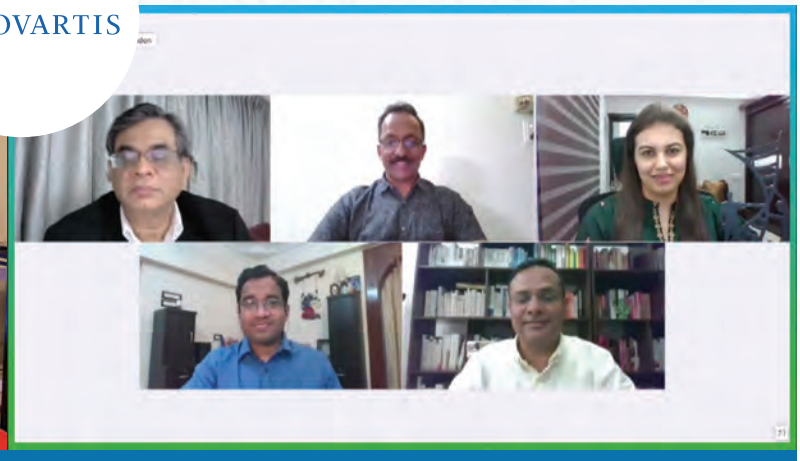


Gold Award for the Best Employer Brand in the Asia Pacific region – Internal MSD

Winner of the Award in Digital marketing organized by Kamikaze B2B Media and includes all key sectors like Retail, IT, Banking, Manufacturing, Real Estate, Travel, Media, Telecom, Insurance, Automobiles, Airlines , FMCG etc. in addition to Healthcare and Pharma

Cervical Cancer awareness social media initiative #onlymomcan has been recognized as one of the best Health care digital campaigns for 2019 in India and has received Digital excellence in Healthcare and Pharma award at 3rd Digital Enterprise & B2B Marketing Awards 2019

NOVARTIS



Galvus Met wins the AWACS Brand of the year Gold Award 2019- in the chronic, sub chronic category

Winner of OPPI Medical Excellence Award 2020

Winner of the OPPI Medical Excellence award 2019 for the Time2DoMore project in Diabetes

Winner of 'Top MNC Biopharma Company' Award at BioSpectrum Excellence Awards 2020

Pfizer India won the award for Corporate Publications for the Live Well, Age Well Annual Report

Winner of OPPI Marketing Excellence Award 2019 - New Product - Xeljanz

P&G Health

Neurobion scored a hat trick with bagging three prestigious Industry Awards

Winner of the Nicholas Hall Marketing Excellence Award

Winner of the prestigious CIMS Trusted Brand of the Year

Conferred with the Brand Excellence Award 2020 by the ABP News

Won a Gold for 'Communications Team of the year' A year of adding value)

Won a Bronze for 'Best Internal Communications Campaign' (HI FM Radio Channel)

Casmilo D'Sa (Associate – PHC India Communications) bags the Bronze for 'Best Internal Communications Campaign' for HI – FM Radio Channel) at the e4m & Businessworld IPRCCA Awards (India Public Relations & Corporate Communication Awards)

Amit Gupta (CFO – P&G Health India) recognized as 'Best CFO 2019' across all sectors (small cap) and pharma (small cap) by Dalal Street Investment Journal.

Ruchita Mehra (Director-Communications, CSR & Digital – P&G Health India) recognized as one of 'Top 100 Most Influential Gamechangers in PR and Communications' at the e4m & Business world IPRCCA Awards (India Public Relations & Corporate Communication Awards)

top EMPLOYER भारत INDIA 2021

CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

Certified Top Employer that leads the way in outstanding 'people-first' HR practices and your Company is elated to amongst one of them

SANOFI

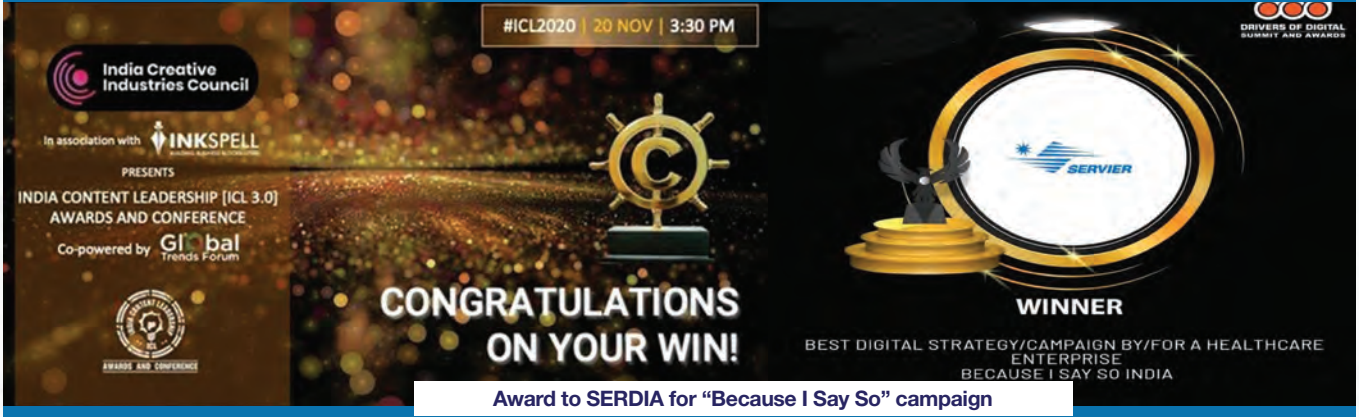
'AllergyFree' Campaign won an award for the 'Best Healthcare & Pharma Sector' campaign at the Rx Award and the Fulcrum Awards 2020 that honor the most impactful Public Relations Campaigns throughout the year

Sanofi wins a Silver under the 'Health Impact Awareness Campaign category' for exemplary work in building awareness about diabetes through the Kids and Diabetes in Schools (KiDS) project in Goa

SERVIER

Award to SERDIA for ANGINA AWARENESS INITIATIVE – Oct 2019

Digital Entreprise Summit: Digital Excellence in Healthcare & Pharmaceuticals



Award to SERDIA for "Because I Say So" campaign

INDIA Content Leadership Awards Nov 2020:
Best Content in a Digital Media Campaign by a Healthcare enterprise

Drivers of Digital Awards & Summit Dec 2020: Best Digital Strategy/Campaign by a Healthcare enterprise

OPPI Past Presidents

Name	Company Name	Year
Late Dr H.R. Nanji	Pharmed	1966
Mr. Keith C. Roy	Merck Sharp & Dohme	1967-1969
Late Brig. B. S. Bhagat	Rallis	1970-1973
Mr. S.V. Pillai	Pfizer	1974-1975
Late Mr. Sisir Mitra	Cyanamid	1976-1978
Late Mr. H.N. Dutta Gupta	East India Pharmaceutical Works	1979
Late Dr S.K. Bhattacharya	Sandoz	1980-1981
Late Mr. George Daniel	Hoechst	1982-1984
Mr. R.N. Langrana	Abbott	1985
Mr. C.M. Hattangdi	Parke-Davis	1986-1987
Dr S. Agarwala	Rallis	1988-1990
Mr. D.K. Bose	Burroughs Wellcome	1990-1992
Mr. H. Dhanrajgir	Glaxo	1992-1994
Dr Anil S. Mehta	Wyeth	1994-1996
Mr. D. Bhadury	Hoechst Marion Roussel	1996-1998
Mr. H.R. Khusrokhan	Glaxo	1998-2000
Late Mr. P. Gupta	Infar	2000-2001
Mr. Tapan Ray	Abbott	Sept.-Nov. 2001
Mr. Ranjit Shahani	Novartis	2001 – 2007
Mr. Ranga Iyer	Wyeth	2007 – 2009
Mr. Ranjit Shahani	Novartis	2009 – 2013
Dr Shailesh Ayyangar	Sanofi	2013 - 2017
Mr. Annaswamy Vaidheesh	GlaxoSmithKline	2017 - 2020
Mr. Sharad Tyagi	Boehringer Ingelheim	2020 - 2021



OPPI

Organisation of Pharmaceutical Producers of India

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