TOP 10 IDEAS

INVESTING FOR IMPACT

Healthcare, Pharma & HealthTech

Impact Future Project

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ASPIRE IMPACT

Aspire Impact is a social enterprise focused on leadership and ecosystem development in social and environmental impact. Aspire Impact is India's first Impact Rating system, awarding Green Leaf, Silver Leaf, Gold Leaf or Platinum Leaf to corporations using a proprietary 4P (Product, People, Planet & Policy) framework. It is also the Commissioner of the Impact Future Project (IFP).

ASPIRE CIRCLE

ASPIRE CIRCLE

Aspire Circle promotes enlightened social leadership. It builds and scales Fellowships, Scholarships and Internships, to catalyse India's Impact leadership capabilities. Since inception in 2007, Aspire Circle has engaged 200 Fellows and awarded 33 scholarships. It is also the Secretariat of the Impact Future Project, engaging business and investment leaders for the imminent impact economy.

Impact Future Project

IMPACT FUTURE PROJECT (IFP)

The Impact Future Project (IFP) is a thought-leadership platform and an appreciative enquiry about the imminent Impact Economy. IFP will generate bold, transformative investment ideas for 2030 with 200+ business and investment leaders, in sectoral communities of 20-30 each, to create new research, knowledge, awareness and advocacy for an era of impact measurement & reporting.

Capgemini

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PROGRAM IN GLOBAL SURGERY AND SOCIAL CHANGE
Harvard Medical School

HARVARD MEDICAL SCHOOL, KNOWLEDGE PARTNER

The vision of the Program in Global Surgery and Social Change at Harvard Medical School is universal access to safe, affordable, and timely surgical, obstetric, and anesthesia care, especially for the poorest. We are the World Health Organization Collaborating Center for Surgical System Strengthening and support development and implementation of national surgical plans.

— Impact Future Project —

TOP 10 IDEAS

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AUTHORS

Amit Bhatia
Founder & CEO, Aspire Impact

Anant Maheshwari
President, Microsoft India

Dr. Aravind Srinivasan
Chief Medical Officer,
Aravind Eye Hospital-Chennai

Dr. Ajay Nair
CEO, Swasth Alliance

Hemant Manohar
Life Sciences Analytics Business Leader

Dr. Kee B. Park
Director (Policy/Advocacy) PGSSC,
Harvard Medical School

Kewal Handa
Former MD, Pfiizer

Manoj Kumar
Co-Founder, Val-more Action Advisory

Manoj Kumar
Founder, Social Alpha

Dr. Naveen Nishchal
Co-Founder, Meddo Health

Neeraj I Mohan
Indian Head, EY-Parthenon

Rahul Agarwal
Managing Director, Quadria Capital

Rajiv Gulati
Former President, Ranbaxy

Ravi Kant
Former CEO, Tata Motors

Sameer Wagle
MD, Asia Pacific Healthcare Advisors

Shanthakumar Bannirchelvam
ED, Global Impact Partners

Dr. Shikha Nehru Sharma
Founder & MD,
Nutriwel Health

Dr. Shuchin Bajaj
Founder Director, Ujala Cygnus

Dr. Tarinee Kucchal
Research Fellow - PGSSC,
Harvard Medical School

Vikram Anand
Chief Strategy Officer, THB

Visalakshi Chandramouli
Mg. Partner, Tata Capital Healthcare Fund

Founder's Preface

Visionary voices for a century, from Mahatma Gandhi to recent Nobel Laureates such as Muhammad Yunus and Al Gore unequivocally support the idea of a sustainable Impact Economy. The world's social and sustainability challenges have accelerated protests over the last decade, from Occupy Wall Street to Extinction Rebellion. Impact Economies provide a solution to address these challenges and achieve the UN's Sustainable Development Goals (SDGs), as we embed Impact, alongside Risk and Return, in every business, investment, policy & consumption decision. The imminent Impact Economy requires us to envision the future, so that India may chart her path with confidence.

The Impact Movement, which has grown globally to $59 trillion, as per GSIA, is an unstoppable trend. We estimate that India has attracted only ~1% of this global capital pool. India Inc. must enhance its embrace of the Impact movement. The environment cost alone of India's 35 large companies at $200 billion, is three times their net profit, rendering them uncompetitive in this new era of Impact Capitalism. The root cause is a lack of corporate alignment with impact, as there is no mandatory Impact Reporting. The recent Government decision to increase mandated Business Responsibility & Sustainability Reporting (BRSR) from the top 500 to the top 1000 companies is a welcome step, but just not enough. We need distinct ESG (Responsibility), Sustainability & Impact standards and strategies.

Aspire's Impact Future Project (IFP) set up in 2020, ten Impact Communities of ~20 leaders each, with representatives of different stakeholder groups. These IFP groups have held quarterly conversations to spark an appreciative enquiry about our shared Impact Future. IFP seeks to grow the knowledge & research, awareness & advocacy, education & training for the Impact Movement.

We are proud to release the third of our ten research reports, on "Healthcare, Pharma & HealthTech". Our research highlight the Top 10 emerging investment themes in the sector-Preventive & Primary Healthcare, Pharma, Drug & Vaccine Manufacturing, Screening, Diagnostics & Testing, Operational Efficiency & Affordable Healthcare, Medical Tourism, E-healthcare & Telecare, Health Insurance and Innovative Impact Financing, E-pharmacies, Medical Workforce Education & Skilling and Gene Therapy- can collectively attract $179 billion investment by 2030, up from $52 billion in 2020 and create revenues of $610 billion, up from $183 billion in 2020. This is the promise of Impact in Healthcare, Pharma & HealthTech.

I thank all our Impact Leaders, our Co-Chairs, our Knowledge Partners, our Industry Partners, our Event/Convening Partners and Capgemini, our sponsor, for their support. I hope this comprehensive research across 10 sectors and 1000 start-ups is compelling for your own Impact journey.

Sincerely,

Amit Bhatia
Founder & CEO- Aspire Circle & Aspire Impact

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Co-Chairs

Dear Readers,

Good health is primary need of every human being. Though we in India have progressed a lot in providing health care and in increasing longevity, we continue to host world's largest number of blinds, diabetics, patients suffering from cancer, heart and several other diseases. Recent pandemic has only highlighted inadequacy on several fronts in health care. Though we produce world class physicians, surgeons and nurses, we are woefully short both in reach and quality medical care at affordable prices to a vast majority of our population. This clearly can be overcome by the combined might of the government, private sector and individual initiatives. It was a privilege to participate in proceedings organized by Aspire Impact to suggest some proposals for improving reach and affordable health care.

Ravi Kant
Former CEO, Tata Motors

Dear Readers,

The last two years have put the healthcare industry in our country through the toughest challenges. It has dealt with a pandemic while simultaneously continuing to deliver on its wider social function of providing people with preventive, curative, rehabilitative and palliative responses to a wide range of health conditions and situations. The healthcare landscape in the country also threw up the gaps between private and public and urban and rural healthcare like never before.

Digital transformation in the sector has been invaluable in helping healthcare organizations balance the demands on their time and resources. Technology interventions like tele-consult and remote monitoring advances have helped to reach out to patients beyond the geographical boundaries of cities and states and cut costs and boost staff productivity, while improving overall care and outcomes. Healthcare is now a benchmark for all other verticals of the incredible social impact & welfare with technology disruptions- it has set the template for inclusive healthcare on scale for the future.

Anant Maheshwari
President, Microsoft India

Dear Readers,

The on-going pandemic has brought to sharp focus the structural demand-supply gaps in our country's healthcare systems. On the one hand, India is staring at an acute shortage of healthcare infrastructure while on the other hand there is an urgent need to address the dual challenge of chronic and infectious diseases. Combining this need gap with the world class skill sets of India's healthcare and pharmaceutical professionals as well as our strengths in digital healthcare makes the sector a compelling investment opportunity.

Add to this, India's cost arbitrage across the complete spectrum of healthcare and life sciences as well as manufacturing advantage. It is imperative that each of these macro sector trends are shaped in the right direction in the present decade. The structured brainstorming discussions at the IFP forums have helped prioritize the themes that will likely dominate the country's healthcare and life science sectors over the next decade. Each of the themes shortlisted has a pivotal role to play in driving the sector's enormous growth potential.

Visalakshi Chandramouli
Mg. Partner, Tata Capital Healthcare Fund

Messages

Sponsor

Dear Readers,

Capgemini is delighted to support and sponsor the Impact Future Project (IFP). We believe the time has come when the idea of an "Impact Economy" must be mainstreamed. The pandemic has reminded us on the sustainable balance we must maintain with the planet and amongst the people. This will only be possible when all organisations, for-profits and non-profits, corporations and funds, transparently measure and report their impact. We believe the IFP is a significant thought leadership initiative in helping build this awareness and a greater imperative to act. IFP not just resonates our values and pursuits of a purposeful existence, but takes us a step forward towards this envisioned impact future.

Anurag Pratap
Vice President, Digital Inclusion & Sustainability Leader, Capgemini

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Knowledge Partner

Dear Readers,

The Program in Global Surgery and Social Change at Harvard Medical School is pleased to collaborate as the Knowledge Partner for the Healthcare, Medical & Health Tech Impact Community. We recognize that the current economic drivers may not be best suited for maximizing social impact. The UN's Sustainable Development Goal #3, "Ensuring healthy lives and promoting well-being at all ages", may not be attainable by 2030 without massive investments. Through our expertise in global health, health system innovations, and scale-up, we hope to contribute to the effort to identify key ideas that have the potential to transform the health sector towards a healthier population while leaving no one behind and toward an economy that prioritizes health for all.

Dr. Kee B. Park
Director (Policy/Advocacy) PGSSC, Harvard Medical School

Quotes from Community Leaders

"Healthcare in India needs to evolve to tackle the growing set of non-communicable diseases that are the leading causes of morbidity & mortality. This calls for a return to basics, high-quality value-based integrated care with a strong focus on the primary & preventive levels, with the benefit of all the technology & tools that we now have at our disposal. A fragmented, entrepreneurial health system could work to our advantage if we can stimulate competitive innovation directed at achieving better health outcomes, high patient satisfaction & financial risk protection."

Dr. Ajay Nair
CEO, Swasth Alliance

Healthcare is ripe for disruption. Digital health is the key that will unlock tremendous value to the people. Glad to be part of IFP that is in the forefront of this paradigm shift.

Dr. Aravind Srinivasan
Chief Medical Officer,
Aravind Eye Hospital-Chennai

The pandemic has brought back the focus on Health Eco system in India. The low government spend and inadequate infrastructure needs immediate attention.Technology is a great enabler to diagnose and deliver healthcare at low cost. This and more was discussed and documented.

Kewal Handa
Former MD, Pfiizer

If we care about our country's economic future, we must find a way to rein in out of pocket expenses and provide quality, affordable health care choices to all. We must support the founders who are pioneering solutions to our most complex challenges in healthcare. This requires an investment thesis that willing to take higher risks by investing in early stage diagnostics, devices and therapeutics solutions and helping them integrate with the healthcare system.

Manoj Kumar
Founder, Social Alpha

I believe there is very important work for all of us to do in the Healthcare sector, to ensure there are enough policy ideas on the table for the Government to pursue. IFP is extremely timely & together we'll produce a positive impact.

Neeraj I Mohan
Indian Head, EY-Parthenon

India needs a shift in paradigm from 'Curative' to 'Preventive', while driving higher Insurance adoption. Digital must drive tech-enabled metrics propelling a 'Pay-for-Value' model that yields improved patient outcomes while keeping costs low.

Hemant Manohar
Life Sciences Analytics Business Leader

Digital healthcare holds tremendous potential for bringing low cost accessible health services to the masses. It holds the key to a healthy India in times to come.

Manoj Kumar
Co-Founder, Val-more Action Advisory

Accessibility, affordability and quality are the 3 biggest challenges of contemporary healthcare. Inadequacy and paucity of infrastructure, skilled manpower and supportive ecosystems stand in the way of bridging this gap. While technology – with its immense and versatile potential – offers a powerful solution, its underutilisation remains a bottleneck. We need a Big Push - in terms of development, innovation and adoption of technology in its various formats and avatars - to lift healthcare to the next level, and unlock its transformative miracles.

Dr. Naveen Nishchal
Co-Founder, Meddo Health

I am proud to be associated with Aspire Impact's efforts to identify and promote future impact ideas in healthcare, an area which requires urgent action.

Rahul Agarwal
Managing Director, Quadria Capital

Access to Healthcare is a major challenge for at least half the Indian population, especially in smaller towns. Use of appropriate technology such as Telemedicine and e-Pharmacies are the only way we can solve this problem.

Rajiv Gulati
Former President, Ranbaxy

To bring healthcare access and inclusion to India's community of 1.3bn+, innovation in healthcare delivery and financing are a key role in increasing access, equity, quality, and affordability. With this approach in our minds, let us work together to serve our country and advance healthcare for all.

Shanthakumar Bannirchelvam
ED, Global Impact Partners

Covid has exposed that the fragile healthcare ecosystem is in serious need of a strong foundation of primary and secondary healthcare networks in India and the world. The rapid rise of cancers, cardiovascular disorders and diabetes is begging to ask if we are considering healthcare with a tunnel vision of crisis management. This foundation not only has to include elements of nutrition, lifestyle, exercise and mental wellness, but also reduces the poisons in the Air, Water and Food chain.

Dr. Shikha Nehru Sharma
Founder & MD, Nutriwel Health

Primary Healthcare Delivery and Disease Management in India needs to be strengthened and requires disruptive interventions, supported by technology, for last mile reach, active patient engagement and scale. IFP HLTH is doing a great job in building multi-stakeholder engagement to drive the innovation agenda for the sector.

Vikram Anand
Chief Strategy Officer, THB

Healthtech through its innovative applications and business models offers the Indian healthcare sector a unique opportunity to overcome challenges & leapfrog to the next stage. IFP has a vital role in facilitating this process.

Sameer Wagle
MD, Asia Pacific Healthcare Advisors

Unfortunately, the entire story of healthcare is built on scarcity. Lack of hospitals, beds, doctors, nurses is the overarching theme. This scarcity puts a premium on the services and leads to ballooning costs. We need to flip this model from scarcity to abundance using technology and advocacy.

Dr. Shuchin Bajaj
Founder Director, Ujala Cygnus

Health is a recognized human right, but with the chronic underfunding of health programs and systems around the world, healthcare access is not universal or equitable. The Impact Future project is a demonstration of how visionary foresight and public-private partnership can come together to shape sustainable change and social impact in the world, creating healthier and more productive societies – and how India can be its leader.

Dr. Tarinee Kucchal
Research Fellow - PGSSC,
Harvard Medical School

Introduction

The Indian healthcare sector has been expanding at the compounded annual growth rate (CAGR) of 22 percent since 2016, making it one of the largest sectors of the Indian economy in terms of both revenue and employment. With a market value of USD 140 billion in 2016, the sector is projected to reach USD 372 billion by 2022. The sector employed more than 4.7 million people in 2015, making it the fifth largest sector in the country and is expected to add another 2.7 million employees between 2017 to 2022, generating over 0.5 million new jobs per year.[1]

The emergence of new business models by healthtech companies, an aging population, greater adoption of standardised norms such as accreditation by the National Accreditation Board for Hospitals and Healthcare Providers (from 157 hospitals in 2016 to over 350 in 2021), growth in health insurance, increased awareness of preventive and primary healthcare, a rising population, and the availability of advanced care in Tier 2 and 3 cities are some of the factors expected to boost the growth of the healthcare industry in India.

The quality of doctors and the large pool of medical professionals in India makes it a preferred destination for medical tourism across the globe. The segment is expected to grow at a CAGR of 18 percent year-on-year. Medical treatment in India is very cost effective compared with that in other medical tourism hubs in Asia, Europe and the USA. On an average, the cost of a given surgery is about a tenth of the total cost incurred for the same surgery in western countries.

With the launch of Ayushman Bharat in September 2018, which provides free health insurance to approximately 50 percent of the country's population, the government clearly signalled its intent to strengthen the healthcare ecosystem of the country. As part of the National Health Policy, the government plans to increase its spend on healthcare to 2.5 percent of GDP by 2025 from just 1 percent currently.[2]

India has a free public healthcare system but with many shortcomings, especially in rural areas. As a result, more than 70 percent of households in India prefer private healthcare for its better medical care and infrastructure. Rural areas are served by only 22.7 percent of the total medical workforce of the country. This means that around 77 percent of the medical workforce caters to only 32 percent of the total population of the country living in cities. Thus a lack of quality medical care at an affordable price poses a considerable risk to the health of the rural population of the country.

A concentrated effort is required along with investments from both the government and private players to bring about a systemic change in healthcare in India. For example, government-owned diagnostic labs supported by large equipment manufacturers in co-ordination with private healthcare companies can be developed across the country to provide screening, testing and diagnostic requirement at a subsidised rate. Steps like these can go a long way to universal health coverage and can assist in creating a culture of preventive healthcare, thereby reducing the burden of total healthcare expenditure for hospitalized patients by 20 percent on average.

This book lays out investment ideas that can help expand healthcare services to every section of society and explores business opportunities in an era of digital transformation. A survey identifying the potential of the investment ideas on various impact parameters is given in the next page.

[1] Investment Opportunities in India's Healthcare Sector, NITI Aayog

[2] https://www.ibef.org/industry/healthcare-india.aspx

HEALTHCARE, PHARMA & HEALTHTECH

RANKING OF THE TOP 10 IDEAS

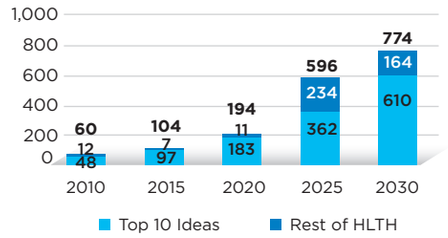
Investment Idea	Investment Stage	Business Model Validation	Impact on People	Impact on Planet	Need for policy support	Need for investment potential	Technical Maturity	Ease of Scalability
IDEA 1 **Preventive & Primary Healthcare**	◑	◕	◕	◕	◕	◕	◑	◕
IDEA 2 **Pharma Drug & Vaccine Manufacturing**	◕	◕	◕	◑	◑	◑	◑	◕
IDEA 3 **Screening, Diagnostics & Testing**	◕	◕	◕	◕	◑	◕	◑	◕
IDEA 4 **Operational Efficiency & Affordable Healthcare**	◕	◕	◕	◕	◕	◕	◑	◕
IDEA 5 **Medical Tourism**	◕	◕	◑	◑	◑	◕	◑	◕
IDEA 6 **E-healthcare & Telecare**	◑	◕	◕	◕	◕	◕	◑	◕
IDEA 7 **Health Insurance & Innovative Impact Financing**	◑	◕	◕	◕	◑	◕	◑	◕
IDEA 8 **E-Pharmacies**	◕	◕	◕	◕	◑	◕	◑	◕
IDEA 9 **Medical Workforce Education & Skilling**	◑	◕	◕	◕	◑	◑	◑	◕
IDEA 10 **Gene Therapy**	◑	◑	◑	◑	◑	◑	◑	◑

Making quality healthcare services affordable, accessible and reliable for every individual

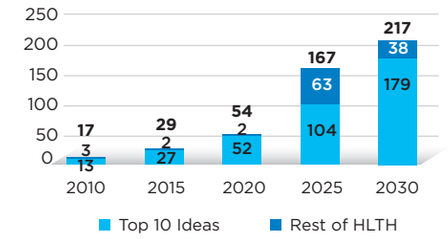
While the government is looking to increase its healthcare spending, it is also fine tuning its policies to encourage private capital through liberal Foreign Direct Investment (FDI) regulations. The Indian healthcare industry received FDI of USD 7.2 billion in hospitals and diagnostic centres between April 2000 and June 2021. The regulations permit 100 percent FDI in the alternative medicine systems of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH) as well as 100 percent FDI for construction of hospitals and manufacture of medical devices under the automatic route.[3] In the pharmaceuticals sector too, 100 percent FDI is permitted in greenfield projects and 74 percent FDI in brownfield projects under the automatic route. Overall, transaction value in FDI jumped almost 14-fold from USD 94 million in 2011 to USD 1,275 million in 2016.

Other measures include the launch of Production-Linked Incentive (PLI) schemes in November 2020 for the pharmaceutical sector, under the Aatmanirbhar Bharat Abhiyaan. The scheme aims to enhance India's manufacturing capabilities in Key Starting Materials/Drug Intermediaries and Active Pharmaceutical Ingredients through a total outlay of USD 2 billion over a 9-year period starting from 2020-21.[14] While there are massive incentives for domestic drug manufacturing supported by the PLI scheme, the patent market for drugs and vaccines in itself provides a world of opportunities for domestic drug manufacturers. Between 2018 and 2024, an estimated USD 251 billion worth of patents are expected to expire globally. Further, the government's opening of its own generic pharmacy stores under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana presents a lucrative opportunity for domestic drug manufacturers be procurement partners on a long-term contractual basis.

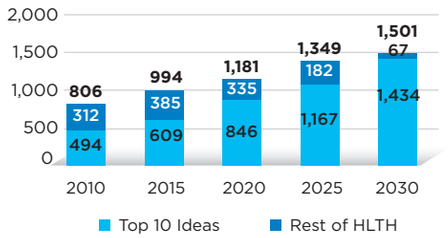
Revenues (USD Bn)



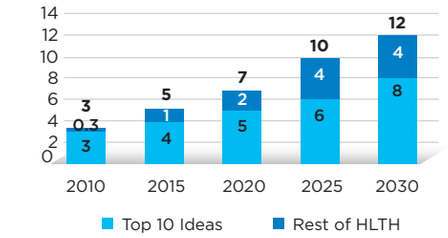
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



The Indian healthtech market was worth USD 2 billion in 2020 and is expected to reach USD 5 billion by 2023, at a CAGR of 39 percent, reaching USD 50 billion by 2033.[5] The increased adoption of apps and supplementary technology-driven services not only by health workers but also by patients looking for better healthcare services and the government's push towards digital healthcare through the National Digital Health Mission will transform the way healthcare services are delivered in India.

As per Tracxn, there were more than 6,800 healthtech startups in India as of December 2021 and most have seen a rise in income during the pandemic. The segments most positively impacted during Covid-19 include e-pharmacies, online consultation and diagnostic aggregators. The pandemic has forced people to explore the new wave of healthtech services. Considering these healthtech startups form less than one percent of the total healthcare market of India, the opportunity to expand and invest in healthcare is almost unbounded. The ability of healthtech startups to reduce barriers between hospitals and patients and improve access to patient care is somewhat restricted to Tier 1 cities for now. With more healthtech startups emerging with sophisticated tech-driven health solutions and investors opening up their wallets with an eye on generating returns from an untapped market, the healthcare industry in India is on the verge of a transformation, especially in Tier 2 and Tier 3 cities. This transition will be driven primarily by the use of artificial intelligence, a segment that is expected to be worth USD 6 billion by 2021. As per the Economic Survey 2019-20, the doctor-population ratio in India is 1:1,456 against the WHO-recommended 1:1,000. A 2019 McKinsey report predicts that telemedicine can be a useful aid in bridging this gap and such interventions can save up to USD 10 billion by eliminating the need for in-person consultation, especially for people in rural areas.

The Covid-19 pandemic has further strengthened the business models of healthtech companies and increased the adoption of B2C service-oriented startups in this segment. In 2020 peak Covid times, e-pharmacies were the biggest beneficiaries, clocking revenues of over USD 700 million, followed by the B2B health-tech market (USD 60.2 million), B2B medical supplies (USD 28.8 million), other health-tech services (USD 100 million), e-diagnostics (USD 70 million) and teleconsultation (USD 45 million).[6] Hospitals also shifted to online outpatient services. Together with e-pharmacy, B2B healthtech formed the largest sub-segments, accounting for more than 70 percent of the overall healthtech market. E-diagnostics and tele-consultation were the fastest-growing sub-segments, at 66 percent and 73 percent respectively. The healthtech sector has seen a significant surge in investment, receiving about USD 3.4 billion in funding since 2014. Some major startups receiving large funding include PharmEasy (USD 651.5 million), Curefit (USD 404.6 million), Practo (USD 232 million), India's first healthtech unicorn Innovaccer (USD 225 million) and 1mg (USD 191.3 million).

The Indian healthcare industry is expected to reach USD 638 billion by 2025 from USD 372 billion in 2022. In comparison to the overall healthcare market, the share of healthtech is less than 3.5 percent and should reach about USD 21 million by 2025. The low market share of healthtech highlights the scope for investment and the need for digital integration into the healthcare industry. Covid-19 has opened the debate on digitising the healthcare infrastructure of the country. People are actively researching advanced technology-driven solutions for their healthcare needs.. In such a scenario, the healthtech startups with their innovative products can go a long way in shouldering the healthcare burden of India's huge population.

[3] https://www.fdi.finance/sectors/healthcare

[4] https://www.grantthornton.in/events/pli-30-june/

[5] Unleashing the HealthTech Potential, RBSA Advisors

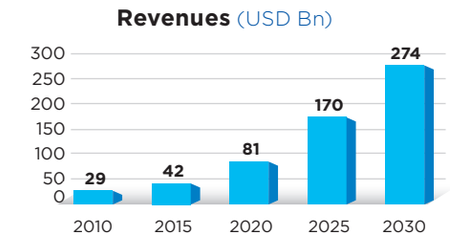
[6] https://www.businesstoday.in/latest/economy-politics/story/indian-health-tech-market-to-grow-to-50-billion-by-2033-297027-2021-05-26

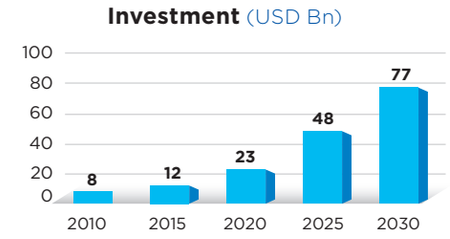
INVESTMENT IDEA 1

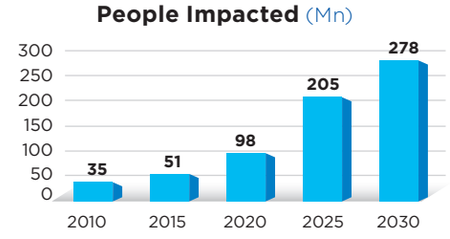
Preventive & Primary Healthcare

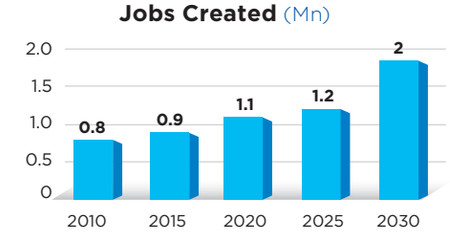
Preventive healthcare is generally uncommon in developing economies, especially in rural regions. If at all it exists, it is restricted to urban societies where some sections of society have started to shift from traditional to modern lifestyles. Even though preventive healthcare is the first line of defence, it is not prevalent in India. The global preventive healthcare technologies and services market was worth USD 214.1 billion in 2019 and is projected to grow at a CAGR of 10.5 percent to reach USD 475.9 billion by 2027.[7] Growing demand for early detection and screening, chronic disease management, precautionary vaccines and other advanced technologies such as electronic prescriptions are expected to drive the growth of preventive healthcare through this period.

As per the Cardiology Society of India, nearly a third of adult Indians suffer from hypertension, and two-thirds of that number does not even know it, making hypertension the biggest silent killer in India. Diabetes and cardiac problems are responsible for 70 percent of all deaths in India. India is home to the second-largest number of diabetes patients in the world, with more than 77 million patients. Coupled with an ageing population and rising cases of cardiac and respiratory illness there is a strong case for growth in preventive care technologies and services in India. Thus preventive and primary healthcare becomes a vital necessity for every individual.
There are more than 30 thousand primary health centres (PHCs) in India and around 25percent of those does not have the requisite number of allocated staff available, thereby raising a question mark on their quality of services. Timely access to primary care can reduce mortality and morbidity at a much lower cost, thereby reducing the need for secondary and tertiary care. Nearly









72 percent of out of pocket expenditure on health is on account of primary care in India.

The preventive healthcare segment in India was worth USD 55 billion in 2018 and is expected to reach USD 106 billion by 2022, growing at a CAGR of 18 percent year-on-year.[8] Currently more than 90 percent of total healthcare expenditure in India goes towards curative healthcare, amounting to more than USD 48 billion per year.[9] Nevertheless, there has been a visible upswing in awareness of preventive healthcare and it is expected that more than 130 million health-conscious individuals will be actively using preventive healthcare services by 2022. Demand for preventive healthcare will be driven by ease of access to advanced healthcare services.

Preventive healthcare has been divided into five key sub-segments which include not just regular exercise and diet control but also risk control, and physical and mental well-being, as follows:[10]

- **Healthy consumption**: This includes health foods, nutraceuticals, and organic skincare. Driven by rising consumption of baby foods, dietary supplements and growing demand for organic skincare products, the segment is expected to grow at a CAGR of 9 percent to reach USD 32 billion by 2022.
- **Fitness segment**: With rising awareness of recreational activities, fitness retail and sportswear the segment has reached 9.3 percent of total healthcare revenue. It is growing at a CAGR of 27 percent and is expected to reach USD 32 billion by 2022.
- **Health monitoring**: This includes electronic wearables, health monitoring devices and diagnostic services. The segment is growing at a CAGR of 20 percent and is expected to reach USD 18 billion by 2022.
- **Rejuvenation**: This includes ergonomic furniture and wellness therapies such as yoga, ayurveda, and spa/sauna services including wellness tourism. This segment is expected to grow to USD 20 billion market by 2022.
- **Wellbeing assurance**: This includes health insurance, telemedicine, physiotherapy and mental healthcare. The segment is growing at a CAGR of 30 percent and is expected to be USD 6 billion by 2022.

Though there are tremendous opportunities for investing in primary and preventive healthcare, the investors should be cautious of certain challenges.. Private services are often expensive. Cost-effective delivery of preventive care such as diagnostics and testing can provide more opportunities to scale in the long run. People from rural areas are more likely to prefer local physicians and public healthcare centres rather than a private clinic, causing a threat to private physicians in regional markets. Startups in the health sector are primarily concentrated in metropolitan cities. Private interventions in primary and preventive healthcare cannot have impact without reaching the masses, where there is higher prevalence of diseases due to a lack of sanitation, lower vaccination rates, self-medication, and lack of basic health awareness, among other factors.

[7] https://univdatos.com/report/preventive-healthcare-technologies-and-services-market/

[8] https://redseer.com/reports/indian-habit-of-being-healthy/

[9] https://www.biospectrumindia.com/news/75/15695/healthcare-experts-launch-proactive-health360-a-next-gen-health-tech-platform.html

[10] https://redseer.com/reports/indian-habit-of-being-healthy/

INVESTMENT IDEA 2

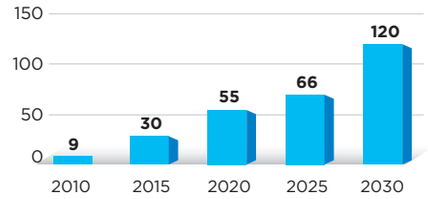
Pharma Drug & Vaccine Manufacturing

The global pharmaceuticals market has been growing at a CAGR of 6.7 percent since 2015, reaching USD 1.2 trillion in 2019, and is expected to grow at a CAGR of 8.5 percent from 2021 to reach USD 1.7 trillion by 2023. Going by current estimates the market is expected to cross USD 3 trillion by 2030.[11] Some common factors that will drive the growth of pharmaceutical industry are technological advancements, research and development for new drug discovery, lifestyle changes and increased use of medicines post the Covid-19 pandemic.

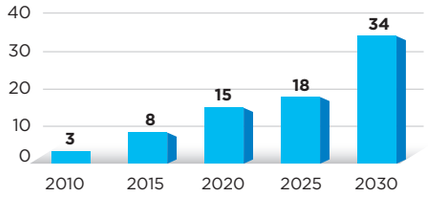
India is home to one of the largest pharmaceutical drug manufacturing industries in the world and supplies over 50 percent of vaccines globally. India also supplies 40 percent of the generic medicine demands of the US and 25 percent of all medicines in the UK. India's dominant position in pharmaceuticals can be measured by the fact that it ranks 3rd in terms of pharmaceutical production by volume and 14th by value. This volume of production is facilitated by a network of more than 3,000 drug companies with over 10,500 manufacturing units.[12]

The value of India's pharmaceutical market is estimated at USD 42 billion in 2021 and is expected to grow at a CAGR of around 12 percent to reach USD 65 billion by 2025. The sector is further estimated to triple its growth in the next decade to reach USD 120-130 billion by 2030. India is also among the top-10 countries in terms of medicine spending, which is poised to grow 9-12 percent over the next five years. India's pharmaceutical, drug and vaccine manufacturing has the required resilience and robustness to trigger the country's post-pandemic economic recovery. But

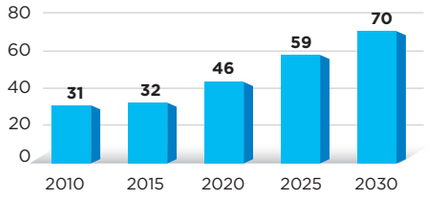
Revenues (USD Bn)



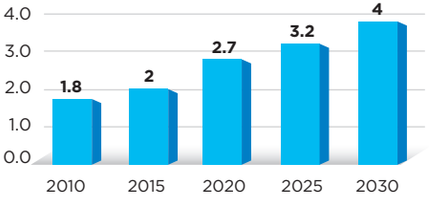
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



it also requires concerted efforts towards building an industry support framework encompassing the central and state agencies to bolster India's position as the "Pharmacy of the World."

Traditionally the pharma industry had been operating on its ability to identify molecules through exhaustive research and development (R&D), patent and sell them through extensive marketing strength. But with rising consumer awareness, expansion of generic drugs and expiry of patented drugs this business model is becoming obsolete. The pharma industry has moved from the traditional business model to a new collaborative approach to reduce R&D cost, increase productivity and enter emerging economies. The different models emerging in the pharma industry include:[13]

- **Collaborative**: Federated Model: a network of separate entities based on shared goals and supporting infrastructure. The federated business model is further divided into two types-
  - **Virtual Variant**: a network of contractors managed by one company acting as a hub and working on a project-by-project basis.
  - **Venture Variant**: investment in a portfolio of pharma companies to share returns on the growth of intellectual property. The advantage is that this spreads risk and promotes entrepreneurialism and innovation.
- **Owned**: Fully Diversified Model: a network of entities owned by one parent company and based on an internally integrated product-service mix.

The Government of India also encourages collaborative R&D in pharma and drug manufacturing by facilitating soft loans at a nominal rate of 3 percent on a reducing amount under the Startup India initiative. There is also a provision of grants to pharma companies for clinical trials for developing drugs for neglected diseases.[14]

During the first three quarters of 2020, the Indian pharma sector attracted USD 1.69 billion (in 19 deals) as compared to USD 368 million in 2019. Some major deals reported in 2020 include Carlyle's USD 490 million investment in Piramal Pharma, KKR's USD 414 million investment in JB Chemicals, Carlyle's USD 210 million investment in SeQuent Scientific, ChrysCapital's USD 132 million investment in Intas Pharmaceuticals, and Advent International's USD 128 million in RA Chem Pharma[15].

Some of the commonly known limitations of investing in pharma, drug and vaccine manufacturing include riskiness of research and development; strict regulation including regulatory approvals from every country in which the drug is sold; the high cost of product development; expensive manufacturing plants; high employee cost, and stringent quality control, Distribution of sensitive drugs is a cumbersome process and adherence to ethical standards often delays the launch of products.

[11] https://www.thebusinessresearchcompany.com/press-release/global-pharmaceuticals-market-opportunities

[12] https://www.ibef.org/industry/pharmaceutical-india.aspx

[13] Pharma 2020: Challenging business models, PwC

[14] https://www.startupindia.gov.in/content/sih/en/government-schemes/drugandpharma_research.html

[15] https://www.business-standard.com/article/markets/pe-vc-investments-in-pharma-companies-grow-3-5x-in-2020-cross-1-bn-mark-120100400347_1.html

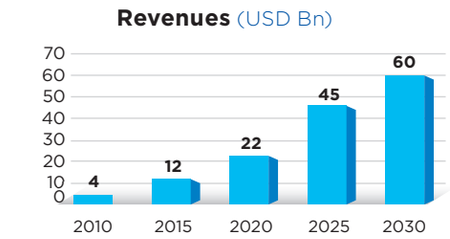
INVESTMENT IDEA 3

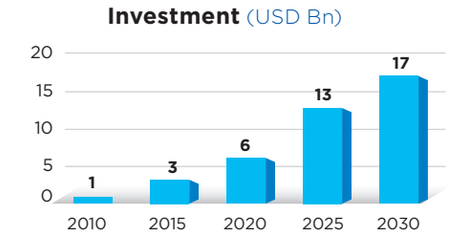
Screening, Diagnostics & Testing

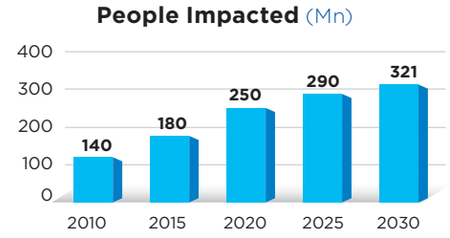
The first step to disease management includes screening, diagnostics and testing. More than 70 percent of clinical decisions worldwide are based on diagnostic tests. The global in-vitro diagnostics market, currently valued at USD 73.93 billion, is growing at a CAGR of 5.6 percent and is expected to reach USD 97 billion by 2026.[16] The rising incidence of lifestyle diseases such as diabetes, cardiovascular ailments, respiratory problems and lipid disorders are expected to drive the growth of the diagnostics market across the globe. With the number of people above 65 years of age likely to reach 1.5 billion globally by 2050 as per the WHO, diseases such as cancer, Alzheimer's and arthritis are expected surge, increasing demand for high-end diagnostics equipment and technologies.

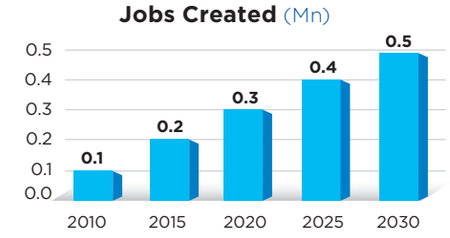
The Asia Pacific in-vitro diagnostics market is the fastest growing segment, with a CAGR of 6.4 percent. The Indian in vitro diagnostics market was valued at USD 1,240 million in 2019, and is projected to reach USD 2,060 million by 2027, at a CAGR of 7.5 percent.[17] The total size of the Indian diagnostics industry is about USD 9 billion, with the private sector accounting for 60 percent. The industry has two parts - pathology and radiology, accounting for 80 percent and 20 percent of the market respectively. There are more than 100,000 labs in the country but the industry is highly fragmented and non-standardised. More than 80 percent of the market is unorganised, with only 16 percent of market share held by organised diagnostic chains, 47 percent by standalone centres and 37 percent by hospitals. Around 40-50 percent of market share is held in Tier 1 cities.[18]

Driven by increasing awareness, improvements in technology and procedures, rising middle class incomes, increasing lifestyle diseases and a marketing push by private players, the market for diagnostic services is expected to grow at 27.5 percent for the next five years. Radiology is seeing the benefits of this growth. The four major players – Dr Lal PathLabs, Metropolis Healthcare, SRL Diagnostics and Thyrocare Technologies – hold only 6 percent of the total diagnostic market. This indicates a massive opportunity for national players to consolidate and expand organically. With advanced technological integration in customer service platforms, private players have started to better engage with customers by providing a more user-friendly digital interface and convenient at-home diagnostic services. Some prevalent business models include:[19]









- **Hub-and-Spoke**: Generally followed by big players to expand their network of collection centres and satellite laboratories through franchising. Examples are Thyrocare and SRL Diagnostics.
- **Aggregators**: Collaboration of multiple standalone diagnostic labs giving customers the preferred choice of lab; examples are 1mg and LabTalk.
- **Shop-in-Shop**: Outsourcing diagnostics to a specialised diagnostic player allowing hospitals to concentrate on their core business operations. Examples are DCDC and Pathkind Labs.
- **Direct to Customer**: Allows users to book lab tests online and provides testing and diagnosis services at home. Examples are MyDiagnostics and DoctorC.

Most big players are expanding their network of collection centres through acquisitions as LabCorp and Quest Diagnostics have done in the US. For example, Carlyle-backed Metropolis Healthcare acquired four laboratories in Gujarat to strengthen its presence in the state. At the same time franchising seems to be the preferred model for organic growth as it is asset light and requires low investment. Consolidation of the Indian diagnostic market is on the cards as smaller players will either be acquired or become franchise partners of big players. Foreign investors have also identified the Indian healthcare sector as a lucrative investment as the hospital and diagnostics sector has attracted FDI of USD 6.8 billion in the last 20 years, as per the Department of Industrial Policy and Promotion. Considering that only 1 percent of all pathology labs in India are accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL), the market for diagnostic labs is ripe for investments and standardisation.[20]

With investors looking to pump money into regional diagnostic players, the market for big players seems to be competitive. The growth rates expected by industry experts could be difficult to maintain as the pricing of diagnostic tests has been stagnant for the past four to five years. In addition, the shortage of skilled manpower, low salary levels of phlebotomists, declining profitability, and dependence on imports could pose a threat to the diagnostic market in the long run. Finally, the higher valuations of diagnostic companies are primarily due to the shortage of diagnostic services in India, which can change quite quickly.

[16] https://www.marketdataforecast.com/market-reports/global-in-vitro-diagnostics-market

[17] https://www.investindia.gov.in/team-india-blogs/vitro-diagnostics-silent-champion-medical-devices

[18] Diagnostic Sector, Edelweiss Professional Investor Research

[19] Diagnostic Sector, Initiating Coverage- HDFC Securities March 2021

[20] https://www.india-briefing.com/news/indias-healthcare-investment-outlook-a-brief-profile-20757.html

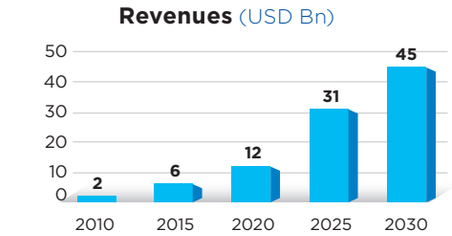
INVESTMENT IDEA 4

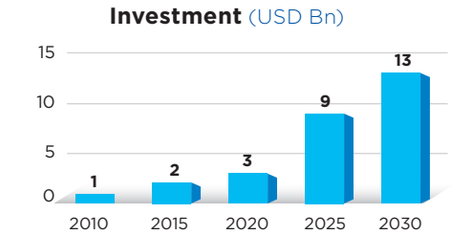
Operational Efficiency & Affordable Healthcare

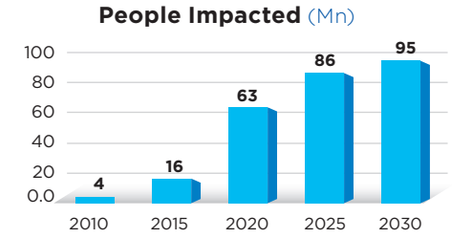
The COVID-19 pandemic has exposed the inefficiencies of India's healthcare system. With the private sector accounting for more than 70 percent of total healthcare expenditure, India ranks among the top countries with the largest out-of-pocket healthcare expenditures in the world. Rising healthcare costs on account of excessive dependence on private sector health facilities coupled with inflation push an estimated 60 million Indians into poverty every year.[21]

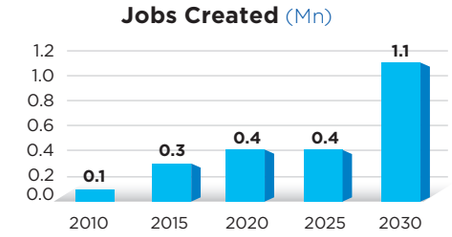
Affordability and accessibility of healthcare services have been a persistent issue in India since independence. Operational efficiency requires providing healthcare treatment in a cost-effective manner, minimizing the operational costs of hospitals and medical establishments without compromising on the quality of treatment. Infrastructure, clinical equipment and medical supplies are the three most capital-intensive elements in a medical facility. While infrastructure depends on the scale of the facility and is generally facilitated by government subsidies, equipment is often taken care of through collaborative partnerships with manufacturers. The third component, medical supplies, which constitutes a third of the total cost of operations, is generally managed in-house and is the second largest financial head for hospitals. Using technology for data analysis would help align costs, procedures and outcomes, not only improving operational efficiency but also curbing operational costs, which are usually passed on to patients.

Investments in advanced technology ensuring data integrity, portability of information for early diagnosis, incorporation of artificial intelligence (AI) and internet of things (IoT) for remote patient monitoring have immense scope for reducing operational costs, leading to affordable healthcare solutions for underserved locations in the country. Private healthcare providers and startups are tapping the opportunity of the digital wave and have introduced a number of mobile applications to cater to the varied needs of patients. Some prominent names that have made their mark during the COIVD-19 restrictions include Apollo 24/7, Tattvan E Clinics, Practo, mFine, Lybrate, DocsApp and MedCords. A number of areas in which technology and data accessibility can bring in operational efficiency along with affordability include:[22]









- **Telehealth and consumer technology**: Telehealth not only eliminates the cost of building a brick-and-mortar hospital in a new location but also provides affordable, quality healthcare services to patients in far-flung regions through digital platforms.
- **Exchange of patient data**: Availability and exchange of digital health records between healthcare providers has the potential to significantly reduce costs and increase efficiency. It helps healthcare providers understand the medical history of patients and prescribe appropriate medical care.
- **Digital office management systems**: Digital systems of record keeping help in scheduling appointments and future treatments in an organised manner. They also enable systematic billing including insurance facilitation thereby enhancing patient experience.
- **Data protection**: Along with ethical concerns, data protection and privacy remain a top priority for healthcare providers. Large volumes of personal patient information must be maintained and protected to avoid unwanted regulatory issues.

The Government of India increased the annual budget for the healthcare sector in 2021 from USD 9.2 billion to USD 13 billion, along with allocating USD 5.1 billion to the National Health Mission, which includes the Ayushman Bharat (PM-JAY) health insurance scheme for the bottom 40 percent of the country's population. PM-JAY is the world largest health insurance scheme fully financed by the government and covers approximately 8,000 public and private hospitals. The government is also planning to increase its healthcare spending to 3 percent of GDP by 2022.[23] Along with such schemes at the national level, technological advancements at the private level should be aligned not only to provide advanced medical care at affordable costs but also integrate all stakeholders including diagnostics, insurance, medical tourism, clinical trials and telemedicine.

India has one of the lowest public healthcare spending ratios in the world, only 1.3 percent of national income as opposed to a global average of 6 percent. Another reason for high medical costs in India is that the government's contribution to insurance is only 32 percent, over 50 percent less than that of countries such as the United Kingdom, and only 24 percent of India's population has any kind of health insurance. In operational efficiency, India ranks as low 145 out of 195 countries in healthcare quality and accessibility, behind Bangladesh and Sri Lanka. India's public spending on healthcare urgently needs to reach 2.5 percent of GDP at least.[24]

[21] https://health.economictimes.indiatimes.com/genworks/news/detail/28486

[22] https://www.globaltrademag.com/how-technology-can-make-health-care-cheaper-and-more-efficient/

[23] https://www.outlookindia.com/website/story/opinion-the-future-of-healthcare-investment-in-india/362801

[24] https://www.insightsonindia.com/2021/01/11/rstv-the-big-picture-pandemic-affordable-healthcare/

INVESTMENT IDEA 5

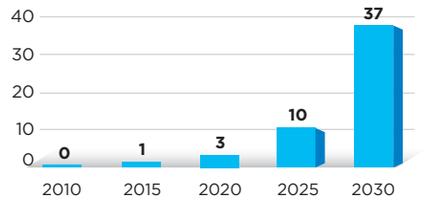
Medical Tourism

The global medical tourism market was valued at USD 33.03 billion in 2021 and is expected to grow at a CAGR of 18.8 percent to reach USD 78.15 billion by 2026[25]. Increasing awareness of advanced medical treatments, rising middle-class incomes, low-cost associated treatment and easy access to medically necessary procedures is expected to drive the growth of medical tourism. The most frequently treated conditions in medical tourism include in-vitro fertilisation, dentistry, cardiovascular health, cosmetic surgery, liver and kidney transplant, spinal surgery and cancer treatment.

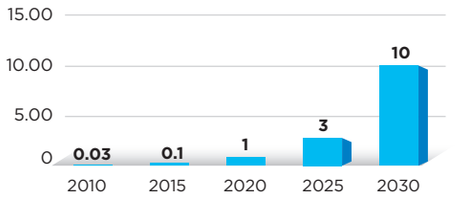
India's market for medical tourism was valued at USD 2.89 billion in 2020 and is estimated to grow at a CAGR of 29 percent to reach USD 13.42 billion by 2026.[26] The rising costs of healthcare in developed countries such as the US and UK make India the 5th most preferred destination among the top-41 countries with the maximum number of medical tourists in the world. On an average India gains around USD 0.5 million from medical tourism annually, from different source countries with the majority of medical tourists coming from South-East Asian countries, the Middle-East, Africa and SAARC nations. Bangladesh has been the most prominent source nation for medical tourism in India, with more than 50 percent of travellers coming from the neighbouring nation. India is witnessing an average growth rate of 55 percent in the number of foreign tourist arrivals and is expected to maintain this growth in the coming years.[27]

A key differentiator for India as a prominent medical tourism destination is the affordable cost of treatment. While daily travel in the US could cost up to USD 223, it comes to about USD 31 in India.

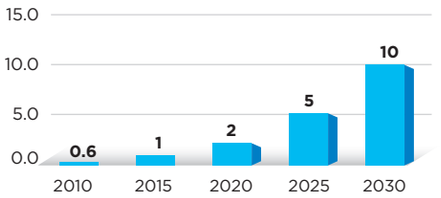
Revenues (USD Bn)



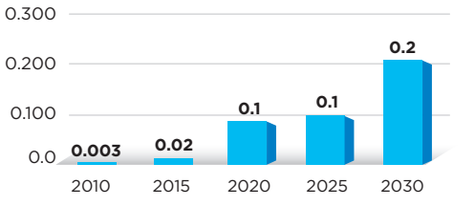
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



The overall cost difference in medical care and treatment between India and Western countries is approximately 50 percent.

India has comparatively less cumbersome norms and processes for medical tourist entering the country. Relevant ministries under the Government of India are taking measures to further facilitate medical visas by introducing initiatives such as M-visa, which allows a medical tourist to be in India for a specific period. In addition, visa on arrival has been extended for many countries to allow medical tourists to stay in India for 30 days.

Medical tourism involves not just the patient and the healthcare provider but also several stakeholders such as domestic/ foreign tourism facilitators, insurance companies and domestic employers. The integration of these players creates various business models for medical tourism, as follows:

- **Direct Medical Tourism**: the patient is targeted through online marketing by the provider hospital. In this case patients make all arrangements themselves.
- **Through Facilitators**: a facilitator agency acts as a guide to identify the location and hospital, and makes travel and stay arrangements, etc.
- **Payer-Driven**: to reduce cost the employer or the insurance agency in the source country may advise the patient to get the same treatment abroad at a much lower cost.
- **Exporting Brand Presence**: the healthcare provider recommends advanced care treatment at its network of hospitals in a foreign location.

There are more than 500 accredited healthcare providers in India including 38 hospitals accredited by the Joint Commission International (JCI), a leading authority on global health care practices along with 619 hospitals accredited by the National Accreditation Board for Hospitals and Healthcare Providers (NABH). India has a post-operative mortality rate of around 1.4 percent, lower than that of western countries such as the US, which is 1.9 percent.[28]

The availability of advanced medical facilities in metropolitan cities which cater to the bulk of foreign medical tourists provides a strong case for India's prominent position in medical tourism. The experience and easy availability of a multitude of alternative therapies such as ayurveda, naturopathy and yoga can ease the recovery process for visiting patients. The fact that India has English speaking doctors also makes the country a desirable destination for medical tourism.

Tourism including medical tourism has been severely affected by the Covid-19 pandemic. Some limitations that deter medical tourism include a lack of uniform pricing policies, non-inclusive international health coverage, follow-up requirement with international doctors, ethical aspects of treatment, non-availability of medicines in the home country and possible misinformation. Medical tourism relies primarily on reference and not on factual data, which leaves scope for unsatisfactory treatment. From the investor's viewpoint, the bigger concern is the lack of standards at the national level and at hospitals, making it difficult to gauge the scalability and longevity of investments.

[25] https://www.marketdataforecast.com/market-reports/medical-tourism-market

[26] https://www.ibef.org/industry/healthcare-india.aspx

[27] https://www.moneycontrol.com/news/business/indias-medical-tourism-market-expected-to-touch-9-billion-by-2020-report-4639931.html

[28] https://ficci.in/ficci-in-news-page.asp?nid=19199

INVESTMENT IDEA 6

E-Healthcare & Telecare

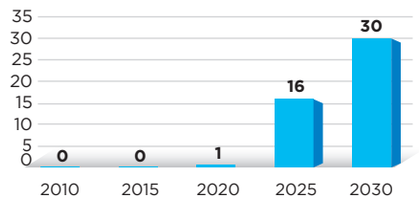
Technology interventions have seen growing integration in the healthcare industry over the years and many such tools have provided reliable options to manage complicated tasks in a much more profitable and convenient way. Using technology-enabled tools for stringent record keeping, maintenance of electronic health records, regulatory requirements and delivery of eHealth solutions has enabled quality healthcare services at a much-reduced cost. The demand for eHealth solutions is on the rise and the global market size is projected to reach USD 193.8 billion by 2025 from USD 69.5 billion in 2020, at a CAGR of 22.8 percent.[29]

Between 2014 and 2017, India had the highest digital adoption rate in the world, at 90 percent. This digital growth has had a ripple effect on the country's healthcare sector, which embraced technology to improve quality and accessibility. The Indian digital healthcare market was valued at USD 1.5 billion in 2018 and is expected to grow at a CAGR of 17.41 percent to reach USD 6.5 billion by 2024.[30]

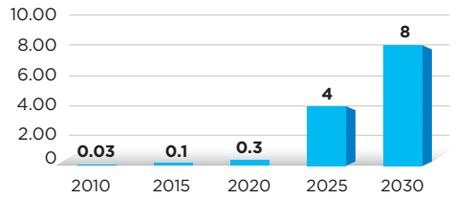
The digital healthcare market is segmented into four categories: mHealth, electronic health records, telehealth, and others such as remote diagnostics and healthcare analytics. By 2024, the mHealth segment is expected to dominate the market with a revenue share of 40.64 percent, followed by telehealth.[31] Faster access to healthcare providers, improved medication adherence, ease of monitoring and greater convenience have resulted in faster adoption of mHealth services, including healthcare apps and wearable devices.

Government's push towards digital initiatives accelerated through the Digital India Campaign has created a favourable ecosystem for the digital healthcare market. The ubiquitous use of biometric identification (Aadhaar) has enabled the delivery of digital healthcare services for every individual in the country. Other digital initiatives such as the National Health Portal, e-Hospital, and Integrated Health Information Program (IHIP) have further fuelled the growth of digital healthcare services in India. Integration of advanced technologies such as machine learning, artificial intelligence, blockchain, big data and internet of medical things has started to figure in the country's digital health delivery plans. Moreover, a steady inflow of foreign direct investment has helped to plan for the future of digital healthcare in India by addressing the concerns of stakeholders.

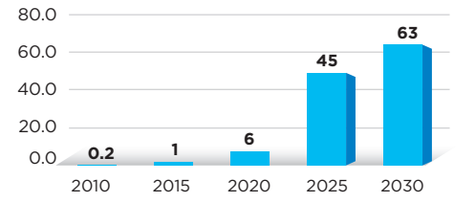
Revenues (USD Bn)



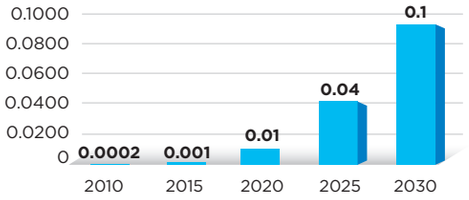
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



Some key market segments of digital health in India are as follows:

- **mHealth**: a mobile extension of the National Health Portal that provides health services to end-users through an app
- **Telemedicine**: the use of technology for remote diagnosis, monitoring and education. Telemedicine has greatly aided in reducing patients' costs and providing healthcare to patients in remote areas
- **Remote diagnosis**: increased access to health care for remote and rural populations by providing point-of-care diagnostics, teleconsulting and e-prescription capabilities along with conference-call and video conferencing facilities
- **Wearables**: electronic devices used for tracking fitness levels, heart rate, energy levels, etc., that can enable health measures without the need of a medical practitioner.

There are around 5,300 healthtech startups in India but only 133 have been able to get external funding. The eHealth sector in the country is expected to reach a market value of USD 10.6 billion by 2025. Despite strong growth prospects, at that time it is likely to be only 1.6 percent of the total addressable healthcare market of the country, which is forecasted to reach USD 638 billion by 2025. However, the eHealth segment is expected to account for 49.7 percent of the overall healthtech market of USD 21.3 billion by 2025. Thus, the healthcare market in India is on the cusp of a digital transformation, providing a massive opportunity for private companies and investors. The total funding raised by eHealth startups in India between 2014 and2020 is around USD 1.5 billion. Telemedicine has the highest potential and is expected to reach a market value of USD 5.4 billion by 2025.[32]

Although the digital healthcare sector offers ample opportunities, significant barriers are slowing the adoption of digitisation in the Indian healthcare sector. The lack of digitised data on patients' health history and prescriptions hampers adoption. Factors like inferior technology infrastructure and lack of structured regulation pose challenges to the digital healthcare market. Furthermore, the high cost of customer acquisition, along with a complex and multi-layered ecosystem leads to difficulties in value proposition. Players operating in digital healthcare face stiff competition from each other. The market comprises of various players including start-ups and established global companies aiming to expand their footprint in India. Although it has witnessed successful pilot projects, there are challenges in scaling up the pilots to meet industry requirements.

[29] https://www.marketsandmarkets.com/Market-Reports/ehealth-market-11513143.html

[30] https://www.ibef.org/blogs/digital-healthcare-to-witness-exponential-growth-in-india

[31] Insights into the Digital Healthcare Market in India (2019 to 2024), Businesswire February 2020

[32] https://inc42.com/datalab/decoding-india-ehealth-opportunity-post-covid-19/

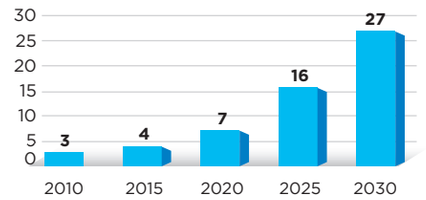
INVESTMENT IDEA 7

Health Insurance & Innovative Impact Financing

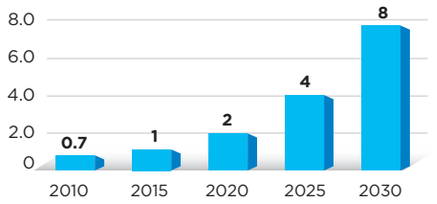
The global health insurance market size was valued at USD 1.98 trillion in 2020 and is expected to grow at a CAGR of 9.7 percent to reach USD 4.15 trillion by 2028.[33] Increasing use of advanced clinical procedures, rising awareness of health insurance, ease of purchase through digital media and rising healthcare expenses are expected to drive the growth of health insurance globally. Moreover, the growing prevalence of diabetes (approximately 463 million in 2020 globally[34]), cardiac problems and kidney ailments has made health insurance essential. North America dominates health insurance, accounting for two-thirds of the global market owing to the Affordable Care Act that makes it a mandatory requirement.

For the last 10 years, health insurance has been the fastest growing segment in the non-life insurance sector in India, growing at a CAGR of 23 percent. During the financial year 2016-17, the segment enjoyed double-digit growth of 24 percent and captured a market share of the same size in the non-life insurance sector. The rise in demand for health insurance over the years has been on account of increase in medical expenses and growing awareness among the public of healthcare needs. According to NITI Aayog, 30 percent of India's population is devoid of any form of health insurance. While 50 percent of the low income segment is covered by state and central health coverage schemes like Ayushman Bharat, the other 20 percent are covered through social health insurance and private voluntary health insurance.[35] However, in reality the actual uninsured population is way beyond the estimated numbers.

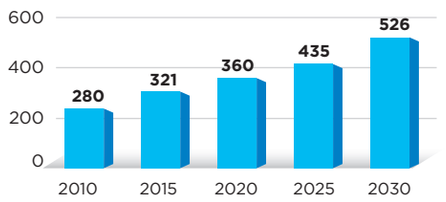
Revenues (USD Bn)



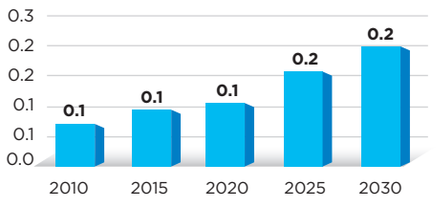
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



The rise in demand has been accentuated by the fact that the country has 30 health insurance companies providing customised healthcare coverage. The demand for better healthcare acts as a major driver of patients accessing private hospitals and hence higher costs. The availability of quality services and sophisticated treatment further encourages private health insurance players to provide more comprehensive health coverage. The easing of FDI norms from 49 percent to 75 percent in the Union Budget 2021 has also boosted the entry of private insurance companies. Considering that only 18 percent of the urban population and 14 percent of the rural population in India have any kind of health insurance[36], there is ample space for private players to expand coverage through innovative products.

Impact financing has also made its entry in the Indian healthcare market through Impact Bonds. The Utkrisht Impact Bond, the world's first and largest health Development Impact Bond, targeting 6,00,000 pregnant women as beneficiaries in Rajasthan, was launched in 2017aaiming to reduce maternal and new-born mortality rates. USAID and MSD for Mothers were the outcome funders with UBS Optimus as the investor. Health insurance coupled with innovative impact financing models can transform the way healthcare services are delivered in the country.

Amid growing demand for health insurance during Covid-19, health insurance companies registered premium growth of 40 percent year-on-year in June 2021[37]. The digital drive in the economy has attracted many customers to buy health insurance online. Still, digital distribution through web aggregators accounts for only 1 percent of the health insurance industry. Covid-19 has changed the way health insurance reaches customers. Earlier it was more of a product to be sold; now it has become a product to be bought.

There is a wide variety of health insurance products and schemes from the central and state governments and private companies in India. Government initiatives such as the Ayushman Bharat Yojana under the National Health Protection Scheme, the world's largest social health scheme, aims to provide free health insurance to around 100 million low-income earners in the country. The rural segment is also targeted by public sector banks through bancassurance in collaboration with private health insurance companies. Insurtech startups such as Plum, Digit, Loop Health, OnSurity and Nova have designed sophisticated tech platforms to provide a seamless experience for customers looking to buy health insurance online.

The market for innovative financing in India is still very nascent. The stakeholders who are driving the outcome measures and associated risks haven't clearly identified the delivery mechanism. In addition, investors aren't aware of the per capita cost in delivering the outcomes, making it difficult for them to forecast the impact and returns of innovative financing models in India. Most innovative financing is centred at the program level rather than at the patient level. Hence due to the lack of benchmarks, the investor community has not explored the potential of innovative financing for healthcare insurance in India.

[33] https://www.alliedmarketresearch.com/health-insurance-market

[34] https://idf.org/aboutdiabetes/what-is-diabetes/facts-figures.html

[35] https://economictimes.indiatimes.com/industry/banking/finance/insure/nearly-30-of-indian-population-dont-have-any-health-insurance/articleshow/87367884.cms?from=mdr

[36] https://www.ibef.org/download/Insurance-June-2020.pdf

[37] https://www.ibef.org/industry/healthcare-presentation

INVESTMENT IDEA 8

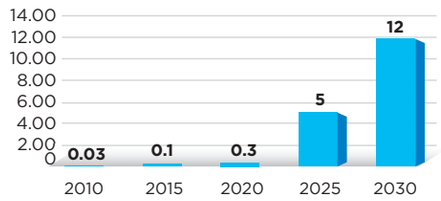
E-Pharmacies

The global e-pharmacy market was valued at USD 69.7 billion in 2019 and is expected to grow at a CAGR of 17 percent to reach USD 244 billion by 2027. Rising internet penetration and the shift in consumer preference towards convenient shopping options have led to the growth of e-pharmacies across the globe.[38]

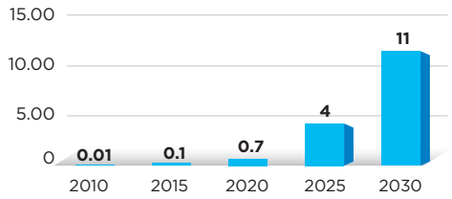
India's share in the global e-pharmacy market was less than 1 percent in 2019 on account of the highly unstructured and fragmented market, with over 800,000 pharmacies in the country. The Indian e-pharmacy market was valued at US 0.5 billion in 2019 but is expected to growth at the exponential rate of 44 percent to reach USD 4.5 billion by 2025.[39] Currently e-pharmacy in India accounts for just 2-3 percent of total pharmacy sales in the country. The low market share of e-pharmacies is largely due to the easy availability of retail pharmacies within a radius of a few kilometres in the country, especially in urban regions. However, due to the unorganized nature of the pharmacy trade in the country, the segment faces a number of common challenges including stockouts, sale of spurious and substandard drugs, and limited access. E-pharmacies can be an effective tool to not only consolidate the market but also provide solutions to these issues.

During the COVID-enforced restrictions, the e-pharmacy segment enjoyed greater penetration largely due to its categorisation as an essential service. The government did its bit to promote e-pharmacies through the Aarogyta Setu Mitr portal on the Arogya Setu app. Such initiatives greatly benefited the e-pharmacy market as the segment was able to grow two-and-a-half times, with households using their service hitting 8.8 million in June 2020. Notably, more than 45 percent of the new users of e-pharmacy platforms belong to non-metro regions.

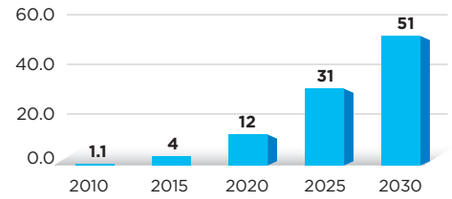
Revenues (USD Bn)



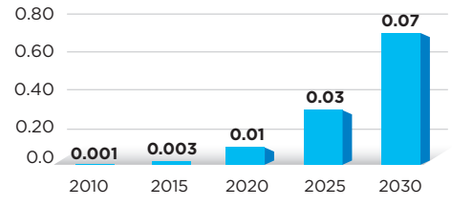
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



Going by business models, e-pharmacies can be classified into two broad types:[40]

- **Digital-only stores**: online-only apps and websites such as TATA 1mg, PharmEasy and Netmeds.
- **Digital Twin of Brick-and-Mortar pharmacy**: the popular extension of a brick-and-mortar store where the store owner has an offline as well as an online presence. This allows store owners to expand their reach and provides an option for customers to continue buying medicines from their reliable neighbourhood store. An example is Apollo Pharmacy.

A deeper examination of the fundamental business models leads to further division of e-pharmacies into two broad categories: centralised and decentralised. In the centralised model, platform providers work on a commission basis, acting as a bridge between customers and pharmacists, as with TATA 1mg and NetMeds. In the decentralised model, as with EMedStore, the developer works with local pharmacy owners, providing an app and website. The app is deployed through mobile phones and pharmacy owners retain control of their operations. This gives pharmacies a chance to compete with big players.

The e-pharmacy industry in India is very nascent with only around 50 e-pharmacies operating in the country. Still these e-pharmacies are currently catering to over 20,000 pin codes in the country and continue to add more to the list. Along with notable names like Netmeds, EasyMedico and MedLife, the segment has startups like 1mg, Practo, and Myra.

Even traditional chemists such as Apollo Pharmacy have launched e-pharmacies . Large e-commerce and retail players such as Amazon and Reliance Retail have also ventured into the growing e-pharmacy market. While Amazon has started online delivery of medicines, Reliance Retail has entered by acquiring a majority stake in Netmeds for USD 83 million. Other major deals include the merger of PharmEasy with Medlife and the acquisition of 1mg by TATA Digital. The rise of investor interest can be gauged from the fact that more than USD 700 million was pumped into the segment in 2020 alone. As per FICCI, online pharmacies are estimated to tap approximately 70 million households by 2025.[41]

Nevertheless, there are issues that need to be addressed for sustainable growth. Some common challenges include trust issues and fear of receiving counterfeit medicines, limited customer support, concerns over lack of timely delivery, limited presence in regional languages, low access to Tier 2 and 3 cities/towns, lack of an organized grievance redressal mechanism and data privacy issues. With the growing number of customers, the online pharmacy market needs standardised practices and policies especially relating to customer complaints. In addition, greater investment in logistics is required along with strategic collaborations between e-commerce players and delivery partners to reach a wider customer base.

[38] https://www.expresspharma.in/e-commerce-will-e-pharmacies-become-the-norm/

[39] https://www.investindia.gov.in/team-india-blogs/e-pharmacies-bridging-gap-indian-healthcare

[40] https://www.emedstore.in/blog/Post/different-types-of-online-pharmacy-business-models/210

[41] https://www.livemint.com/news/india/e-pharmacies-may-increase-domestic-reach-to-1-4x-pre-covid-as-govt-softens-stand-11597382033842.html

INVESTMENT IDEA 9

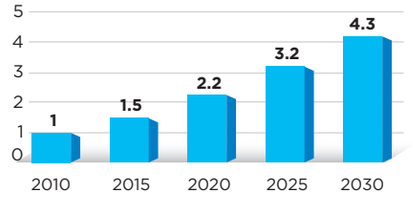
Medical Workforce Skilling

According to a recent study on Human Resources for Health, the world will need an estimated 80 million health workers by 2030. At the current rate of additions to the workforce, WHO estimates a global shortage of 18 million health workers by 2030, mostly in low- and lower-middle income countries, with nurses accounting for about half of this gap. The shortage was exacerbated by the pandemic, with health workers accounting for approximately 14 percent of all COVID-19 cases globally and the death of more than 17,000 health workers.[42]

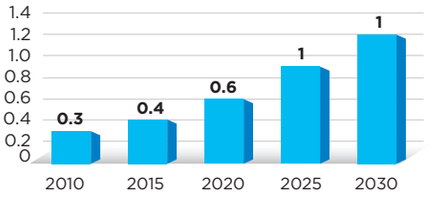
The global healthcare education market was valued at USD 83.6 billion in 2020 and is projected to grow at a CAGR of 8.4 percent to reach USD 125.2 billion by 2025.[43] However, healthcare education has not received sufficient funding and a lack of policy encouragement in many low-income countries, as compared to management and technical education, results in a continuing shortage of health workers. The mismatch between education and employment needs, along with difficulties in deploying health workers to rural, remote and under-served areas and international migration of health workers has been a common cause of concern in developing economies. Hence there is an urgent need to invest in skilling, reskilling and upskilling of the new and existing workforce.

The perennial shortage of skilled professionals has been a major deterrent to the growth of healthcare in India. The World Health Organisation recommends an average of 2.5 doctors and nurses per 1,000 people. In contrast, India's ratio is 0.7 doctors and 1.5 nurses per 1,000 people. The COIVD-19 pandemic has exposed a shortage of 10 lakh doctors and 20 lakh nurses to handle the current healthcare burden. The country is likely to need at least 1.5 lakh nurses and 50,000 doctors

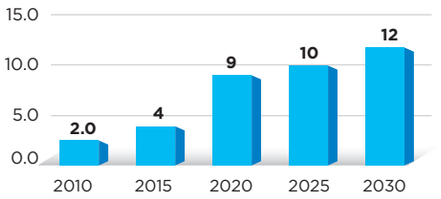
Revenues (USD Bn)



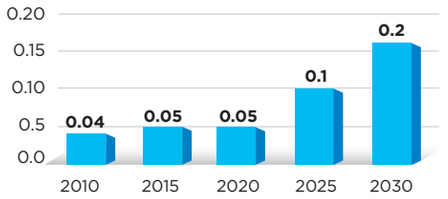
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



skilled in intensive care over the next one year.[44] The number of doctors in India grew at the rate of 14.41 percent until 2014; to achieve the WHO's recommended doctor-population ratio, this rate needs to reach 151 percent between 2010 to 2030.[45] Moreover, India would need around 2.6 million healthcare support staff by 2030.[46] To achieve the scale and quality of trained manpower needed, the entire healthcare ecosystem needs to adopt disruptive ed-tech and standardised tools for training and assessment.

The healthcare education market is segmented into traditional academic institutions, digital learning providers, pharmaceutical companies, educational platforms, and medical simulation providers. Universities and academic centres still account for more than 90 percent of the healthcare education market globally. The healthcare education solutions market is segmented into classroom-based courses and eLearning solutions. Classroom-based courses continue to dominate the market, with an over 88 percent market share in 2019, but are expected to slow down on account of greater adoption of eLearning due to its ease of use, convenience, flexibility, and cost-effectiveness.[47]

The Government of India plans to set up of 157 new medical colleges and approximately 50 nursing institutions, which are likely to produce about 22,500 doctors and 2,000 nurses every year. These academic centres can potentially add another 0.25 million health professionals in the next 10 years to the current health workforce of 0.17 million.[48] To meet a minimum threshold of 22.8 health workers per 10,000 persons, India need to create an ecosystem of healthcare training and education where central and state government institutions can collaborate with all relevant stakeholders including hospitals, edtech/medtech companies, non-government organisations and corporate India.

The Indian healthcare education requires adequate investments both in terms of operational functions and demand determination. The investments need to start at the secondary education level while parallel interventions are required on the rights of health workers. There is a need to advocate for the collective bargaining power of health workers, which must be developed and aligned with international labour standards, policies and social protection. On the technology front, there is a need to digitise foundation courses for allied healthcare workers so that more people can join the workforce. Provision of internet connectivity, ICT infrastructure, data validation and security measures are required along with supporting regulation to strengthen the base-level support system for healthcare education. Current healthcare educators need to be retrained on sophisticated technology platforms to be able to learn and deliver digital medical technology knowledge to learners.

[42] https://www.clintonhealthaccess.org/there-is-a-global-shortage-of-nurses-covid-19-is-making-it-worse/

[43] https://www.marketsandmarkets.com/Market-Reports/healthcare-education-solution-market-257938351.html

[44] https://www.thehindubusinessline.com/opinion/medtech-bridging-the-healthcare-skill-gap-in-india/article33451225.ece

[45] https://businesseconomics.in/importance-health-education-india

[46] https://www.nationalskillsnetwork.in/covid-19-impact-skilling-in-healthcare-sector-assumes-top-priority/

[47] https://www.marketsandmarkets.com/PressReleases/healthcare-education-solution.asp

[48] https://www.hindustantimes.com/ht-insight/public-health/india-needs-big-investment-in-health-workforce-101625106985770.html

INVESTMENT IDEA 10

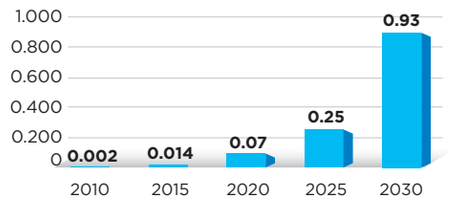
Gene Therapy

Gene therapy is the process of treating disease caused by genes by repairing, repressing, or replacing them to make them function normally. It is expected to transform medicine by providing options for patients living with serious and often incurable diseases. The global gene therapy market was valued at USD 393.35 million in 2018 and is expected to grow at a CAGR of 34.8 percent to reach USD 6,205.85 million by 2026.[49] North America dominates the gene therapy market due to high disposable incomes, increased funding for R&D associated with gene therapy and the high prevalence of cancer. The majority of gene therapy clinical trials involved targeted cancers. According to the World Health Organization, the total 5-year prevalence of cancer is around 43 million. In 2018, the number of cancer-related deaths worldwide was 9.5 million, which is expected to rise to 16.4 million by 2040.[50]

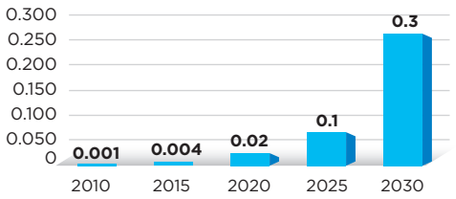
Genetic tests in India have evolved over the years, with 450 out of around 7,000 rare diseases of genetic origin being recorded in the country till date. Currently there are only 20 gene testing labs in India, with around 50 companies operating in the space. The tests are mostly outsourced to external labs in India and abroad. In 2019, the gene testing market in India was valued at USD 40-50 million, growing at a CAGR of 30 percent. Some prominent names in India include MedGenome and Strand Life Sciences along with global players like Centogene and Eurofins.[51]

Innovation and development in the gene therapy market are driven primarily by smaller biotech companies or universities, which often partner with large pharma companies or specialised gene therapy entities. Approximately 90 percent

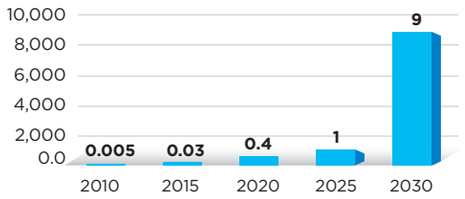
Revenues (USD Bn)



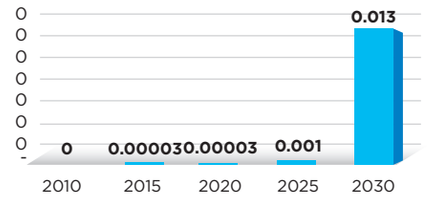
Investment (USD Bn)



People Impacted (Mn)



Jobs Created (Mn)



of all major developments to date in gene therapy have been introduced by companies with fewer than 500 employees.

An average gene therapy treatment costs around USD 1 million per procedure, a prohibitive cost that can make investors chary. Companies have started evolving new business models to sustain and encourage the involvement of more investors in gene therapy treatment, as follows:[52]

- **Pay for Success**: payment only if the cure is successful and endures over the long term. This model provides the option of instalment payments and covers the risk of insurers as it eliminates the risk of paying for failed treatment. An example is Spark Therapeutics
- **HealthCoin**: insurers are provided with a credit note that can be traded as a bond in lieu of reimbursement for preventive measures and costly one-time treatments.
- **Annuity based model**: payment of monthly premiums for the development of new treatments and, if such therapies prove successful, collection of dividends as an impact investor.

The next phase of transformation in the global pharma industry is likely to be advancements in cell and gene therapies. Investors have started to realise the potential of advanced therapies including cell, gene, and gene-modified cell therapy and committed over USD 13 billion globally in 2018. There are more than 900 companies focused on advanced therapies globally and it is expected that by 2025, the industry could see 10 to 20 approvals of new therapies per year. With increased investor activities in gene therapy companies, a flurry of M&A activities totalling USD 4 billion since 2015 has also signalled a strong proof of concept and investability interest in gene therapy.

The major players in the global gene therapy market are Spark Therapeutics Inc., Thermo Fisher Scientific Inc., Pfizer Inc., and Novartis AG. Indian start-ups such as Viravecs Labs funded by the Government of India's Department of Biotechnology, BIRAC, and Biotechnology Ignition Grant are working on genetic treatment of diseases, particularly cancer.

Gene therapies, particularly the one-time or curative versions, have limitations with regard to the current delivery models for pharmaceuticals in the following ways: a) low manufacturing yield, low production volumes along with lack of rapid analytical methods are big hurdles in achieving robust processes; b) the need for speed: there are over 7,000 genetic diseases that could potentially be cured using gene therapy; c) lack of optimised processes and timely testing leading to high costs; d) sample size dilemma: gene therapy batch sizes are much smaller; if they are intended to treat systemic indications, the volume needed for testing needs to be higher.

Gene therapy can also be considered a sustainable investment as it aligns with Sustainable Development Goal 3 'Good Health and Well Being' with its aim of curing diseases by addressing their underlying cause rather than reactively treating symptoms.

[49] https://www.alliedmarketresearch.com/gene-therapy-market

[50] https://www.cancer.gov/about-cancer/understanding/statistics

[51] https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/genetic-tests-gaining-popularity-for-diagnosis-treatments-in-india/articleshow/70309477.cms

[52] https://hbr.org/2018/11/3-business-models-that-could-bring-million-dollar-cures-to-everyone

100 Startups & Investors

Investment Idea	Startups- Investment Stage/ Last Funding Type				
	Angel/Seed	Series A	Series B	Series C	Series D+
INVESTMENT IDEA 1 **Preventive & Primary Healthcare**	**Startup**: CureInstant (2015) **Investors**: Deadpooled **Startup**: Docttocare (2016) **Investors**: 10000 Startups	**Startup**: eKinCare (2014) **Investors**: Touchstone Equities, Venture East, Bitkemy Ventures, Eight Road Ventures, Endiya Partners **Startup**: BeatO (2015) **Investors**: Orios Venture Partners, Leo Capital, Blume Ventures **Startup**: Curejoy (2013) **Investors**: Accel Partners, NuVentures	**Startup**: Tricog (2015) **Investors**: Aflac Innovation Partners, Blume Ventures, Dream Incubator, Inventus Capital **Startup**: Healthspring (2010) **Investors**: Columbia Pacific Advisors, Catamaran, JSCapital, ARB Corporation, Asian Healthcare Fund	**Startup**: Portea Medical (2013) **Investors**: Sabre Partners and MEMG CDC Ventures, Qualcomm Ventures and International Finance Corporation **Startup**: Healthifyme (2012) **Investors**: Inventus Capital, Blume Ventures, Innoven Capital, VC Samsung Next, Dream Incubator, NB Ventures	**Startup**: PristynCare (2018) **Investors**: US Investment Fund, Tiger Global Management, Sequoia Capital, Hummingbird Ventures, and Epiq Capital
INVESTMENT IDEA 2 **Pharma, Drug & Vaccine Manufacturing**	**Startup**: Biddano (2016) **Investors**: Lets Venture, Windrose Capital, Venture Catalysts, ACG group, Dholakia Ventures, BlackSoil **Startup**: Pentavalent (2015) **Investors**: Bioinnovation Centre, BIRAC, Karnataka Startup Cell, C-CAMP, Millennium Alliance **Startup**: Clevergene (2013) **Investors**: Auxano **Startup**: Suma Genomics (2019) **Investors**: Manipal University Technology Business Incubator **Startup**: Vitas Pharma (2010) **Investors**: Indian Angel Network, Singapore Angel Network, Amity Venture, Gray Cell Venture **Startup**: Prosetta (2004) **Investors**: Unfunded **Startup**: Redcliff Life Science (2017) **Investors**: Y combinator, Green Shots Capital, Alfa Ventures, Chiratae Ventures	**Startup**: Mynvax (2017) **Investors**: Lets Venture, Kotak Investment Advisors, Accel, 1Crowd	**Startup**: BugWorks (2014) **Investors**: GlobalBrain, 3One 4 Capital, Acquipharma, University of Tokyo Edge Capital		**Startup**: GangaGen (2000) **Investors**: Acquired by Chr. Hansen

Investment Idea	Startups- Investment Stage/ Last Funding Type				
	Angel/Seed	Series A	Series B	Series C	Series D+
INVESTMENT IDEA 3 **Screening, Diagnostic & Testing**	**Startup**: OncoStem Diagnostics (2011) **Investors**: Sequoia capital, Artiman Ventures **Startup**: Lyfas (2017) **Investors**: Startup Basket, Karnataka Startup Cell, PirE Vntures **Startup**: Prognostics In-Med (2016) **Investors**: India Edison TM Accellator, BIRAC Angel Investor **Startup**: WellOwise (2018) **Investors**: ITD Innovation & Incubation Centre **Startup**: LiveHealth (2013) **Investors**: Nexus Ventures Partners, Mplier Healthcare Ventures **Startup**: Tesla Dignostics (2016) **Investors**: Unfunded	**Startup**: Qure. Ai (2016) **Investors**: Mass Mutual Ventures, Sequoia Capital, Fractal Analytics, Redwood Trust **Startup**: iGenetic Diagnostics (2013) **Investors**: CDC Group, Manipal Group, Mosaic Capital Services **Startup**: Mylab Discovery Solutions (2016) **Investors**: Rising Sun Holdings, Netsurf Communications	**Startup**: Healthians (2013) **Investors**: You we can Ventures, DG Incubation and DG Daiwa Ventures, Tokio Marine, Kotak PE and Trifecta Capital Advisor, BEENEXT, BEENOS		
INVESTMENT IDEA 4 **Operational Efficiency & Affordable Healthcare**	**Startup**: Jetbrain Robotics (2018) **Investors**: BRINC, Artesian **Startup**: Comofi Medtech (2017) **Investors**: JITO incubation & Innovation Foundation, Karnataka Startup Cell, KIIT technology Business Incubator, CIIE **Startup**: Algosurg (2016) **Investors**: SINE, Y Combinator **Startup**: Cartosense (2017) **Investors**: C-CAMP, Med Tech Innovator, IITM Incubation Cell **Startup**: Atom360 (2015) **Investors**: C-CAMP, Deshpande Startups, JioGenNext **Startup**: AddressHealth (2010) **Investors**: Gray Matters Capital, Unitus Venture	**Startup**: AyuHealth (2020) **Investors**: Vertex Ventures, Stellaris Venture Partners, Angel Investors	**Startup**: ForusHealth (2010) **Investors**: Accel, Chiratae Venture, Asian Healthcare Fund	**Startup**: GoQii (2014) **Investors**: New Enterprise Associate, Mitsui & Co, Edlewesis, The Time Group, Bennett Coleman and Company Ltd **Startup**: SigTuple (2015) **Investors**: Chiratae Ventures, Accel, Trifecta Capital Advisors, Pi Ventures	

Investment Idea	Startups- Investment Stage/ Last Funding Type				
	Angel/Seed	Series A	Series B	Series C	Series D+
INVESTMENT IDEA 5 **Medical Tourism**	**Startup**: Vaidam (2016) **Investors**: 4CE Ventures **Startup**: Plan MyMedicalTrip (2014) **Investors**: Angel Investors **Startup**: Avocure (2017) **Investors**: Unfunded **Startup**: Oxa Health (2017) **Investors**: Idein Venture Capital **Startup**: Lyfboat (2015) **Investors**: Unfunded **Startup**: MedMonks (2015) **Investors**: Nuberg Engineering Limited **Startup**: Hospals (2018) **Investors**: Spiral Ventures, Innoven Capital, Amity Capital, Angel Investors **Startup**: TreatGo (2016) **Investors**: Axilor Accelerator **Startup**: Tripmd (2014) **Investors**: GSFAcceleartor **Startup**: MozoCare (2014) **Investors**: Unfunded				
INVESTMENT IDEA 6 **E- Healthcare & Telecare**	**Startup**: eka.Care (2021) **Investors**: 3one4 Capital, Speciale Invest, Mars Shot Ventures, Eximius Ventures, QED Innovation **Startup**: Phyt.health (2021) **Investors**: Lunsford Capital **Startup**: docprime (2018) **Investors**: Unfunded	**Startup**: MyUpchar (2016) **Investors**: Omidyar Network, Nexus Ventures Partners, Shimply, Shunwei Capital, LetsVenture **Startup**: PhableCare (2017) **Investors**: Point Ventures, LetsVentures, Betatron Ventures, Social Starts, SOSV, Fresco Capital, Mnipal Hospital **Startup**: Navia Life Care (2015) **Investors**: Benori Ventures, Aptar, Anicut Capital, 9Unicorns, Sewara Realtech **Startup**: Lybrate (2013) **Investors**: Nexus Venture Partners, Tiger Global Management, SCTIMST-TIMed	**Startup**: Docs App (2015) **Investors**: InnoVen Capital, Bessemer Venture Partners , Techmatrix, DeNa Networks, Jafco Asia, Milliways ventures	**Startup**: CallHealth (2013) **Investors**: The Times Group, Fincity, TetraSoft, Brand Capital, AKAR Ventures **Startup**: Mfine (2017) **Investors**: Heriras Capital, Alteria Capital, Ys Investment, Beenext Capital, Caretech SBI investment	

Investment Idea	Startups- Investment Stage/ Last Funding Type				
	Angel/Seed	Series A	Series B	Series C	Series D+
INVESTMENT IDEA 7 **Health Insurance and Innovative Impact Financing**	**Startup**: Healthfin (2016) **Investors**: Axilor Ventures, Sprout Investment Advisor, Venture Garage **Startup**: LetsMD (2015) **Investors**: SRI Capital, Lets Ventures, Orios Ventures Partners, ABCOM Invest **Startup**: Arogya finance (2011) **Investors**: Icrowd, Index Advisory	**Startup**: Plum (2019) **Investors**: Tanglin Venture Partners, Incubate Fund India **Startup**: OnSurity (2020) **Investors**: Quona Captial, Nexus Venture partners, Whiteboard Capital **Startup**: Credihealth (2013) **Investors**: Tolaram Group, Mountain Pine Capital, Housela Capital Partners **Startup**: Health Assure (2011) **Investors**: Blume Ventures, The HR Fund, GHV Accelerator **Startup**: Nova Benefits (2020) **Investors**: Better Capital, Titan Capital, Multiply Ventures, Susquehanna International Group, Bessemer Venture Partners **Startup**: LoopHealth (2018) **Investors**: Sierra Ventures, Y Combinator, Soma Capital, General Catalyst Partners, Khosla Ventures	**Startup**: AffordPlan (2016) **Investors**: Kalaari Capital, Prime Ventures Partners, Omidyar Network, Lok Capital Arkam Ventures		

Investment Idea	Startups- Investment Stage/ Last Funding Type				
	Angel/Seed	Series A	Series B	Series C	Series D+
INVESTMENT IDEA 8 **E -Pharmacy**	**Startup**: CareonGo (2015) **Investors**: FAO Ventures, Singapore Angel Network, Konglo Ventures **Startup**: BookMeds (2013) **Investors**: Fabella Singapore Pvt Ltd **Startup**: MedsonWay (2015) **Investors**: RPG Enterprises, Carniwal Investments **Startup**: 1Tab (2019) **Investors**: T Hub	**Startup**: Truemeds (2018) **Investors**: Infoedge Ventures, Indian Angel Network			**Startup**: 1mg (2015) **Investors**: Acquired by TATA Group **Startup**: PharmEasy (2014) **Investors**: Temasek, Lightstone, KB Financial Group, TPG Growth, Proscus Ventures, Accel, Sequoia Capital, Bessemer Ventures Partners **Startup**: Netmeds (2015) **Investors**: Acquired by Reliance Retail **Startup**: Sasta Sundar (2013) **Investors**: Acquired by Flipkart **Startup**: Medlife (2014) **Investors**: Acquired by PharmEasy

Investment Idea	Startups- Investment Stage/ Last Funding Type				
	Angel/Seed	Series A	Series B	Series C	Series D+
INVESTMENT IDEA 9 **Medical Workforce Education & Skilling**	**Startup**: DrMentors (2015) **Investors**: Unfunded **Startup**: AccelTop (2015) **Investors**: Unfunded **Startup**: AyurQuest (2015) **Investors**: Unfunded **Startup**: DoctorsTest (2014) **Investors**: Unfunded **Startup**: Bodhi healthEducation (2013) **Investors**: CIIE, Village Capital, VilCap Investment, Beyond Capital Fund, JioGen Next **Startup**: Innov4Sight Health (2014) **Investors**: Karnataka Startup Cell, BioInnovation Centre, Bazaloni **Startup**: Project24 (2012) **Investors**: Unfunded **Startup**: MediGrad (2016) **Investors**: Unfunded	**Startup**: Virohan (2015) **Investors**: Elea Foundation, Rebright Partners, Wadhwani Foundation, Keirestu Forum			**Startup**: Prepladder Medical (2015) **Investors**: Acquired by Unacademy
INVESTMENT IDEA 10 **Gene Therapy**	**Startup**: PNBVesper (2011) **Investors**: BIRAC **Startup**: Bioscan Research (2013) **Investors**: iCreate, Unitus Venture, IIT Kanpur **Startup**: Curadev Pharma (2010) **Investors**: BIRAC, Department of Biotechnology **Startup**: Carocure (2018) **Investors**: IKP Knowledge Park, Angel Investors **Startup**: Advait Theragnostics (2019) **Investors**: Gujarat University Startup and Enterprenership Council **Startup**: Zephase Therapeutics (2011) **Investors**: BIRAC, Department of Biotechnology	**Startup**: Invictus-Oncology (2011) **Investors**: Navam Capital, Aarin Capital **Startup**: Theramyt NovoBiologics (2013) **Investors**: Accel, Aarin Capital, Chiratae Ventures, Karnataka Information Technology Venture Capital Fund **Startup**: Immuneel (2018) **Investors**: Kotak Mahindra Bank, Khosla Ventures, F-Prime Capital, Apollo Hospitals, Eight Road Ventures, Angel investors **Startup**: ImmunoACT (2018) **Investors**: SINE, Laurus Labs			

Author Bios

Amit Bhatia, Founder & CEO, Aspire Impact & Aspire Circle

Amit Bhatia (www.amitb.in), is the Founder of Aspire Impact & Aspire Circle, was formerly Inaugural CEO of G7's Global Steering Group for Impact Investment (2017-20); Founding CEO of India's Impact Investors Council (2014-2017); Founding CEO of WNS Knowledge Services; and, Founder of McKinsey Knowledge Centre.

Dr. Ajay Nair, CEO, Swasth Alliance

Dr. Ajay Nair is the CEO of Swasth Alliance, a non-profit health collective that builds digital health infrastructure and standards for public good. He has been an advisor to digital health innovators, non-profits, governments after co-founding and leading one of India's first telemedicine networks, MeraDoctor. He has an MBBS from Grant Medical College and an MPH from Harvard University.

Dr. Aravind Srinivasan, Chief Medical Officer, Aravind Eye Hospital-Chennai

Dr. Aravind Srinivasan is leading the Aravind Eye Hospital Chennai as Chief Medical Officer and is on the Board of Govel Trust. He is a high-volume cataract surgeon. An innovator & trainer, he mentors staff, B School students from USA & Netherland, builds Aravind's new projects ensuring growth & excellence in service care delivery.

Anant Maheshwari, President, Microsoft India

As President of Microsoft India, Anant Maheshwari is responsible for Microsoft's overall business and presence in India, leading engagement with policy makers, customers, business partners, and the industry ecosystem. At Microsoft, Anant works to make the company's mission of empowering every person and every organization on the planet to achieve more, aligned with India's inclusive growth agenda.

Hemant Manohar, Life Sciences Analytics Business Leader

Hemant Manohar is a Life Sciences Analytics Business Leader who has served as CKO for KPMG, SVP for WNS, MD for IMS Health GDC, & Global Head of Operations & Analytics for Cognizant Life Sciences Digital Operations. He holds degrees in Engineering from IIT-Delhi & the University of Southern California. Hemant is currently pursuing research at the intersection of Science & Philosophy towards his dream book on the interconnectedness of things.

Dr. Kee B. Park, Director (Policy/Advocacy) PGSSC, Harvard Medical School

Kee B. Park is the Director of Policy and Advocacy for the Harvard Program in Global Surgery and Social Change, Co-Director of the WHO Collaborating Center for Surgical System Strengthening, and the Chair of the Global Neurosurgery Committee of the World Federation of Neurosurgical Societies.

Kewal Handa, Former MD, Pfiizer

Kewal Handa was the MD of Pfizer India Wyeth. As Non-Executive Chairman of Union Bank of India, he championed digital initiatives with experience in Finance, Banking, Strategy, BD, Corporate Affairs and M&A. Kewal has done Pfizer Leadership Development Program-Harvard University & Senior Management Development Program from IIM-Ahmedabad & Certificate course on Marketing Strategy-Columbia Business School, NY. He was awarded 'India CFO 2004–Excellence in Finance' by Int'l Market, the Bharat Shiromani Award 2007 & Pharma Professional 2010. Kewal was past President-AIMA, currently on Board-Clariant Chemicals, Greaves Cotton, Borosil, Care Hospital, Mukta Arts, BharatPe.

Manoj Kumar, Founder, Social Alpha

Manoj Kumar is the founder of Social Alpha, a multi stage innovation curation and venture development platform, focused on healthcare, climate change and mass prosperity. Social Alpha supports innovators in their lab to market journey through a unique "impact first" investment thesis

Manoj Kumar, Co-Founder, Val-more Action Advisory

Manoj Kumar is the Founding Partner of Val-More Action Advisory which helps family businesses maximize value. He has worked as Managing Director of GSK Consumer Health India, P&G Australia & New Zealand and P&G West Africa.

Dr. Naveen Nishchal, Co-Founder, Meddo Health

Dr. Naveen Nishchal, Co-Founder of Meddo Health, fastest growing outdoor care network, Co-founder- Cygnus Hospitals, a chain of hospitals in Tier-2 & 3 cities, Co-founder/Chairman Voice of Healthcare, a non-profit healthcare organization. Dr Nishchal is a Healthcare Delivery Expert from Harvard Business School. He represents India as Ambassador to European Innovation Academy & is involved in mentoring & building entrepreneurs in India and abroad.

Neeraj I Mohan, Indian Head, EY-Parthenon

Neeraj Mohan is the Indian Head at EY-Parthenon. Prior to joining EY, Neeraj was MD at Blackstone. He also headed the Global Market Dynamics and New Initiatives portfolio at Clinton Health Access Initiative, Inc. Neeraj is a Chartered Accountant from the ICAI and an M.B.A. from the IIM-Ahmedabad.

Rahul Agarwal, Managing Director, Quadria Capital

Rahul Agarwal has over 14 years of experience in private equity and impact investing. He is a Managing Director at Quadria Capital, which is Asia's leading healthcare private equity investor with a strong focus on delivering tangible ESG impact.

Rajiv Gulati, Former President, Ranbaxy

Rajiv Gulati sits on the Board of VST Industries and is Strategic Advisor to Netmeds, Multiples Private Equity and Merger Domo. Rajiv has been President of Global Business of Ranbaxy Laboratories and Managing Director of Eli Lilly India, in past.

Ravi Kant, Former CEO, Tata Motors

Ravi Kant has played a significant role as CEO/Vice Chairman in making TATA MOTORS. He has chaired several Tata company boards, Advertising Standards Council of India, Audit Bureau of Circulation and the Society of Indian Automobiles Manufacturers. Currently he sits on the boards of Vedanta Ltd and Kone, Helsinki, as well as US-based non-profit organisations Enactus and Wonder Work. He is on the advisory board of IIT Kharagpur, IIT Mumbai, boards of the NID, and CGIO of the Business School at National University of Singapore.

Sameer Wagle, MD, Asia Pacific Healthcare Advisors

Sameer Wagle is a Senior Investment Professional with experience across Venture Capital, Private Equity and Impact Investments in India & South East Asia. He is currently Managing Director at Asian Healthcare Fund focused on investing in the Healthcare space.

Shanthakumar Bannirchelvam, ED, Global Impact Partners

Shanthakumar Bannirchelvam is an executive director at Global Impact Partners, an impact investment advisory firm focused on mobilizing capital to serve people and the planet. He was a part of the Global Steering Group on Impact Investment's working group on widening and deepening the global impact investment market, and holds and MBA from Columbia Business School.

Dr. Shikha Nehru Sharma, Founder & MD, Nutriwel Health

Dr. Shikha Nehru Sharma is a medical doctor by training and the founder of Unitus Health Academy and 8 Well Software. As a guest on various television channels, she has been a lifelong advocate of Nutrition and in particular Vedic Nutrition as the first port of call for treating lifestyle disorders.

Dr. Shuchin Bajaj, Founder Director, Ujala Cygnus

Shuchin Bajaj is the founder of Ujala Cygnus Healthcare and co-founder of Project StepOne, providing high quality low cost healthcare services to under accessed and underserved communities of India. He has been the champion of Ayushman Bharat and also sits on the board of FITT, IIT Delhi. Shuchin's mission in life is to dissociate Healthcare access from financial ability.

Dr. Tarinee Kucchal, Research Fellow - PGSSC, Harvard Medical School

Dr Tarinee Kucchal is a Senior Paul Famer Research Fellow with Harvard Medical School. She is a physician from Melbourne, Australia and also holds a Master of Public Health. She is currently completing a Master of Public Policy from Harvard's Kennedy School. Her work has focused on enabling health access in India, strengthening supply chains and systems for health services, and mobilizing private capital to serve the purposes of public health.

Vikram Anand, Chief Strategy Officer, THB

Vikram Anand is Chief Strategy Officer with THB. Prior to THB he founded a healthcare analytics venture CapBuild and held leadership roles at organizations such as IMS Health (IQVIA), Deloitte, Sir HN Reliance Foundation Hospital and Aga Khan Health. His expertise spans across patient experience, designing patient centered systems of care and shaping strategic visions for organizations.

Visalakshi Chandramouli, Mg. Partner, Tata Capital Healthcare Fund

Visalakshi Chandramouli is the Founding Partner-Tata Capital Healthcare Fund. She has spent over 28 years across Healthcare Private Equity, Equity Research and Pharmaceutical R&D operations and has successfully led the fund raise of two funds with commitments in excess of USD 200MN. She is actively involved in portfolio management through boards of portfolio companies and delivering a positive performance record. Under her leadership, the Fund has been awarded 'Healthcare Investor of the Year' for 2018, 2019 and 2020 by Venture Intelligence.

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Koti Venkata Rao- MD & CEO, ShubhAarogya Healthcare

Dr. Meghna Bhargava- Joint Commissioner-Income Tax, M/O Finance

ASPIRE TEAM

Ashu Gulati- Head, Finance

Harshvardhan Balyan- Assistant Director, Marketing

Neha Gupt- Director, IFP

Pallavi Khanna- Director, Aspire Circle

Prakhar Agarwal- Director, Knowledge Development

Ravi Kumar- Manager, IFP

Sandhya Chawla- Head, Human Resources

ASPIRE™

Aspire, founded by Amit Bhatia, focuses on impact leadership and ecosystem development through three initiatives: Aspire Education (www.aspireeducation.in) for education, Aspire Impact (www.aspireimpact.in) for ecosystems, and Aspire Circle (www.aspirecircle.org) for social leadership. Aspire, established in 2007, based in Gurgaon (India) is committed to making Impact a way of life.

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- @impact.aspire
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- aspirecircle.org
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- aspirecircle
- Aspire Circle
- Aspire India

Corporate Office
2, Akashneem Marg, DLF City Phase 2, Gurgaon, Haryana, India