New age healthcare delivery models in India

20 plus models to redefine healthcare landscape

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October 2023

Foreword by FICCI

The continuously evolving Indian healthcare landscape in current times has been challenging the conventional paradigms and already established norms of the health industry. Technology integration and patient centricity are the crucial enablers for this transformation. At the same time, the shifting focus of traditional healthcare models towards proactive patient care has fostered a collaborative relationship between healthcare providers and patients, eventually making space for more personalised and effective care. With the hit of unprecedented events as significant as the COVID-19 pandemic, the importance of this shift has further cemented the need for comprehensive, technology and data-driven responses focused on people's safety and well-being. The digital revolution has had a substantial impact on India's healthcare industry, making healthcare services, information, and resources more accessible to hard-to-reach areas and even untapped geographies. This has created opportunities for innovative healthcare service delivery models. In the last decade, several market players have leveraged these opportunities to come up with new healthcare delivery models wherein significant care delivery services enabled by digital technologies, asset light models and innovative business models have moved closer to patients.

FICCI's Healthcare Service Committee has been working since 2006 in collaboration with various stakeholders to recommend policy reforms as well as suggestions on improving different aspects of healthcare determinants in the country. FICCI is cognisant of the changing healthcare scenario, the importance of the technology-driven new-age healthcare delivery models and their amalgamation with the traditional models to cater to the need for a patient-centric approach.

FICCI has worked in collaboration with KPMG in India to write a knowledge paper covering multiple aspects of existing and new healthcare delivery models which hold the potential to redefine the healthcare sector in India. To gain insights into current and upcoming innovative models, numerous consultations with multiple stakeholders across the public and sector were conducted. The findings were further substantiated with detailed secondary research identifying different domains and major players utilising new healthcare delivery models.

Through this publication on 'New age healthcare delivery in India: Emerging healthcare delivery landscape in India', FICCI and KPMG in India aim to understand the influence of changing healthcare determinants and related challenges which have paved the way for a blended healthcare industry. The report brings out how multiple enablers are laying the foundation for new-age healthcare delivery models to overcome the challenges and bring more resilience in the Indian health system. The report also highlights the mechanisms by which the new-age healthcare delivery models can alleviate the burden from the government, healthcare providers and caregivers by streamlining care delivery, leveraging technological integration and offering tailored solutions.

This FICCI-KPMG in India paper will be released during the 17th edition of FICCI's annual healthcare conference - FICCI HEAL 2023, scheduled on 26-27 October 2023, on the central theme 'Healthcare METAmorphosis'. We sincerely hope that this report will open new avenues to strengthen the establishment of the technology-infused healthcare delivery models in the country, offering concrete solutions with better access, delivery, and management of health.

Dr Mahesh Joshi
Co-Chair, FICCI Health Services Committee and President & CEO, Apollo Homecare

Dr Harsh Mahajan
Chair, FICCI Health Services Committee and Founder & Chief Radiologist, Mahajan Imaging

Dr Sanjeev Singh
Co-Chair, FICCI Health Services Committee; Medical Director, AIMSRC Faridabad & Chief Medical Superintendent, AIMSRC Kochi

Foreword by KPMG in India

In the landscape of healthcare, the sands are shifting, and nowhere is this transformation more palpable than in India. The nation, with its diverse population and burgeoning healthcare needs, stands at the crossroads of innovation and necessity. In this ever-changing terrain, cutting-edge approaches reshape the delivery of healthcare services worldwide, making it more accessible, personalised, and efficient than ever before.

Traditionally, India's healthcare system has been characterised by challenges. The nation has endeavoured to narrow the gaps in healthcare through both innovative models and leveraging technological advancements to usher in the evolution of traditional models of healthcare. The new-age healthcare models are not just about technology, but a paradigm shift in how healthcare is conceptualised, delivered, and experienced. At the core of this shift lies the recognition that healthcare is not a one-size-fits-all proposition. Individualised care, tailored to the specific needs and circumstances of each patient, is the cornerstone.

This new era has revolutionised the approach to healthcare delivery on multiple fronts, building on present infrastructures and systems while introducing new models in the value chain. It commences with self-care, empowering individuals to take charge of their own health within the comforts of their homes. The increased awareness of self-care, bolstered by easy access to information and technology, lays a foundation for preventive measures and early interventions. Primary care, the cornerstone of any robust healthcare system, assumes a pivotal role in the continuum. With the advent of telemedicine, the accessibility and quality of primary care have been elevated, ensuring that health concerns are addressed promptly.

The ensuing phase encompasses institutional and hospital care, traditionally the focal point of medical intervention, now integrates cutting-edge technologies and patient-centric models. The value chain culminates in post-hospitalisation care, recognising that recovery extends beyond the hospital walls. Through follow-up consultations, rehabilitation, and home-based support, a seamless continuum of care is ensured. This redefined value chain embodies a holistic approach, prioritising wellness, continuity, and patient empowerment at every juncture of the healthcare journey.

This publication, by FICCI and KPMG in India, engages in an in-depth exploration of the new-age healthcare models and examines the evolution of traditional healthcare delivery systems propelled by technological advancements and decentralised care networks.

Lalit Mistry
Partner and Co-head, Healthcare Sector

Industry voices

Once your quality goes up and once you develop more as a nation in terms of connectivity, cleanliness, economic growth, there are higher chances of attracting more inflow of medical tourists from across the world. Currently, as a nation, the focus is on the quantity due to large population but in a decade's time, focus on quality will start getting embedded in the systems that we create. There will also be a change in behaviour of individuals, and they will demand more quality but will also understand that quality comes at a cost.

Dr. Narottam Puri

Advisor-Medical Operations, Fortis Healthcare Ltd., Principal Advisor, Quality Council of India

With the emergence of noncommunicable diseases, the need to ensure self-help and primary care is gaining substantially. The availability of technology to enable remote and self-care is better than ever before. Therefore, the importance of working on new age models of healthcare delivery.
I am very pleased with the work that FICCI has initiated in this regard.

Dr. Nandakumar Jairam

Chairman Medica Synergie Hospitals; Advisor Sheares health care India; Chairman Shyamrad; President GAPIO

Healthcare tomorrow will essentially be P4 Medicine (Preventive, Personalised, Participatory and Predictive). Emphasis will be on maintaining good health. Telehealth will ensure that distance has become meaningless and geography has become history! A doctor, hospital and laboratory in your pocket will no longer be science fiction.

Dr. K. Ganapathy

Distinguished Visiting Professor IIT Kanpur; Director Apollo Telemedicine Networking Foundation & Apollo Tele Health Services

It is an age-old saying that prevention is better than cure, and this notion holds even more weight in the present context. If we persist in viewing health solely through a curative or therapeutic lens, it will prove ineffective, and by the time we eventually embrace preventive measures, it may already be too late. While the conversion rate to a health-conscious lifestyle might currently be modest, there has been a substantial surge in health consciousness following the COVID-19 pandemic. The category of preventative health and wellness is poised to become a prominent focus in India over the next 15–20 years. This global trend reflects an increasing awareness among people regarding their health.

Dr. Rajeev Sharma
Vice President, Medical Affairs, TATA 1MG

Healthcare in India is undergoing a shift from being curative to preventive. there is a growing emphasis on wellness, and startups are emerging with a focus on nutrition and exercise. Awareness levels are high, and the scope of diseases requiring interventions has expanded to include menstrual health, mood swings etc. Patients are being hand-held by new-age startup businesses that aren't necessarily doctor interventions. This space is set to grow in the coming years.

Dr. Om Manchanda
Managing Director, MD, Dr. Lal Path Labs Ltd.

New-age healthcare delivery models in diagnostics are transforming the way we manage diseases and promote health. At-home testing kits and point-of-care devices are enabling patients and physicians to get faster results, helping to triage individuals. Esoteric testing and genomics are going to catalyse the journey of personalised and precision medicine in the coming years. Artificial intelligence and wearables will make remote patient monitoring systems more accessible, accurate, and capable of providing real-time support. I believe these models have potential to democratise healthcare and make it truly patient-centric.

Dr. Arjun Dang
Chief Executive Officer, Dr Dangs Lab

There exists a power imbalance and information asymmetry in the healthcare sector between healthcare providers and patients. Our traditional healthcare models have always been designed as per the requirements or needs of healthcare professional and providers, this approach has lacked a patient centric approach. But as the investment in the sector grows and consumer starts demanding more accountability, companies will have to shape up their current model to adapt to the changing times.

Dr. Raj Gore
Chief Executive Officer, HCG

Healthcare has undergone a massive transformation in the recent years. The rapid surge in demand for a diversity of healthcare services especially in the 'out-of-hospital' environments necessitated by the pandemic, boosted the integration of automation, AI, ML, and a host of other digital tools to augment the human efforts. This experience has given rise to several new age care delivery models which are leveraging cutting-edge technologies and advancements in the field of communication to enhance the user experience, improve the quality standards, and better the outcomes.

Mr. Vaibhav Tewari
Co-Founder and Chief Executive Officer, Portea Medical

Post Covid, we have seen a major shift in the adoption of technology in the healthcare sector at an unprecedented pace enabling continuum of quality care at an affordable price. At HexaHealth, we are redefining #PatientCare using technology as an anchor to assist the patient (or caregiver) in discovery of right hospital/doctor, understanding the surgical procedure, financial or Insurance assistance and complete post-operative care. Our AI bot "HAPPILI" – India's first post op care assistant acts as an extended arm to hospitals to continue to partner with the caregivers post hospitalisation in achieving better health outcomes for the patients.

Mr. Vikas Chauhan
Co-Founder and Chief Operating Officer, Hexa Health

In India's healthcare evolution, our core vision is clear: accessible, superior treatment, and a seamless experience for patients and their families. New-age models boost utilisation, elevate partner hospital quality, and prioritise transparency, making healthcare a fundamental right for all.

Dr. Vaibhav Kapoor
Co-Founder, Pristyn Care

The transition care industry has evolved across the globe in the last two decades and while its prevalence is relatively less in India, it is growing fast in out of hospital healthcare. The major focus of this model is on affordability and avoidable disability reduction. As the model doesn't require super specialist and heavy infrastructure, it can penetrate beyond tier one cities to increase accessibility and hence disability burden.

Dr. Gaurav Thukral
EVP and Chief Operating Officer, Healthcare At Home

India is undergoing a digital health transition that brings the same leapfrog potential as mobile networks did for the telecommunication industry or that UPI did for finance. But still much work remains to be done to adopt a new digital standard and convert it into meaningful patient outcomes.

Dr. Ruchit Nagar
Chief Executive Officer, Khushi Baby

New age healthcare models, characterised by a more decentralised approach to healthcare, promoting out-of-hospital care, home-based care, data-driven care and where patients will have more control over their health and wellness management, health data and choice of providers. These new age healthcare models will reshape the landscape of healthcare delivery and push for systemic reforms across regulations, health insurance, digital health adoption, and collaborative practices to support these transitions.

Lalit Mistry
Partner and Co-Head – Healthcare, KPMG in India

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Executive summary

The healthcare sector has long been defined by its conventional delivery pathways and the traditional value chain, and while it has steadily evolved over the years, the change has been gradual. However, the sector is presently undergoing a transformation at an unprecedented pace, and various key factors are at the helm of this ongoing metamorphosis. Technology has permeated every aspect of the healthcare sector and is now being accepted, adopted, and leveraged by multiple stakeholders such as healthcare institutions, professionals, and patients. This has resulted in a shift towards remote healthcare delivery, collection and utilisation of healthcare data, enhanced accessibility, operational efficiency, and personalised care. Another key factor driving the change in the industry is the evolving role of patients in the healthcare ecosystem. From dormant participants with limited power and awareness, patients of today are active stakeholders who are driving the trends in the industry.

In addition to these factors, the systemic issues prevalent in the country continue to shape the trends of the industry. Some of these factors include demographic shifts, changes in disease burden, healthcare infrastructure, healthcare workforce availability, high out-of-pocket expenditure (OOPEs), and rural-urban divide. While these variables continue to interact with each other, collectively, they are emerging as the guiding forces that are reshaping the healthcare industry and resulting in the emergence of new-age delivery models. These models are revolutionising India's entire healthcare value chain, ushering in an era of innovative, patient-centric, and accessible healthcare solutions.

This paper attempts to capture the emerging new age healthcare delivery landscape in India.

Self-care models:

These models emphasise the importance of education and awareness. Digital platforms and resources provide individuals with comprehensive health information, enabling them to make informed decisions about their well-being. Tracking devices and health screening tools have empowered individuals to take a proactive role in their health, allowing for continuous monitoring and early detection of potential health issues. Fitness and wellness programmes have become mainstream, encouraging healthier lifestyles and preventive healthcare practices.

Primary care and pre-hospitalisation models:

New-age healthcare models have revolutionised the way healthcare is delivered and accessed. Primary care models, often incorporating telehealth services, have expanded healthcare accessibility, especially in remote and underserved areas. Specialised care clinics, equipped with advanced diagnostic tools and expert healthcare providers, have streamlined the diagnosis and treatment process, ensuring quicker and more accurate healthcare delivery. Smart diagnostics and healthcare aggregators have further optimised healthcare access, providing patients with convenient and efficient ways to seek medical advice and treatment options. Care coordinators play a pivotal role in enhancing patient experience by ensuring seamless care coordination and personalised support.

Hospital care models:

Institutional and hospital care have witnessed diversification with the emergence of multi-specialty hospitals, super-specialty facilities, single-specialty clinics, nursing homes, and health and wellness centres. These institutions cater to a wide range of medical needs and have become integral components of the healthcare landscape. They offer specialised care and advanced treatments, enhancing the overall quality of healthcare services available to the public.

Post-hospitalisation care models:

Home healthcare, remote health management, rehabilitation, and long-term care, has addressed critical aspects of patient recovery and wellness. Home healthcare services have gained prominence, allowing patients to receive medical attention and support in the comfort of their homes, reducing the burden on hospitals. Remote health management technologies enable ongoing monitoring of patients, ensuring timely intervention and follow-up care. Rehabilitation services, both in facilities and at home, assist patients in regaining their mobility and independence after injuries or surgeries. Long-term care centres provide specialised support to the elderly and those with chronic conditions, enhancing their overall quality of life.

Collectively, these new-age healthcare models have reshaped traditional healthcare practices in India, significantly impacting public health outcomes. They are improving healthcare access, increasing patient engagement, and elevating the overall quality of care.

Key enablers for thriving of new age healthcare models

The success of these new-age healthcare models hinges on several fundamental factors. First and foremost, there is a crucial shift in consumer behaviour towards proactive self-care and on-demand healthcare services. This shift reflects a growing awareness among individuals about the importance of their own health and the convenience of accessing care when needed. Additionally, community engagement plays a pivotal role in fostering a culture of health and well-being, driving the agenda for a healthier India. Collaborative efforts within communities can lead to better health outcomes and greater healthcare access, especially in underserved areas.

Effective population health management is another critical element, underscored by the need for comprehensive population health registries and robust disease surveillance systems. These tools enable healthcare providers to proactively address public health concerns, track disease trends, and allocate resources efficiently. The healthcare ecosystem is also witnessing a transformation in the role of healthcare providers, with a shift towards healthcare as a service rather than being exclusively infrastructure-based. Digital technology and data-driven care are instrumental in achieving this transformation while ensuring patient privacy and data security. Moreover, partnerships and collaborations across the healthcare value chain are essential to create synergies and deliver holistic healthcare solutions. Adequate healthcare financing and coverage, coupled with demand estimation, are indispensable to make these models sustainable and accessible to all.

Lastly, preparing a future-ready healthcare workforce through skilling and training initiatives is crucial to meet the evolving demands of the healthcare landscape in India. By addressing these foundational factors, new-age healthcare models can thrive and significantly contribute to improving healthcare delivery and public health outcomes in the country.

1. Key determinants driving new age healthcare delivery models in India

We are in a fast-changing world where every industry, including healthcare, is undergoing unprecedented disruption and transformation. In the last decade, the Indian healthcare sector rapidly evolved with newer business models, new entrants and adopting technological advancements. In this evolving landscape, the conventional paradigms and norms that once defined the industry are being challenged, dismantled, and rebuilt. At the same time, the traditional model of healthcare delivery, with its focus on reactive treatment, non-integrated and episodic care that continues to present deep-rooted challenges in our health system.

The COVID-19 pandemic crisis highlighted long-standing systemic issues like accessibility, affordability, adequacy, and quality of care to every citizen and a reinforcement of the importance of investing in the healthcare sector for a country like India. However, the pandemic has altered the Indian healthcare landscape and is approaching transformation beyond recognition.

The government and the private providers made several swift changes to adapt to the new normal. However, the current systemic challenges and newer care needs demands the public and private health sector to respond with a comprehensive care model, adoption of digital health technology, collaborative approach and data-driven response, keeping citizen safety and well-being at the forefront.

The new age healthcare delivery models in the coming decade will be a combination of the metamorphosis of existing care models and the emergence of newer models that will be driven by key determinants such as population demographics, shifting disease burden, healthcare infrastructure, availability of skilled resources, financing and others as listed below. All these factors together are culminating in a systematic modification of the Indian healthcare landscape and a big leap towards bridging the health system challenges like accessibility, affordability, adequacy, and quality of care to every citizen.

Population

- India has a population of 1.38 billion and a population density of 422 in 2023. With a decadal growth of 8.4 per cent, the population is expected to reach 1.47 billion by 2031.[1,2]
- India is set to overtake China as the most populous nation by 2025.
- India's geriatric population has increased from 6.4 per cent in 1981 to 10.1 per cent in 2021 and is expected to reach 13.1 per cent in 2031.[3]

Shifting burden of disease

- India is undergoing an epidemiological transition with a rising burden of non-communicable diseases (NCDs), and the transition ratio has shifted from 1.63 in 1990 to 0.44 in 2019.[4]
- The contribution of communicable, maternal, neonatal, and nutritional diseases (CMNNDs) to total deaths reduced from 55.3 per cent in 1990 to 25 per cent in 2019.
- For the same period, the contribution of NCDs to total deaths increased from 35.9 per cent to 64.9 per cent.[5]

1. Report of the Technical Group of Population Projection (2011-2036), Ministry of Health and Family Welfare, July 2020
2. Calculated based on Population Projection by MoHFW and area as provided on National Portal of India
3. Report of the Technical Group of Population Projection (2011-2036), Ministry of Health and Family Welfare, July 2020
4. Global Burden of Disease 2019 India Compare; KPMG Analysis
5. Global Burden of Disease 2019 India Compare; KPMG Analysis

Healthcare Financing

- For 2018-19, India's total health expenditure was estimated to be INR5,96,440 crore, which is 3.2 per cent of GDP and amounts to INR4,470 per capita.[10]
- Government expenditure on healthcare as a percentage of GDP was 2.1 per cent in 2022-23, which is the lowest in BRICS nations.[10, 11]
- India's OOPE as a percentage of current health expenditure (CHE) decreased from 64.7 per cent in 2015 to 50.6 per cent in 2020; however, it is significantly higher than many other developed nations.[12]

Health infrastructure

- India has a total of 196,359 health facilities, including 157,819 SHCs, 30,579 PHCs, and 5,951 CHCs.[6]
- Based on recommendations of the Indian Public Health Standards, there is a ~42 per cent shortfall of SHCs, ~33 per cent to ~55 per cent shortfall of PHCs, and ~48 per cent to ~65 per cent shortfall of CHCs in India, indicating the need for more healthcare infrastructure.[7]
- As of 12 May 2021, there were only 1.4 beds per 1,000 population with 0.5 public hospital beds, which is much lower than the WHO recommended number of 2.9 beds per 1,000 population.

Human Resources for Health

- India has ~4.6 million HRH (doctors, nurses, and midwives), with a density of 33.5 per 10,000 population, the lowest in BRICS nations.
- India has a total shortfall of ~1.5 million HRH (137,559 doctors and 1.37 million nurses and midwives).
- If the nation continues with the constant current supply of healthcare workforce, India will match the HRH demand by 2040, a decade later than the target of 2030.

Rural-Urban Disparity

- While 70 per cent of the Indian population is rural, only 40 per cent of the beds are available in rural areas.[8]
- As per a United Nations report, approximately 73% of resources in terms of healthcare infrastructure and medical specialists are concentrated in urban areas, leaving only 27% available in rural regions.[9]

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6. National Health Profile 2022, Ministry of Health and Family Welfare
7. Indian Public Health Standards 2022, National Health System Resource Centre, Ministry of Health and Family Welfare
8. India Inequality Report 2021, OXFAM
9. Rural Health Statistics 2021-22, MoHFW

Rising Medical Costs

- Average operating revenue per bed in the last few years has increased by ~ 50% for the leading hospital players in India.
- With 14% to 16 %medical inflation observed in 2021, overall hospitalisation costs have increased as hospitals pass on inflation to materials costs, medical devices, equipment, consumables & staff costs.

New Entrants

- Healthcare industry is undergoing a transformation with the entry of new players from non-healthcare sectors, such as technology giants, e-retail giants among others.
- These tech behemoths are leveraging their deep expertise in cutting-edge technology and fostering a more patient-centric approach to healthcare delivery.

Foreign Direct Investment (FDI)

- The hospitals and diagnostic centres sector in India saw a 39 per cent increase in FDI fund infusion of USD697.5 million in 2021-22, as compared to USD501.16 million in the previous year.[13]
- The medical and surgical appliances sector experienced a 202 per cent growth in FDI infusion from USD208.04 million in 2021-22 to USD68.91 million in the previous year.

Technology Adoption

- As per the TRAI, there are 1.14 billion wireless telephone users in India, with a rural-urban split of 45.5 per cent and 54.5 per cent, respectively.[17]
- India has over 720 million active internet users, with 425 million rural users (59 per cent) and 295 million urban users (41 per cent).

Medical Value Travel

- India ranked 10th out of 46 destinations in the 2021 Medical Tourism Index.
- There was an inflow of 697,453 foreign medical tourists in 2019; however, the number dropped to only 303,536 in 2021 due to COVID-19 restrictions.[15]
- With the travel restrictions now lifted, India witnessed an influx of 1.4 million patients in 2022.[16]

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10. Economic Survey 2022-23, Accessed on 11 October 2023
11. Healthcare Spending, OECD, Accessed on 16 October 2023
12. Out-of-pocket expenditure (% of current health expenditure), The World Bank, Accessed on 9 October 2023
13. Pharmabiz.com
14. NITI Aayog Report: Investment Opportunities in India's Healthcare Sector
15. Open Data Government Platform
16. Quoted by Shri Shripad Naik, Minister of State for Tourism

2. New-age healthcare delivery models in India

New-age healthcare delivery value chain

Self-care models

Primary care and pre-hospitalisation models

Hospital care models

Post-hospitalisation care models

New-age healthcare delivery value chain

In response to the ever-evolving needs and emerging trends within the healthcare industry in India, a remarkable transformation in the service delivery value chain is currently underway. This transformation is characterised by the establishment of a significantly more robust value chain, aimed at addressing the dynamic challenges and opportunities presented in the healthcare landscape. The infusion of cutting-edge technologies into the healthcare sector has resulted in the rise of on-demand care across various categories of healthcare services. It has also been instrumental in enhancing accessibility of healthcare services and enabling delivery of comprehensive and efficient care. Some other notable developments have been the substantial rise in asset-light models and franchising systems, representing a marked departure from traditional infrastructure focused healthcare business models. Moreover,

The following infographic delves into the various models of this transformative journey, starting from Self Care to Primary Care and Pre-hospitalisation to Hospital care and finally to Post Hospitalisation Care.

Key features

- On-demand
- At-home
- Care continuum
- Accessibility
- Bridging healthcare workforce gaps
- Enabling self-care
- Reducing hospital load
- Reducing cost of care
- Mitigating Rural-urban disparity
- Improved Quality
- Better health outcomes
- Decentralised care

Self-care models

Delivery Model	Fitness and wellness	Health and wellness monitoring	Mental health	Nutrition and diet planning	Health condition management	Health screening and testing
Model Type						
Physical	Medium	Low	Medium	Medium	Medium	Medium
Digital	Fairly High	Fairly High	Fairly High	Fairly High	Medium	Fairly Low
Phy-gital	Medium	Low	Fairly Low	Fairly Low	Fairly Low	Low
Adoption Level	Fairly Low	Fairly Low	Fairly Low	Fairly Low	Fairly Low	Fairly Low
Examples	Cult.Fit	Noise Luna Ring	1to1 Health	HealthifyMe	BeatO	Abbott
	Fittr	Leading technology giant-smart watch	YourDOST	MyFitnessPal	MindMaze	LifeCell
	HealthifyMe	Garmin Watch	TELEManas	Possible		Mylab
	FitPass	Fitbit Tracker	Amaha	FitMeals		Niramai
	Shyft	GOQii Trackers	Wysa	OjoLife		Neodocs
						Veera Health

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

Primary care and pre-hospitalisation models

Delivery Model	Primary care clinic	Specialised care clinic	Retail pharmacy	Diagnostics	Tele-health service	Care coordination
Model Type						
Physical	High	Medium	High	High	Fairly Low	Medium
Digital	Fairly High	Fairly Low	Medium	Medium	Fairly High	Fairly Low
Phy-gital	Fairly Low	Fairly Low	Medium	Medium	Fairly Low	Low
Adoption Level	Fairly High	Fairly High	High	High	Fairly Low	Fairly Low
Examples	Apollo Clinics	Apollo Sugar Clinics	Jan Aushadhi Kendras	Agilus Diagnostics	eSanjeevani	MedCords
	Glocal	Lifespan	NetMeds	Medall	Apollo TeleHealth	HealthTrip
	HealthSpring	Sabka Dentist	PharmEasy	Dr Lal Pathlab	Medibuddy	MedFin
	iKure	Indira IVF	Apollo Pharmacy	Healthians	Tata 1MG	
	Swasth India Medical Centre	NeuroEquilibrium	Zeno Health	Tata 1MG	Practo	
			MedPlus	MedGenome Labs	Krsnna	

High ***Fairly High*** ***Medium*** ***Fairly Low*** ***Low***

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

Hospital care models

Delivery Model	Multi-specialty hospital	Single-specialty hospital	Super-specialty hospital	Surgical care management via network hospitals	Transition care facility	Health and wellness centre/ retreat	Small Healthcare Organization (SHCO)
Model Type							
Physical	High	High	High	Low	Medium	Fairly High	Fairly High
Digital	Low	Low	Low	Fairly Low	Low	Low	Medium
Phy-gital	Low	Low	Low	Fairly Low	Low	Low	Medium
Adoption Level	High	High	High	Fairly Low	Fairly Low	Fairly Low	Fairly High
	Fortis Hospitals	HCG Hospitals	Medanta	Pristyn Care	Healthcare at Home (HCAH)	Atmantan	Fortis La Femme
	Apollo Hospitals	Motherhood Hospitals	BLK-Max Super Speciality Hospital	HexaHealth	Ucchvas	Ashiyana	Apollo Cradle & Children's Hospital
	Narayana Hospitals	Rainbow Hospitals	Fortis Memorial Research Institute (FMRI)	MyKare Health	Brinnova	Ananda	RG Stone Urology and Laparoscopic Hospital
	Hinduja Hospital	Tata Cancer Hospitals		MedFin	Sukino	Dharana	
		Aravind Eyecare				Nisargopachar Kendra	

High | *Fairly High* | *Medium* | *Fairly Low* | *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

Post-hospitalisation care models

Delivery Model	Home healthcare	Remote health management	Rehabilitation	Long term care
Model Type				
Physical	Fairly High	Medium	Fairly High	Fairly High
Digital	Medium	Fairly High	Medium	Fairly Low
Phy-gital	Medium	Medium	Fairly Low	Fairly Low
Adoption Level	Medium	Fairly Low	Medium	Fairly Low
	Apollo Home Healthcare	10BedICU	Punar	Antara Residences & Care Homes
	Max @ Home	Cloud Physician	Alpha Healing Center	Adharwad Trust
	Healthcare at Home	e-ICU, Apollo Hospitals	Phoenix Rehab	Kites Senior Care
	Portea	Ten3T Healthcare	MindMaze	
	CallHealth		ReLiva Physiotherapy and Rehab	

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

2.1 Self-care models

Self-care is not a new term or concept to any one of us and it is part of the day-to-day life of every individual and family. The WHO defines self-care as the ability of individuals, families, and communities to promote health, prevent disease, maintain health, and cope with illness and disability with or without the support of a health care provider. As per the WHO, at least 400 million people have limited access to the most essential healthcare while nearly 100 million people are plunged into poverty every year due to high OOPEs. A shortage of nearly 18 million healthcare workers is anticipated worldwide by 2030. In such a situation, self-care could play an important role to improve health-related outcomes, particularly in a country like India with a stretched healthcare system with limited resources, a large populace, and an increasing disease burden.

The scope of self-care includes health promotion; disease prevention and control; self-medication; providing care to dependent persons; seeking hospital/specialist/primary care if necessary; and rehabilitation, including palliative care. Self-care provides large opportunities for individuals to make informed decisions regarding their health and healthcare. Self-care could play a critical role in bridging healthcare resources scarcity with individual, family, and community playing key roles in health system with task sharing and task shifting, that have proven to be significant strategies across the globe.

Factors driving self-care in India

- Health and wellbeing awareness
- Modern lifestyle impacting wellbeing
- Propensity to pay
- Digital health driving accessibility
- Increasing cost of care and preventive healthcare
- Urbanisation and nuclear family
- Metamorphosis of patients into smart consumer
- Active participation
- Employee health and wellness
- Aging population

It is important to note that safe and strong linkages between individual self-care and access to quality health care (when wanted or needed) is critically important to avoid harm. Where self-care is not a positive choice but is prompted by fear or lack of alternatives, it can increase vulnerabilities and put people's well-being at risk. (*WHO). Self-care includes a range of following modes and approaches:

1. Fitness and wellness

Model brief:

In the last decade, India's fitness and wellness space has witnessed corporatisation with new entrants, organised operations, adoption of technology, and integrated services. Organised and modern fitness centres (like gymnasium, dance fitness, HRX, etc.) and wellness set-ups (yoga and wellness training centres, wellness clinics, etc.) have emerged. At the same time, many digital fitness and wellness platforms have also emerged providing online classes, personalised coaching, nutrition and diet planning, meditation sessions, wellness consultations, and mental health support. Such apps are best suited to the needs of people who prefer to work out at home over going to the gym, making the ideal fitness and wellness apps in great demand. Corporates and individuals are increasingly leveraging such platforms, and market demand for the same is expanding not only in metros but also in Tier-2 and Tier-3 cities.

Key advantages:

1. **Preventive care:** Helps in promoting wellness and healthy lifestyle
2. **Availability and accessibility:** Fitness at home and on-demand at lower cost
3. **Continuum of care:** Physiotherapy and rehab at-home and on-demand helps

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Cult.Fit	Cult.Fit is a phygital model for providing a comprehensive platform that includes fitness classes, nutrition guidance, and preventive healthcare services through its mobile application and 600+ physical set-ups (owned and franchised) across 56 cities in India. On an average, Cult.Fit experiences a monthly subscription of nearly 8 lakh and 15 lakh people attending their fitness centres and online respectively.[1]
Fittr	Fittr is world's one of the largest online community-based fitness programmes providing services such as free online coaching, personal training, and kids fitness activities through certified professionals. Till now, Fittr has trained more than 300,000 people.[2]
HealthifyMe	HealthifyMe is a digital platform that offers nutrition and fitness coaching on a one-to-one basis and diet and workout plans. It also provides yoga coaching and other health management support and has till now catered to more than 3 crore subscribers.[3]
FitPass	FitPass provides a single pass to its users which allows them to access a network of 7,500+ gyms and fitness studios across more than 40 cities in India. Till now, FitPass has trained more than 45 lakh people across India.[4]
Shyft	Shyft is a digital lifestyle management platform that aims to enable and empower its user to manage health conditions such as PCOS, hypertension, thyroid, etc. by offering health coaching and yoga lessons along with diet plans and progress tracking. Shyft has served over 30,000 customers so far.[5]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

1. "Fitness startup Cult.fit shaping up for public listing in 12-18 months", The Economic Times, October 2022
2. Fittr Website, Accessed on 18 October 2023
3. HealthifyMe Website, Accessed on 18 October 2023
4. FitPass Website, Accessed on 18 October 2023
5. Shyft Website, Accessed on 18 October 2023

2. Health and wellness monitoring

Model brief:

Wearable devices, such as fitness trackers and smartwatches, are becoming more sophisticated in monitoring various health metrics. Patients are using these devices to track their physical activity, sleep patterns, and overall health, enabling them to make informed decisions about their lifestyles. Health and wellness tracking technology incentivises behaviour that reduces hospital visits and readmissions due to poorly managed personal health. Newer technologies are emerging covering larger areas of health like mindfulness, ovulation, irregular heart rhythms, diet, and others. Personal health tracking data could be further shared with other healthcare applications to foster holistic health monitoring systems. In the coming times, healthcare providers will partner with smart wearable devices to provide integrated health and wellness management that will enable in better outcomes.

Key advantages:

1. **Preventive care:** Helps in tracking of health and wellness and early identification of potential health issues
2. **Personal health record:** Longevity of health and wellness tracking data aids personalised care

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Noise Luna Ring	Noise Luna Ring is equipped with advanced sensors for tracking of over 70 different metrics and the data thus collected can contribute to population health insights.[6]
Leading technology giant-smart watch	The smart watch tracks various parameters like skin temperature, and signs of stress, blood oxygen levels, heart rate variability, resting heart rate, and more. It also provides access to Fitbit premium for accessing workouts led by expert trainers, mindfulness sessions, and more.
Garmin Watch	Garmin offers wearable technology and health monitoring solutions that track various indicators like resting heart rate, heart rate variability, menstrual cycle, and sleep amongst others. In addition to their standard range of wearables and outdoor watched, Garmin also offers multiple models to cater to the need of triathletes, swimmers, divers, golfers, and runners.
Fitbit Tracker	Fitbit's wearable fitness trackers and smartwatches monitor users' activity levels, heart rate, and sleep patterns, contributing to population health data on physical activity and wellness. Fitbit has added more active users every year. In 2019, it counted 29 million active users on its platform, which accounts for about a quarter of the company's total fitness tracker sales.[7]
GOQii Trackers	GOQII offers activity tracker wearables and an application that tracks user's sleep, steps, active time, distance, and calories burned. The company connects activity trackers or smart watches to a professional health and fitness coach of users.[8]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

6. Unlock the Noise Luna Ring, Noise Website, Accessed on 18 October 2023
7. Fitbit Revenue and Usage Statistics (2023), Business of Apps, August 2023
8. GOQII Website, Accessed on 18 October 2023

3. Mental health

Model brief:

Mental disorders are among the leading causes of non-fatal disease burden. The economic loss due to mental health conditions, between 2012-2030, is estimated at USD 1.03 trillion.[9] With the gravity of challenge posed by mental health conditions, there has been a growing impetus on mental wellbeing globally and in India. The government's initiatives such as the National Mental Health Programme and the launch of Tele-Manas, catering to the pressing need for accessible and effective mental health services in the country. In the recent years, there is rise in awareness towards mental wellbeing, many mental health digital platforms and mobile apps have emerged with solutions ranging from online mental health check, online counselling sessions, virtual buddies, therapy groups and communities, self-help courses, mood trackers, employee mental wellbeing programmes and support has changed mental health care model in India.

Key advantages:

1. **Preventive care:** Helps in promoting mental health management
2. **Availability and accessibility:** Enable access to mental health care at-home and on-demand
3. **Affordability:** Enable affordable mental health care

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
1to1help	1to1help is an Employee Assistance Program (EAP) service provider and is supporting 750+ organisations worldwide to improve mental wellbeing of employees through a variety of programmes and its pool of 200+ counsellors.[10]
YourDOST	YourDOST is a virtual buddy that leverages a user-friendly interface and technology with the objective of validating the users' emotions. It also offers the best minds in the wellness industry, with over 1000 experts connected with the platform.[11]
TELEManas	Manas (Mental Health and Normalcy Augmentation System), implemented by NIMHANS Bengaluru, AFMC Pune, and C-DAC Bengaluru, provides 24*7 tele mental health services for all age-groups. The platform has features like well-researched interventions, evidence-based measures, personalised content, and sleep and mindfulness trackers. As on July 2023, more than 2 lakh total calls have been received on Tele-MANAS from across India. With 42 functioning Tele MANAS cells in 31 states and UTs, the service is catering to 1,300 calls on a daily basis.[12]
Amaha	The Amaha app offers personalised plans comprising 600+ tools.[13] It also has a chatbot named Allie that suggests relaxing activities, articles, and daily reminders. Additionally, the app also has self-help courses, mood tracker, and a digital journal, making it a digital powerhouse of mental health resources.
Wysa	Wysa is an AI chatbot that uses natural language processing to understand and interpret voice and text inputs and guide people using personalised evidence-based cognitive behavioural techniques (CBT).

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

9. Health Topics - Mental Health, World Health Organization, Accessed on 18 October 2023
10. 1to1help Website, Accessed on 18 October 2023
11. YourDOST Website, Accessed on 18 October 2023
12. "Tele-MANAS Helpline serves over 200k callers in need of mental healthcare", The Economic Times, July 2023
13. Amaha Health Website, Accessed on 18 October 2023

4. Nutrition and diet planning

Model brief:

Well-balanced diet and proper nutrition are key to good health and play an important role in preventing and recovering from various health conditions. A good diet and nutrition planning are not only limited to patient care but is also a vital part of an individual's healthy lifestyle. Diet and nutrition counselling has moved from hospitals to standalone specialised diet and nutrition clinics catering to patients, athletes, corporate employees, elderly care, and young population. Over the last decade, online diet and nutrition players have made a big dent in self-care across age-group with quality information, healthy diet recipes, customised meal plans and delivery, counselling, monitoring, products, and other integrated services leveraging digital technologies and AI/ML. Leading digital fitness and health players have integrated diet & nutrition services and products as core to overall well-being services to their customers.

Key advantages:

1. **Preventive care:** Promote healthy lifestyle management
2. **Availability and accessibility:** Enable access to healthy nutrition and diet services and products at-home and on-demand
3. **Affordability:** Enable affordable healthy nutrition and diet services and products

Type of model ◑ *Physical* ◕ *Digital* ◔ *Phy-gital*

Adoption level ◔

Examples:	
HealthifyMe	HealthifyMe provides services such as calorie tracking and nutrition advice to its base of over 3 crore users. The company also launched "Ria", an AI nutritionist which can provide personalised responses to fitness and nutrition related questions in audio and text in more than 10 languages.[14]
MyFitnessPal	MyFitnessPal has more than 10 crore downloads on app store, and it helps track diet and exercise with a smartphone using gamification and integration with wearables devices.[15] The app allows users to scan food items' barcodes or manually enter nutrients in the app's extensive database to track nutrients.
Possible	Possible provides services such as physician supervision, personal health coaches, and pocket clinic for on-the-spot advice. It also has its own range of nutrient rich foods that are offered to users. With a team of more than 50 nutritionists and doctors, Possible has had more than 2 lakh success stories so far.[16]
FitMeals	Fitmeals provides meal options to users based on selected meal plans such as keto, athletic or weight loss. It also provides nutrition and health coaching services.
OjoLife	Ojolife offers curated healthy meal plans. It also offers individualistic and need based diet plan and meals with ingredients including superfoods that are sourced from natural produce.

● *High* ◕ *Fairly High* ◑ *Medium* ◔ *Fairly Low* ○ *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

14. HealthifyMe Website, Accessed on 16 October 2023
15. Android App Store, Accessed on 18 October 2023
16. Possible Website, Accessed on 16 October 2023

5. Health condition management

Model brief:

Health and wellness management requires constant support of clinical and wellness practitioners to guide, monitor individuals for achieving the desired outcomes. Self-care for health and wellness management has evolved in the last decade with digital technologies and new entrants expanding the monitoring and disease management spectrum and enabling individuals with on-demand care. With the growing prevalence of chronic diseases, various options in the form of mobile apps, digital assistance, smart medical equipment, and devices are now available that can easily track the symptom, diagnose the disease, and provide preventative solutions. Such solutions and platforms are enabling longitudinal data on an individual's lifestyle habits, such as diet, exercise, sleep, medication, lifestyle, and stress management, and can help health and wellness providers to assess and plan personalised interventions. Predictive analytics and AI are playing a valuable role in assessing an individual's risk of age-related diseases and provide targeted interventions.

Key advantages:

1. **Preventive care:** Prevents aggravation of a health condition
2. **Availability and accessibility:** Enables access to disease management at-home and on-demand
3. **Affordability:** Enables affordable disease management at-home limiting healthcare facility visits
4. **Quality and continuum of care -** Promotes active patient engagement and disease condition management through self-care

Type of model — *Physical* (Medium) *Digital* (Medium) *Phy-gital* (Fairly Low)

Adoption level — (Fairly Low)

Examples:	
BeatO	BeatO is a diabetes management platform serving over 30 lakh users across India. It has an application that enables customers to track glucose levels and health vitals and sells BeatO smart devices such as the continuous glucose monitoring device that can be connected to a smartphone to collect data. It also provides access to doctorsthrough online consultations.[17]
MindMaze	MindMaze, a leading player in brain technology and digital neurotherapeutics, enables the brain's ability to recover, learn and adapt. The firm has developed solutions intersecting neuroscience, biosensing, engineering, mixed reality, and artificial intelligence, that enhanced the recovery potential of patients with neurological diseases.

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

17. "BeatO: Eight Years of Revolutionizing Diabetes Care & Management", Business Standard, August 2023

6. Health screening and testing

Model brief:

Preventive health screening is the key to detecting health problems early on, before they become chronic and difficult to treat. A health risk assessment (HRA) or health risk appraisal is a questionnaire/ tool that evaluates lifestyle factors and health risks of an individual. HRA and health screening cover medical history, emotional/ mental health, lifestyle ehaviours., health condition, infectious diseases and other aspects. Most of the HRAs and screenings require a healthcare worker. However in recent times, there has been an emergence of self-testing kits and self-assessments. The COVID-19 pandemic showcased the significance of self-care as the HRAs, and home testing kits helped in reducing load on the health system. Increased health & wellness awareness, literacy, digital technologies, mobile & internet penetration, and other factors driving such self-care health screening and testing. Although there are limited numbers of health and wellness screening testing products and tools that enable self-care at home, there are increasing numbers of such products covering various health conditions.

Key advantages:

1. **Preventive care:** Promote early identification of conditions
2. **Availability and accessibility:** Enable access to health screening/ testing at-home and on-demand
3. **Affordability:** Enable affordable screening/ testing at-home limiting healthcare facility visit
4. **Continuum of care:** Promote continuous condition management through self-care

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

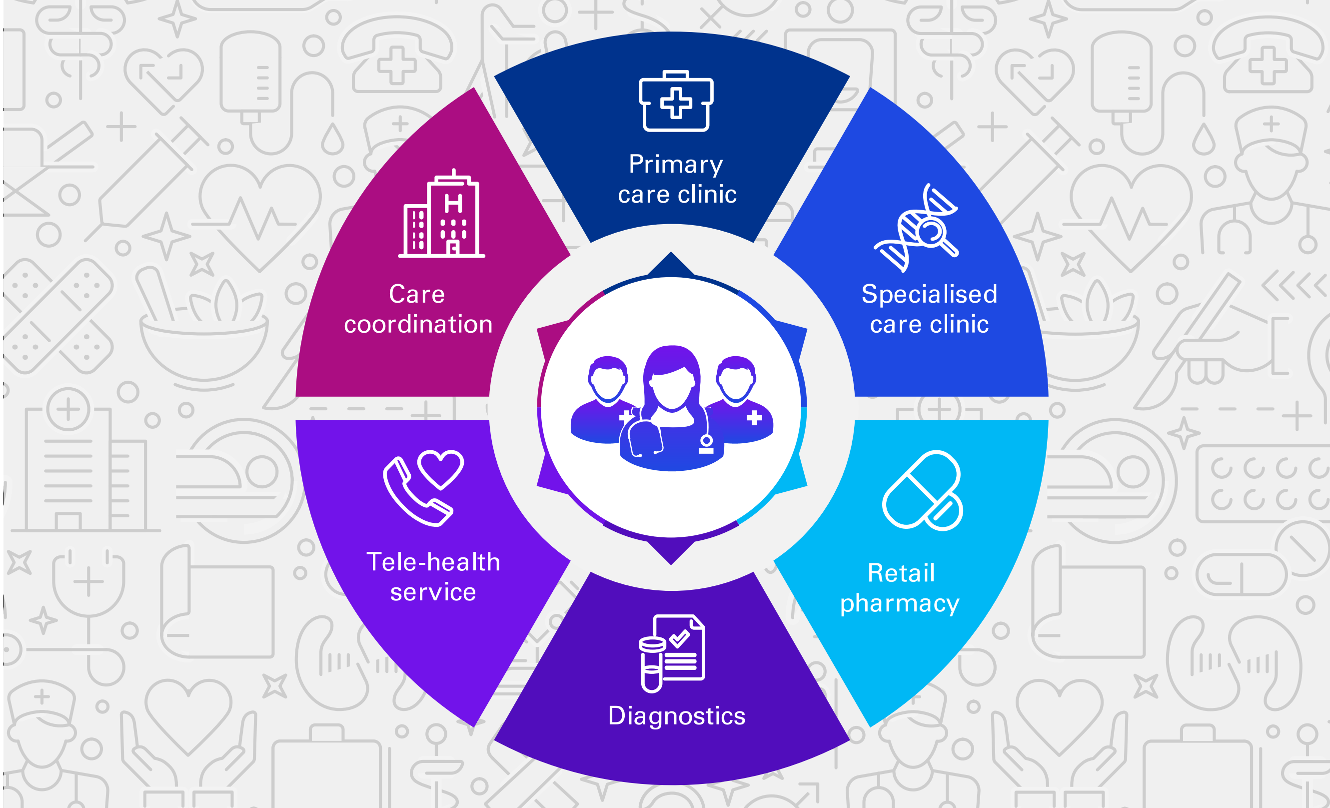
Examples:	
Abbott	Abbott has the NMP22 BladderChek, a non-invasive 30-minute test that that aids in the diagnosis, monitoring of bladder cancer and can be used in conjunction with standard diagnostic procedures.
LifeCell	LifeCell's "STD Test – Female" is an at-home self-collection kit to discretely screen and monitor sexual health with eight commonly acquired sexually transmitted infections in women. LifeCell has launched test kits that allow people to collect cell swabs and tissue samples in the privacy of their homes that can then be used for detecting Human Papillomavirus (HPV).
Mylab	Mylabs Coviself is a RAT self-testing kit for Covid-19 which provides the results within a few minutes. Such kits are easily available at retail pharmacies and laboratories.
Niramai	Niramai has developed Thermalytix that uses AI and a high-resolution thermal sensing device for the detection of breast cancer at an earlier stage than the usual traditional methods or self-examination. Niramai is available in 30+ cities across 200+ hospitals.[18]
Neodocs	Neodocs has at-home assessment kits like UTI care kit, kidney care kit, elderly care kit, pregnancy care kit and more. It enables ongoing progress monitoring mobile app.[19]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

18. Niramai Website, Accessed on 18 October 2023
19. Android App Store, Accessed on 18 October 2023

2.2 Primary care and pre-hospitalisation models



Primary care services in India have undergone a transformative evolution over the years, mirroring the changing healthcare landscape in the country. With the ongoing epidemiological shift and the rise in the burden of NCDs, there is a compelling case for strengthening of the primary healthcare service delivery. Further, the rapid digitalisation of services is disrupting and diversifying the concept of primary care. The delivery of primary healthcare services has now extended beyond the primary care centres and is supplemented by various online primary care providers.

The amalgamation of traditional primary care centres and online primary care providers is shaping a more comprehensive and inclusive approach to healthcare delivery in India, striving to meet the diverse needs of its vast and varied population in a more convenient and accessible manner. With a rising acceptance and adoption of digital healthcare service delivery and remote health monitoring models, the need for strengthening referral management is also felt. Thus, various companies are emerging in this space that are working towards streamlining the referral system through providing second opinions and connecting patients to the appropriate healthcare provider based on their unique medical needs. Some of the primary care and referral management models that will continue to be at the core of new age healthcare delivery in India are listed below.

Factors driving primary care and pre-hospitalisation in India

- Focus on preventive care
- At-home and nearer to home care
- Increasing health and wellness awareness
- Specialised disease management
- Continuum of care
- Urbanisation and nuclear family
- Changing consumer behaviour
- Increasing cost of curative care
- Employee health and wellness
- Aging population

1. Primary care clinic

Model brief:

Primary care physical centres in the form of GPs/ family doctors clinic and government primary health centres have been the cornerstone of India's healthcare system as they serve as the first point of contact for individuals seeking medical assistance, offering a spectrum of essential healthcare services. Over the last decade, organised private primary care clinics have emerged to cater to large primary care needs and rendering expanded range of services including preventive, promotive, rehabilitative, and palliative services in addition to curative healthcare services. Further, primary care clinics chain established by private players are leveraging models such as asset-light approach, franchising system and hub and spoke models to establish an integrated network of primary care centres along with referral management.

Key advantages:

1. **Primary care:** Provisioning of standardised primary care services across a chain of clinics
2. **Availability and accessibility:** Enable access to diagnostics, consultation, and care services nearer to home
3. **Affordability:** Timely primary care prevents aggravation of a health condition and lower cost of care
4. **Continuum of care - Enable continuous condition management through primary care**

Type of model ● *Physical* ◕ *Digital* ◔ *Phy-gital*

Adoption level ◕

Examples:	
Apollo Clinics	Apollo Clinics strive to provide consistent and superior quality health care services and addressing the day-to-day health care needs of the family through their integrated model which offers facilities for specialist consultation, diagnostics, preventive health checks and pharmacy, all under one roof. services to the patients not covered by the hospital network and focuses on outpatient services as well as specialised services.
Glocal	Glocal Healthcare is an infrastructure provider for digital and physical healthcare needs. Their products and services include primary and secondary hospitals, digital dispensaries, and teleconsultations. Glocal has provided nine hospitals till now.[20]
HealthSpring	Healthspring aims to innovate in primary healthcare by providing services across specialties operating on economy of scale model. They aim to target the corporate workforce by providing services from preventive care to emergency services. HealthSpring has 24 clinics across Pune and Mumbai, with over 6 lakh customers.[21]
iKure	iKure aims to innovate the healthcare space outside Tier 1 cities in India through a hub and spoke model. They also focus on outreach programmes in the form of health camps along with a telemedicine platform for remote areas. iKure has a hub spoke model with 10 hubs and 160 touch-ups.[22]
Swasth India Medical Centre	Non-profit entity Swasth Foundation operates a network of more than 20 Swasth India Medical Centres in Mumbai providing comprehensive healthcare services with a focus on the urban poor. The centres have collectively recorded more than 15 lakh patient interactions which have resulted in savings worth approximately USD3 million.[23]

● *High* ◕ *Fairly High* ◑ *Medium* ◔ *Fairly Low* ○ *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

20. Glocal Healthcare – Hospitals, Accessed on 18 October 2023
21. Healthspring – Family Health Experts Website, Accessed on 18 October 2023
22. ikure TechSoft Website, Accessed on 18 October 2023
23. Swasth India Medical Centre - Overview and Introduction, Swasth Foundation Website, Accessed on 18 October 2023

2. Specialised care clinic

Model brief:

Increasing NCDs and chronic diseases in India have pushed the demand for specialised clinics for screening, testing, consultation, diet, exercise, and overall disease management. Standalone specialist clinics and hospital based specialised care clinics continue to garner a major share of such specialised care for NCDs and chronic diseases. However, in the last decade, India has witnessed organised regional and national players entering specialised care clinics chain in the areas of diabetes care, IVF, pain clinic, dermatology & cosmetology, cosmetic dental clinics, and others. Such players are leveraging models such as asset-light model, franchising system and hub and spoke models to establish an integrated network of specialised care clinics for end-to-end condition management, home care services and referral management. The demand for specialised care clinics will continue to grow with increasing disease burden and changing consumer behaviour seeking specialised quality care.

Key advantages:

1. **Primary care:** Provide standardise specialise primary care for a disease
2. **Availability and accessibility:** Enable access to diagnostics, consultation, and care services nearer to home
3. **Affordability:** Prevent aggravation of a health condition and lowers cost of disease management
4. **Continuum of care:** Enable continuous condition management through primary care

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Apollo Sugar Clinics	Apollo Sugar Clinics are specialised clinics across 29 cities providing end to end diabetes care covering diagnosis, specialist consultation, dietician, endocrinologists, exercise management consultants, counselors, and diabetes educators. These clinics leverage Apollo 24x7 digital platform for patient engagement and navigation.[24]
Lifespan	Lifespan is a chain of 9 diabetes clinics across Maharashtra, Delhi and Karnataka providing specialised testing, consultation, and management support to diabetic patients. They have reached out to around 1 lakh diabetics through their clinics.[25]
Sabka Dentist	Sabka Dentist has a chain of over 100 dental clinics across 9 cities with a team of over 500 highly trained practitioners which provide dental care services ranging from dental implants, braces, and other orthodontics treatments.[26]
Indira IVF	Indira IVF is a chain of specialty fertility clinics with more than 115 centres spread across 20 states in India. These clinics provide treatments for male and female infertility, IVF, and IUI.[27]
Neuro Equilibrium[28]	NeuroEquilibrium is the world's first chain of vertigo clinics with 125+ clinics in 56 cities across India dedicated to treating vertigo and other balance disorders.

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

24. Apollo Sugar Clinics Website, accessed on 16 October 2023
25. Lifespan Website, accessed on 16 October 2023
26. Sabka Dentist Website, accessed on 16 October 2023
27. Indira IVF Website, accessed on 16 October 2023
28. NeuroEquilibrium Website, accessed on 16 October 2023

3. Retail pharmacy

Model brief:

The transition of consumers to smart consumers has led to the need for on-demand services in healthcare and this has resulted in the evolution of the pharmacies in India. From local retail stores and hospital pharmacies, there has been a recent rapid shift towards a e-pharmacy and phy-gital digital model. Through omnichannel and e-pharmacies, consumers are being offered over the counter as well as prescription drugs through network of retail pharmacies in the form of aggregation or self-fulfillment of Rx. For the purchase of prescription drugs, users are either required to upload the prescription or the platform facilitates online consultation with doctor and home delivery of medicines. Further, with the impetus on affordability of pharmaceuticals by the government, there has been a rise in the acceptance of generic medicines. Various new emerging pharmacy players are now specialising in generic medicines as well.

Key advantages:

1. **Availability and accessibility:** Enables availability and access to medications nearer to home
2. **Affordability:** Generic and bulk purchasing-based discounts offered to customers
3. **Quality of care:** Quality of drugs and sourcing ensures better care outcomes

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Jan Aushadhi Kendras	Under Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP), Government of India has set up more than 9,000 Jan Aushadhi Kendras that are offering more than close to 1,700 generic medicines and 280 surgical devices to citizens across the nation.[29]
NetMeds/ PharmEasy	Online medical stores such as NetMeds and PharmEasy are e-pharmacies offering drugs, medical devices, and wellness products along with services such as teleconsultations for delivery of prescription drugs and booking of diagnostic tests. NetMeds serves 3 lakh average daily customers across 8 major cities.[30] PharmEasy has 17 million monthly active users[31].
Apollo Pharmacy	Apollo, with its established network of retail pharmacy stores, has now forayed into a phy-gital model with its online pharmacy platform. Apollo Pharmacy has 5,000 stores across 13,000 pin codes and more than 60 crore Indians have access to Apollo Pharmacy stores.[32]
Zeno Health	Zeno Health is an omnichannel pharmacy with over 100 stores across Mumbai and Pune along with an online platform, that specialises in delivery of generic medicines. It also offers other services such as free health camps and a health rewards programme.[33]
MedPlus	MedPlus operate more than 3,975 stores in 581 cities distributed across 10 states. The omni-channel platform enables MedPlus to service customers through their stores as well as our online channels and WhatsApp.[34]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

29. "Opportunity for opening Janaushadhi Kendra in 651 Districts across the country", Press Information Bureau, January 2023
30. "The Success of Netmeds: The online pharmacy with a long legacy", TimesNext, June 2020
31. "The rise and fall of PharmEasy", Medical Buyer, July 2023
32. "It's 5000 For Apollo Pharmacy!", Apollo Pharmacy Website, March 2023
33. Zeno Health Website, Accessed on 18 October 2023
34. MedPlus Investor Presentation – First Quarter FY2024, Bombay Stock Exchange, August 2023

4. Diagnostics

Model brief:

The diagnostic services including pathology labs and radiology & imaging services evolved in the last two decades from mainly standalone diagnostic centres to an organised chain of diagnostic centres across India consolidating and standardising diagnostics services to some extent. Organised diagnostics centre chains expanded their business through asset-light operations, franchise model, at-hospital centres, collection centres, referral lab, home sample collection, point of care diagnostics and operations automation.

In the recent years, diagnostic centres further evolved with adoption of digital front door with the emergence of new players with digital health platform/ app providing quick access to order a test from home, home sample collection (for pathology), and online reporting. Patients no longer need to wait in queues at labs and hospitals as diagnostic services can be booked remotely, making them more accessible and convenient. Diagnostic services are further expanding into genomics, predictive and personal genetics tests. Radiology and imaging centres continue to explore artificial intelligence systems to assist in diagnose diseases based on medical images and data models.

Key advantages:

1. **Primary care:** Provisioning of diagnostic services nearer to home
2. **Availability and accessibility:** Enable availability and access to diagnostics services nearer to home
3. **Affordability:** Timely diagnosis helps in lower cost of care
4. **Continuum of care:** Enables continuous condition management

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Agilus Diagnostics	Agilus (formerly SRL Diagnostics) has a network of 413 labs including 43 NABL accredited labs. The network of labs is spread across 25 states and 5 UTs. Through this vast network, Agilus provides diagnostics as well as radiology services.[35]
Medall	Medall is one of south India's largest integrated diagnostics that offers a range of diagnostics and radiology services included CT and MRI scans through a network of 7,000+ customer touchpoints across 9 states and 70+ districts.[36]
Dr Lal Pathlabs	Dr Lal Pathlabs provides more than 5,000 diagnostic tests through their 10,000+ hospital and clinic partners and 4,500+ patient service centers. Packages include those for pregnancy, serology, radiology, genetic tests and preventive health care packages etc.[37]
Healthians	Healthians provides full range of diagnostic services and radiology and imaging tests through a network of completely automated labs across 250+ cities. Through its skilled field partners and home-based collections, Healthians has served 35+ lakh customers.[38]
Tata 1MG	Tata 1MG allows users to book home tests as well as book appointment in nearby labs for radiology and imaging tests. So far, TATA 1MG has served more than 40 lakh customers and booked 1 crore+ lab tests.[39]
MedGenome Labs	MedGenome is the only genetic testing lab in India that is accredited by College of American Pathologists (CAP). It offers 1300+ genetic tests for quicker and smarter diagnosis of complex diseases.[40]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

35. About Agilus, Agilus Diagnostics Website, Accessed on 18 October 2023
36. Medall Diagnostics, LinkedIn, Accessed on 18 October 2023
37. Dr Lal PathLabs Website, Accessed on 18 October 2023
38. Healthians Website, Accessed on 18 October 2023
39. TATA 1MG – Lab Tests, Accessed on 18 October 2023
40. About Us, MedGenome Website, Accessed on 18 October 2023

5. Tele-health services

Model brief:

Tele-health in India has been on the rise, especially with the increased adoption of digital health platforms through technological advancements. These technologies enable patients to consult with doctors and receive medical care and advice remotely. Telemedicine offers a cost-effective alternative, eliminating travel expenses and reducing the burden of healthcare infrastructure costs. It has also demonstrated significant advantages in the management of chronic diseases, allowing for continuous monitoring and support through regular virtual check-ins and medication adherence reminders. In addition to telemedicine, the diagnosis process has also become digital through tele-radiology, allowing for sharing of medical imaging studies, facilitating collaboration and improving patient care.

Key advantages:

1. **Primary care:** Provide primary care and diagnostic services at-home/ nearer to home
2. **Availability and accessibility:** Enable availability and access to consultation, diagnosis, and referral management at-home/ nearer to home
3. **Affordability:** Tele-health services enable lower cost of care
4. **Continuum of care:** Enable continuous condition management through primary care

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
eSanjeevani	eSanjeevani is the Government of India's telemedicine platform that facilitates patients to connect with doctors and medical specialists and avail free of cost consultations either through the confines of their home or by visiting the nearest AB-HWC. So far, approximately 16.9 crore total consultations have been conducted.[41]
Apollo TeleHealth	Apollo Telehealth Services (ATHS) is the oldest and largest multispecialty Telehealth Network providing comprehensive Technology enabled Remote Healthcare. In addition to condition management, tele-radiology, tele-ICU, tele-ophthalmology, tele-cardiology, and other specialised services are provided. About 20,000 e Transactions take place every day. Additionally, with Apollo Telemedicine Networking Foundation, ATHS executes the maximum number of PPP projects in South Asia including the world's first and largest 24/7 tele-emergency services in the Himalayas.
Medibuddy	Medibuddy is a digital healthcare platform that provides app-based healthcare access to users including online consultations. The platform also provides services such as appointment booking for offline consultations, medicine delivery, and health insurance services. MediBuddy is actively accessed by over 3 lakh members each month.[42]
Tata 1MG	Tata 1MG is a digital health platform that provides complete range of services including consultations, diagnostics, and medicine delivery. It has 40 million monthly unique users.[43]
Practo	Practo is a healthcare technology company that started as an online appointment scheduling service. It now provides more services such as online consultations, digital record storage and management as well as medicine delivery. Practo has 4 million monthly users with 1,20,000 doctors listed from over 310 town and cities in India.[44]
Krsnna	Krsnaa Diagnostics Ltd. offers an extensive range of radiology and pathology services. They use collaborative tele-radiology services to support evidence-based treatment for patients.

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

41. eSanjeevani National Telemedicine Service, Ministry of Health and Family Welfare, Accessed on 18 October 2023
42. MediBuddy Website, Accessed on 14 October 2023
43. "Tata 1MG's growth prescription (yourstory.com)" by Priya Sheth, Accessed on 14 October 2023
44. "Practo Business Model | Case Study | How Practo Earns?", Lapaas Website, Accessed on 14 October 2023

6. Care coordination

Model brief:

In the recent years, medical and surgical care coordination players have emerged to connect the fragmented healthcare value chain. Medical and surgical care coordination player provides services involving consultation, second opinion, guiding on latest medical and surgical procedures, guidance on doctors and hospitals, insurance claims management support, planning the care and care coordination executive/ team for end-to-end care coordination. With the shift towards enhancing the quality of care at best price, there has been an increasing focus in care coordination to provide a seamless healthcare delivery experience to patients, including international patients travelling to India for medical tourism.

Care coordination players have strengthened referral management with digital health technology, seamless services, and wide network of own centres/providers to render quality care at an affordable care. Given the ease and experience which the model provides, it is fast expanding in not only metropolitan areas, but also in tier two and tier three cities.

Key advantages:

1. **Referral management:** Specialised care navigation services with large network of quality providers
2. **Accessibility:** Enable access and navigation to network of care providers
3. **Affordability:** Network of providers offering lower cost of care
4. **Continuum of care:** Assists in pre and post hospitalisation management through self/ network of providers

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
MedCords	Medcords connects the key stakeholders of the healthcare system on a cloud platform to create a holistic healthcare ecosystem. They have delivered their services across over 400 cities in India. It provides features such as storage of health reports, prescriptions, analyses, and prediction of health patterns, while allowing patients to connect with trusted doctors and medical store partners.[45]
HealthTrip	Healthtrip caters to patients across the globe travelling to India for medical treatments and have reached 38 countries. Their range of services include assistance in medical visa, travel and accommodation, recommendations for doctors and hospitals, post treatment care and support in monetary matters to the patients.[46]
MedFin	MedFin provides patients across 15 cities in India with support starting right from the pre-surgery doctor consultations, briefing patients regarding the latest surgical treatments available, connecting them with the concerned hospitals for treatment, insurance processing, and post-surgery consultation. To ensure a hassle-free experience, each patient is assigned a personal care coordinator.[47]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

45. MedCords Website, accessed on 16 October 2023
46. HealthTrip Website, accessed on 16 October 2023
47. MedFin Website, accessed on 16 October 2023

2.3 Hospital care models

Over the past decade, the landscape of healthcare institutions and hospitals in India has undergone a significant transformation, reflecting changing patient needs and evolving approaches to healthcare. Traditionally, healthcare facilities were confined to multi-specialty, super-specialty and nursing homes, each catering to distinct aspects of healthcare. However, the last decade has seen a notable shift in healthcare delivery. While multi-specialty and super-specialty hospitals continue to remain essential, there has also been an increasing emphasis on patient-centric specialised care through single specialty hospitals as well as a growing preference towards wellness through health and wellness retreats. The concept of wellness retreats has emerged, offering holistic well-being experiences that go beyond medical treatment.

The increasing cost of real estate, cost of development and operations management of large hospitals in metros and Tier-1 cities has pushed hospital players to decentralisation of care. Hospitals have adopted small to mid-size hospital model and out-of-hospital care models like home care healthcare services, specialised care hospitals and partnering with digital health players to drive patient engagement. This segment continues to evolve with growing demand and new operating models.

Some of the hospital care models that will continue to be at the core of new age healthcare delivery in India are listed below.

Factors driving hospital care in India

- Increasing cost of real estate
- Focus on specialised care
- End-to-end care
- Increasing out of hospital care
- Enhanced utilisation of existing infrastructure

1. Multi-specialty hospital

Model brief:

Majority of private and public hospitals in India are multi-specialty hospitals offering primary, secondary, and tertiary care in multiple specialties with advance diagnostics and specialist doctors. Such hospitals provide care to most of the ailments under one roof and also offer treatment for medical emergencies. Multi-specialty hospitals in India have evolved in the last two decades with change in specialty mix from general broad specialties like medicine, surgery, paediatrics, dermatology, ENT, ophthalmology, etc. to a new model of multi-specialty hospitals equipping one or more super specialty like neurosurgery, cardiac surgery, vascular surgery, or surgical oncology along with broad general specialties. Most of the corporate hospitals today are multi-specialty hospitals with a major focus on one or more super specialties to drive higher average revenue and profitability. These hospital models will continue to form the strong back-bone of secondary and tertiary care services in India.

Addressing key challenges:

1. **Care under one roof:** End to end care for various conditions under one roof
2. **Accessibility and availability:** Provide access and availability of secondary care, tertiary care and life-threatening conditions
3. **Quality and continuum of care:** Provide quality care and care continuum with pre and post hospitalisation services

Type of model ● *Physical* ○ *Digital* ○ *Phy-gital*

Adoption level ●

Examples:	
Fortis Hospitals	Fortis group has a robust network of 28 healthcare facilities with over 4,500 beds across India, UAE, Nepal, and Sri Lanka. In India, Fortis has a strong presence in almost nine states. In addition to their focus on cardiology as a key specialty, the group also excels in other specialties such as oncology, neurology, renal sciences, and orthopedic surgery.[48]
Apollo Hospitals	Apollo Hospitals operates a network of 73 hospitals with over 10,000 beds in India. The group also maintains a strong presence in countries such as Mauritius, Qatar, Oman and Kuwait. Apollo has several centres of excellence, including cardiac sciences, orthopedics, oncology, neurosciences, and robotic surgery.[49]
Narayana Hospitals	Narayana Health operates a network of 22 hospitals, and six heart centres across India as well as an international hospital in the Cayman Islands. With a total of 5,859 operational beds, the group has expanded its capabilities to offer advanced levels of care in over 30 medical specialties.[50]
Hinduja Hospital	PD Hinduja Hospitals, in collaboration with Massachusetts General Hospital (MGH), has established a 520 bedded hospital offering services across more than 26 specialties. As one of the largest private academic hospitals in India, it boasts a strong research wing and offers a range of academic programmes, including DNB courses, M.Sc. and PhD degrees.[51]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

48. About Us - Fortis Healthcare, Fortis Healthcare Website, Accessed on 18 October 2023
49. Multi-specialty Hospital in India - Apollo Hospitals for all, Apollo Hospitals Website, Accessed on 18 October 2023
50. "Know Our Mission, Vision, and Values", Narayana Health Website, Accessed on 18 October 2023
51. Hinduja Hospital Website, accessed on 18 October 2023

2. Single specialty hospital

Model brief:

Increasing NCDs and chronic diseases demand specialised end-to-end care under one roof. A single specialty hospital provides various services such as advanced diagnostics, specialised care and treatment to patients suffering from a specific illness, along with all other allied fields of medicine. With all the care requirements available at the same institution, single specialty hospitals ensure greater care and patient satisfaction resulting in better treatments and outcomes. The size of such hospitals is in the range of 50 to 200 beds with multiple units across geography to cater to a larger population base.

In the last decade, many single specialty secondary and tertiary care providers have emerged across specialties like mother and child health, cancer care, cardiology, orthopedic and spine, gastroenterology, ophthalmology, and others. Single specialty hospitals have been successful and viable in only a few specialties such as cancer care, and mother and child health. However, there is a growing opportunity to explore small mid-size single hospitals with multiple units for other specialties as well by leveraging standard treatment guidelines, innovative partnerships, and community-based models.

Addressing key challenges:

1. **Care under one roof:** End to end care for a particular condition under one roof
2. **Accessibility and availability:** Provide access and availability of secondary and tertiary care
3. **Quality and continuum of care:** Provide quality care and care continuum with pre and post hospitalisation services

Type of model ● *Physical* ○ *Digital* ○ *Phy-gital*

Adoption level ●

Examples:	
HCG Hospitals	HCG is the largest comprehensive cancer care network in the private healthcare space. Through its Hub and spoke model, it provides comprehensive cancer care at 22 locations spread across Tier 1 and Tier 2 cities. HCG leverages its centralized tumor board and specialized clinical capabilities to offer standard treatment across its network. Its comprehensive Cancer Care Centers provide high end diagnostic facilities including genomics and PET CT and treatment modalities such as Medical oncology, Surgical oncology, Radiation oncology, Bone marrow transplants, Immunotherapy, Targeted Therapy and Nuclear medicine aided by 34 Linac's, 16 PET CT, 7 Robotic surgeries and 400 plus oncologist across the network.[52]
Motherhood Hospitals	Motherhood is a specialty hospital chain that provides comprehensive women and childcare for specialties like pregnancy care, paediatrics, foetal medicines, nutrition, neonatology etc. It is a chain of 23 hospitals and clinics and 14 fertility centres in 11 cities of India.[53]
Rainbow Hospitals	Rainbow Children's Hospital and Birthright by Rainbow are multi-specialty and super specialty women and children's care chain of 16 hospitals and 3 clinics located in six cities of Hyderabad, Bengaluru, Delhi, Chennai, Vijayawada, and Visakhapatnam with a total bed capacity of more than 1655 beds.[54]
Tata Cancer Hospitals	Tata Memorial Center (TMC) is a renowned cancer research and treatment centre in India with over 600 beds. TMC has partnered with several cancer facilities across India and has its presence in multiple cities including Mumbai, Vishakhapatnam, Sangrur, Guwahati, Varanasi and Muzaffarpur.[55]
Aravind Eyecare	Aravind Eyecare operates several hospitals and clinics across 14 different cities offering a wide range of eye care services, including cataract surgery, glaucoma treatment, retinal detachment surgery, corneal transplantation, and refractive surgeries like LASIK and PRK.[56]

● *High* ◕ *Fairly High* ◑ *Medium* ◔ *Fairly Low* ○ *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

52. HCG Oncology Website, accessed on 17 October 2023
53. Motherhood India Website, accessed on 17 October 2023
54. Rainbow Hospitals Website, accessed on 17 October 2023
55. Tata Memorial Centre Website, accessed on 17 October 2023
56. Aravind Eyecare Website, accessed on 17 October 2023

3. Super specialty hospital

Model brief:

A super specialty hospital provides services for a range of super specialties like neurosciences, cardiology, cancer care and others. Such hospitals focus on advanced tertiary and quaternary care and not on primary, secondary and non-specialised care. With an investment in high-end medical technologies, infrastructure, super specialists, highly trained paramedical staff and systems, super specialty hospitals function as a premier institute or centre of excellence as compared to a multi-specialty hospital. Such model is beneficial for patients as they can avail primary and secondary care at lower cost from other facilities whereas the hospital is able to focus on surgical high realisation care services. In the coming times, various existing and new hospital players will aim to focus on super-specialty care while working in an ecosystem of primary, secondary, and tertiary care providers.

Addressing key challenges:

1. **Care under one roof:** End-to-end specialised care for multiple conditions under one roof
2. **Accessibility and availability:** Provide access and availability to secondary care, tertiary care, and quaternary care
3. **Quality and continuum of care:** Provide quality care and care continuum with pre and post hospitalisation services

Type of model ● *Physical* ○ *Digital* ○ *Phy-gital*

Adoption level ●

Examples:	
Medanta	Medanta Medicity Super Specialty Hospital in New Delhi NCR caters to over 20 specialties and houses six centres of excellence supported by medical intelligentsia, cutting-edge technology and state-of-the-art infrastructure with a well-integrated and comprehensive ecosystem of digital health technologies.[57]
BLK-Max Super Speciality Hospital	BLK-Max Super Speciality Hospital has more than 12 centres of excellence and more than 35 specialties with one of Asia's largest bone marrow transplant centre, advanced robotic surgery systems and other best-in-class specialised care facilities.[58]
Fortis Memorial Research Institute (FMRI)	FMRI is a 299 bedded quaternary care hospital with 14 centres of excellence with a team of super specialists and trained paramedical staff and nurses who are supported by cutting-edge technology.[59]

● *High* ◕ *Fairly High* ◑ *Medium* ◔ *Fairly Low* ○ *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

57. Medanta Hospitals Website, accessed on 18 October 2023
58. BLK-Max Hospitals Website, accessed on 18 October 2023
59. Fortis Healthcare Website, accessed on 18 October 2023

4. Surgical care management via network hospitals

Model brief:

With the advancements in the surgical care and increased complexities of procedures, surgical are management is emerging as a key model in healthcare. The model primarily focuses on leveraging existing healthcare infrastructure by partnering up with hospitals and utilising the network of partner hospitals to offer surgical treatments to patients. Under the model, companies also provide end-to-end solutions starting from assessing surgical requirements, finding a provider, facilitating the appointment, diagnosis, facility processes including admission and discharge, commute to and from the hospital, etc. Insurance claim support and post-op consultations are also generally included in the package. Given the ease and experience which the model provides, it is fast expanding not only in metropolitan areas, but also in tier two and tier three cities.

Key advantages:

1. **Affordability:** Making surgical treatments available at an affordable cost
2. **Enhanced utilisation of existing infrastructure**: The model enhances the utilisation of existing hospitals by partnering up with them for surgical treatments
3. **Continuum of care:** Assists in pre and post hospitalisation management

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Pristyn Care	Pristyn Care is a new age asset light health care service provider specialising in elective surgery. It has its own licensed clinics where Pristyn Care doctors, who are on Pristyn Care pay roll, checks patients and in case a surgical intervention is required, only then the doctor conducts the surgery in one of its partner hospitals.[60]
HexaHealth	HexaHealth has provided end to end services, like recommendation for hospital admission, insurance, financing, pre-op prep and post-surgical care, for over 25,000 patients. The model drives value for other key stakeholders as well. Providers and surgeons benefit from higher capacity utilisation and improved patient satisfaction whereas insurers benefit from lower treatment costs and increased customer success.[61]
MyKare Health	Mykare Health is a healthcare platform that provides a range of services to patients seeking treatments and elective surgeries. Having partnered with over 100 small and medium scale hospitals with under-utilised resources, the platform is able to offer surgical treatments at affordable prices. It provides end-to-end support to patients starting from doctor consultations to insurance assistance, pick up and drop off, and post-surgery assistance.[62]
MedFin	MedFin provides patients across 15 cities in India with support starting right from the pre-surgery doctor consultations, briefing patients regarding the latest surgical treatments available, connecting them with the concerned hospitals for treatment, insurance processing, and post-surgery consultation. To ensure a hassle-free experience, each patient is assigned a personal care coordinator.[63]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

60. Pristyn Care Website, Accessed on 16 October 2023
61. HeaxaHealth Website, Accessed on 16 October 2023
62. MyKare Health Website, Accessed on 16 October 2023
63. MedFin Website, accessed on 16 October 2023

5. Transition care facility

Model brief:

As India's healthcare landscape continues to evolve, one of the promising sectors on the rise is the industry of transition care. With an ageing population and evolving healthcare needs, there is a growing demand for specialised services that bridge the gap between different levels of care. Transition care model is preferable for hospital and post-hospitalisation care. It seeks to address preventable disability through physical rehabilitation and reduce the likelihood of health issues and re-admissions among particularly older patients with chronic illnesses. The model encompasses a comprehensive range of services to ensure seamless care continuity and the services use a holistic approach, addressing medical, rehabilitative, psychosocial, and practical needs. This ensures that individuals receive the necessary support and resources to successfully navigate this crucial phase in their healthcare journey.

Addressing key challenges:

1. **Community hospital:** Mainly catering to primary and secondary care patients
2. **Medical care facility:** Provides specialised medical care and post hospitalisation care
3. **Availability and accessibility:** Provides access and availability of specialised medical and nursing care nearer to home
4. **Affordability:** Lower set-up and operation costs enable lower cost of care
5. **Quality and continuum of care:** Provides quality and continuum of care to pre and post hospitalisation patients

Type of model ◐ *Physical* ○ *Digital* ○ *Phy-gital*

Adoption level ◔

Examples:	
Healthcare at Home	HCAH, is a Noida, Uttar Pradesh based healthcare service provider that strives to provide affordable and accessible services. The company has treated over 4,000,000 patients till date and has over 2,000 specialists across more than 70 cities in India. Under its transition care centres at multiple locations, it provides stroke care, spine care, tracheostomy care, trauma care, craniotomy care, cardiac care, oncology care, orthopedic care, Parkinson's care, etc.[64]
Ucchvas	Ucchvas is a Hyderabad based new generation adult physical supportive care centre that provides patients with relief from the symptoms, pain, and stress of an advanced illness. The company through its transition centre provides unified physiotherapy, nursing, continuity of medical care and therapeutic programmes.[65]
Brinnova	Brinnova is a transitional care centre in Hyderabad having 15+ doctors including super specialists, more than 30 physiotherapists and has treated over 6,000 patients who were satisfied. The company provides treatment services including physiotherapy, neuro care & rehabilitation, tracheostomy, stroke rehabilitation, ortho care & rehabilitation, speech therapy, post-operative rehabilitation.[66]
Sukino	Sukino, a Bengaluru based healthcare company engaged in providing continuum care to over 10,000 patients across five locations in Bengaluru and Kochi. The company aims to deliver affordable and accessible continuum healthcare to patients suffering from chronic illness post discharge from the hospital. The firm offers services such as preventative care and critical intervention to rehabilitative treatment and palliative care for terminally ill.[67]

● *High* ◕ *Fairly High* ◐ *Medium* ◔ *Fairly Low* ○ *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

64. Healthcare at Home Website, Accessed on 18 October 2023
65. Ucchvas – New Generation Adult Physical Supportive Care Center, Ucchvas Website, Accessed on 17 October 2023
66. Physiotherapy, Rehabilitation, Transitional Eye Care, Brinnova Website, Accessed on 17 October 2023
67. "Home Care, Continuum of Care", Sukino Website, Accessed on 18 October 2023

6. Health and wellness centre/retreat

Model brief:

The growing recognition on the importance of mental and physical well-being, and a desire for individuals to take proactive steps towards holistic wellbeing have contributed to the rising demand for health and wellness retreats in India. These retreats offer a sanctuary for individuals to step away from their routine, allowing them to focus on their health in a comprehensive manner, by catering to physical, mental, and emotional wellbeing. They provide an immersive environment where you can learn and practise healthier habits ranging from nutritional improvements, physical exercise and mindfulness. Beyond the physical health benefits, these retreats facilitate a deeper connection by fostering self-awareness and personal growth. They serve as a catalyst for individuals to embark on a transformative journey towards a more balanced life.

Addressing key challenges:

1. **Integrated health and wellness:** Provide integrated alternative medicine and wellness therapy
2. **Preventive health:** Promote preventive health and wellness care
3. **Lifestyle management:** Assist in a healthy daily routine, habits, nutrition, exercise, and stress management to help individuals adopt to healthier lifestyles

Type of model — *Physical* (Fairly High) *Digital* (Low) *Phy-gital* (Low)

Adoption level — Fairly Low

Examples:	
Atmantan	Atmantan retreat in Pune provides a holistic approach to health and wellness. They have combined ancient healing knowledge with modern scientific research to create a range of personalised wellness programmes designed to help individuals optimise their health[68].
Ashiyana	Ashiyana retreat in Goa combines traditional yoga therapy with modern lifestyle. It hosts a variety of creative activities and workshops, including AcroYoga, inversions, Yoga Nidra, karma yoga, painting and essential oil therapy.[69]
Ananda	Ananda retreat in Narendra Nagar incorporates traditional methods such as Yoga, Ayurveda, and spiritual awareness to promote patients' holistic wellbeing. It offers a diverse range of therapies including various Ayurvedic treatments. The team of professionals, including doctors, nutritionists, yoga instructors, and therapists, collaborate to create personalised packages.[70]
Dharana Retreat	Dharana retreat in Shillim offers two innovative wellness programmes that incorporate contactless therapies, specifically focusing on energy and pranic healing. These programmes take a scientific and evidence-based approach, utilising advanced technologies such as bioenergetic analysis and spectrophotometry to assess and optimise the individual's health and well-being.[71]
Nisargopachar Kendra	Nisargopachar Kendra in Vadodara provides nature cure and alternative therapies with scientific and holistic approach to develop awareness towards healthy lifestyle. They offer holistic treatment programmes including various treatments such as diet and stress management techniques, counseling and yoga.[72]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

68. Atmantan – Luxury Wellness Report Website, Accessed on 15 October 2023
69. Ashiyana Yoga and Wellbeing Retreats Website, Accessed on 15 October 2023
70. Ananda in the Himalayas Website, Accessed on 15 October 2023
71. Dharana Retreat Website, Accessed on 15 October 2023
72. "Nature Cure Center for Total Health and Well-being", Nisargpachar Website, accessed on 15 October 2023

7. Small Healthcare Organisation (SHCO)

Model brief:

With the rise in patient awareness, there is a shift towards increasing demand for closer to community care. At the level of primary and secondary care, the local clinics and public healthcare facilities can be supplemented through small healthcare organisations (SHCOs). As per NABH, SHCOs are organisations with bed strength of up to 50 beds providing primary and secondary care services. These establishments typically cater to a smaller patient population. These institutions ensure that patients receive appropriate medical care, emphasising on safety, care quality.

Key advantages:

1. **Community hospital:** Catering to community healthcare needs nearer to home
2. **Accessibility and availability:** Provide access and availability of primary and secondary care services
3. **Affordability:** Smaller set-up enables lower cost of care
4. **Continuum of care:** Assists in pre and post hospitalisation management

Type of model — *Physical* (Fairly High), *Digital* (Medium), *Phy-gital* (Medium)

Adoption level — Fairly High

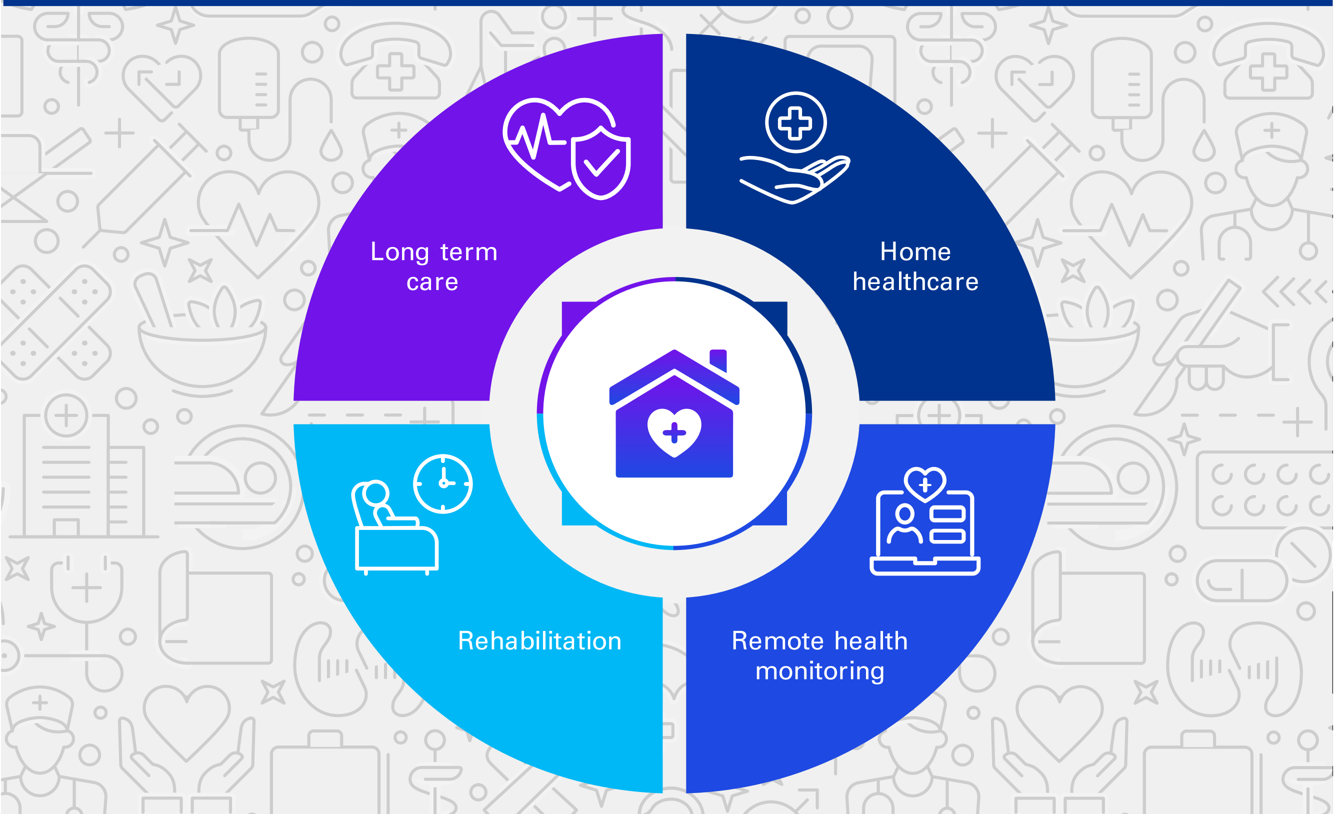
Examples:	
Fortis La Femme	Fortis La Femme (Centre for Women), a unique facility with 38 beds, is inspired by the core belief that a woman is a very special person with special needs. Medical care at the hospital spans to obstetrics (painless labour), gynaecology, neonatology (level III NICU), anaesthesia, general & laparoscopic surgery, cosmetic surgeries and genetic & foetal medicine. The hospital facilitates care for the entire stages of a woman's lifespan — birth, adolescence, motherhood, menopause and beyond[73].
Apollo Cradle & Children's Hospital	Apollo Cradle Royale, with 18 beds, is driven by the Apollo Group's legacy of the last 30 years of clinical excellence. The highest standards of care are provided to every patient, every mother, every baby and every child. Every expectant mother is thoroughly assessed throughout her pregnancy and just pre-delivery to avoid any chance of risk to the mother[74].
RG Stone Urology and Laparoscopic Hospital	RG Stone Hospital is a renowned urology and laparoscopy hospital in India. It offers advanced urological treatments and surgeries such as kidney stone removal and prostrate surgeries. The hospital is known for its expertise in minimally invasive urological procedures with state-of-the-art medical equipment.[75]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

73. Fortis La Femme Website, accessed on 18 October 2023
74. Apollo Cradle and Children's Hospital Website, accessed on 18 October 2023
75. RG Stone Urology and Laparoscopy Hospital, accessed on 18 October 2023

2.4 Post hospitalisation care models



Post-hospitalisation care plays a vital role in the healthcare journey by ensuring the continuity of care for patients following their hospital stay. This phase of healthcare is indispensable in maintaining a smooth transition from inpatient to outpatient care, preventing disruptions in medical treatment, supporting the ongoing recovery and rehabilitation of individuals, monitoring patients' conditions and addressing emerging health issues promptly, thus averting complications that might otherwise necessitate a return to the hospital.

Over the last decade, India has witnessed a significant change in the way care is delivered. It has moved away from cold, institutional settings to the comfort and confines of patients' homes. The transition to remote care and home care management with the advent of new age healthcare models, has brought healthcare closer to the citizens, making it both accessible and affordable.

Some of the post-hospitalisation care models that will continue to be at the core of new age healthcare delivery in India are listed below.

Factors driving self-care in India

- At-home
- On-demand
- Increasing cost of hospital care
- Digital health driving accessibility
- Continuum of care
- Urbanisation and nuclear family
- Integrated care
- Smart consumer and active participation
- Focus on health outcomes
- Aging population

1. Home healthcare

Model brief:

Home healthcare includes healthcare services provided by skilled medical professionals along with non-skilled companions and caretakers in the comfort and convenience at home. Home care services can be provided to individuals of any age who require assistance with activities of daily living due to illness, disability, or aging. It is effective, hassle free and more affordable than a hospital or a clinic. In the last decades, recovery management component of a post medical/ surgical treatment at a hospital has moved out with post hospitalisation being managed at home. Several existing hospital players and new entrants have established home healthcare services major market players in India. Home healthcare services include bed-side assistance, pharmacy, consultation, physiotherapy, elderly care, chronic disease management, remote health monitoring and other allied services.

Key advantages:

1. **At-home and on-demand care:** Provide primary care, condition management and post hospitalisation care services at-home and on-demand
2. **Availability and accessibility:** Provide access to doctors nursing and support staff with virtual and onsite care support
3. **Affordability:** Enable lower cost of care in comparison to hospital care
4. **Continuum of care:** Enable self-care, at-home care services and access to medical team promotes better care outcomes

Type of model — ***Physical*** ***Digital*** ***Phy-gital***

Adoption level

Examples:	
Apollo Home Healthcare	Apollo's Home Healthcare service provides integrated homecare over an extended period across 11 cities, reaching 2 lakh patients. Their home care plans encompass personalised healthcare services, including nurse, doctor, and physiotherapist visits with multiple service offerings such as lab sample collection, medicines at home, elderly and dependent care, post-hospital discharge care, and chronic illness care.[76]
Healthcare at Home	Healthcare at Home (HCAH) specialises in bringing medical services to patients in the comfort of their homes. The company has treated over 40 lakh patients till date across 70 cities in India and offers services such as home nursing, physiotherapy, and chronic disease management, with a focus on personalised and convenient healthcare delivery.[77]
Portea	Portea is a leading outside the hospital healthcare company that has served over 10 lakh patients and operates across in 40 cities. The range of solutions provided by Portea include post operative care, elder care, primary care and chronic disease management. The services include physiotherapy, lab tests, doctor consultations, health attendants, nursing, vaccination, medical equipment rental, in-home ICU set-ups, and prenatal and neonatal care.[78]
CallHealth	CallHealth, present in 55 cities predominantly in Telangana and Andhra Pradesh, provides various healthcare offerings, to be accessed at the customer's convenience. CallHealth's services have been used by 12 lakh customers, including lab tests, doctor consultations, physiotherapy, bedside attendants, diagnostics, medicines, and medical equipment.[79]

High ***Fairly High*** ***Medium*** ***Fairly Low*** ***Low***

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

76. Apollo Home Healthcare Website, accessed on 16th October 2023
77. Healthcare at Home Website, accessed on 16th October 2023
78. Portea Website, accessed on 16th October 2023
79. CallHealth Website, accessed on 16th October 2023

2. Remote health management

Model brief:

Remote health management is becoming increasingly crucial in post hospitalisation care in India. With the rising healthcare demands and limited resources, patients can receive care and medical advice from the comfort of their homes enabled by remote health management system. This out-of-hospital model helps in reducing the burden on overcrowded hospitals and reducing the cost of care. This model results in a reduction of average length of stay, thus allowing hospitals to cater to a larger number of patients. Within remote health management, home-based critical care is fast emerging as a preferred model. Critical care units, such as e-ICUs provide round the clock care for patients who need constant observation and support.

At the same time, it is beneficial for patients as centralised hospital-based critical care is often expensive and inaccessible to those living in remote or resource-poor areas. Some of the large emerging players that are facilitating remote health management and delivering e-ICU services are mentioned below.

Addressing key challenges:

1. **Virtual care:** Provide virtual primary care, condition management and post hospitalisation care services at-home/ at-care facility
2. **Availability and accessibility:** Provide access to doctors and mitigates doctors, hospital bed and human resources shortage to some extent
3. **Affordability:** Enable lower cost of care
4. **Continuum of care:** Enable continuous condition management through virtual primary care

Type of model — *Physical* (Medium), *Digital* (Fairly High), *Phy-gital* (Medium)

Adoption level — Fairly Low

Examples:	
10BedICU	The 10BedICU is a PPP project that has established 200 tele-ICUs in 9 states in collaboration with government hospitals. Under the model, state-of-the-art ICU medical equipment and CARE software are installed at taluka level government hospitals. The system is deployed in a hub-and-spoke model, with the hubs in government medical colleges connecting specialists to remote 10BedICU hospitals.[80]
Cloudphysician	Cloudphysician is a healthcare technology firm that links remote ICUs with command centres manned by skilled critical care professionals. This enables real-time monitoring and collaboration, ensuring that patients receive the best possible care, irrespective of their location. The technology has been used by 100+ hospitals and served 70,000 patients.[81]
e-ICU, Apollo Hospitals	Apollo Group scaled up its capacity to virtually monitor patients needing critical care through e-ICU setups which enable a critical care intensivist to enter a hospital room virtually and provide real-time support. The tele-ICU service is also supported by a 5G ambulance, patient monitoring applications and telemetry devices transmitting patient health data to the hospital in real time.
Ten3T Healthcare	Ten3T healthcare is an AI enabled clinical insights company that facilitates real-time and continuous health monitoring through medical grade wearables. The key health metrics received through wearable devices are used to alert caregivers of adverse events in real time, identify early warning signs, predict clinical outcomes, and provide instant reports.[82]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

80. 10BedICU Website, accessed on 16 October 2023
81. Cloudphysician Website, accessed on 16 October 2023
82. Ten3T Healthcare Website, accessed on 16 October 2023

3. Rehabilitation

Model brief:

Rehabilitation is a vital aspect of care that focuses on helping individuals recover from various physical and mental health conditions. The status of rehabilitation in healthcare in India is gradually improving, with various initiatives and programmes being implemented to enhance the quality and accessibility of rehabilitation services. This segment has evolved from standalone physiotherapy and rehab centres to an organised chain of physio and rehab centres catering to specialised rehab care. Sports medicine rehab is another area that is witnessing increasing demand and focus for a holistic centre. These private specialised rehab centres offer various programmes, including physical therapy, occupational therapy, speech therapy, post hospitalisation rehab, geriatric care, and psychological counseling. Lately, digital physiotherapy and rehab platforms and apps have emerged bidding online consultation, rehab programme planning and online monitoring at-home.

Addressing key challenges:

1. **Rehab care:** Provides specialised end to end physiotherapy and rehab care at-home/ at-care facility
2. **Availability and accessibility:** Provides access and availability of rehab at-home online and on-demand
3. **Continuum of care:** Enables rehab and better health outcomes

Type of model — *Physical* (Fairly High) *Digital* (Medium) *Phy-gital* (Fairly Low)

Adoption level — Medium

Punar	At Punar, the potential of technology to revolutionise the physiotherapy field is harnessed. Their mission is to build a data-driven platform that streamlines the workflow of physiotherapists, making their jobs easier and more efficient, while also providing an accessible and affordable solution for patients.[83]
Alpha Healing Center	Alpha Healing Center is a de-addiction centre located near Vadodara, Gujarat which provides comprehensive and evidence-based treatment for individuals struggling with addiction. They combine science-based addiction treatment approaches incorporating ancient concepts of healthy living and healing.[84]
Phoenix Rehab	Phoenix Rehab is a licensed rehabilitation centre located in Hyderabad, India, specialising in treating alcohol, drug, and behavioural addiction. With years of experience in treating addiction, they us an integrated approach combining the 12 Step Program, Cognitive Behavioral Therapy (CBT), and Rational Emotive Behaviour Therapy (REBT).[85]
MindMaze	MindMaze, deployed in centres across 19 countries, is a leading player in brain technology/ digital neurotherapeutics, enables a human's ability to recover, learn and adapt. The firm has developed solution intersecting neuroscience, biosensing, engineering, mixed reality, and artificial intelligence, that enhanced the recovery potential of patients with neurological diseases.[86]
ReLiva Physiotherapy and Rehab	ReLiva provides online physiotherapy advice and treatment as a convenient alternative to the patients ensuring cost effectiveness and accessibility. They follow a 4-step treatment process; awareness and goal setting; recovery using internationally recognised treatment methods; maintenance to ensure complete recovery; and supporting prevention and lifestyle.[87]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

83. Punar Website, accessed on 16 October 2023
84. Alpha Healing Center, accessed on 16 October 2023
85. Phoenix Rehab, accessed on 16 October 2023
86. MindMaze, accessed on 16 October 2023
87. ReLiva Physiotherapy and Rehab, accessed on 16 October 2023

4. Long term care

Model brief:

Long term care (LTC) refers to support that is needed by older persons with limited ability to care for themselves due to physical or mental conditions, including chronic diseases and multi-morbidity. Long term care planning and management is broadly untouched in India, and thus presents an opportunity for players to provide specialised assisted living facilities with short- and long-term care, pre and post-operative care available on premises. On the other hand, eldercare centres meet the needs of the aging population, offering support for chronic disease management, dementia care, and social engagement, ultimately improving the quality of life for senior citizens and reducing the burden on family caregivers. The demand for such long-term care centres will rise further with increase aged population base in India and limited hospital beds for long term care.

Addressing key challenges:

1. **Out of hospital long term care:** Provides long term care, elderly care and rehab care to reduce burden on hospitals
2. **Availability and accessibility:** Provides access and availability of medical care to elderly and rehab patients
3. **Continuum of care:** Enables medical and nursing care for any existing/ new conditions

Type of model *Physical* *Digital* *Phy-gital*

Adoption level

Examples:	
Antara Residences & Care Homes	Antara Care Homes, located in Dehradun, Noida, Bengaluru, Gurugram, and Delhi are specialised residential facilities for short- and long-term care, pre and post operative care, and memory care. It provides primary health care and emergency response services, curated engagement calendars and nutritionally assisted meals in a homely environment for those requiring assistance in their daily activities.[88]
Adharwad Trust	Adharwad Trust, based in Panvel, Navi Mumbai has taken the onus to support philanthropic care of the elderly and they provide services to those who are physically challenged or suffering from diseases like Alzheimer's or paralysis. They focus on enhancing the quality of life of the patients by providing full range of home care services including hygiene, nutrition, and medical care.[89]
Kites Senior Care	Kites Senior Care is a Bengaluru based geriatric care specialist firm, operating from Bengaluru, Chennai, and Hyderabad where they have treated over 5,300 elders. It operates assisted care centres and provides geriatric care at home and at its senior living facilities. Furthermore, it gives transition, rehabilitation, palliative, dementia and Alzheimer's care.[90]

High *Fairly High* *Medium* *Fairly Low* *Low*

Note: The above list of companies/ brands is neither exhaustive nor ranked in any particular order

88. Antara Residences & Care Homes, Accessed on 16 October 2023
89. Adharwad Trust, Accessed on 16 October 2023
90. Kites Senior Care, Accessed on 16 October 2023

3. Key enablers for thriving of new age healthcare models

To bridge the existing deep-rooted systemic challenges of accessibility, affordability, availability, and quality of care in India, there is a need to rapidly undertake reforms, reconfigure to changing care needs, and reorganise emerging models across the value chain. Some of the key enablers to foster new age healthcare delivery models are listed below that will aid in creating a conducive environment of larger acceptance, backed by policy & regulatory reforms, financing & insurance, and a collaborative approach across the value chain.

1. Changing consumer behaviour and self-care/on-demand care

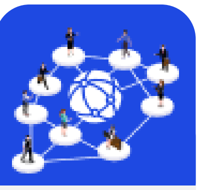
The Indian consumer's behavioural change has already passed a transition phase, and the coming decade will witness smart consumers. This led to a shift of business models and the emergence of digital disrupted business models that radically changed consumer behaviour and consumer buying life cycle. Indian Healthcare 3.0 will witness the emergence of the smart consumer with following behavioural trends:

Consumers behaviour and extensive patient engagement

The rise of digital disrupted business models is reshaping consumer behaviour and buying cycles. Smart consumers, exposed to digital businesses, now expect on-demand healthcare services, such as 24/7 consultations and treatments, regardless of time or place. To meet these demands, healthcare settings must adopt digital health technologies, data analytics, and other innovative solutions. These enablers minimise service turnaround times, maximize access and reduce cost.

Promoting self-care as a way of life

It is important to devise a National Strategy for Self-care for awareness creation involving multiple stakeholders to turn this into a mass movement. All stakeholders should work together to create self-care awareness across India's diverse populace. In the emerging healthcare landscape with new-age delivery models, it is critical to initiate a psychological and behavioural shift towards the adoption of self-care by the masses, involving multiple stakeholders across the value chain.



2. Community engagement

Community engagement is crucial in healthcare service delivery because it involves actively involving patients, families, and communities in the planning, implementation, and evaluation of healthcare services. This helps ensure that healthcare services meet the population's needs and are culturally appropriate. Community engagement can encourage people to participate in their own healthcare and take ownership of their health for better health outcomes.

Mass movements to drive the agenda for 'Healthy India'

India needs to embark on mass movements or Jan Andolan as witnessed recently with 'Swachh Bharat Mission', 'Beti Bachao, Beti Padhao', 'TB Harega, Desh Jitega' and other such movements with a focused strategy to engage the community and various stakeholders driving the agenda with programmatic management. There is a need to augment movements like the 'Healthy India' movement with self-care to make health and wellness an integral part of our daily lives.

Patient communities

Healthcare will witness the rise of online and offline patient communities due to digital healthcare models. Online health communities (OHCs) will serve as crucial platforms for information and patient experiences. Pharmaceutical and healthcare providers will contribute content. Engagement and addressing positive/negative profiling in these communities will be vital.

3. Population health Management

The population health management approach enables healthcare providers to identify and address the health needs of the entire population rather than just individual patients. This new-age approach helps prevent illnesses, reduce health disparities, improve health outcomes for all individuals within a community, and reduce healthcare costs by identifying areas where resources can be allocated more effectively.

Population health registry

India's disease-specific patient registries exist, but integrated population health data isn't structured. A population health information system (PHIS) using health unique identifiers (HUIDs), clinical sources, and claims data enables integrated insights. PHIS, with real-time dashboards, merges geography, demographics and clinical data, aid in understanding disease incidence, guide service delivery, and identify vulnerable community 'hot spots'.

Promoting health UI and EHR

Integrating health IDs with public and private IT systems in India can revolutionise healthcare. Current UID-linked PHRs lack crucial features. Health UIDs, functioning as virtual health cards, could offer diverse benefits like emergency coverage, primary care, and pharmacy coupons. This streamlined approach promotes citizen participation and healthcare empowerment. Implementation requires addressing privacy, data security, and system interoperability.

4. New avatars of providers

The emerging transformation in healthcare providers is marked by a shift from the traditional emphasis on healthcare infrastructure to a new paradigm of 'healthcare as a service'. This evolution prioritises patient-centric care, focusing on delivering personalised, at-home medical services that align with individual needs. Technology-enabled specialised care is at the forefront of this change, where cutting-edge innovations, telehealth, and data-driven approaches enhance patient experiences and outcomes.

Leaner and specialised healthcare providers

Real estate constraints, limited capital, and specialised care demand drive smaller, specialised health facilities. The next decade will witness hybrid models integrating virtual care networks with physical health facilities, which in turn will shape future offline and online healthcare services.

Healthcare as a service

Healthcare providers must shift from hospital-centric care to community-based care, leveraging digital tech and specialised models. They should act as trusted advisors, focusing on patient engagement and long-term health management rather than just reacting to episodes.

Increased insured patients

There is an increasing insurance penetration in India shaping the new age healthcare delivery models across self-care and out-of-hospital care. Further, emerging trend of upcoming providers setting-up health facilities and out-of-hospital care models to cater private insurance and government health coverage patients. As we see hotel brand catering to different customer segments with different sub-brands at different price point and services.

5. Healthcare financing

Healthcare financing norms, like subsidies, tax credits and public insurance, ensure affordable, quality care regardless of income. Investments in preventive care yield long-term benefits, reducing overall healthcare spending. Modern healthcare models employ technologies such as telemedicine and AI to enhance patient treatment and lower costs.

Universal health for all in India

In India, 30 per cent of the population (40 crore individuals) lack health insurance coverage. The "missing middle" is not covered by government-subsidised schemes, social health insurance, or private voluntary health insurance. The government plans to expand health coverage to an additional 400 million people, moving towards a comprehensive national health insurance scheme, further enabling new insurance registration and delivery models.

Healthcare infrastructure development fund

The government has set up dedicated funds/schemes to support infrastructure development across MSMEs, start-ups, electronic development, medical devices parks and others. A dedicated central and federal healthcare fund can help in providing capital at low cost, support with dedicated viability gap funding, subsidies on medical equipment and financial benefits linked to the development of new-age healthcare models across Tier-II and Tier-III cities.

6. Digital technology and data-driven care

Digital tech and data-driven care transform healthcare with personalised, real-time, evidence-based services. Electronic health records (EHRs) centralise patient data, enhancing provider communication and care continuity. Data analytics pinpoint high-risk patients, optimise treatments, and anticipate complications, enabling proactive, preventive care.

Think digital and invest in digital technologies

The competitiveness in healthcare hinges on digital tech and data-driven care. Providers must automate processes, digitise records, employ IOMT/AI/ML, and leverage analytics for personalised experiences. Robotic process automation and AI for cognitive tasks will be pivotal. Heavy investment in these technologies is imperative for relevance and sustainability.

EHR compliance and open APIs

Being cognisant of the health data interoperability standards (as explained in EHR standards and Health Data Management Policy) right from the point of product ideation will be critical. Additionally, MedTech players engaged in offering patient record systems, diagnostic systems as well as HIS will need to ensure that their products support open API standards (as per NDHM guidelines) as well as EHR standards that facilitate interoperability.

Turning data into trusted insights

Health systems must invest in advanced capabilities, infrastructure, and data to deliver virtual and in-person care. A strong governance structure, risk appetite, accountability, values, and culture are necessary for building a trustworthy reputation and brand. Effective data governance and management are essential to transform data into actionable insights that guide strategic decisions in alignment with our fundamental principles.

7. Collaboration and integrated care

Collaborations among healthcare providers, payers, and tech firms enhance expertise and resource sharing. This boosts patient outcomes, streamlines services, and improves engagement. Partnerships with community groups address social factors, providing holistic support beyond medical care.

Collaboration across value chain versus competition

Healthcare providers face a surge in innovative, digital-driven healthcare solutions. These new-age entrants, engaging early in decision-making and buying cycles, become vital stakeholders. Providers must collaborate, leveraging diverse platforms, to create comprehensive, multi-format care models for smart consumers.

Seek healthy partnerships and rethinking private as partners

The evolving healthcare landscape and the goal of achieving Universal Health Coverage (UHC) by 2030 will drive public and private entities to forge innovative partnerships, especially in Tier-3 cities and rural areas. To capitalise on this opportunity, the government needs to collaborate with private healthcare providers and investors. While policy reforms and technical aspects are crucial, building trust, fostering dialogue, and nurturing relationships between partners are often overlooked. One significant hurdle is aligning the private sector's profit-oriented objectives with the broader healthcare objectives.

Reviving strategic purchasing

There is enormous scope to leverage 'strategic purchasing' as an integral approach to fast-track the achievement of larger health goals. The government can enter into strategic purchasing contracts with the private sector in innovative ways to build primary care services, district hospitals, clinical management services, and augment healthcare workforce skilling.

8. Future healthcare workforce

India must bridge the current healthcare workforce gap and prepare for future demands in the expanding healthcare value chain. New healthcare models require advanced skills and workforce cadres. Inadequate skills can impact patient-centred care and community needs. Stakeholders must collaborate for a comprehensive workforce-strengthening strategy to meet future demands.

Healthcare workforce demand estimation and new cadres

India should adopt a 'need-based' healthcare workforce model, aligning with population health needs, disease burden, and infrastructure. Utilising demographic projections, the model estimates the necessary nurses and physicians. Inefficient workforce use results in resource loss. Integrating physician assistants and nurse practitioners, licensed professionals providing direct care under supervision, can alleviate shortages. They enhance service availability, especially in underserved areas, ensuring universal access to vital interventions and reducing maternal and neonatal mortality.

Leveraging existing hospitals for training and skilling of the workforce

Leveraging existing hospitals (25+ beds) for training the healthcare workforce in DNB and paramedical courses can be beneficial. Strategies like government incentives in the form of tax benefits and financial aid can boost short and mid-term programmes requiring on-the-job training and limited academic orientations on skilling in underutilised hospitals, making them hubs for skilling healthcare professionals. Enhanced skills align with new-age healthcare models, ensuring a workforce adept in delivering advanced and new-age healthcare delivery.

Skilling and digital literacy of the healthcare workforce

Skilling via the National Healthcare Faculty Development Programme, innovative partnerships, and digital education institutes is vital. Healthcare providers must enhance workforce digital literacy for competitiveness. A tech-savvy workforce boosts efficiency and patient engagement. Establishing a digital strategy and appointing a Chief Information Officer ensures a digitally enabled healthcare organisation. Efforts include digital universities, medical teaching institutes, and the National Digital Health Literacy Programme for comprehensive workforce development.

9. Sectoral reforms

Promotion of the healthcare sector can lead to better healthcare service delivery by these new-age healthcare models by increasing awareness about various healthcare options, encouraging innovation and technological advancements, and fostering collaboration among healthcare providers. Moreover, promoted healthcare services can reach a wider audience, making quality healthcare accessible to more people, especially those in remote or underserved areas.

Quality and ranking for healthcare providers

Quality is crucial for healthcare providers to compare data and improve quality. The providers should report key quality indicators on a digital platform and allow patients to rate services based on experience, processes, outcomes, safety, and cost measures. This will enable a shift from regulation to a rating-based system in new-age healthcare delivery models involving hospitals and diagnostics, promoting competition and improvement in quality, similar to other service industries.

Ease of doing business in the healthcare sector

India requires standardised, simplified healthcare regulatory systems integrating digital health, AI, ML, and medical software. A unified regulatory framework, facilitated by an apex body, streamlines compliance and fosters self-governance. Incorporating emerging healthcare models and e-commerce practices is crucial for sector reforms.

Taskforce for healthcare sector promotion programme

Dedicated and comprehensive efforts are required to drive the healthcare sector promotion agenda to ease the implementation of some of the new-age healthcare models. This task force can critically look into ways of increasing private sector participation, infrastructure development, investment and promotion engagement at national and international platforms (through MVT), supporting structured financing at low cost, enabling ease of regulatory approval and interface between investors and the government.

Decarbonising healthcare

India's healthcare sector emits nearly 39 Mt of carbon dioxide, responsible for nearly 1.5 per cent of the nation's total carbon emissions. New healthcare models like e-pharmacy and home healthcare, while convenient, pose environmental challenges. To combat this, the industry must focus on decarbonisation through innovative supply chain management and green healthcare infrastructure. Striking a balance between healthcare advancements and environmental conservation is crucial for a sustainable future.

10. Data protection and data security

In the digital healthcare landscape, safeguarding personal and sensitive data is paramount. Institution-level data protection builds stakeholder trust and averts cyber threats. Strong measures prevent breaches, ensure patient identity safety, and shield healthcare organisations from financial penalties and reputational harm.

Personal data protection

Digital technologies, crucial post-COVID, face challenges regarding personal health data. The Digital Personal Data Protection Bill 2023 safeguards privacy, regulating data generation, exchange, and transfer in healthcare. It strengthens organisational capacities, empowering citizens with data control through a consent framework. Healthcare models using digital data must employ robust consent mechanisms, encryption, access controls, and data trails to shield against breaches and data compromise.

Cyber security

New-age digital health models enable continuous provider-patient connectivity through various devices, raising concerns about data vulnerability. The Digital Personal Data Protection Bill 2023 emphasises cybersecurity in healthcare, mitigating cyber threats. Robust data management, encryption, anonymisation, and transfer protocols ensure patient data privacy and security.

The above enablers require all stakeholders to work together and institute these actions that will not only benefit private providers but also equally benefit the public health system in India. Market forces will play a key role in shaping the new-age healthcare landscape, and such inevitable change will demand timely action by public health and private health. The older strategies and operations adopted by Indian healthcare providers may not achieve the desired outcomes in the coming decade.

Way forward: Embracing change and integrating new age healthcare models

New age healthcare delivery models are indeed pushing the boundaries of traditional healthcare delivery. Characterised by their patient-centric approaches, technological innovation, and collaborative practices, these models are reshaping the landscape of healthcare delivery. The integration of new age healthcare models is imperative for the evolution of the healthcare system and these emerging models have transformational implications on healthcare reforms, policymaking, digital health technologies, patient data, insurance, and partnerships. It is in the interest of all stakeholders across the healthcare spectrum to embrace the change and integrate these models, fostering a healthcare system that is resilient, efficient, and centered around the needs of the patient.

Below are the main points discussed in this paper, reiterating the need for an adaptive and forward-thinking approach to embrace the change and integrate new age healthcare models.

01

Rejig health insurance coverage

Health insurers need to reflect and respond to changing healthcare delivery models and changing consumers' needs to remain relevant and effective. Future insurance models will need to undergo significant changes. Healthcare insurers need to embrace the change and expand coverage to include out-of-hospital care models, technology enabled care models, customer experience and offering customisable insurance policies tailored to individual health needs and lifestyles. By proactively addressing these areas, health insurers can not only respond to the changing healthcare landscape but also play a pivotal role in shaping its future, driving innovation, improving patient outcomes, and ensuring equitable access to healthcare services.

02

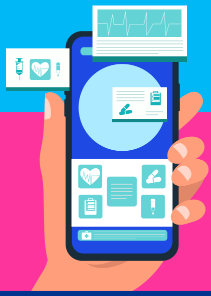
Shifting gear from competition to collaboration

The future healthcare landscape will thrive on collaboration and partnerships and its future depends on how well various entities across the value chain can work together. Traditional hospital-based care providers must embrace collaboration with new age healthcare models to develop patient-centric models, capacity optimisation, and better care outcomes. Increasingly, it will be difficult for a standalone provider in any form to meet the customer needs and end-to-end care. Learning from automobiles and other industry, this collaborative approach will promote integrated care, enabling data sharing, fostering innovation, and focusing on patient-centered models, making healthcare more efficient, accessible, and effective, contributing to better patient outcomes and a more sustainable healthcare system.

03

Regulatory framework

The current regulatory framework divided between the Central government and state governments with disparity and host of different agencies and regulating bodies will require a rejig and one approach to respond to emerging healthcare landscape. Policies and regulations need to evolve to accommodate and foster the innovative solutions presented by new age healthcare models like self-care, out-of-hospital care, at-home care models and others. India requires uniform and progressive healthcare regulations system that is harmonised across geographies for ease-of-doing business for new age models and to ensure patient safety, data privacy, and equitable access to healthcare. These reforms must be agile and adaptable, able to evolve in response to ongoing technological advancements and changes in the healthcare landscape.



04

Enabling a digital health ecosystem

The future of care will be data driven and personalised care backed by personal health records and health data exchange across providers. Implementing secure and interoperable electronic health record systems to improve care coordination and patient outcomes. The digital health ecosystem in India will depend on successful implementation of Ayushman Bharat Digital Mission (ABDM) across public and private health sector in terms of embedding Health UID/ ABHA number, health facility registry (HFR), healthcare professional's registry (HPR) and personal health records (PHR) across the value chain. The new age healthcare delivery models will require mandating interoperability, standardising data formats and developing quality and safety standards specifically for digital health products and services.

05

Adopting new age healthcare models in public health sector

In India, the integration of new age healthcare models, digital health solutions, innovative delivery systems, and strategic partnerships has the potential to bridge existing significant public health gaps like accessibility, availability, affordability, care coordination and promoting self-care that will improve the health system and enhance health outcomes.

Public health sector should explore models like remote health management, tele-health services, health monitoring & tracking, e-ICU, care coordination, surgical care management, strategic partnership-based hospital care and home-care services. Unless new models of care and approaches are adopted, there are limited opportunities to improve public health system in India in the view of shortage of human resources in healthcare, shortage of beds in healthcare facilities, and challenges in population health management.

Acknowledgements

We are grateful to the members of FICCI Working Group on Healthcare Workforce Strengthening for sharing their valuable insights and suggestions with us.

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- Dr Mahesh Joshi, President & CEO, Apollo Homecare

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- Dr Nandakumar Jairam, Chairman, Medica Group of Hospitals; Advisor- Sheares India; Former Chairman- NABH & Columbia Asia Hospitals
- Dr Om Manchanda, MD, Dr Lal PathLabs Ltd.
- Mr Manish Jain, CEO and Founder, Yes2treatment
- Dr Gaurav Thukral, EVP & COO, HealthCare atHOME
- Dr Vaibhav Kapoor, Co-Founder, Pristyn Care
- Mr Vikas Chauhan, Co-founder, Hexa Health
- Dr Dhruv Joshi, Founder, Cloud Physician, Dozee, Critinext, etc.
- Lalit Mistry, Partner and Co-Head, Healthcare Sector, KPMG in India

We would also like to express our special thanks to other experts who have helped with this paper or have been a part of the consultations

- Dr Narottam Puri, Advisor- FICCI Health Services and MVT; Principal Advisor- QCI; Board Member & Former Chairman- NABH; Advisor-Medical Operations, Fortis Healthcare Ltd
- Dr Ganapathy, Director, Apollo Telemedicine Networking Foundation & Apollo Tele Health Services
- Mr Raj Gore, CEO, Healthcare Global Enterprises Limited (HCG)
- Mr Vaibhav Tewari, CEO, Portea
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- Dr Arjun Dang, CEO, Dr Dangs Lab
- Dr Nikhil Yadav, Chief Strategy Officer, Apollo Health & Lifestyle
- Dr Ruchit Nagar, Founder & CEO, Khushi Baby Association
- Mr Danish Ahmed, CEO & Founder, Health Trip

We would also like express our gratitude to the FICCI Health Committee leadership for their constant guidance and support for this report

- Dr Harsh Mahajan, Chair, FICCI Health Services Committee and Founder & Chief Radiologist, Mahajan Imaging & Labs
- (Hony) Brig Dr Arvind Lal, Chair, FICCI Swasth Bharat Task Force; Executive Chairman, Dr Lal PathLabs and Managing Trustee, ALVL Foundation
- Dr Sanjeev Singh, Co-Chair, FICCI Health Services Committee and Medical Director, Amrita Institute of Medical Sciences & Research Centre (AIMSRC) Faridabad & Chief Medical Superintendent, AIMSRC Kochi
- Dr Mahesh Joshi, Co-Chair, FICCI Health Services Committee and President & CEO, Apollo Homecare
- Mr Gautam Khanna, Immd. Past Chair, FICCI Health Services Committee and CEO, P D Hinduja Hospital & MRC
- Dr Narottam Puri, Principal Advisor-QCI; Board Member & Former Chairman- NABH; Advisor- FICCI Health Services; Advisor- Medical Operations, Fortis Healthcare Ltd.

Strategic guidance

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List of abbreviations

ABDM	Ayushman Bharat Digital Mission
AHP	Allied Health Professionals
AI	Artificial Intelligence
AICTE	All India Council for Technical Education
AIF	Agriculture Infrastructure Fund
ANM	Auxiliary Nursing and Midwifery
ARPOB	Average Revenue Per Operating Bed
ALOS	Average Length of Stay
API	Application Programming Interface
B2B	Business-to-Business
B2C	Business-to-Consumer
CBT	Cognitive Behavioral Therapy
C-DAC	Centre for Development of Advanced Computing
CHC	Community Health Centre
CHE	Current Health Expenditure
CMNNDs	Communicable, Maternal, Neonatal, Nutritional Diseases
CSR	Corporate Social Responsibility
DGHS	Directorate General of Health Services
DH	District Hospital
EAP	Employee Assistance Program
EHR	Electronic Health Record
FDI	Foreign Direct Investment
FMRI	Fortis Memorial Research Institute
FNB	Fellowship of National Board
GDP	Gross Domestic Product
GP	General Practitioner
HCAH	Health Care At Home
HUIDs	Health Unique Identifiers
HRA	Health Risk Assessment
HPR	Healthcare Professionals Registry
HPV	Human Papillomavirus
HRH	Human Resources for Health
ICMR	Indian Council of Medical Research
ICT	Information and Communications Technology
ICU	Intensive Care Unit
IOMT	Internet of Medical Things
IISC	India International Skill Centre
INC	Indian Nursing Council
KITE	Kerala Infrastructure and Technology for Education
LTC	Long-Term-Care
MBBS	Bachelor of Medicine, Bachelor of Surgery
MCI	Medical Council of India
MeitY	Ministry of Electronics and Information Technology

ML	Machine Learning
MoHFW	Ministry of Health and Family Welfare
MSMEs	Micro, Small and Medium Enterprises
MVT	Medical Value Travel
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NCDs	Non-Communicable Diseases
NHA	National Health Authority
NHSRC	National Health Systems Resource Centre
NMC	National Medical Commission
NP	Nurse Practitioner
NPM	Nurse Practitioners in Midwifery
NSDC	National Skill Development Corporation
NSSO	National Sample Survey Office
OECD	Organization for Economic Co-operation and Development
OHCs	Online Health Communities
OOPE	Out of Pocket Expenditure
OPDs	Outpatient Departments
OT	Operation Theatre
PA	Physician Assistant
PHC	Public Health Centre
PHIS	Population Health Information System
PHR	Population Health Registry
PMBJP	Pradhan Mantri Bhartiya Janaushadhi Pariyojana
PoE	Point-of-Entry
REBT	Rational Emotive Behavior Therapy
SC	Sub Centre
SDG	Sustainable Development Goals
SDH	Sub Divisional Hospital
SHCOS	Small Healthcare Organisations
STG	Standard Treatment Guidelines
TB	Tuberculosis
TRAI	Telecom Regulatory Authority of India
TMC	Tata Memorial Center
UAE	United Arab Emirates
UG	Undergraduate
UGC	University Grants Commission
UHC	Universal Health Coverage
UID	Unique Identification
USD	US Dollar
UT	Union Territory
VGF	Viability Gap Funding
VR	Virtual Reality
WHO	World Health Organization

About FICCI

Established in 1927, FICCI is the largest and oldest apex business organization in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

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KPMG International

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MEDICAL HEALTH CARE
AND PHARMACY

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