

DIGITALIZATION OF HOME HEALTH CARE AMID COVID-19 IN INDIA: A REVIEW

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INTRODUCTION

Home Healthcare in India



Home Healthcare

Home Healthcare provides medical care in a home setting



It has an expected growth of **66 %** over the next **10 years** with over **7 million patients** served each year



Current need of HH

- With the current burden of COVID-19, rising NCDs, unhealthy dietary food, and a greater number of people in the geriatric population, HH is need of the hour
- There is an urgent need for engagement of the community as well as the healthcare providers to accelerate the adoption of home health care model in India
- Consumers have grown inclination towards their health, and healthcare industry has been focusing on the patient experience more than ever
- The use of technology in India has witnessed an elated growth since past few years, and it has impacted the HH amid COVID-19

SALIENT FEATURES

Homecare is designed on a method dependent solely on collaboration & communication

It is comparatively less expensive

It is more favorable and it is as adequate as care received in a clinical setting

Home care could also be proven beneficial for patients requiring post-hospitalization care.



Medication adherence at home



Sample collection



Bed side assistance



Nursing care at home



Physiotherapy



Home healthcare services provided



Medical equipment's

Home Health Companies, funding and services provided

Company	Founding year	Total Funding (\$ million)	Services provided
Practo	2008	228.2	Appointment bookings, check-ups, online consultations, nursing care
Mfine	2017	48.8	AI-powered telemedicine mobile app
Portea Medical	2013	76.1	Home health care: critical care, diabetic care, new born baby and mother care, physiotherapy, lab tests, nursing care
Lybrate	2013	14.4	Online and mobile-based platform that connects patients and doctors
PharmEasy	2015	671.5	Teleconsultation, medicine deliveries, and diagnostic test sample collection
1mg	2015	204.6	Online consultation, diagnostic tests, pharmacy, medical devices
Medlife	2014	56.5	Online medicines order & home-delivery of medicines

Research Objectives



RESEARCH OBJECTIVES

01

To assess the home health care market w.r.t to market growth, drivers and trends

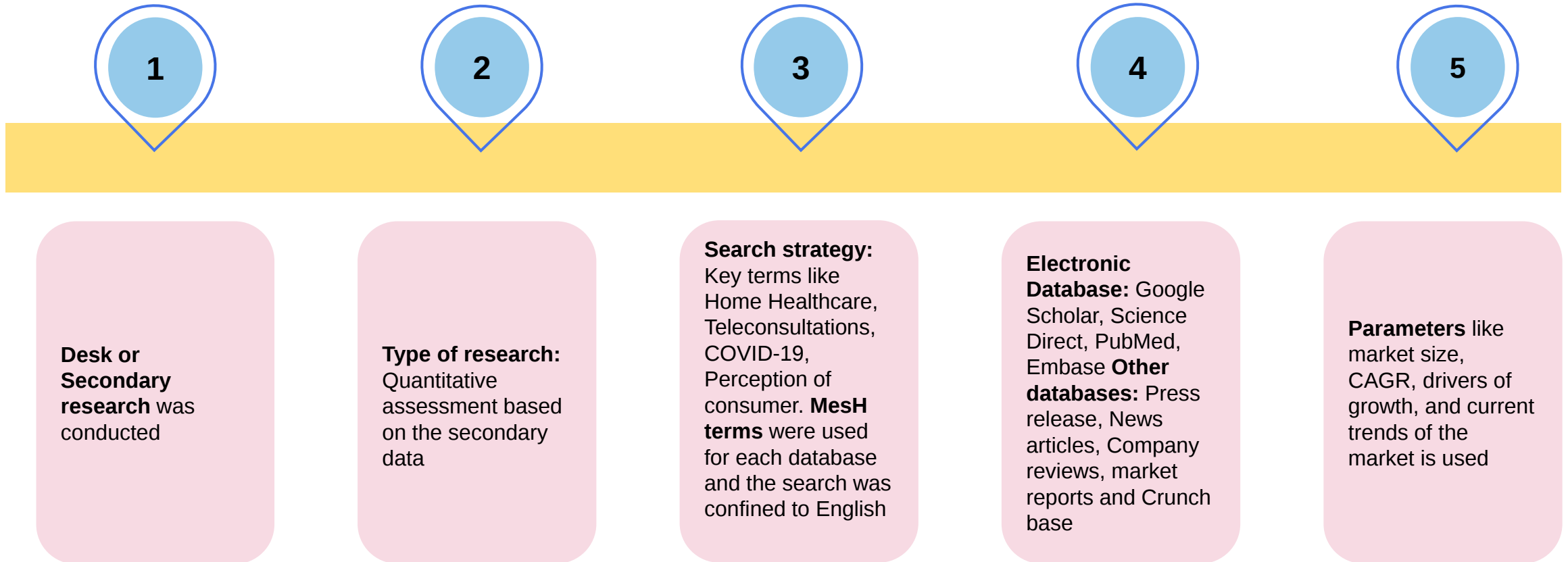
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To analyze the digital transformation of Home Healthcare amid COVID-19

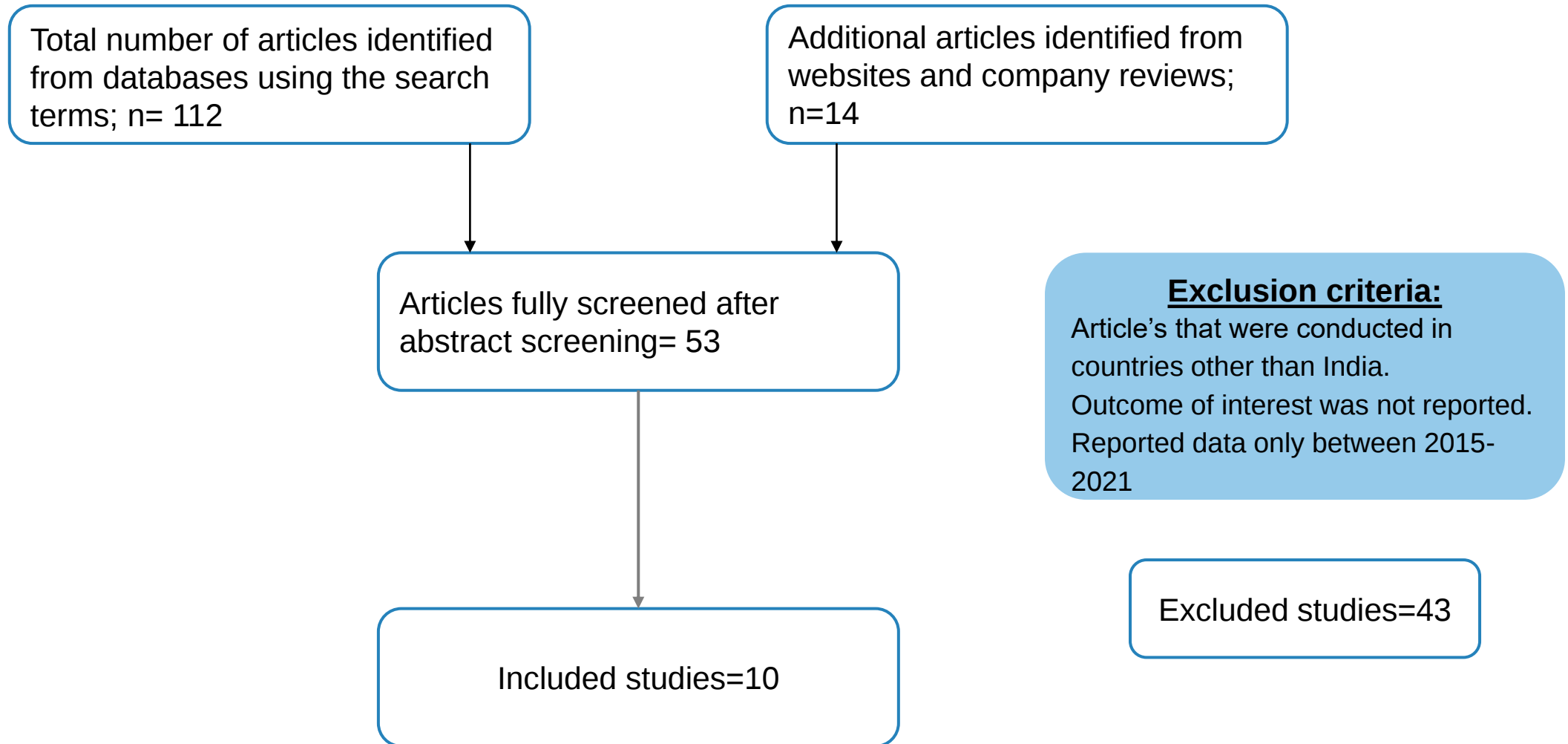
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To study the consumer behavior and preferences towards digitized home healthcare during COVID-19

Research Methodology



Flow process of literature



Summary of authored literature



Author	Objective	Study location	Methodology	Salient features
Bhatia et. al (2020)	Study on various aspects of telehealth in India in terms of the facilitators or drivers for the telehealth initiatives: before and post COVID-19 scenario	India	Empirical Study	Healthcare need of individuals, accessibility, technology use and information seeking behaviour, and perceived ease of use of telehealth
Anthony et.al (2020)	The author aimed to give recommendations & guidance to healthcare providers to tackle the COVID-19 using telemedicine services	-	Rapid literature review	The findings concludes that telemedicine services hiked and, few healthcare providers used the services in spite of the usage. The author has suggested that there is a need to provide training for a better care delivery
Healthcare 3.0 Re-imagining healthcare in the next decade (2020)	To determine the key factors of change and trends that India would observe	KPMG (India)	Study using existing literature	Development of digital disrupted business models, consumer buying behavior, and impact of technology as levers of change in healthcare in India. These factors would help achieve the UHC and health system strengthening
Delivering digital enabled home health 2020	The author determined the drivers that are equipped to deliver digital enabled health home care and the importance to fasten its's growth	Ernst & Young	-	The conventional setting of a home care model, change drivers, and value-based reimbursements, and digital enabled home care: global outlook
COVID-19: A catalyst to change (2020)"	Author has analyzed the effect of COVID-19 on healthcare systems	Deloitte	Literature review	COVID-19 impacts and how these current crises will be reshaped by factors like economy, society, technology and sustainability

Changing consumer preferences towards healthcare services: The impact of COVID-19 (2020)	To understand the consumer behavior and changing preferences and expectations from healthcare providers	Deloitte (India)	Survey based study (Survey across 419 consumers)	Key actions for health care professionals have been developed based on the analysis of the answers to promote consumer engagement and prepare organizations for the post-pandemic world
Agrawal et.al (2016)'	Assessment of the adoption of a home health provisioning system in India. Paper based and online survey was conducted for the study"	-	Paper based online survey	Patient willingness for extra payment to access the HH services was likely due to information and communication technology (ICT) via computer, email, text messages, or telephone call
Garg et. al 2020 Telemedicine: Embracing virtual care during COVID-19 pandemic	Telemedicine adoption during pandemic and its impact on public health in lower-middle income countries like India: A review	India	Review of existing studies	Barriers and challenges to telemedicine adoption and the way forward
Transformation of the patient journey in a virtual healthcare setup in the new normal (2021)	"To brief the various initiatives taken by the Government of India and private healthcare providers in developing the virtual healthcare space while exploring global virtual healthcare trends and the leading practices that can be drawn from them"	PwC (India)	-	Government initiatives towards strengthening virtual health, COVID-19 and disruption in the patient life cycle, and its challenges

Home Healthcare Market Analysis

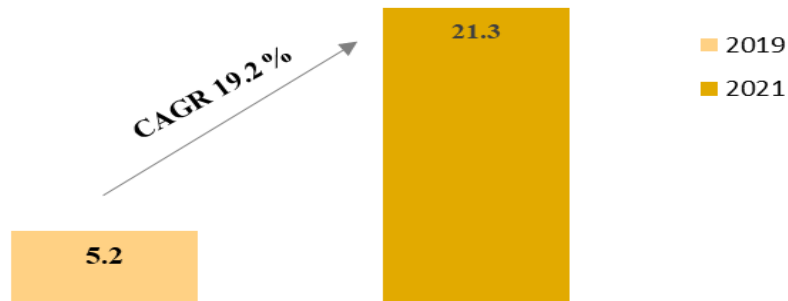
Market Growth, Size, Drivers and Trends



Home Healthcare Market

Market Size & Growth of Home Healthcare

Indian Home healthcare market size, 2019-2027 (\$Bn)



Source: Grandview research

Figure (a)

Indian home health is currently sized at 5.2 billion, currently growing at a CAGR of 19.2 % which will reach 21.3 billion during the forecasted period 2019-2027

Growth Drivers of Home Healthcare

India population Statistics (in %)
(2015-2019)

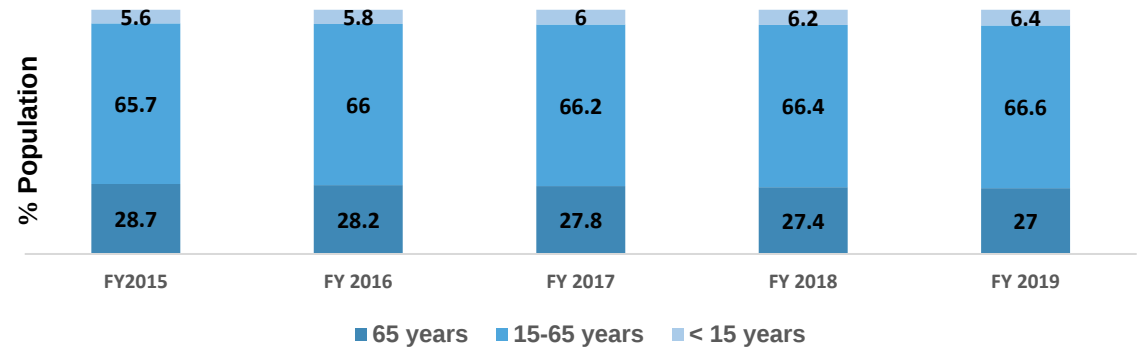


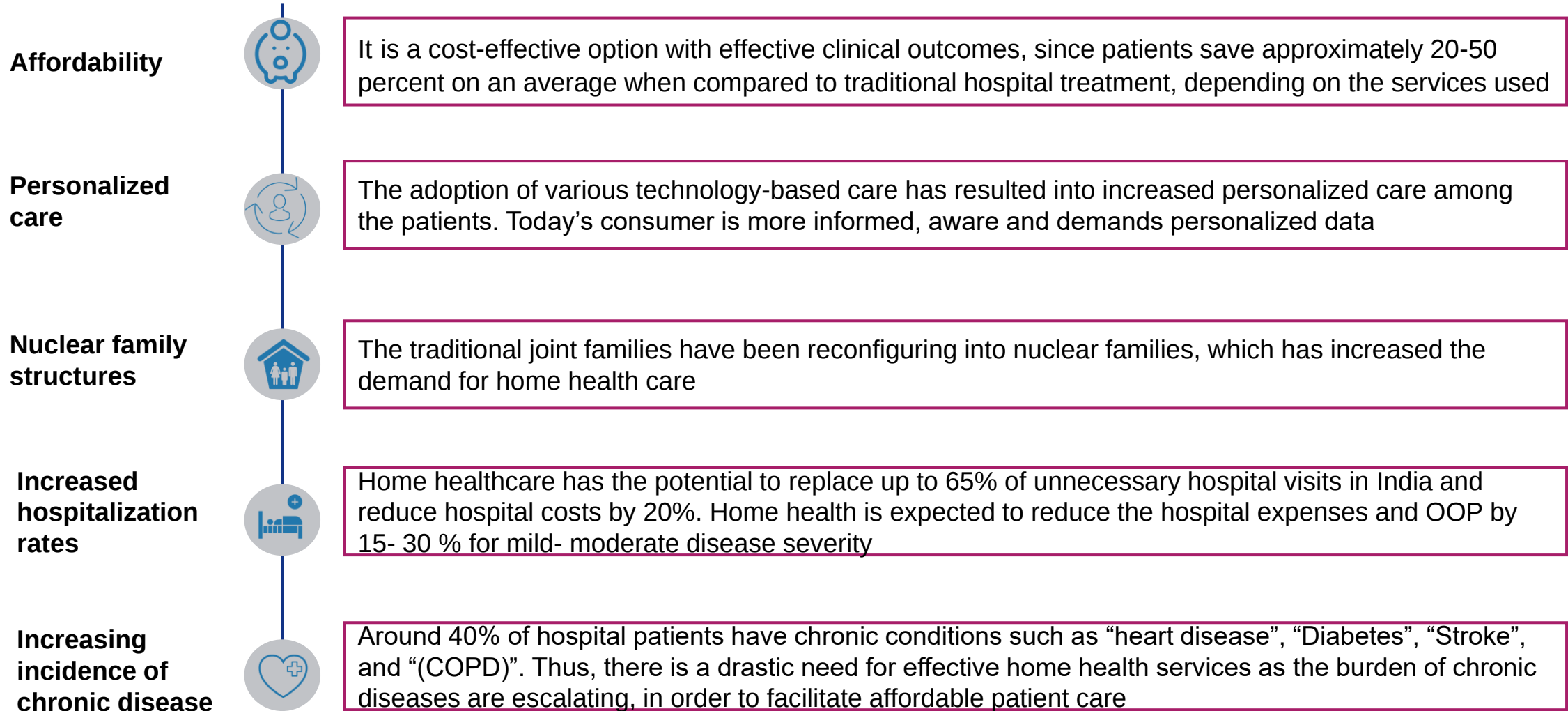
Figure (b)

Source: OECD & Data labs

➤ Rising geriatric population:

- India has been witnessing a tremendous increase in the old age population.
- A collaborative home health care programs are needed for these people to provide them with better primary, and palliative care
- Home health care services must be specifically planned and coordinated packages of care geared to assist the elderly

Home Healthcare Market Drivers (contd.)



Home Healthcare Market Trends



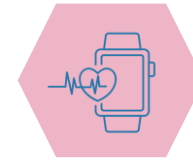
Increasing consumer compliance and willingness towards HH

The consumer behaviour has transformed over time with an increased willingness to access affordable care without the restraints of time, place, and commute



Rising willingness to get an insurance coverage

HH services are not covered yet under health insurance. However, with the wake of COVID-19, patients who are accessing home health services, have shown a growing willingness to be covered under the insurance



Digital advancements in the healthcare industry

The adoption of technology-based health care in India will revolutionized the home health business model.

Digital Transformation of HH amid COVID-19



Digital Technologies used in Home Healthcare

- The digital health or technology is one of the major factors that will drive the home healthcare industry amid and post COVID-19 era.
- Also, there has been a significant change observed in the government, being more captivated towards the implementation and development of digitized healthcare in India
- The internet adoption among the Indian population and smartphone users are growing at a high pace. Hence, a patient has an access of information at one place, which allows them to make an informed decision about one's healthcare needs.



Telemedicine services

The upcoming telemedicine services (via telemedicine apps/devices and centres) would be highly acclaimed among the smart consumers
Telemedicine services will witness a market size of approximately 5500 million US dollars by the year 2025



M Health

In the post COVID-19 landscape, m-health will be increasingly used in the doctor consultations, booking appointments, e-pharmacy, maintenance of health records, and monitoring of patients



IoMT

Connected medical devices such as ultrasound, thermometers, glucose monitors, and ECGs, used for tracking patient's health, smart beds in hospitals, medication dispensers at home that automatically feed the data into cloud ecosystem, shows the intensity of IoMT in India's healthcare industry



Remote patient monitoring

The remote patient monitoring refers to as keeping a track of the patient remotely using connected device. For example: Remote monitoring of heart patients using the cardiac devices while saving costs and reducing the number of physical visits to the hospitals



Virtual Consultations/Tele-Consultations

Virtual consultation is basically a video conference between a doctor and a patient from the comfort of their respective homes
A greater number of consumers demand to receive all the medical data on their mobiles at the comfort of their homes.

Digital Transformation of Home Healthcare amid COVID-19

With the ongoing COVID-19 pandemic, e-pharmacies and teleconsultations have significantly increased in India. As strict lockdowns have been imposed all over country and social distancing norms, e-pharmacies in the home health segment has enabled consumers to abstain from human interaction



Apollo is the oldest (ATNF) and the largest multispecialty provider of the tele health services in India. Fortis Healthcare has observed a shift from 10 % of the OPD consultations moving towards teleconsultation platforms even before COVID-19 era



Telemedicine hub was launched in Delhi amid COVID-19 to provide counselling to the residents, contact tracing, real time monitoring of health vitals and introduction of telemedicine portal for patients



Practo reported five crore Indians who accessed their services online during the first phase of lockdown between March 2020 to May 2020.



A 'rise of 500 percent' was witnessed in the teleconsultations during COVID-19. Among those, '80 percent' of people were first time users. With this hike in teleconsultation services, there was a 'decline of 67 percent' in physical visits.



As per Ernst & Young's primary survey, e-pharmacy industry is expected to account for 10%-12% of overall sales in the next five years.



Leading online pharmacies in India have also reported an increase of 50%-100%. However, this will occur against a backdrop of stringent restrictions, particularly in areas such as data privacy and replacement. Leading Indian internet pharmacies have also reported a "50 percent to 100 percent" surge in sales.

Traditional Home Healthcare vs Digital enabled Home Healthcare

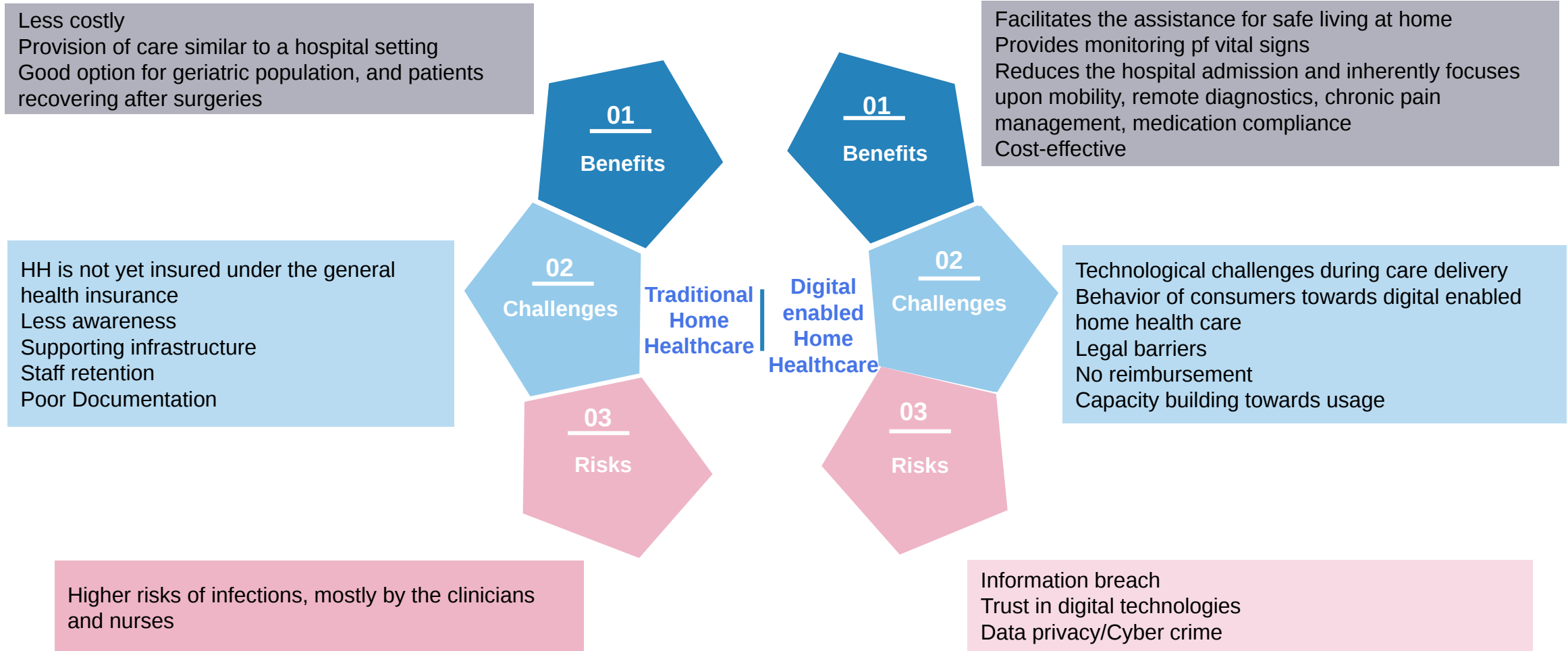


Figure (c) A Conventional HH model vs Digital enabled HH



Source: PwC analysis

Home Healthcare amid COVID-19 in India: Consumer's Perception



Home Healthcare amid COVID-19 in India: Consumer's Perception

COVID-19 has affected nearly 2.99 crores people in India, with 3.88 deaths till the month of June 20th, 2021

COVID-19 has over burdened the healthcare workforce and infrastructure all over the INDIA

INDIA Standards	0.65 doctors / 1000 population	1.3 nurses / 1000 population	1.3 hospital beds / 1000 population
WHO Standards	1 doctors / 1000 population	2.5 nurses / 1000 population	3.5 hospital beds / 1000 population

- Telehealth has personified/served mild to moderate symptoms of COVID-19 in an effective manner, while sitting back at home, although an initial form of care. According to current literature⁶, Telemedicine also has a significant role in screening for COVID-19 symptoms and delivering routine needs and follow-up care.
- A reduced-on site referrals indicated fear of COVID-19 infection among themselves in typical clinical settings. Also, there was a dire need observed to continuously monitor the moderate severe patients of COVID-19. There has also been a perception that, non-severe COVID-19 patients should be monitored on a regular basis, either at quarantine centers or at home. As a result of the increased demand, consumers are looking for new ways to remotely monitor their health.

Home Healthcare amid COVID-19 in India: Consumer's Perception (contd.)

Consumer's perception on hospital visits amid COVID-19

Consumers afraid of hospital visits (% respondents)

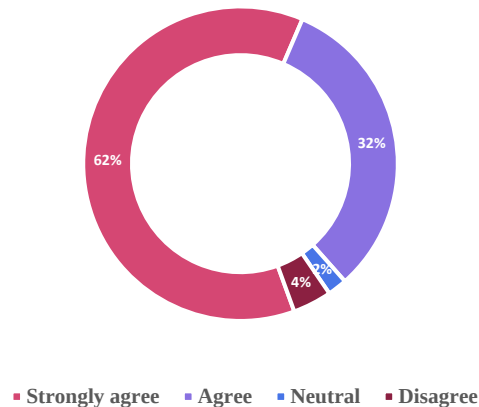


Figure (d)

Consumer's perception on management of their health during COVID-19 lockdown

Consumers who were concerned about managing their health during COVID-19 lockdown (% respondents)

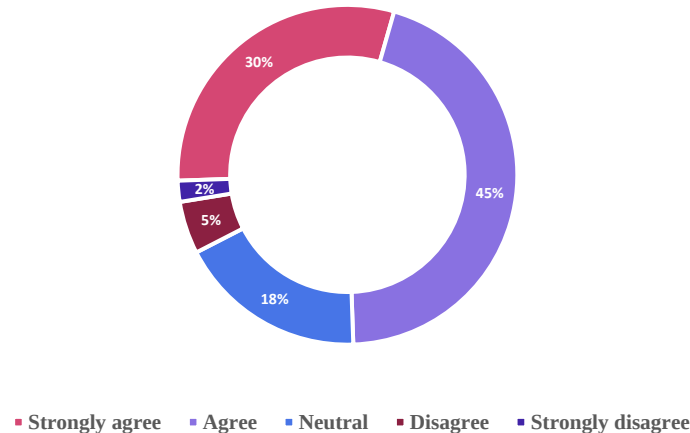


Figure (e)

Consumer's perception on frequency of hospital visits pre vs post lockdown

Frequency of hospital visits pre vs post lockdown (% respondents)

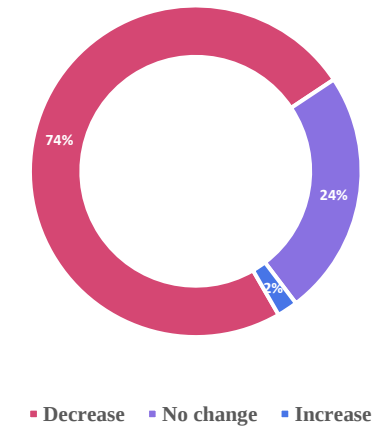


Figure (f)

- Maximum consumers feared to go to the hospital because of COVID-19 infection. Whereas, two percentage of consumers think that a hospital or a clinical setting is a better way to access the health services.
- Respondents stated that the reason of their changed preferences for staying at home was fear of getting the infection, affordability and convenience.

Consumer's willingness to book telehealth services (by age group)

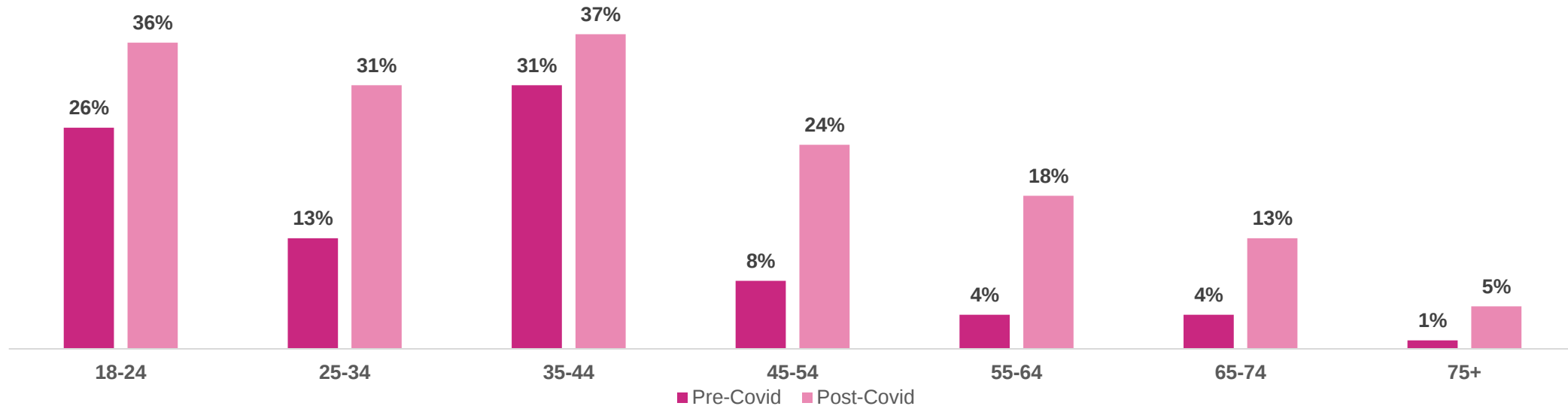


Figure (g)

- ✓ Teleconsultations had prevailed since many years now.. However, the telehealth adoption was quite growing at a low pace.
- ✓ COVID-19 has resulted into a tremendous shift in the adoption of these services in India.
- ✓ The other factors contributing to its fast adoption are; rising awareness among the consumers, a need for personalized healthcare delivery, better network connectivity and connected platforms between the doctor and the patient.
- ✓ Convenience: While other patients indicated that better access of the doctors, medicines and the avoiding the commute were the favorable reasons to opt for tele-consultations
- ✓ Safety context: Patients wanted to avoid long queues, and prolonged waiting times

Discussion & Conclusion



DISCUSSION

Home Healthcare

- ✓ Lack of Awareness and right information among healthcare professionals and patients, institutional limits, lack of communication, and uncertainty regarding duties and responsibilities are all challenges in home health care.
- ✓ Therefore, growth of Home healthcare in India was growing at a very slow pace.
- ✓ Today's consumer is demanding personalized care, where the patient can access their own health records, can book 24*7 consultations and medicines at the convenience of time, place and commute
- ✓ However, staff retention, lack of skilled labor, and less adoptability are all the factors that restrain the growth of HH.

Role of technology in HH

- ✓ The role of technology or the health digitalization over the time is a key growth factor for the home health sector in India.
- ✓ Major drawback the digitized home-based model is facing are due to the low margins in the home healthcare industry, hence, the providers must expand to remain profitable
- ✓ The home health care competitors are increasingly adopting the digitalized systems to create efficient patient and doctor platforms for delivering care
- ✓ There is an urgent need for the HH competitors to make these services scalable

With the growth of various technological advancements in the health industry like teleconsultations, e-pharmacy, virtual visits, m-health etc. the technology has supported the growth by strong execution of the doctor-patient interaction.

The recent developments of the AI diagnostics, remote patient monitoring and smart monitors/wearables have brought a change in the conventional ways of care giving.

Practo has gained significant scale with a direct-to-patient application-based solution, gaining an edge by offering a package of services that combine remote medical consultations with insurance claims filing, electronic health records, and linkages with traditional networks of doctors and hospitals

CONCLUSION

Digital enabled home health would emerge as a disruptor of the conventional medical settings. There is a significant need to cover the gaps between faster moving technologies and its scalability in the HH

Customers are increasingly choosing to have their medical needs met remotely, in the privacy and comfort of their own homes. They expect their healthcare providers to place a high priority on following safety protocols.



if the home health services to be covered under the health insurance plans, it would lead to a higher uptake of the same. Secondly, there should be standard protocols provided by the healthcare providers associated with HH.

With future investment in new, less intrusive technologies that lessen the need for health management in hospitals, more sophisticated home health models will emerge, expanding the variety of illnesses that may be diagnosed and treated at home.

In order to boost adoption, regulatory associations must engage stakeholders such as doctors and pharmaceutical companies and address their concerns through policy making.

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