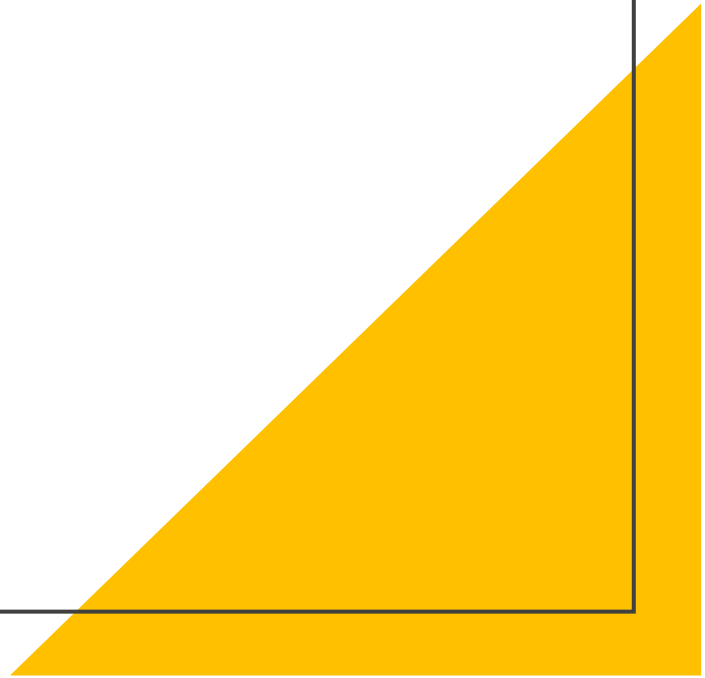


THE IMPORTANCE OF TELEHEALTH IN HEALTHCARE SYSTEM

by

Dr. Akash Mahanta

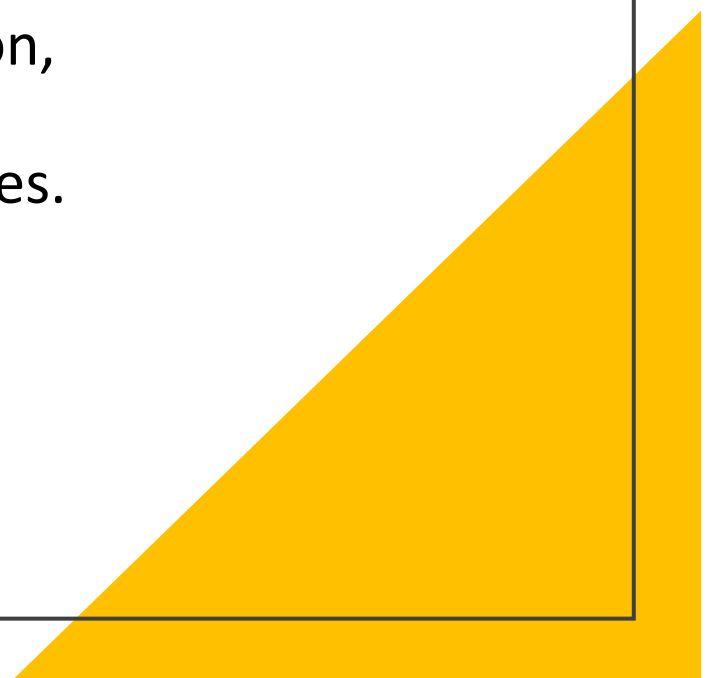
Under the Supervision and Guidance of
Dr. D.K. Mangal



Introduction

Telehealth is defined as the delivery and enablement of health services such as medical care, doctor and patient education, health information services and care through telecommunication and digital communication technologies.

Several technologies are being deployed for telehealth including mHealth, video and audio technologies, digital photography, remote patient monitoring etc.



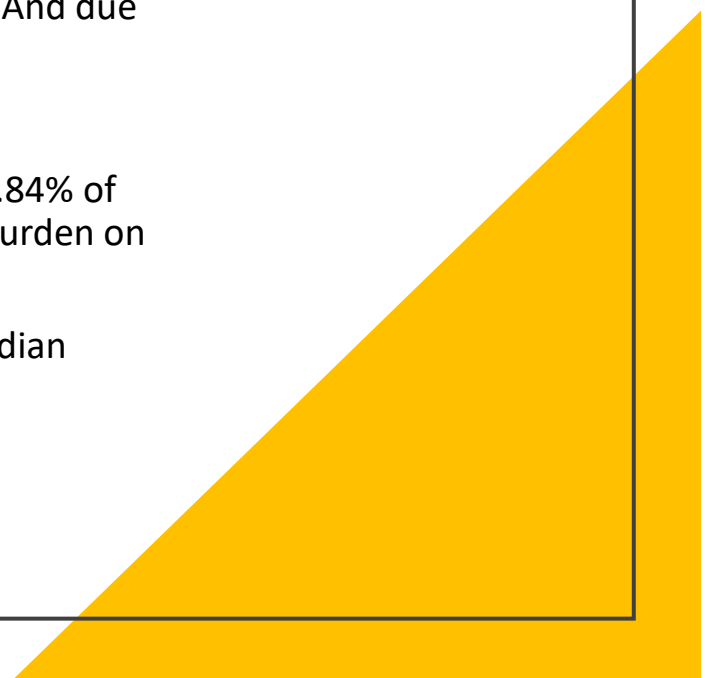
Telemedicine became popular in rural areas, where populations with limited healthcare access could now reach specialists from afar. In the 1960's and 70's, the Public Health Department, NASA, the Department of Defence and the U.S. Health and Human Services Department all invested time and money for research in telemedicine.

Telehealth in India

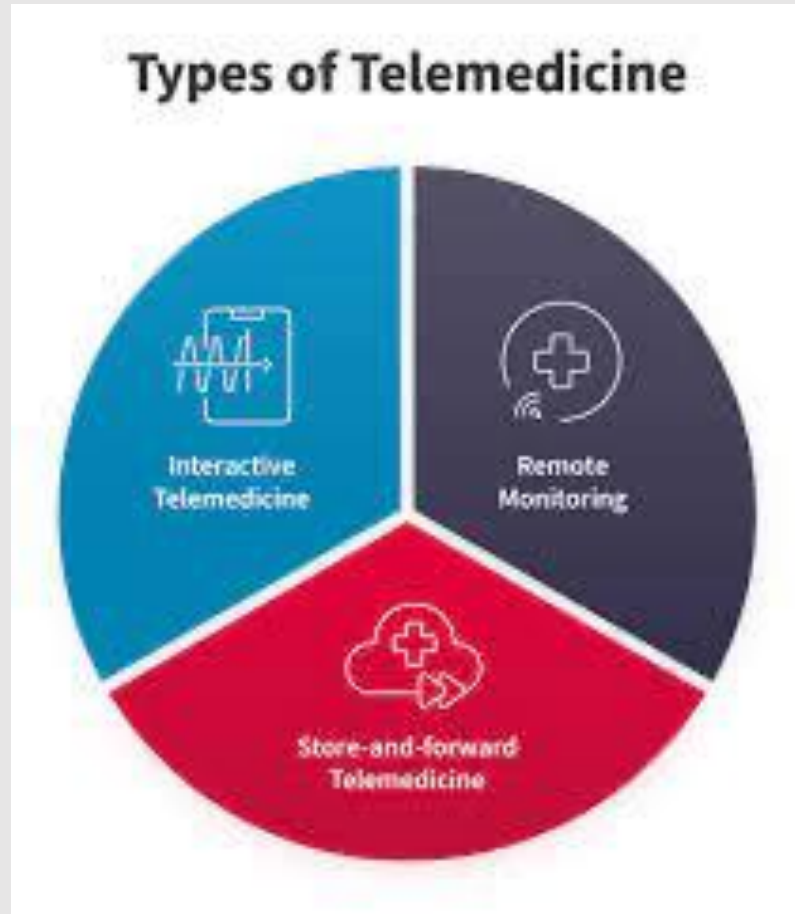
India is the second most populated country in the world with the population of more than 120 crores. The current number of doctors in this country is not adequate to serve this huge population. And due to this fact equal and adequate distribution of healthcare has always been a challenge.

75% of the population of doctors and healthcare facilities are in towns and cities whereas 68.84% of the population of India lives in the rural side. Covid- 19 pandemic also added extraordinary burden on the already hampered healthcare system.

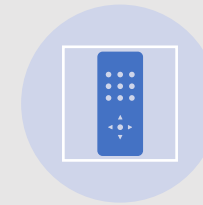
This is where telemedicine can become an important tool in improving the scenario of the Indian health care system



Types of telehealth



STORE-AND-FORWARD
TELEMEDICINE SURPASSES THE NEED FOR THE MEDICAL PRACTITIONER TO MEET IN PERSON WITH A PATIENT. INSTEAD, PATIENT INFORMATION SUCH AS MEDICAL IMAGES OR BIO SIGNALS CAN BE SENT TO THE SPECIALIST AS NEEDED WHEN IT HAS BEEN ACQUIRED FROM THE PATIENT.



REMOTE
MONITORING ALSO KNOWN AS SELF-MONITORING OR SELF-TESTING, USES A RANGE OF TECHNOLOGICAL DEVICES TO MONITOR THE HEALTH AND CLINICAL SIGNS OF A PATIENT REMOTELY



INTERACTIVE
SERVICES CAN PROVIDE IMMEDIATE ADVICE TO PATIENTS WHO REQUIRE MEDICAL ATTENTION.

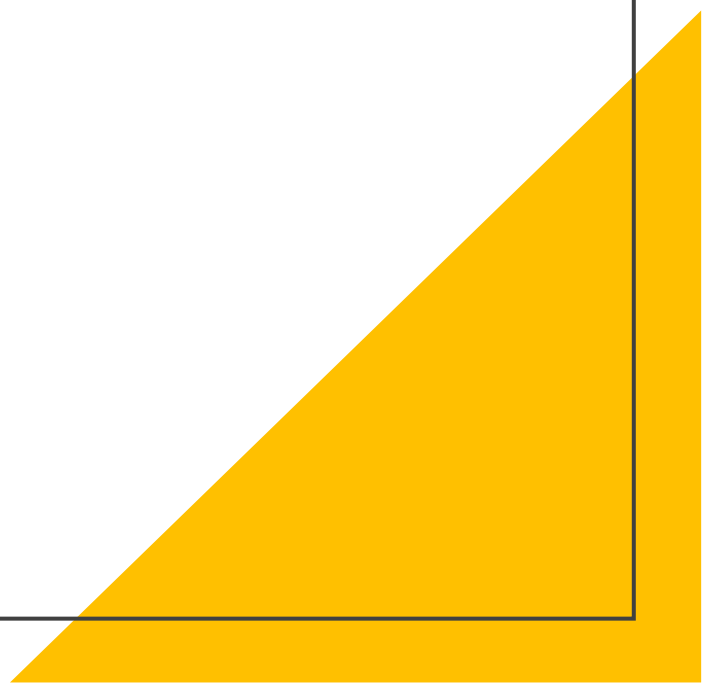
Research Question:

- How vital Telehealth is as a healthcare system, and what are its advantages and disadvantages?

Rationale:

- This study reveals the role of telecommunication in the healthcare industry along with its benefits and disadvantages.

Objectives :

- To study the importance of Telehealth in healthcare.
 - To determine potential benefits and limitations of Telehealth.
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Methodology

The purpose of this study design is to deliver a through summery of all the available primary research in response to the mentioned research question. This review will be using information from all pre-existing researches or also known as 'secondary research'.

Contd.

- Eligibility criteria –

Study articles are taken only when they clearly scrutinize the role of telemedicine in the health care system as well as mentioned its benefits and disadvantages. Articles and studies only in English language has been taken into consideration.

- Data Sources and Searches –

Different articles and studies have been searched and evaluated with the help of a google search engine using keywords such as “telemedicine”, “telehealth”, “tele-consultation, e-health”.

- Study selection –

In selecting articles for this study purpose, several articles related to telehealth have been read and relevant articles with full text has been taken into consideration. Duplicate articles has been eliminated.

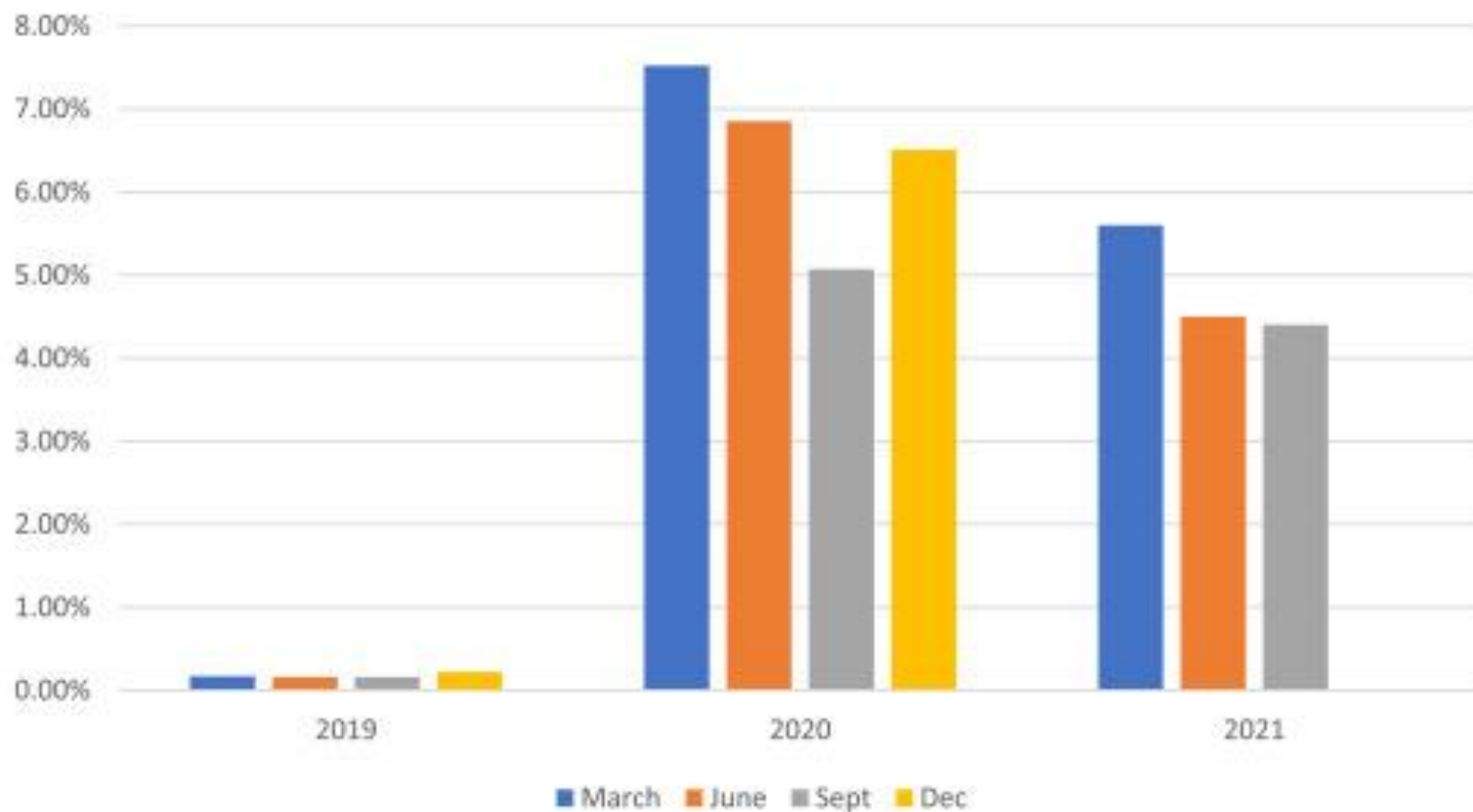
Review And Discussion

Telehealth before Covid- 19

- When a lot of people get sick, they go to the doctor's office instead of going in for a video visit.
- Part of the reason has been the limited coverage of visual consultation. In a 2019 study, 77% of physicians cited uncertainty about compensation as one of the major barriers to widespread telehealth adoption.
- Medicare, for example, had strict rules when it came to telehealth recovery. Patients had to stay in a designated rural area and go to a special place to telephone them. Although it helped patients reach out to specialists who may not be able to see them, they still had to travel - sometimes for miles - to receive care.
- Some providers were reluctant to accept telehealth, fearing that it would be unreliable or would jeopardize their goal. And while many patients who tried telehealth liked it, technology was not widespread enough to attract more than 11% of consumers by 2019.

Telehealth During Covid- 19

- All of that changed when the Covid-19 struck. Private medical facilities and procedures were closed, and no one knew when they would be able to reopen. In response, the CARES Act expanded the inclusion of Medicare telehealth, which was a turning point in virtual care. Providers can ultimately collect Medicare refunds for home-based telehealth visits.
- Health systems quickly developed new telehealth solutions or expanded existing programs to ensure continuous care for their patients. Surprisingly, approximately 1.3 million Medicare beneficiaries received care approximately the week ending April 18, 2020, compared to just 11,000 visits the week ending March 7 ,days before the epidemic limits were set.

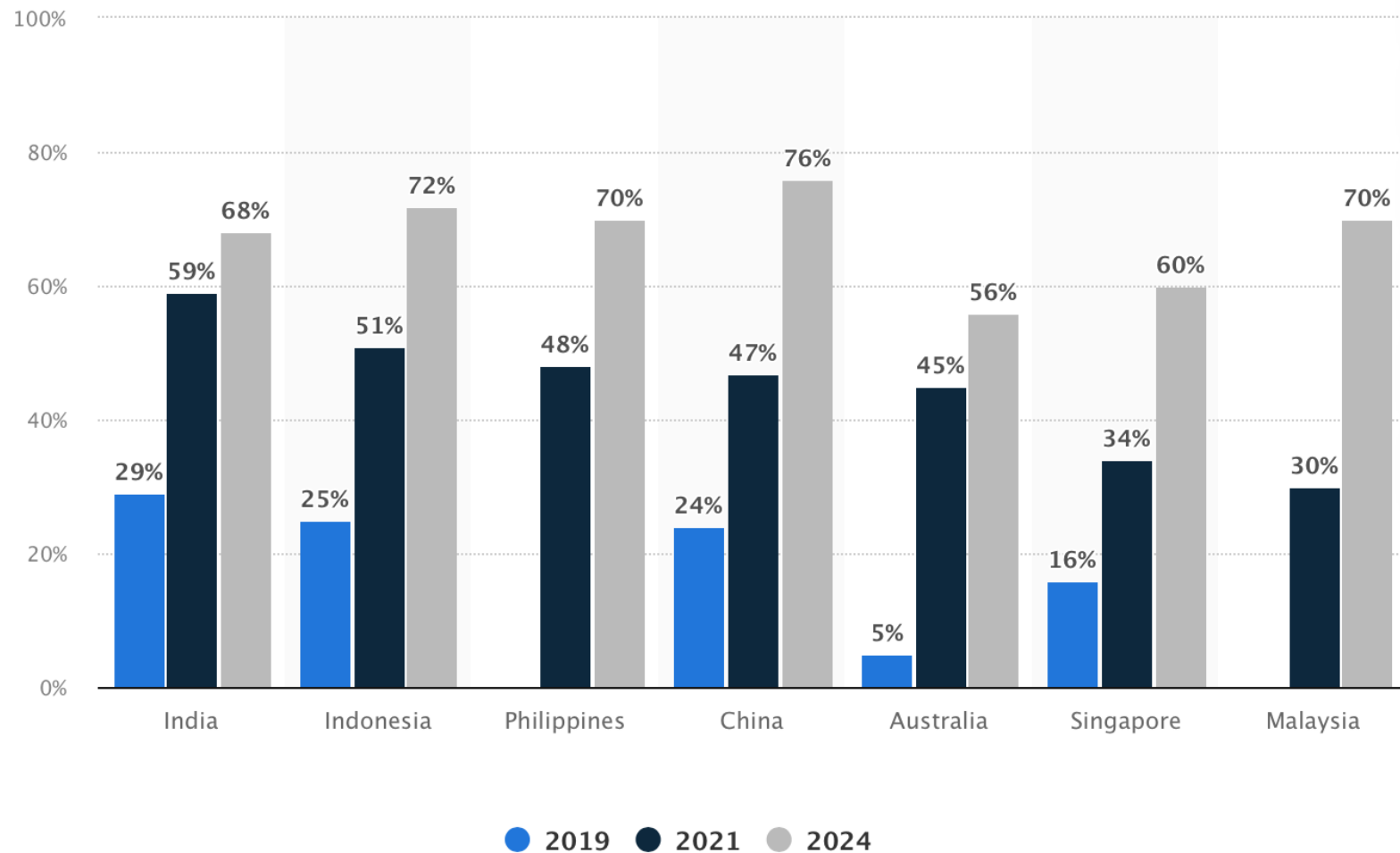


Percentage of telehealth usage before and during Covid-19 in U.S.

Telehealth after Covid-19

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The demand for telehealth will only grow. Telehealth consumer sales tripled from 11% in 2019 to 46% from April 2020, with Frost & Sullivan predicting the health market will see a sevenfold growth rate by 2025



Country
wise
telehealth
adoption
rate

Telehealth in India

- With the telemedicine operating guidelines published by the government on March 25, 2020, authorizing the practice, the market has focused on providing quality services at reduced costs, to help India jump from a provider-centric volume-based model to a patient-centric value-based model.
- What makes this section truly impressive is its strong resilience to tackling the major health challenges that have plagued India for decades. According to a 2019 study by the Centre for Disease Dynamics, Economics & Policy, India has a shortage of 600,000 doctors and 2 million nurses, a gap the telehealth intends to combat

Benefits and Barriers

Benefits

- Provides better health care services to the community.
- Keeps patients at facility, rather than transferring them out for specialized provider care.
- Retains revenues for providing care to the local community.
- Shows the community that its local hospital provides access to leading edge technology and services.
- Demonstrates effective hospital stewardship.
- Reduces out of pocket expenditure
- Maintain social distancing.
- Lesser manpower required.

Barriers

- Lack of access to technology.
- Lack of digital literacy.
- Lack of access to broadband/internet.
- Preference for in-person visits.
- Lack of access to data access.
- Lack of awareness and understanding of telehealth offerings.
- Lack of awareness and understanding of insurance coverage for telehealth.
- Lack of health insurance.
- Lack of access to community-based resources.

Conclusion.

Although major technological advances are being made throughout the world, further research needs to be completed to identify all the technological opportunities that can be offered. Specifically, how will this communication technology be used in the health care system and what are the associated consequences? How do such initiatives take place in communities whose people do not have access to the internet or cell phones? Telehealth and its various technologies are a new and evolving approach to health care. Telehealth will continue to play a major role in a hybrid model of care that emphasizes treating patients where and how they prefer at home, on the go, or in person. With this shift, the industry will reduce costs, waste fewer resources, increase access to care, and improve patient outcomes.

Thank you.

