A venture of My **Family First Healthtech pvt ltd**

Dissertations

My Family First Healthtech Pvt Ltd

Date: (March 15th to June 15th, 2022)

A Report

By

Rishabh Balyani

Post-graduate Diploma in Hospital and Health Management 2020-2022

International Institute of Health Management Research, New Delhi

DESH CLINIC
Digitally Enabled Smart Health Clinic

भारत की अपनी इंटीग्रेटेड टेली स्वास्थ्य सेवा

Health Line No. 093135 33339

FAMILYFIRST

The certificate is awarded to

Rishabh Balyani

in recognition of having successfully completed his/her Internship in the department of

Operations

and has successfully completed his/her Project on

To understand the challenges faced in introduction to telemedicine in rural India.

Date: 30/04/2022

My Family First Healthtech Pvt Ltd.

He comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning.

We wish him/her all the best for future endeavors.

Ajay Sharma
Co-Founder, Director
Head Of Operations

For My Family First Healthtech Pvt. Ltd.

Director

Annexure F

FEEDBACK FORM

Name of the Student: RISHABH BALYANI

Name of the Organisation in Which Dissertation Has Been Completed:
MY FAMILY FIRST HEALTHTECH PVT LTD

Area of Dissertation: TELEMEDICINE

Attendance: 100%

Objectives achieved: YES

Deliverables: Research findings and feedback to improve current practices of Telemedicine used in Rural Areas

Strengths: Ability to understand root cause, Sincerety, commitment to learn & aspiration to grow.

Suggestions for Improvement: Need to go more deeper in areas of operations.

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

– No –

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

Date: 22/04/2022
Place: DELHI

Rishabh Baliyan
PG/20/057.

Certificate of Approval

The following dissertation titled "To understand the challenges faced in Introduction of Telemedicine in Rural India." at "My Family First Healthtech Pvt. Ltd" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of PGDM (Hospital & Health Management) for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

Dr. Nitish Dogra

Dr. Mani Padma

Dr. B.S. Singh

Dr. A.K. Aggarwal.

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Rishabh Bakyani student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at My family first health face MA Ltd. from 15/2/2022 to 15/05/2022

The Candidate has successfully carried out the study designated to him during dissertation training and his/her approach to the study has been sincere, scientific and analytical.
The Internship is in fulfillment of the course requirements.

I wish him all success in all his/her future endeavors.

21/6/2022

Dr. Sumesh Kumar
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi

Mentor
IIHMR, New Delhi

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CERTIFICATE ON PLAGIARISM CHECK

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Name of Guide/Supervisor	Dr./ Prof.:		
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I would like to convey my heartiest thanks to respectful **Dr. Harshita Surange (Director MFF, Head of Clinical Operations),** who guided me, keep guided me on the correct path, and allowed me to carry out my project and at their esteemed during the training.

Last but not the least; I would like to thank all the department heads and the staff for their co-operation.

TABLE OF CONTENT

ACRONYMS AND ABBREVIATIONS

- DESH- Digitally Enabled Smart Health Clinics
- GP- General Practioners
- MP- Madhya Pradesh
- UP- Uttar Pradesh
- POC- Point of Care
- Iot- Internet of Things
- EMR- Electronic Medical Records
- HER- Electronic Health Records
- HIPAA- Health Insurance Portability and Accountability Act

OVERVIEW OF DESH CLINICS

Founding Team

Dr. (Maj) Harshita Surange
Co-founder, CEO, Clinical Head

MBBS, DMRD (Army Hospital), DIP MSK Ultrasound (Spain) Faculty & Executive Member, Musculoskeletal Ultrasound Society

Dr. (Maj) Pankaj Surange
Co-founder, Academic Head

MBBS, MD Anaesthesiology, FIPP (Hungary) FIAPM, AMPH Sitting General Secretary, Indian Society for Study of Pain

Ajay Sharma
Co-founder, COO, Operations Head

LLB (DU), PGHRM (NPC), Masters in Psychology (DU), Specialist in Coginitive behaviour Therapy, Founder Global Council for development of Consulting Professionals.

A solution for Semi-urban & Rural Healthcare

Through its tele-consultation app initiative, My Family First has a panel of highly experienced doctors from diverse specialities, high end diagnostic centres, pharmacists and other healthcare service providers.

My Family First now intends to use this built up and continuously building pool of resources to provide high quality healthcare services to Tier-3 / 4 and Rural India through its **DESH Clinics** (Digitally Enabled Smart Health Clinics) with deployment of emerging technologies including IoT based PoC devices.

Promoting, Developing & Engaging Technology Based Healthcare – to strengthen the patient-physician connection, reduce rates of complications of disease and lower the cost of quality healthcare.

Quality Healthcare

Skill Development

Employment Generation

Issues in Rural Healthcare

- Unavailability of Specialist & Super Specialist Doctors
- Over Dependence on Local GPs or Untrained Health Workers
- Falling Prey to Quacks, Inferior Quality of Treatments
- No Facility to seek Second Opinion
- Telemedicine not able to treat properly due to lack of assisted help
- No availability of Reliable Diagnostic Services
- Need to travel to T1/T2 cities for better treatment
- Problem of Spurious Medicines

DESH Clinic- A Solution

Through its tele-consultation app initiative, My Family First has a panel of highly experienced doctors from diverse specialities, high end diagnostic centres, pharmacists and other healthcare service providers.

My Family First now intends to use this built up and continuously building pool of resources to provide high quality healthcare services to Tier-3 / 4 and Rural India thru its **DESH Clinics** (Digitally Enabled Smart Health Clinics) with deployment of emerging technologies including IoT based PoC devices.

DESH Clinic Vision

Establishing a chain of **DESH Clinics** connecting the medical services knowledge and infrastructure of metro cities with the rural and Semi-urban India, with a focus on:

Capacity Building: Hiring local talent and training them on metro city standards to enable them to serve quality healthcare in their native region.

Livelihood Generation: Opportunity to local residents with entrepreneurial aspirations to invest and enterprise in the healthcare sector.

Remote Healthcare: Deploying and exploiting high-end technologies in healthcare to provide quality services at a lower cost.

DESH Clinic Ecosystem

Tele-consultation Facility with Specialists & Super Specialist Doctors from Big Cities

Medical Mobile Unit for Consultations & Testing in Villages in 20 km Radius

Home Care Facility for Consultation, Diagnosti & Medicine

In-house Pharmacy with Central Supply of Original High Quality Drugs

Fixed DESH Clinics in Tier-3/4 Cities

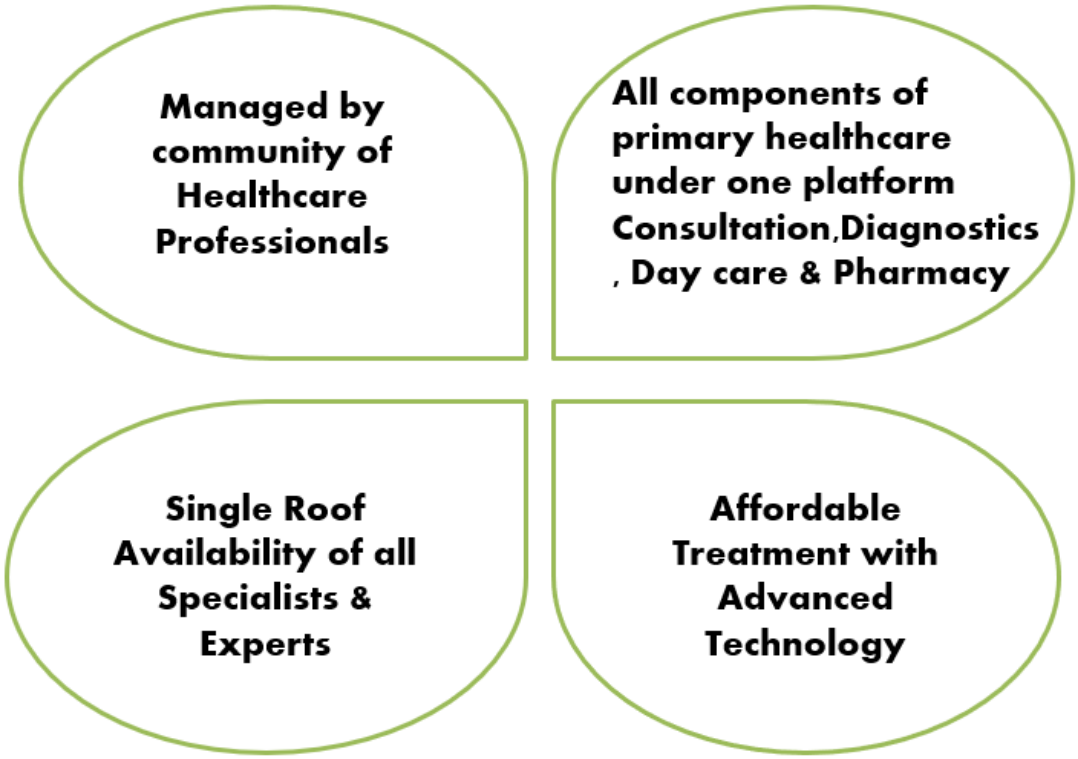
Availability of Quality & High End Diagnostic Services

Assisted Point of Care by Highly Trained Paramedical Staff

Ambulatory Care Facility for Short Treatments

Tie-ups with Nearby Hospitals for Hospitalisation

DESH Clinic Value Proposition



Best Healthcare Franchise Model

- ❑ Opportunity to enterprise into the evergreen ever-growing healthcare business
- ❑ Capex investment from Rs. 10 Thousands- 1 Lakh.
- ❑ Opportunity to improve the quality of health of your local region and simultaneously creating employment opportunity.
- ❑ Opportunity to build an earning stream in a self-sustainable business model with 100% support from the franchisor.
- ❑ Payback period is 18-24 Months

What is Telemedicine?

Telemedicine a term framed in the 1970s, which literally means "healing at a distance". It signifies the use of information communication technology (ICT) to improve patient outcomes by increasing access to care and medical information.

According to WHO telemedicine is defined as "the delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities".

Elements related to telemedicine?

- Telemedicine is the use of medical information exchanged from one treatment site to another via electronic communications.
- It provides clinical support in order to improve health outcomes.
- It overcomes geographical barriers, connecting users who are not in the same physical location such as from rural and remote areas.
- It involves the use of various types of ICTs.
- It is useful in emergency and critical care situations where moving a patient may be undesirable and/ or not feasible.
- It facilitates patients and rural practitioners' access to specialist health services and support.
- It comprises videoconferencing, transmission of still medical images, document sharing, remote monitoring of vital signs.

Need for Telemedicine in rural India

Growing population as well as ageing population is creating a dependency for more service providers and care takers for their healthcare needs. With growing income of the middle class families and growing healthcare expenditure, people are demanding for quality healthcare. With the changing lifestyles and decreased mortality rates, chronic diseases such as diabetes, cardiovascular diseases and cancer are drastically increasing among the

population.2 Nearly 68% of the total deaths occur due to non-communicable diseases globally. Need for continuous monitoring and control of these prevalent diseases is growing among all age groups of the population. These requirements or demands of the healthcare cannot be achieved with the help of the traditional healthcare for which Telehealth is providing the best and promising solution.

Benefits of Telehealth

Telemedicine and telehealth programs benefit several specific rural populations, including rural residents with disabilities, those struggling with substance use disorders and/or mental health conditions, and those with limited English proficiency. It also helps people who are incarcerated, older adults (including the Medicare population), children, veterans, tribal members, and island populations. Finally, it's critical for people living in areas affected by natural disasters who require urgent care.

- Many patients feel uncomfortable to go to hospital or doctor-chamber. This system creates communication among patients & healthcare professionals maintaining convenience & commitment. Moreover, through *Telemedicine* medical information and images are kept confidential and safely transferred from one place to another. So, people can believe this system and feel comfort to seek help from it.
- It saves lives in the emergency situations, while there is no time to take the patient at a hospital.
- In many rural communities or remote places or post-disaster situations, consistent healthcare is unavailable. *Telemedicine* can be applied in such places or situations to provide emergency healthcare.
- This system is useful for the patients residing in inaccessible areas or isolated regions. Patients can receive clinical healthcare from their home without arduous travel to the hospital.
- Modern innovations of information technology such as, mobile collaboration has enabled easy information sharing and discussion about

critical medical cases among healthcare professionals from multiple locations.

- *Telemedicine* has facilitated patient monitoring through computer or tablet or phone technology that has reduced outpatient visits. Now doctors can verify prescription or supervise drug oversight. Furthermore, the home-bound patients can seek medical-help without moving to clinic through ambulance. Thus, cost of health care has been reduced.
- This system also facilitates health education, as the primary level healthcare professionals can observe the working procedure of healthcare-experts in their respective fields and the experts can supervise the works of the novice.
- *Telemedicine* eliminates the possibility of transmitting infectious diseases between patients and healthcare professionals.

How does a Telemedicine Appointment Work?

- A telemedicine appointment is a case of connecting our technology to that of our providers of healthcare.
- Much like a regular appointment, a telemedicine appointment is. You will be seated in front of a camera where you and your provider will be able to see yourself.
- Many telemedicine appointments enable you to register an account to provide the necessary details for the make connection to them. This could be in the form of an app on your smartphone that you can download.
- You are asked to sign in while making an appointment, or you will be asked to build a profile if you are a new patient.
- You should set up your payment plans at this point and add your health insurance details.
- You will also have full control of your own schedule and requirements and can normally book an appointment or plan further in advance for the same day.

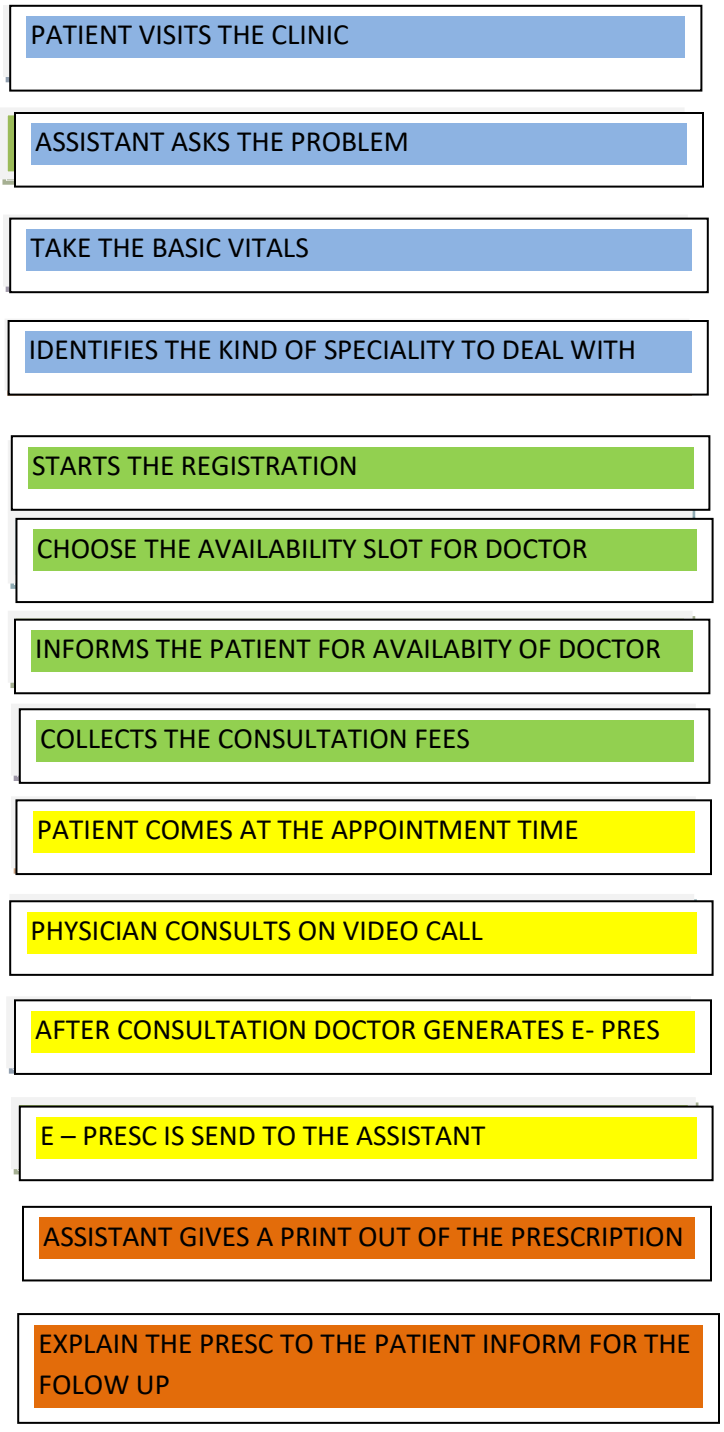
- You will get a call-back from your doctor during your appointment cycle. You are within your allotted appointment time as soon as you connect. When linked, you can now openly chat about any issues you have with your doctor.
- Doctors sometimes have the option to connect you to their video chat, which is ideal for describing any physical problems you have with your doctor.
- Most consultations last 15 minutes or so. The doctor will make a diagnosis and a tailored treatment plan at the conclusion of the appointment and discuss any drugs that might need a prescription.
- This approach has greater advantages for all, including patients than thinking about taking time off work and going through the normal commute like the rest of the globe when you do not feel your best.
- For patients, not only is it healthier, but it also saves time and money. You can save yourself the trouble of going to the doctors' office, and healthcare professionals won't have to use extra resources. Just by opening your laptop, you can get sufficient medical treatment.
- Your health care team will ask you questions and partner with you to create a care plan that provides the same level of care you will receive in a face-to-face appointment.
- It begins with the patient signing up for a service. The patient can speak to their doctor and see what service they are recommending, or through an app or another technical resource, they can look at common services to locate a doctor.
- A session will start once a patient and a physician are paired. Ideally, the interaction would be a video chat so that the doctor can see symptoms as well as connect with the patient. Voice and text contact are also used in restrictive situations.
- The doctor will provide the patient with **direct medical consultation** through whatever means, and then the session will end. Clearly, certain facilities will not be delivered remotely, in which case a referral and connection to a practice that can offer the required treatment would be made by the doctor.
- Under **HIPAA Guidelines,** telemedicine appointments are covered. Physicians are also responsible for the treatment they provide through

telemedicine appointments. Remote physician visits are treated the same as in-person appointments in any way possible.

How Does Telemedicine works?

- You can easily sign in online with a smartphone, tablet, or computer when it's time for your appointment, instead of going to a doctor's office, checking in at the reception, and sitting in a waiting room.
- For a virtual visit in the form of a video call, the doctor can connect with you.
- After the appointment, based on their evaluation of your condition, the doctor will make a recommendation. During a virtual visit, some physicians may be able to prescribe drugs. If you require regular treatment, they may also set up a potential appointment for you whether that's another virtual appointment as a follow-up or an office visit for a physical examination.

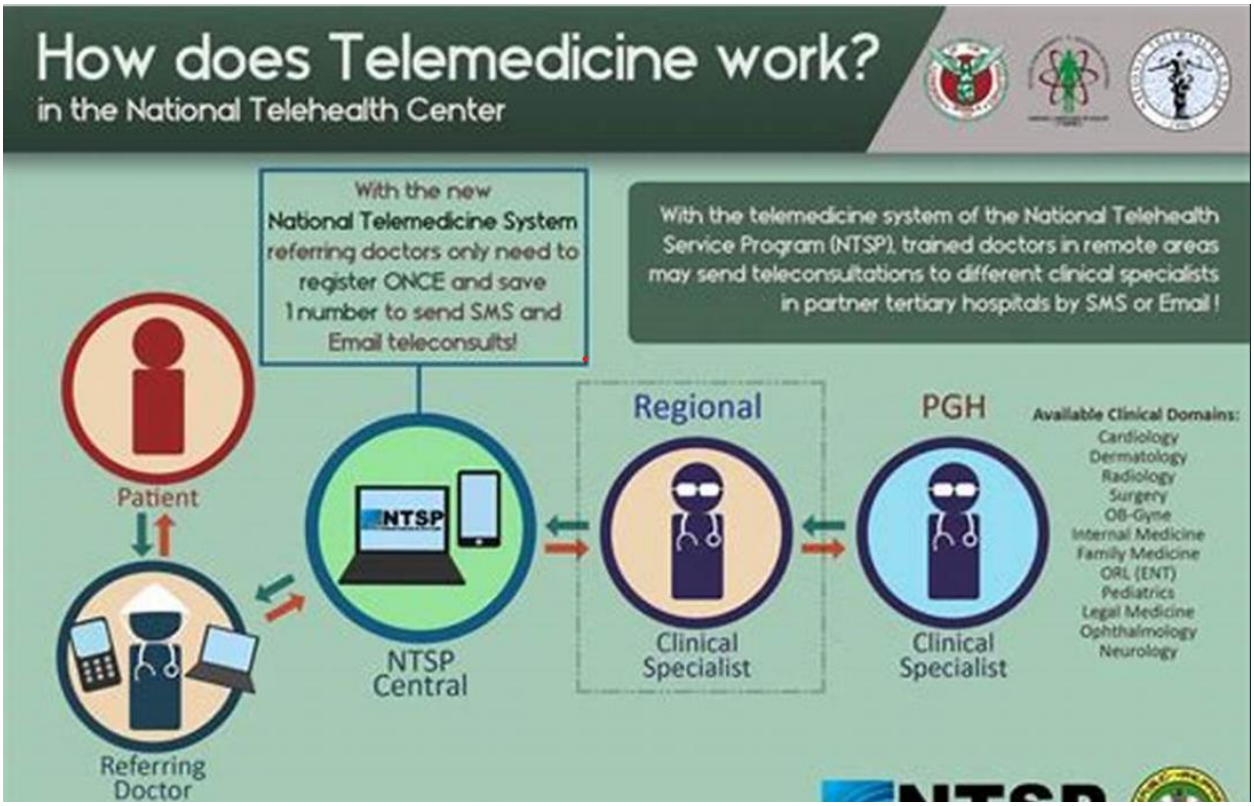
Flowchart of Telemedicine process in DESH Clinics



Successful Telemedicine appointment Tips:-

Before the beginning of your telemedicine appointment:

- Ensure that your camera is switched on and that your device is charged.
- Enable the sound so you can hear your provider and you can be heard by your provider.
- Enable Hale, when prompted at the start of your video visit, to access these features.
- Prior to the start of your appointment, please also have any prescription and over-the-counter medicine available for examination.
- We also recommend keeping your primary care provider's clinic phone number on hand in case you need assistance.



REPORT

To understand the challenges faced in introduction to telemedicine in rural India.

INTRODUCTION

In a creating nation like India, health-care dispersion is amazingly unequal. In spite of the truth that over 75% of Indians live in country communities, more than 75% of Indian specialists work in cities. The larger part of India's 620 million rustic inhabitants need get to to essential wellbeing care. The Indian government spends as it were 0.9 percent of its yearly GDP on wellbeing, and as it were a little parcel of that cash comes to farther rustic regions. The inadequately framework of country wellbeing teach makes it inconceivable to preserve specialists in towns, who accept that being positioned in farther places confines and obsoletes them professionally. Furthermore, destitute Indian laborers spend the lion's share of their out-of-pocket therapeutic costs on travel to metropolitan pro hospitals and lodging staying within the city along side their escorts. Concurring to a later investigate by the Indian Founded of Open Conclusion, 89 percent of provincial Indian patients must travel generally 8 kilometers to get essential medications.
To bridge the hole between country populace, to supply them with the leading healthcare offices, telemedicine is the finest arrangement to fill this hole. By this way the provincial zones not as it were get the reasonable treatment at their farther zones, they too gets the total point of care and get to to healthcare at their home.

LITERATURE REVIEW

Villages are home to 60% of India's population, whereas cities are home to 80% of the country's health-care services. The rural Indian population is reliant on a Primary Health Center (PHC) that is ill-equipped to manage complex

services. India The Tata Council for Community Initiatives and the Tata Council for Telemedicine collaborated to launch telemedicine in Pune (TCCI). Telemedicine systems in India are primarily designed to provide services at a low cost using existing telecommunications infrastructure. Telemedicine is thought to be the answer to closing the gap in health-care services between the rich and the poor. There are now 550 telemedicine units in India's suburbs and rural areas, with specialists from 70 tertiary care hospitals available for telemedicine consultation. 500,000 teleconsultations have aided in the identification of numerous technological difficulties for which corrective measures were taken.

Utilizing Google look motors, Web of Science, and Medline, a writing look was conducted on different viewpoints of telemedicine in India, counting government-sponsored ventures, health-care exercises, academic distributions, and hierarchical exercises. The obtained information was gathered, dissected, and incorporated.

OBJECTIVES

- To find out the reasons why rural population is unable to accept the telemedicine.
- To find suitable ways to implement the telemedicine in rural population of India.
- Highlight Rural Telehealth requirements in India
- To explore the digital telehealth solutions for rural India.

METHODOLOGY

Till now there are 40 telemedicine clinics setup by DESH Clinics in states of Madhya Pradesh , Bihar, Uttar Pradesh And Jharkhand. A video conference survey was done with these 40 clinic owners individually in which they were asked about the challenges they are facing to implement

the telemedicine infrastructure and the reasons of unacceptability in their areas.

STUDY DESIGN

Exploratory Study

MODE OF DATA COLLECTION AND ANALYSIS

- Data Sources: Clinics opened by DESH Clinic in the states of MP, UP, Bihar, Jharkhand.
- Search Terms: Telemedicine, Telemedicine Kit, Remote Challenges, Patient portal.
- Reasons of unacceptability to telemedicine were asked from the clinic owners who has taken the franchisee from DESH Clinics were studied and analysis was done in MS-Excel.

Following are the few reasons which were most common in all these 4 states.

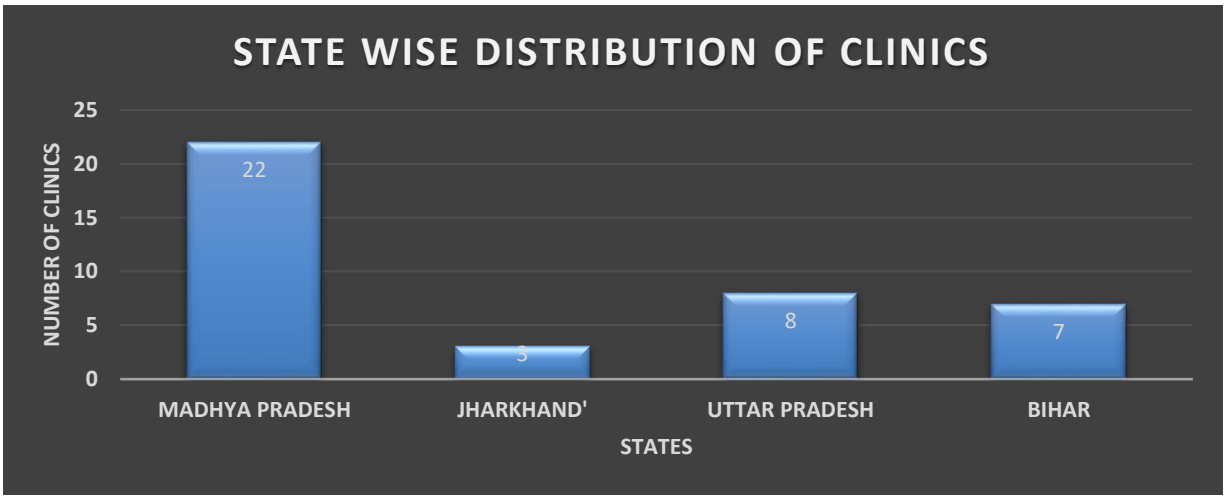
1. **Lack Of Trust**- The rural population still has a lack of trust in telemedicine, as they still believe that the physical appearance of the physician in must needed to get the treatment.
2. **Internet connectivity** – Few of these areas still does not have a proper internet broadband connectivity in these areas, due to which the patient is unable to connect with the doctors.
3. **High dependence on local RMPs**- This is one of the most common reason that is being found that the local RMPs in the remote areas have a powerful influence on people residing there. People believes that the RMPs do the best treatment. An RMP is a **village doctor who practices modern (allopathic) medicines without any formal registration/ approval or legal sanction**.
4. **Medicine Unavailability**- This is one of the reason for non-implementation of telemedicine and one of the great challenges faced by

these people. After the consultation being done the medicines prescribed by the doctors are unavailable in these areas. Generally a qualified doctor prescribes the branded drugs which are not available in their areas and the people are not getting the proper treatment.

5. **Diagnostics issue**- It is also one of the challenge that lack of proper diagnosis due to unavailability of diagnostic centres and equipments, lot of people face difficulties in getting the proper treatment of different specialist.
6. **Lack of Awareness:-** Lack of awareness among the patients is the largest challenge of telemedicine. If the Patients are not aware of telemedicine then this will not get used. Most people still have no idea that they have an option to talk or chat with the providers through telemedicine. Awareness is the big problem.

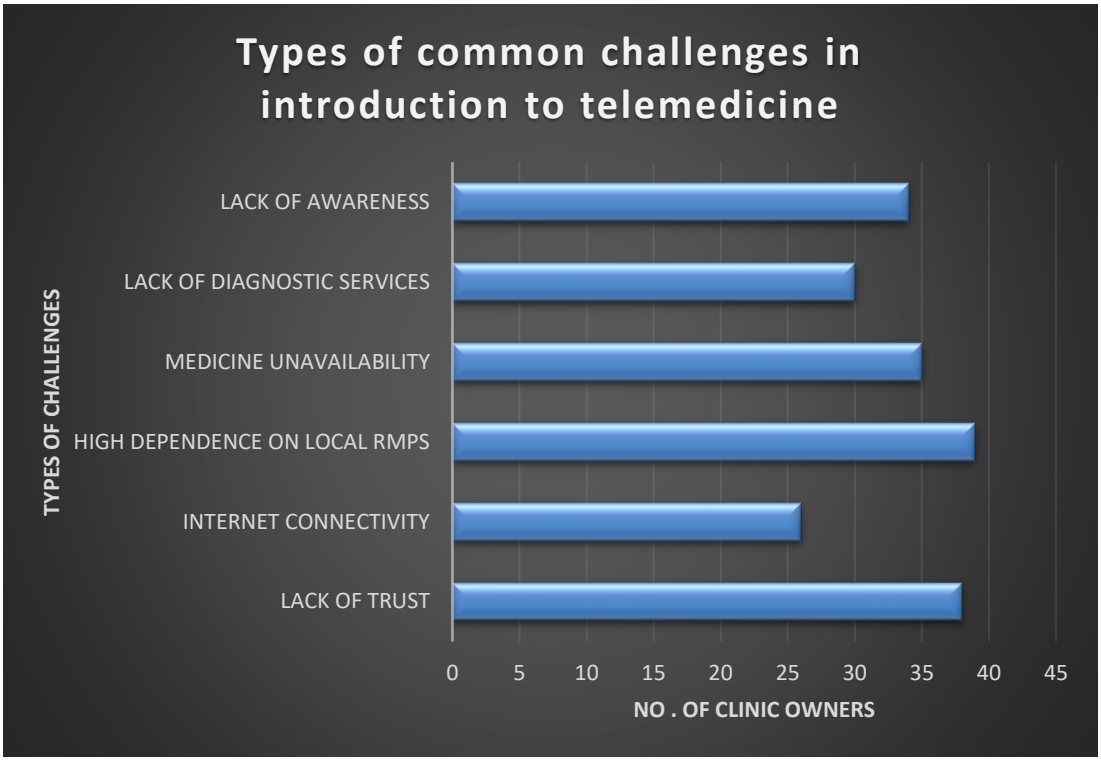
State wise distribution of Clinics

SNO	STATE	NO. OF CLINICS
1	MADHYA PRADESH	22
2	JHARKHAND'	3
3	UTTAR PRADESH	8
4	BIHAR	7



Common challenges faced in introduction to telemedicine in rural Area

Major Challenges in introduction to telemedicine	No. of Clinic Owners
LACK OF TRUST	38
INTERNET CONNECTIVITY	26
HIGH DEPENDENCE ON LOCAL RMPS	39
MEDICINE UNAVAILABILITY	35
LACK OF DIAGNOSTIC SERVICES	30
LACK OF AWARENESS	34

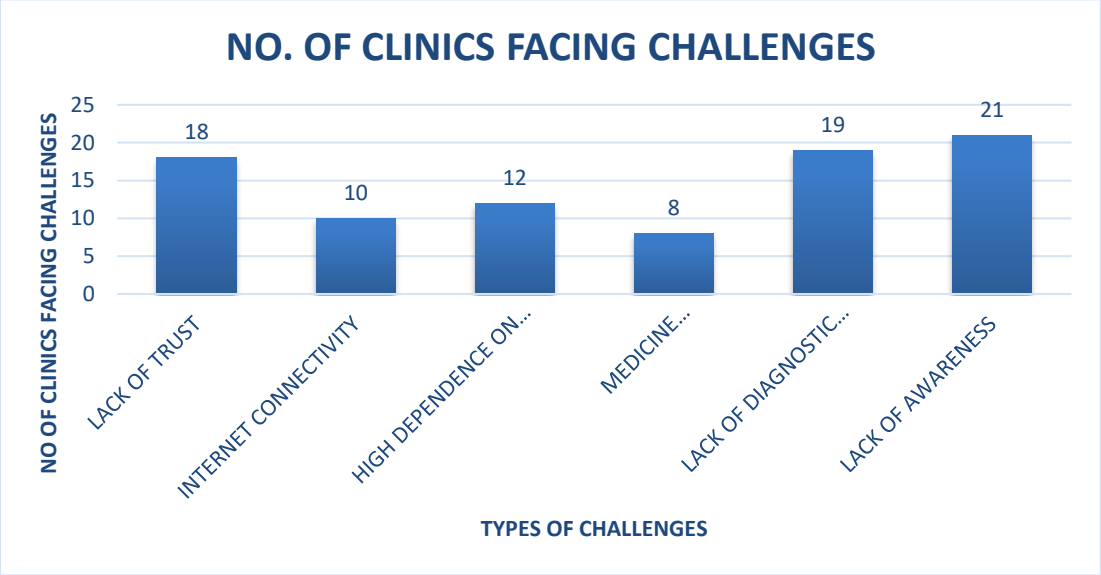


Out of 40 total DESH Clinics in Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh

1. 38 clinics reported the lack of trust issue with telemedicine which is 95% of total clinic.
2. 26 clinics reported that the internet connectivity issues that is 65% of total in these areas.
3. 99% people are still dependent on local RMPs.
4. 75% of clinics faced the the problem of lack of diagnostic services in their areas.
5. Still 85% of the total population in these areas are not aware about telemedicine consultations.
6. 75% of the clinic owners reported that the medicine prescribed by the physicians are unavailable in their areas.

Challenges faced by clinics in Madhya Pradesh

TYPES OF CHALLENGES FACED IN MP	NO. OF CLINICS FACING CHALLENGES
LACK OF TRUST	18
INTERNET CONNECTIVITY	10
HIGH DEPENDENCE ON LOCAL RMPS	12
MEDICINE UNAVAILABILITY	8
LACK OF DIAGNOSTIC SERVICES	19
LACK OF AWARENESS	21



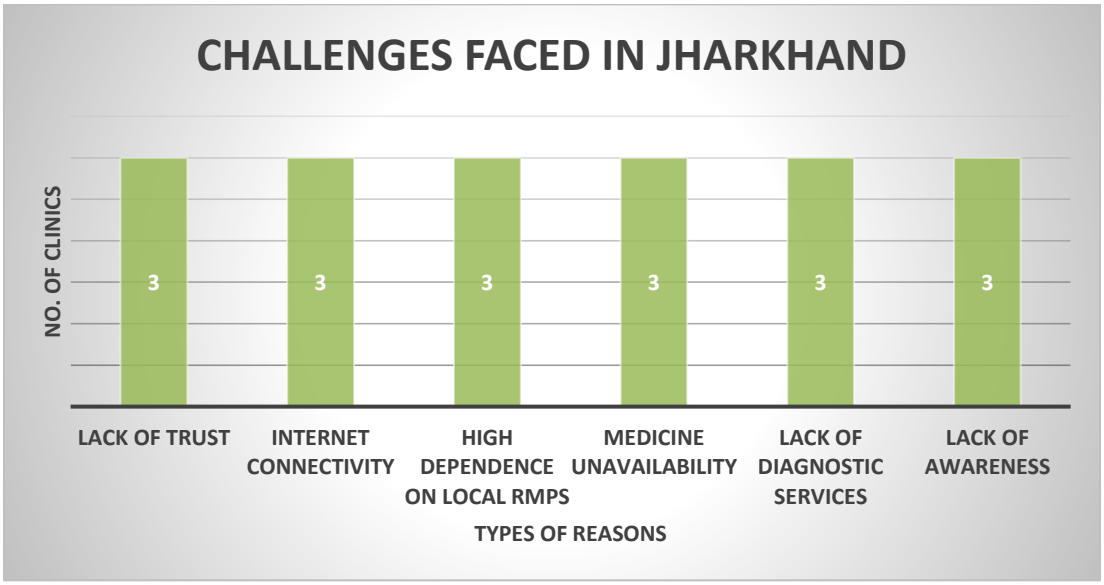
Out of 22 total DESH Clinics in Madhya Pradesh

1. 18 clinics reported the lack of trust issue with telemedicine which is 81% of total clinic.
2. 10 clinics reported that the internet connectivity issues that is 45% of total in these areas.
3. 55% people are still dependent on local RMPs.
4. 86% of clinics faced the the problem of lack of diagnostic services in their areas.
5. Still 95% of the total population in these areas are not aware about telemedicine consultations.

6. 36% of the clinic owners reported that the medicine prescribed by the physicians are unavailable in their areas.

Challenges faced by clinics in Jharkhand

TYPES OF CHALLENGES FACED IN JHARKHAND	NO. OF CLINICS FACING CHALLENGES
LACK OF TRUST	3
INTERNET CONNECTIVITY	3
HIGH DEPENDENCE ON LOCAL RMPS	3
MEDICINE UNAVAILABILITY	3
LACK OF DIAGNOSTIC SERVICES	3
LACK OF AWARENESS	3



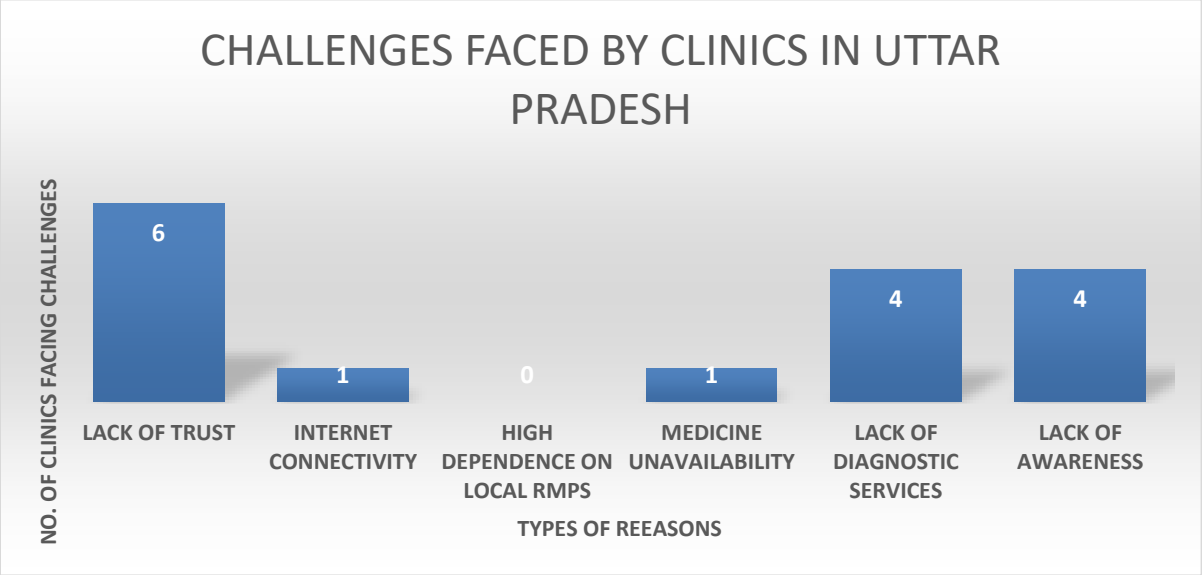
Out of 3 total DESH Clinics in Jharkhand

1. 3 clinics reported the lack of trust issue with telemedicine which is 100% of total clinic.
2. 3 clinics reported that the internet connectivity issues that is 100% of total in these areas.
3. 100% people are still dependent on local RMPs.
4. 100% of clinics faced the the problem of lack of diagnostic services in their areas.

5. Still 100% of the total population in these areas are not aware about telemedicine consultations.
6. 100% of the clinic owners reported that the medicine prescribed by the physicians are unavailable in their areas.

Challenges faced by clinics in Uttar Pradesh

TYPES OF CHALLENGES FACED IN UTTAR PRADESH	NO. OF CLINICS FACING CHALLENGES
LACK OF TRUST	6
INTERNET CONNECTIVITY	1
HIGH DEPENDENCE ON LOCAL RMPS	0
MEDICINE UNAVAILABILITY	1
LACK OF DIAGNOSTIC SERVICES	4
LACK OF AWARENESS	4



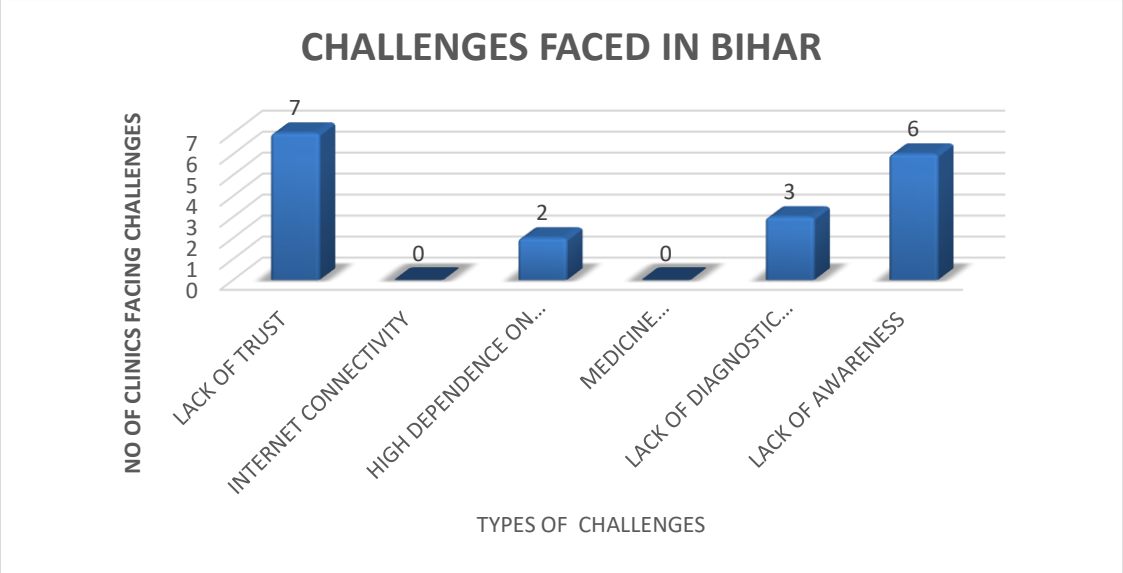
Out of 8 total DESH Clinics in Uttar Pradesh

1. 6 clinics reported the lack of trust issue with telemedicine which is 75% of total clinic.
2. 1 clinic reported that the internet connectivity issues that is
3. No people are dependent on local RMPs in these areas.

4. 50% of clinics faced the the problem of lack of diagnostic services in their areas.
5. Still 50% of the total population in these areas are not aware about telemedicine consultations.
6. 10% of the clinic owners reported that the medicine prescribed by the physicians are unavailable in their areas.

Challenges faced by Clinics in Bihar.

TYPES OF CHALLENGES FACED IN BIHAR	NO. OF CLINICS FACING CHALLENGES
LACK OF TRUST	7
INTERNET CONNECTIVITY	0
HIGH DEPENDENCE ON LOCAL RMPS	2
MEDICINE UNAVAILABILITY	0
LACK OF DIAGNOSTIC SERVICES	3
LACK OF AWARENESS	6



Out of 7 total DESH Clinics in Bihar

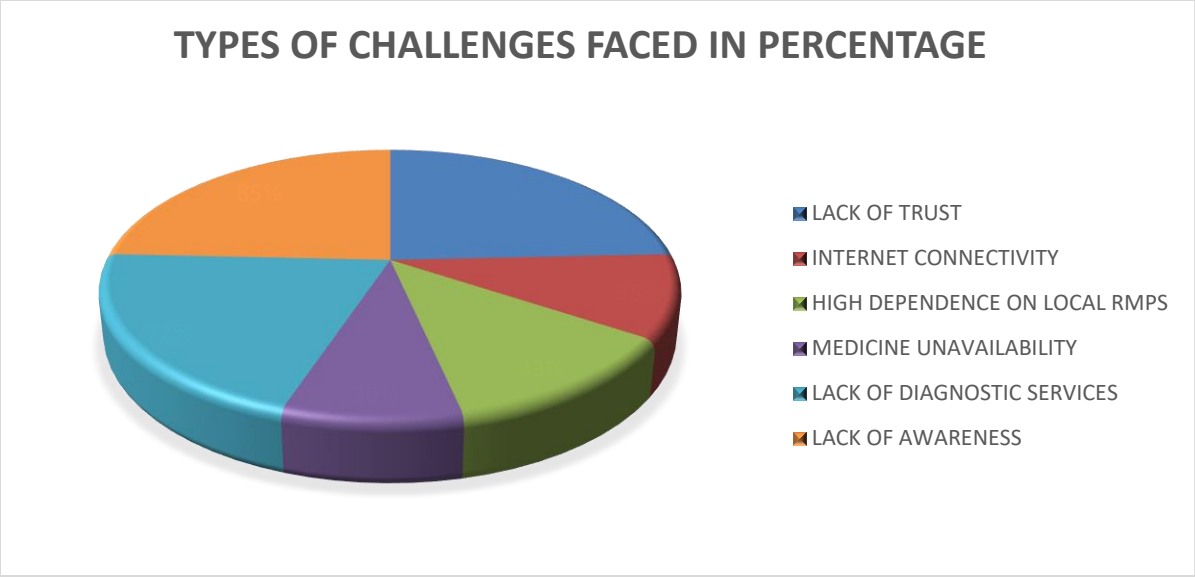
1. 7 clinics reported the lack of trust issue with telemedicine which is 96% of total clinic.
2. There is no issue related with internet connectivity in Bihar.
3. 28% people are still dependent on local RMPs.

4. 38% of clinics faced the the problem of lack of diagnostic services in their areas.
5. Still 85% of the total population in these areas are not aware about telemedicine consultations.
6. There is no issue related with medicine availability.

RESULTS AND FINDINGS

It has been found that there are few particular reasons which are common in these above clinics of different states facing the challenges in the introduction and implementation of telemedicine in these rural areas.

1. 85% of clinics reported the lack of trust issue with telemedicine.
2. 35% reported that the internet connectivity issues.
3. 43% people are still dependent on local RMPs.
4. 72% of clinics faced the the problem of lack of diagnostic services in their areas.
5. Still 85% of the total population in these areas are not aware about telemedicine consultations.
6. 30% of the clinic owners reported that the medicine prescribed by the physicians are unavailable in their areas.



RECOMMENDATIONS AND CONCLUSIONS

RECOMMEDNATIONS

1. Legitimate preparing of specialists and other healthcare experts to convey telemedicine innovation successfully, counting immensely progressed web services
2. A much higher level of public-private associations related to telemedicine exercises.
3. Creating more cohesive protection approaches and rules for TSI to guarantee that patients feel secure and coordinated telemedicine with the existing healthcare system.
4. Endeavours ought to be made to teach the open approximately the benefits of telemedicine.

SUGGESTIONS FROM THE DIRECTORS

1. **Mr. Ajay Sharma (Director and Head Operations) –**

We're on the verge of expanding, and we've decided to go the franchise route. We want to open 500 DESH clinics by the end of 2023, at a rate of 15-20 new clinics per month. Anyone with qualifications in pharmacy, MLT, GNM, ANM, and trained health professionals can own and operate a DESH clinic for around Rs 2 lakhs. A beginning package for aspiring entrepreneurs has also been published. Anyone with a good consultation area and a smartphone may start a DESH Sehyogi clinic for as little as Rs 5,000. They will eventually be able to update their clinic infrastructure to a higher level.

When patients arrive at a DESH clinic, professional paramedics gather information about their health, enter it into a smartphone app, and arrange for a tele-consultation with a doctor in a metropolitan like Delhi, Mumbai, or Bengaluru. If pathology tests are needed, the paramedic team performs them and sends the results to the doctor for review. The doctor fills the prescription, which is then printed and given to the patient, who can fill it at the clinic's pharmacy or anywhere else.

To bridge the gap between the availability of skilled medical specialists and the demands of rural patients, telemedicine is required in rural areas. There is lots of potential for diverse competitors to provide services in India, which has 6.5 villages. Rural/remote healthcare will benefit from AI-based telehealth solutions. The entire ecology will shift, and we'll go beyond teleconsultation to incorporate remote surgeries and procedures carried out by established high-end gold-standard facilities.

Dr. Harshita Surange (C.E.O) –

"The DESH Clinics concept would give chances and a steady stream of income for small-town entrepreneurs and children." There are also discussions on with certain angel investors and corporate CSR departments that are interested in supporting the cause of expanding healthcare access to the rural population. We're also launching an entrepreneur development programme to help trained health workers. DESH clinics will engage with current healthcare training schools to choose a few students who will be trained further to run their own clinics under this model, as part of their aim to foster capacity building."
DESH Clinics are physical-digital hybrid clinics with all of the necessary physical infrastructure and support systems, as well as smart, linked diagnostic gadgets and an app to help them video/audio consultation with doctors who may be located hundreds of miles away. The company has developed a tailored solution using proof-of-concept devices that can perform nearly all of the essential basic tests on a patient.
India's first integrated telehealth programme is the DESH Clinics. These use digital technology and Internet of Things-based gadgets to connect doctors in cities with patients in the rural hinterland, addressing the problem of a shortage of skilled doctors in villages and semi-urban areas. Patients can receive the greatest medical advice at cheap pricing directly at their doorsteps, eliminating the need to go to cities.

CONCLUSIONS

Telemedicine may demonstrate to be the foremost cost-effective and time-efficient strategy of bridging the rural–urban wellbeing separate. Telemedicine might help provide specialised treatment to the foremost remote parts of India, given India's critical progressions within the domain of data and communication technology. The Indian Space Investigate Organization (ISRO) has built a organize that interfaces 22 super-specialty clinics with 78 provincial and far off clinics over the nation by means of geo-stationary satellites, illustrating the value of telemedicine. Thousands of patients in inaccessible zones such as Jammu and Kashmir, the Andaman and Nicobar Islands, the Lakshadweep Islands, and tribal parts of India's central and northeastern locales have profited from this arrange with specialists in super-specialty medical institutions. ISRO has moreover associated versatile telemedicine gadgets in towns, particularly within the areas of community wellbeing and ophthalmology. India's telemedicine extend has not been without India's telemedicine project has not been without its difficulties and controversies. With the presentation of modern frameworks and innovation, there are bound to be challenges. A few individuals are excessively concerned almost losing their occupations. In spite of the truth that the frameworks are user-friendly, a few individuals are perplexed of the obscure when it comes to utilizing computers and other innovation.

There's a perception that the primary consumption is restrictively costly and so unrewarding. There may too be mechanical issues, such as a need of computer program interoperability measures and constrained bandwidth. India's telemedicine exertion offers the potential to reach millions of underprivileged Indians with particular health treatment. In terms of malady administration, there's a 99 percent chance that the individual who is debilitated will not require surgery. We do not have to be touch the patient in case we do not work. We do not got to be there on the off chance that we do not got to touch the understanding. Able to be anyplace since healthcare administration choices are based on a patient's history and elucidation of pictures and channels. So, technically, doctors in a faraway location connected by telemedicine can manage 99 percent of health-care issues.

REFERRENCES

1. #startupoftheday 129- Family First (DESH clinics) (biospectrumindia.com)
2. TeleMedicine in rural India – ReachSharu (wordpress.com)
3. (PDF) ROLE OF TELEMEDICINE IN INDIAN HEALTHCARE SYSTEM | IAEME Publication - Academia.edu
4. (PDF) A case study on Telemedicine practices implemented with respect to Apollo Hospitals (researchgate.net)
5. Current scenario, future possibilities and applicability of telemedicine in hilly and remote areas in India: A review protocol - PMC (nih.gov)
6. Telemedicine in Rural India (plos.org)
7. Challenges of telemedicine (dqindia.com)
8. The Challenges of Telemedicine in India | VCDoctor
9. **https://industrywired.com/health-tech-startup-my-family-first-to-open-500-digitally-enabled-clinics-in-rural-areas/**
10. **http://www.pharmabiz.com/NewsDetails.aspx?aid=145096&sid=1**
11. **www.deshclinic.com**