

EFFECTIVENESS OF TELEMEDICINE IN RURAL INDIA DURING PANDEMIC

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INTRODUCTION

- Telemedicine is the delivery of distant clinical services by real-time two-way contact between a patient and a healthcare professional via electronic audio and video technologies.
- By means of Information and Communication Technology (ICT) healthcare professionals providing services for exchange of information for treatment, diagnosis, prevention of disease & injuries and for education or research.
- India as a developing country, the feasibility of telemedicine acceptance and implementation is growing with positive attitude in an open strategy on infrastructure .

Title:

Effectiveness of
Telemedicine in Rural
India During Pandemic

Aim:

To Increase the Efficacy
of Telemedicine in
Rural India

Objectives:

- Development of an open-source telemedicine platform for medical consultations, collaboration with partners
- Setting up e-clinics in different small regions of rural India to provide better access of healthcare

LITERATURE REVIEW

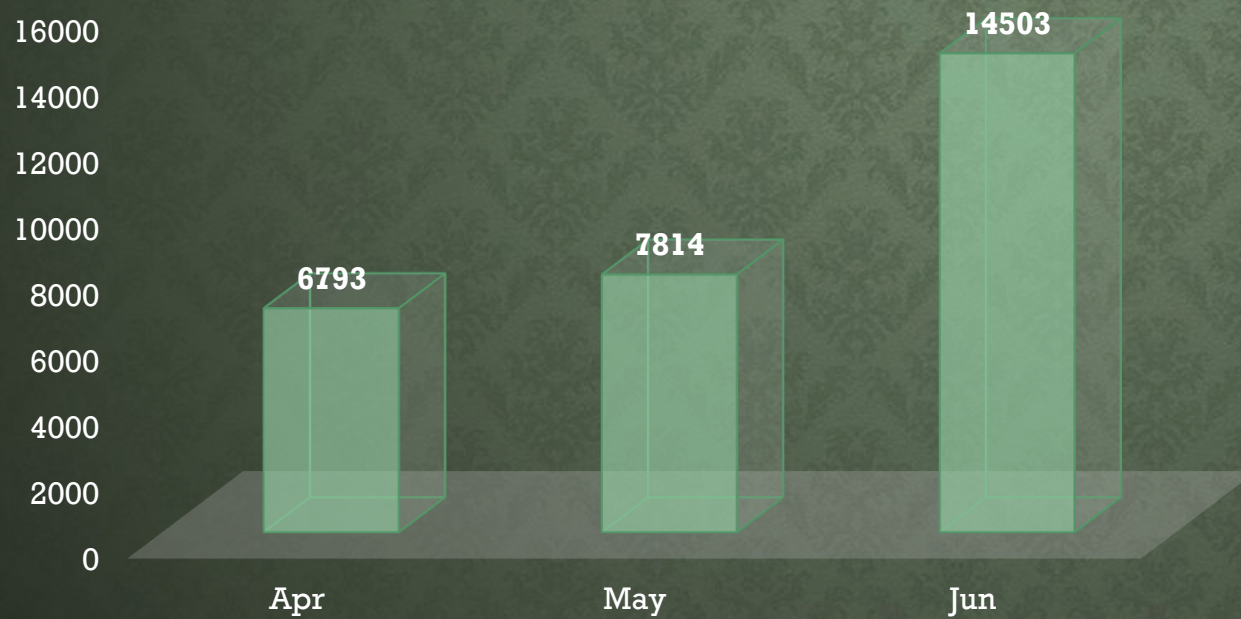
Author	Topic	Year	Research findings/Outcome
Leite et al.	New development: 'Healing at a Distance – Telemedicine and COVID-19	2020	- Places an emphasis on enhancing the telemedicine service. - Illustrates how telemedicine and other e-health care technologies can assist clinicians, medical staffs, and healthcare systems. - One of the key issues is the lack of rules & regulations in many countries. (9)
Elham et al.	The Role of Telehealth During COVID-19 Outbreak: A Systematic Review Based on Current Evidence	2020	- Evaluate the impact of telehealth services in illness prevention, diagnosis, control, and treatment in COVID outbreak. - Providing continuous care and avoiding physical contact helped in reducing mortality and morbidity in Pandemic. - Telehealth, an important tool in caring services while keeping patients and health providers safe during COVID-19 outbreak. (10)
Somen et al.	Provision of health services for microfinance clients: Analysis of evidence from India	2011	- A rising number of MFIs in India realise the social benefits of public including health as part of their portfolio. - One out of every four microfinance institutions provide health services. Small-scale health awareness campaigns to complicated health interventions are all part of these programmes. - Health education (58%) is the most common health intervention offered by MFIs, followed by health camps (24%), and health insurance (24%).

METHODOLOGY

- **Study Design:** Exploratory and observational study
- **Type of Data:** Secondary Data
- **Sample Size:** Approximately 29000
- **Duration of Study:** 3 months
- **Study Population:** All the user who are availing telemedicine facility through M-Insure company
- **Data Collection and Analysis Process:** Data was taken from M-Insure repository, only after all permissions and consent regarding the privacy of company is granted. Convenience Sampling is used. The collected data then compiled and analyzed by using Pivot tables & charts in Microsoft Excel.

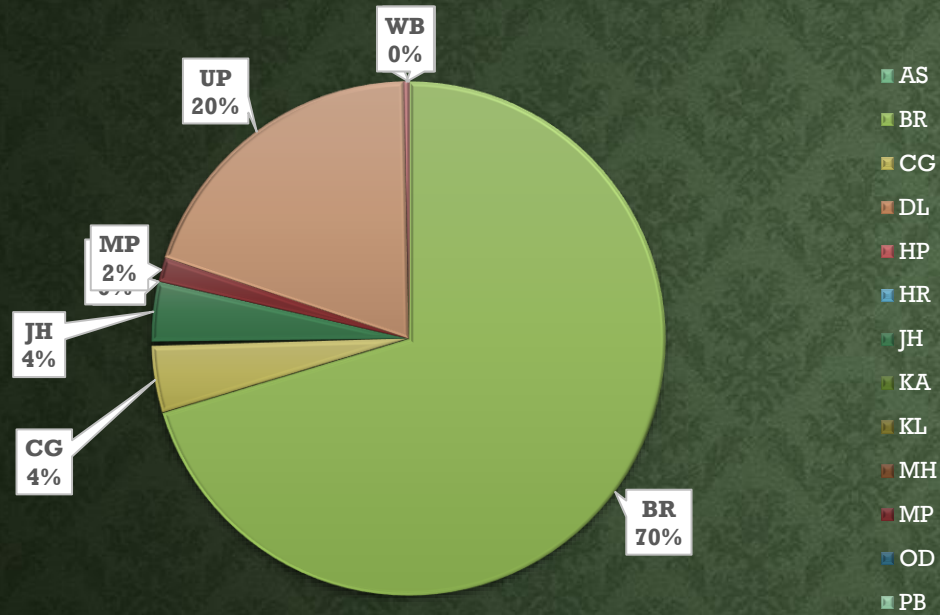
RESULTS

Total Count of Consultation

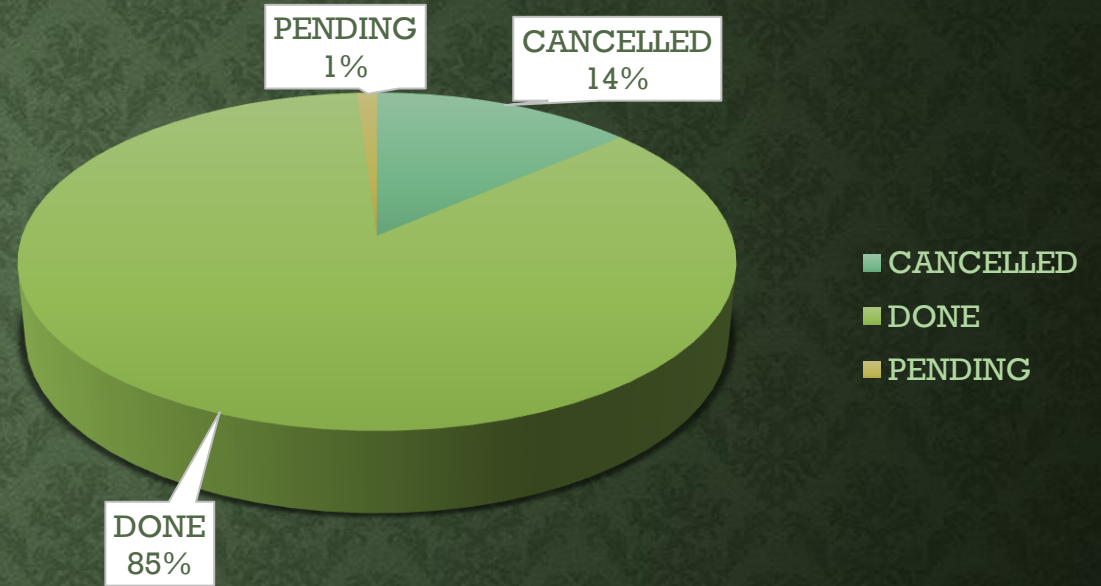


Graph depicts the total number of consultations done in the months of April, May and June. Drastic change in consultation in the month of June has been noticed as 350 E-clinics were launched.

State-wise Consultation in Percentage



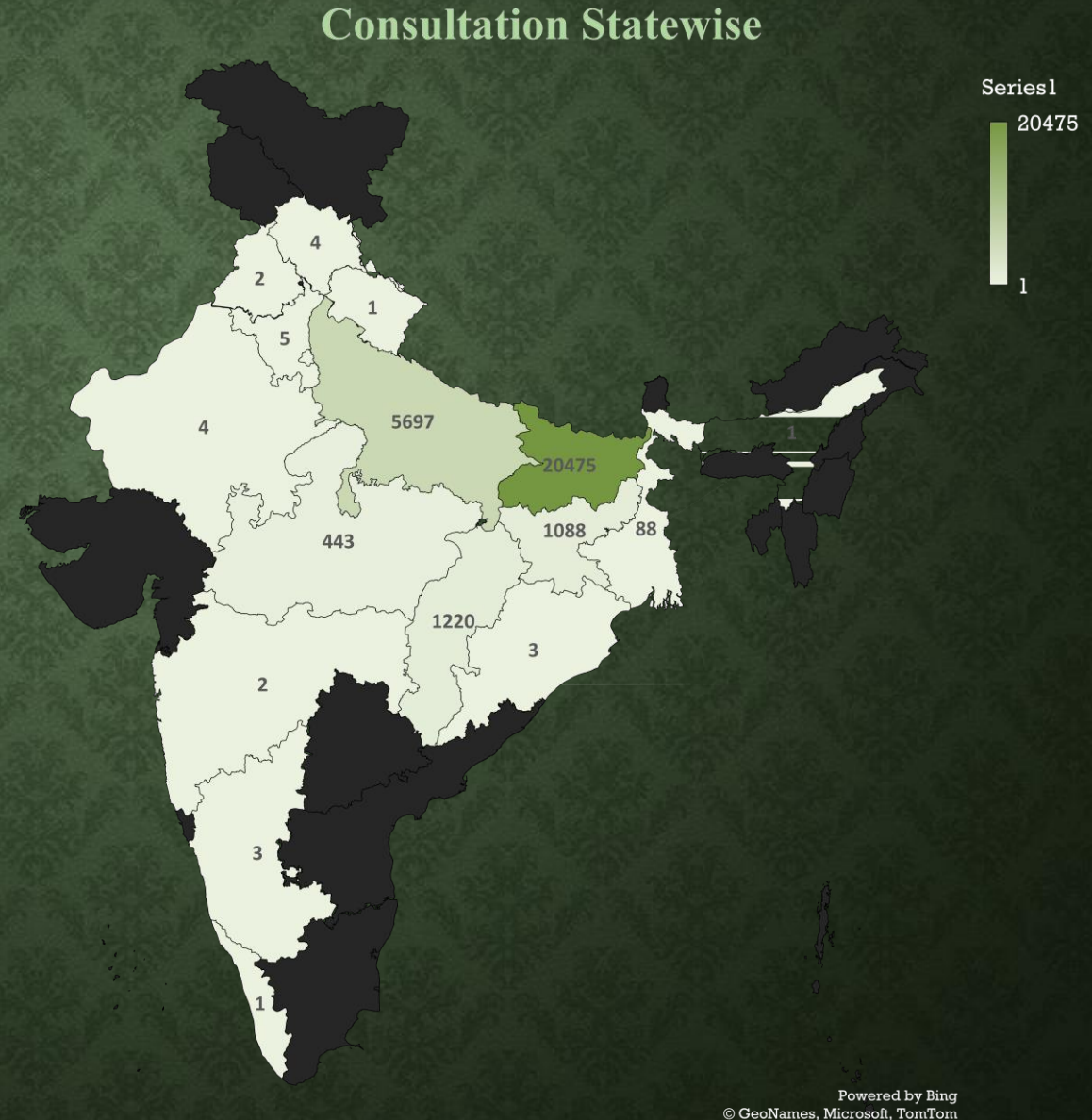
Status

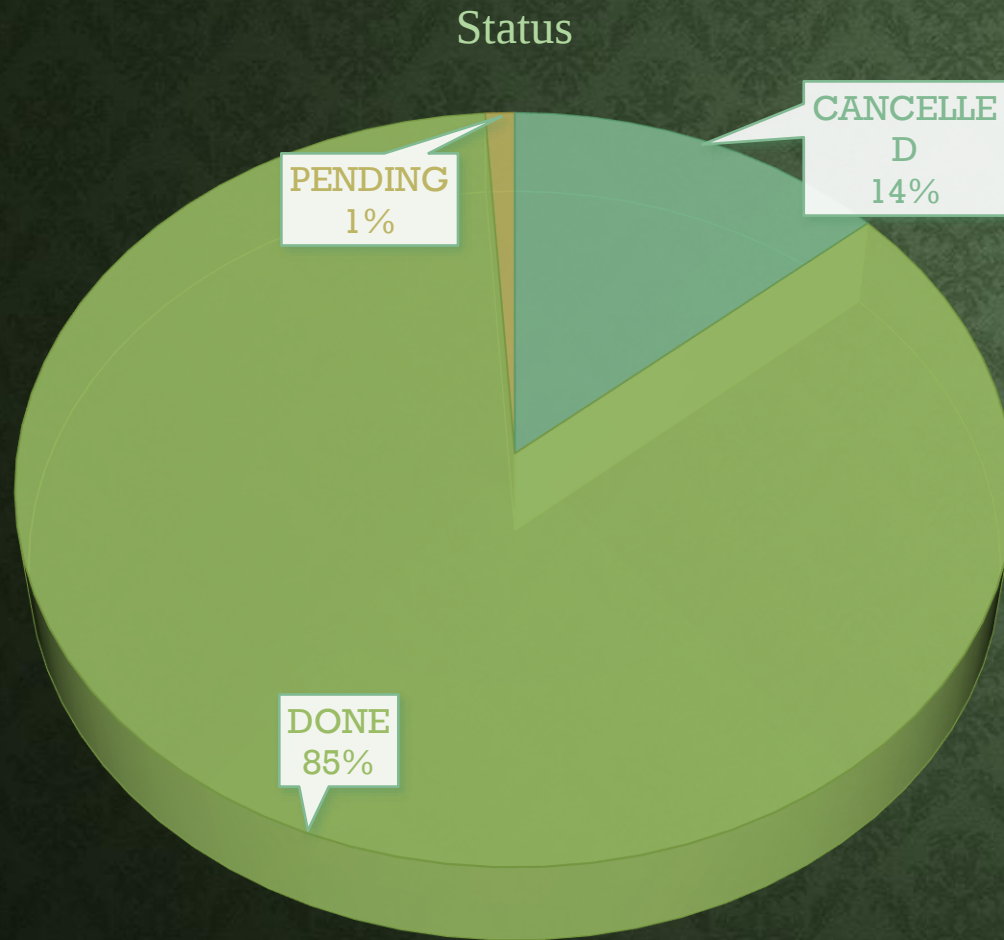


- Figure depicts the state-wise consultation in percentage. Among the states Bihar, UP, Jharkhand, Chhattisgarh, and MP are the top end users

The above graph depicts the status of cases. It is divided into three categories i.e., Done, Pending, and Cancelled. The ratio of done cases is 85 percent, pending 1 percent and cancelled case 14 percent. 14 percent of cancelled cases because patient could not be reached at the time of consultation (phone number not reachable or patient not available) and other reason was that patient does not require consultation anymore. 1 percent of cases are pending as the flow of patients are high and doctor could not attend the patients and another reason the patient did not take the follow-up after few days of consultation

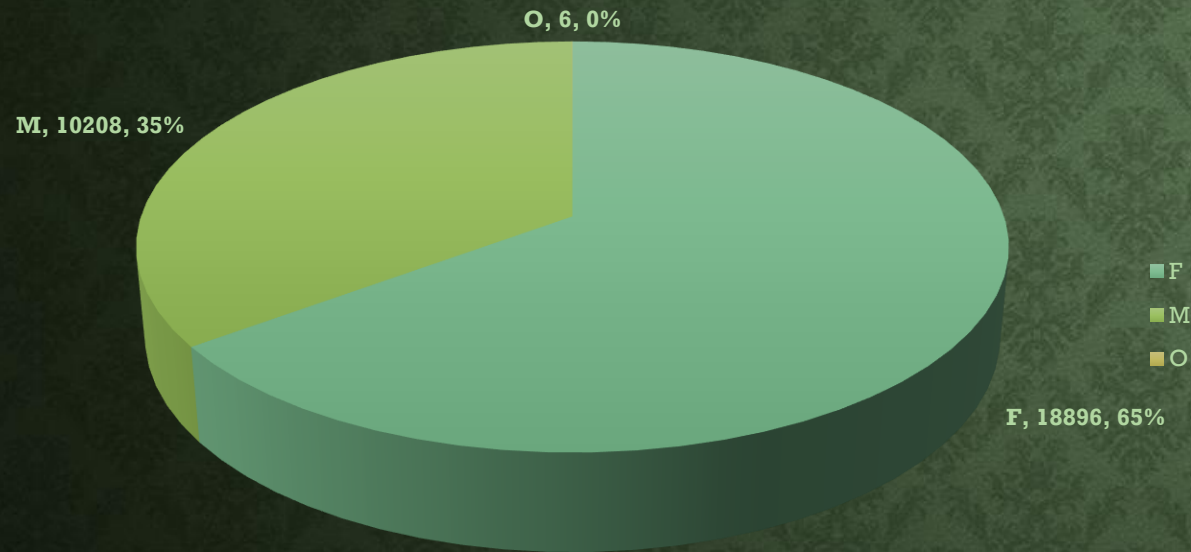
The map depicts the spatial distribution of consultation services/cases across the country conducted by the organization. The target area for shown in map is Hindi belt. Therefore, the number of consultations is more in Bihar & UP. High number of consultations in Bihar (20475) and UP (5697) can also attribute to its high population base, high population density and poor public health infrastructure. After UP & Bihar the more cases are from Jharkhand, Madhya Pradesh and Chhattisgarh





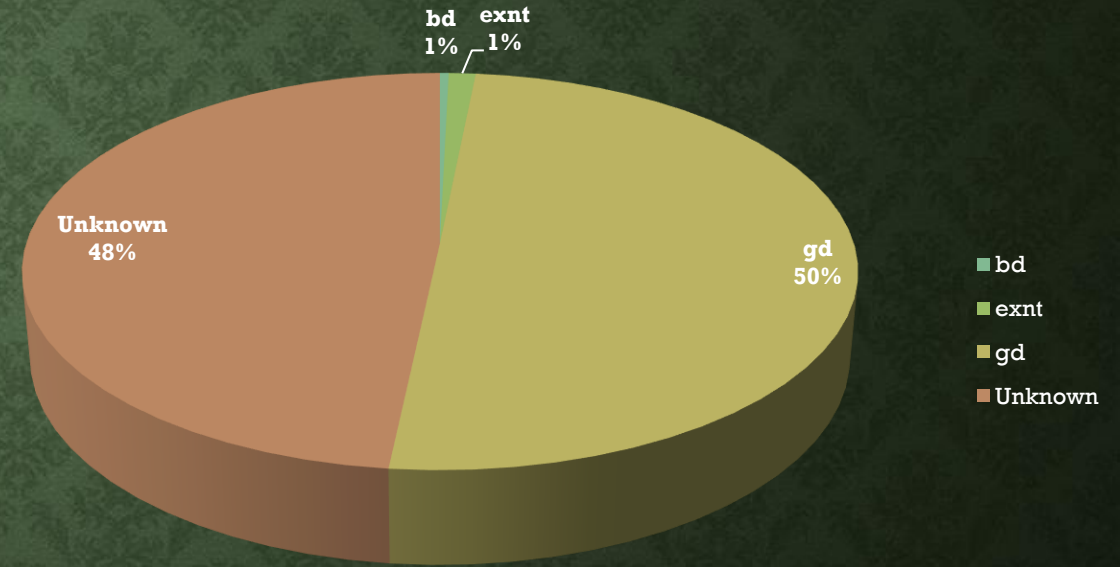
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Gender



Graph depicts the gender of patients, which shows 18896 cases (65%) are the females, 10208 cases (35%) are men, and 6 cases are of other categories

Patient Consult Experience



The above graph depicts that 348 users (1%) have excellent experience of teleconsultation, 14590 users (50%) have good consultation experience, 112 users (1%) have bad experience and 14060 users (40%) data is unknown

RECOMMENDATION

- Strategy to start e-clinic could have done a bit earlier, as it would have helped a lot of patients who were unable to go to the hospitals during COVID.
- More e-clinic should be opened in different regions of India as consultation from southern and northern India is very less.
- To increase the customer base/area of influence the next targeted area should be the urban sprawls, rural urban fringe, and the hinterlands where the need for healthcare is most needed.
- Apart from this, organization should increase its base in other states like North-East, J&K, Gujarat where its presence is almost nil.
- 1% pending cases can be converted into done case by adding more doctors to the system with different specializations. Even if the cases increase randomly, we will have enough doctors to tackle the situation.

RECOMMENDATION (CONT'D)

- Consultation experience of patient is based on various parameters such as
 - Consultation duration
 - Doctors' behavior
 - Duration of prescription received
 - Proper follow-up

48% unknown factor can be change into good or excellent consult experience by taking immediate feedback by organization's pharmacists.
- Leverage Jan Aushadi Kendra who can provide free medicines to BPL customers on the basis of our Prescription.
- **Rashtriya Arogya Nidhi** is a scheme in which government-run super specialty hospital/institution that gives financial support to patients who are below the poverty line and are suffering from life-threatening ailments.
- Ayushman Bharat is another Government scheme which may be used.

With our model, we can further build Telemedicine where we may not event need physical infrastructure to support it. CHF can take smartphones to the field to get a video call from doctor or customers can call our phone numbers directly through their feature phone to get consultation on basic illnesses which are persistent 70% of the times.

CONCLUSION

Based on the observations of the study, this e-clinic model helped us breaking the barriers of Tele-Medicine and provide an opportunity for better outreach with our customers. The model is very simple with high value to the customer yet very affordable. In the regions where our services are being provided, customers really need access to basic facilities like trained personnel, local certified doctors (in case of referrals), access to medicines etc. that add value to their health and wellbeing. Therefore, customers from Cashpor would be served well if we go ahead with this proposed model

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