**Scope of Work**

Mentor-Mentee Program

**Title**: “**Exploring the factors that act as barriers and facilitators for the utilization of eSanjeevani AB-HWC and eSanjeevani OPD in Karnataka, India”.**

**Statementof Purpose**:When the eSanjeevani programme was implemented, I worked for the Department of Health and Family Welfare, Government of Karnataka, as a District Program Coordinator for NCD programme. At the district level, I observed some bottlenecks such as ANMs not being able to connect with doctors, technical issues, and non-availability of doctors due to Covid Pressure in Hub centers, and so on.Similarly, Community Health Officers (CHOs) used to be able to easily do 10 consultations every day because they were required to meet a certain number of consultations in order to receive incentives, and they were also technically competent. Some facilitators and impediments were identified. As a result, the **aim of this study is to identify the factors that function as facilitators and barriers to the use of eSanjeevani AB-HWC and eSanjeevani OPD.**

**Concept Note:**The National Telemedicine Service in India is provided via two versions of e-Sanjeevani: a doctor-to-doctor telemedicine platform called "**eSanjeevani AB-HWC"(eSanjeevani Ayushman Bharath Health and Wellness Center)** and a doctor-to-patient telemedicine system called **"eSanjeevani OPD – Stay Home OPD."**

The Ministry of Health and Family Welfare, Government of India, released **‘eSanjeevani AB-HWC'** in November 2019. In Health and Wellness Centers (HWCs) around the country, this doctor-to-doctor hub and spoke paradigm is being adopted (Ministry of Health & Family Welfare, Government of India 2020).The ‘eSanjeevani AB-HWC' video conferencing system allows a virtual link between a doctor at the spoke (HWC) and a doctor/specialist at the hub (tertiary healthcare facility/hospital). This allows doctors and specialists at the hub to confer with patients at the spoke in real time (via the doctor who operates the platform at the HWC).‘eSanjeevani AB-HWC' generates an eprescription at the end of the consultation that can be used to obtain medications. MIS-based application, Comprehensive Electronic Medical Record (EMR), Teleconsultation, and video-conferencing are some of the primary characteristics of ‘eSanjeevani AB-HWC' (Ministry of Electronics & Information Technology, Government of India 2021).Around 240 hubs and over 5000 spokes have been set up in various states since November 2019, with over 183,000 consultations performed. eSanjeevani AB-HWC will be active in 155,000 Health and Wellness Centres (HWCs) across the country by the end of 2022.

**The “eSanjeevani OPD - Stay Home OPD”** telemedicine system is part of the government of India's Ayushman Bharat Scheme. The Centre for Development of Advanced Computing, based in Mohali, India, developed it. It is the world's first online OPD service provided by a government to its residents. Its goal is to provide patients with healthcare advice from doctors in the comfort of their own homes over the internet. During the COVID-19 epidemic, this campaign proved to be quite beneficial. “The major goal of E Sanjeevani OPD is to use digital technology to provide health advise to people who are unable to visit hospitals owing to the coronavirus pandemic” (Reena Sharma 2021). This programme enables people in even the most remote places to receive health-related consultations. Transparency in the system also saves money and time for the patients.

**Review of Literature:**

The 1 million consultations recorded until December includes more than 200,000 doctor-to-doctor consultations and more than 750,000 doctor-to-patient consultations, according to the Press Information Bureau on the 14th of December, 2020. A study by (Puneet Khanduja, Venkat Goli, Singh 2021) identifies three major issues: **abuse** (no proof of identity is required at the time of registration in eSanjeevani OPD),  This makes it easy for potential abusers to misrepresent their details and enter the platform without being traced back),**availability** (doctors, particularly women, who have been subjected to such abuse on these platforms may refuse to give online consultations in the future), and **access** (the eSanjeevani site is entirely video-based). This needs the patient to have a smartphone or laptop with an internet connection; half of India's population is digitally illiterate; and knowledge of the English language is required because the forms and instructions are only available in English.) In India, initiatives like the government's eSanjeevani must be addressed.

**Dinesh et al.** conducted research at Rajendra Prasad Govt. Medical College in Northern India to assess the use of the eSanjeevani OPD. They discovered that using eSanjeevani OPD lowered OPD workload and the risk of COVID infection for both healthcare professionals and patients (Dinesh et al. 2021). During the Covid-19 pandemic, **AK et al.** looked into the factors that influence teleconsultation service from the patient's perspective. They discovered that one of the merits of the eSanjeevani OPD platform was patient convenience, whereas one of its weaknesses was insufficient patient assessment (AK et al. 2021)**.**In their paper, **Mahajan et al**. discuss some of the issues that need to be resolved in order to increase the acceptability of telemedicine in the Indian population, such as the lack of physical examination, medico-legal considerations, confidentiality, informed consent, technological issues, medical professional training, and so on (Mahajan, Singh, and Azad 2020). In their study, **Anien et al.** identified barriers such as poor connectivity, lack of access to a doctor, and a lack of space for inquiries (Anien et al.2020). The Government of India has launched a new teleconsultation service. As a result, it's critical to look at the perspectives, barriers, and facilitators of patients and healthcare providers who use this service.

**Objectives:**

To determine the factors that act as barriers and facilitators for utilization of eSanjeevani OPD and eSanjeevani AB-HWC.

To explore the perceptions of patients (users) and service providers of eSanjeevani OPD and eSanjeevani AB-HWC.

To provide suggestions to improve the utilization of eSanjeevani OPD and eSanjeevani AB-HWC.

**Methodology:**

**Study location;**

The study will be conducted in four districts across Karnataka. Two high-performing districts and two low-performing districts will be selected. In both rural and urban areas of the district, the utilisation of eSanjeevani AB-HWC and eSanjeevani OPD will be assessed.

**Study Type:** This will be an exploratory study.

**Method:**

Data gathering will be done using both quantitative and qualitative methodologies.

***For exploring barriers and Facilitators (eSanjeevani AB-HWC program)to Doctors:***

We shall visit the district, collect data in person with doctors in spokes and Hub centers (PHCs and tertiary care centers)using semi structured questionnaire.

***For exploring barriers and Facilitators (eSanjeevani OPD program) to Doctors &patients:***

We shall gather patient phone numbers from CHOs/ANMsat Sub centers-HWCs and collect patient data regarding the services they utilized, their experience, barriers and facilitators of eSanjeevani OPD program using the semi structured questionnaire

Using an audio recorder, in-depth interviews will be performed with a sample of patients (users) and service providers. The audio will be transcripted, translated into English, and documented. Face-to-face, telephonic, or both data collecting methods will be used.

**Study tools:**

Semi structured questionnaire will be prepared to know the perception, barriers and facilitators.

**Ethical Approval:**

Prior to beginning the research, approval from officials at the state and district levels will be sought. This research will be carried out with the approval of the local Ethics Committee. Each participant's informed consent will be obtained before to their participation.

**Statistical Analysis:**

Qualitative data will be coded and analyzed using themes, Quantitative data obtained will be coded and entered in MS excel 2010 spreadsheet. SPSS version 24 software (Licensed to JSSAHER) will be used for statistical analysis.

**Timeline:** September 10-commencement of study

September 25 - District 1 data collection complete

October 10 - District 2 data collection complete

October 25 - District 3 data collection complete

November 10 - District 4 data collection complete

November 26 – Draft of paper will be ready

December 3 – Submission of final research paper

**Mentor:**

**Ms Anna Roy, Sr Adviser frontier, Tech Vertical, NITI Aayog.**

Or

**Dr Debdoot Sheet, Asst Professor IIT, Kharagpur**

**Compensation**

The Consultancy fee for this engagement is USD 5,000(Inclusive of all indirect taxes). The payment will be disbursed in three instalments, in the proportions given below and the consultant should provide the invoice against each deliverable.

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| --- | --- | --- | --- |
| **Instalment** | **Percentage** | **Amount (USD)** | **Deliverable/ Milestone** |
| 1 | 25 | 1250 | On Signing Contract |
| 2 | 25 | 1250 | On submission of literature review and methodology (including stakeholders for a qualitative interview and analysis plan) approved by the Mentor, and |
| 3 | 50 | 2500 | On submission of the final deliverable approved and accepted by the Mentor & AHI Team. |

**Term**

This engagement shall commence upon execution of this Agreement. The Agreement shall continue in full force and is effect from **September 15, 2021** to **December 15, 2021** and is extendable based on the review of Consultant’s performance by the Foundation and mutual concurrence on revised terms of engagement.