**Project Proposal: Nabha Sehat Saathi**

**A Digital Hub-and-Spoke Healthcare Model for Rural Nabha**

**2. The Problem**

Nabha and its surrounding rural areas face a healthcare crisis. The key challenges are:

* **Severe Staff Shortage:** The Civil Hospital operates with only 11 doctors for a sanctioned 23 posts, serving a vast population from 173 villages.
* **Geographical Barriers:** Patients travel long distances on poor roads, often sacrificing a day's wage, with no guarantee of seeing a specialist or receiving prescribed medicine.
* **Overburdened System:** The high volume of patients, many with minor, treatable ailments, overwhelms the limited number of doctors, leading to long waits and rushed consultations.
* **Lack of Triage:** There is no system to differentiate between minor and severe cases. A patient with a common cold stands in the same queue as one with a critical condition.
* **Economic Impact:** For daily-wage earners and farmers, a day spent traveling to the hospital results in a direct loss of income, compounding the financial strain of medical care.

**3. The Proposed Solution: The Hub-and-Spoke Model**

Our solution is to decentralize primary healthcare by establishing a network of local MI Rooms connected to the central hospital via a dedicated web platform.

**3.1. The Village MI Room (The Spoke)**

* **Function:** To act as the first point of contact for patients in a village or a small cluster of villages.
* **Staffing:** Each MI Room will be managed by a trained **MI Room Incharge** (e.g., a Community Health Worker, Auxiliary Nurse Midwife, or a certified technician).
* **Equipment:** The room will be equipped with basic diagnostic tools to measure blood pressure, blood sugar, temperature, oxygen saturation (SpO2), and other vitals.
* **Responsibilities:**
  1. Conduct initial patient examination and record vital signs.
  2. Provide treatment for pre-defined minor ailments (e.g., common cold, cough, fever, minor wounds) based on established protocols.
  3. If a condition requires a doctor's consultation, the Incharge will use the web app to connect with a doctor at the Nabha Civil Hospital.
  4. If a case is deemed serious, the Incharge will book a confirmed appointment for the patient at the hospital, ensuring they see the right specialist without delay.

**3.2. The Web Application: A Two-Portal System**

The core of this solution is a secure, low-bandwidth web application with two distinct login portals.

**Portal 1: MI Room Incharge Login**

* **Patient Registration:** Create and manage profiles for patients in their village, including demographic details and medical history.
* **Data Entry:** Log vital signs and symptoms for each patient visit.
* **Connect to Doctor:** Initiate a secure video/audio call request to a doctor at the hospital Hub.
* **Appointment Booking:** Schedule in-person hospital appointments for patients upon a doctor's recommendation.
* **View Protocols:** Access a digital library of standard operating procedures for treating minor ailments.

**Portal 2: Hospital Doctor Login**

* **Doctor's Dashboard:** View a real-time queue of consultation requests from various MI Rooms.
* **Access Patient Records:** Instantly access a patient's complete history, including past visit notes, vitals, and prescriptions, before starting a consultation.
* **Virtual Consultations:** Conduct secure video/audio calls/chat with the MI Room Incharge and the patient.
* **E-Prescriptions:** Generate and send digital prescriptions directly to the MI Room portal.
* **Referral Management:** Approve and manage referrals for in-person visits to the hospital.

**4. Patient Journey**

1. A patient visits their local **MI Room** instead of traveling to the hospital.
2. The **MI Room Incharge** registers them on the web app and performs a basic check-up, logging the data.
3. **Triage:**
   * **If the ailment is minor (e.g., fever),** the Incharge provides care based on approved protocols and medicines. The patient goes home without needing a doctor's consultation.
   * **If the ailment requires a doctor's opinion,** the Incharge initiates a virtual consultation request.
4. A **Doctor** at the hospital accepts the call, reviews the patient's records on their dashboard, and provides a consultation.
5. **Outcome:**
   * The doctor provides advice and an e-prescription.
   * The doctor determines the case is serious and directs the Incharge to book a confirmed in-person appointment for the patient at the hospital.

**5. Expected Outcomes and Impact**

* **Reduced Load on Doctors:** Filters out 60-70% of non-critical cases, allowing the 11 doctors to focus on patients who genuinely need their expertise.
* **Improved Access to Care:** Patients receive timely and appropriate care right in their own village.
* **Significant Cost & Time Savings:** Eliminates unnecessary travel and loss of wages for rural families.
* **Creation of Digital Health Records:** Builds a valuable health database for the community, accessible to doctors for better-informed decisions.
* **Empowerment of Health Workers:** Elevates the role of community health workers, making them a vital part of the formal healthcare system.
* **Scalable Model:** This solution can be replicated in other under-resourced regions across Punjab and India.