

Health Ranger

A CoPilot for Community Healthcare Workers

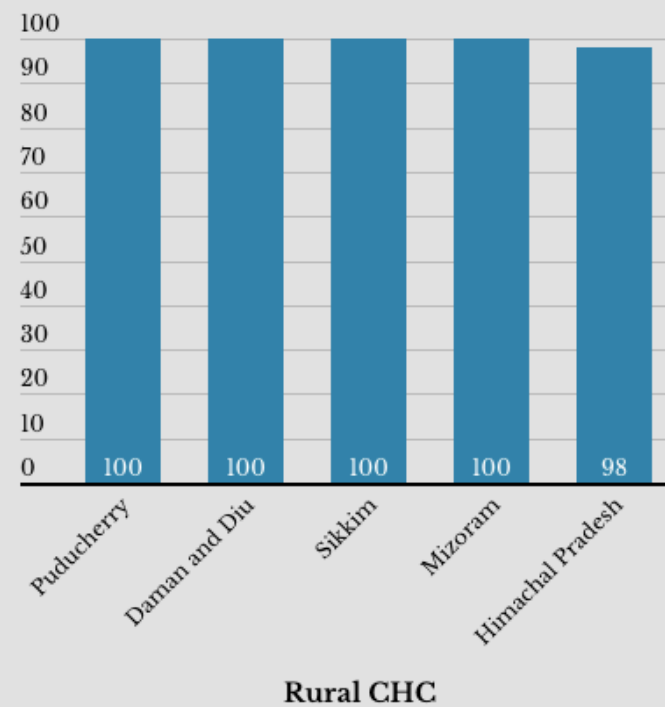
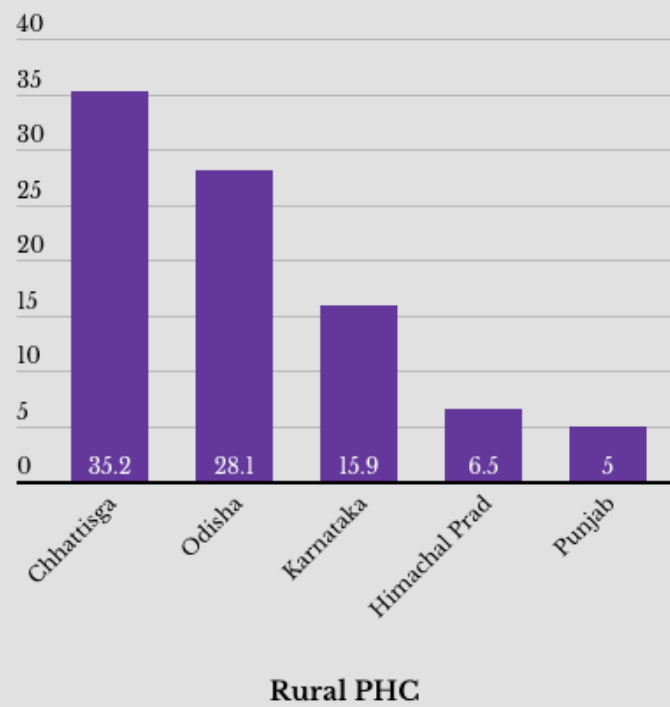
Saumo Pal



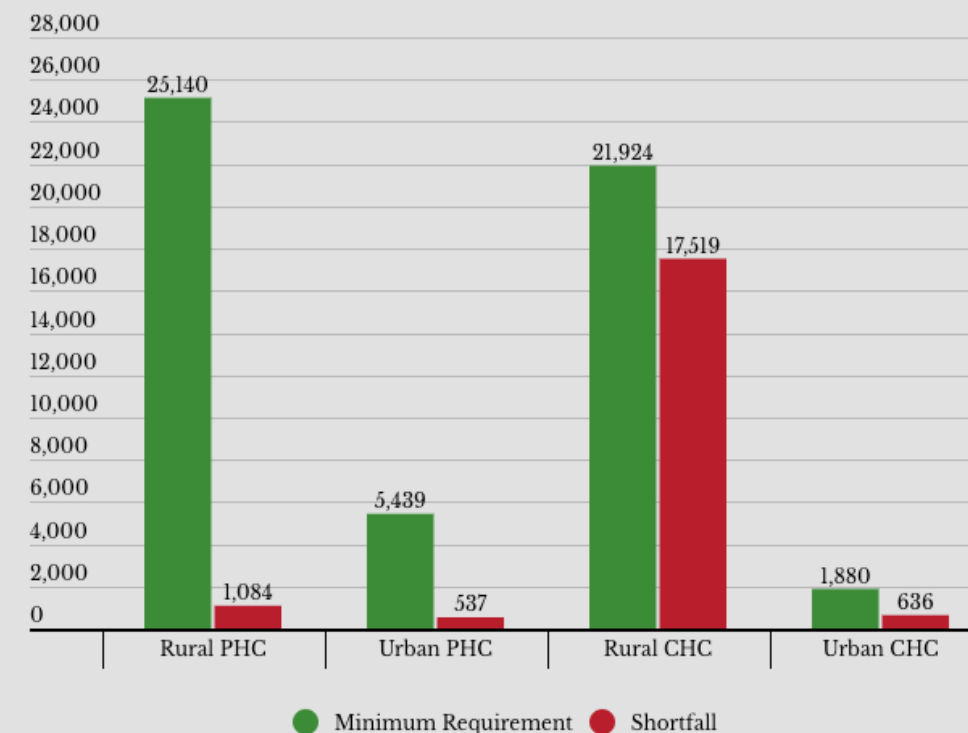
Healthcare challenges



Top 5 States and UTs with Highest % of Doctor Shortfall



Govt Health Centres Experience Doctor Shortfall



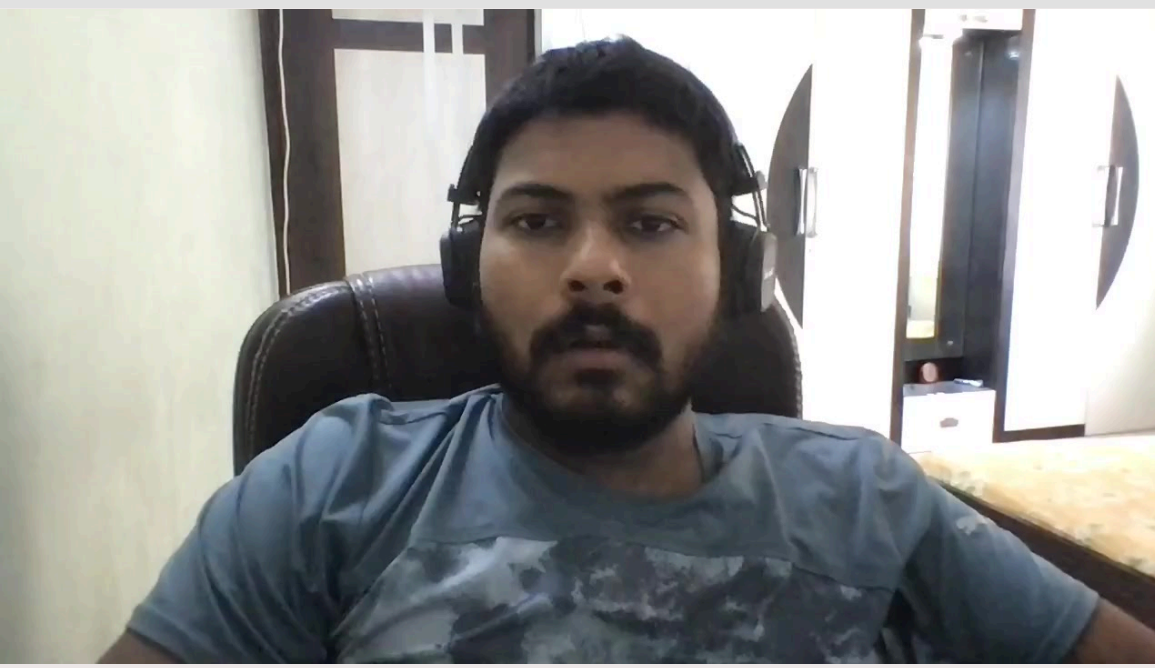
Source: Rural Health Statistics 2021



- Doctor to patient ratio around 4.6:1000
- More non-medical staff involved in medical workforce
- Population highly tech-savvy/educated

Parts of 🌐, South 🌐, SE 🌐

- Poor doctor to patient ratio (worse than WHO recommended 1:1000)

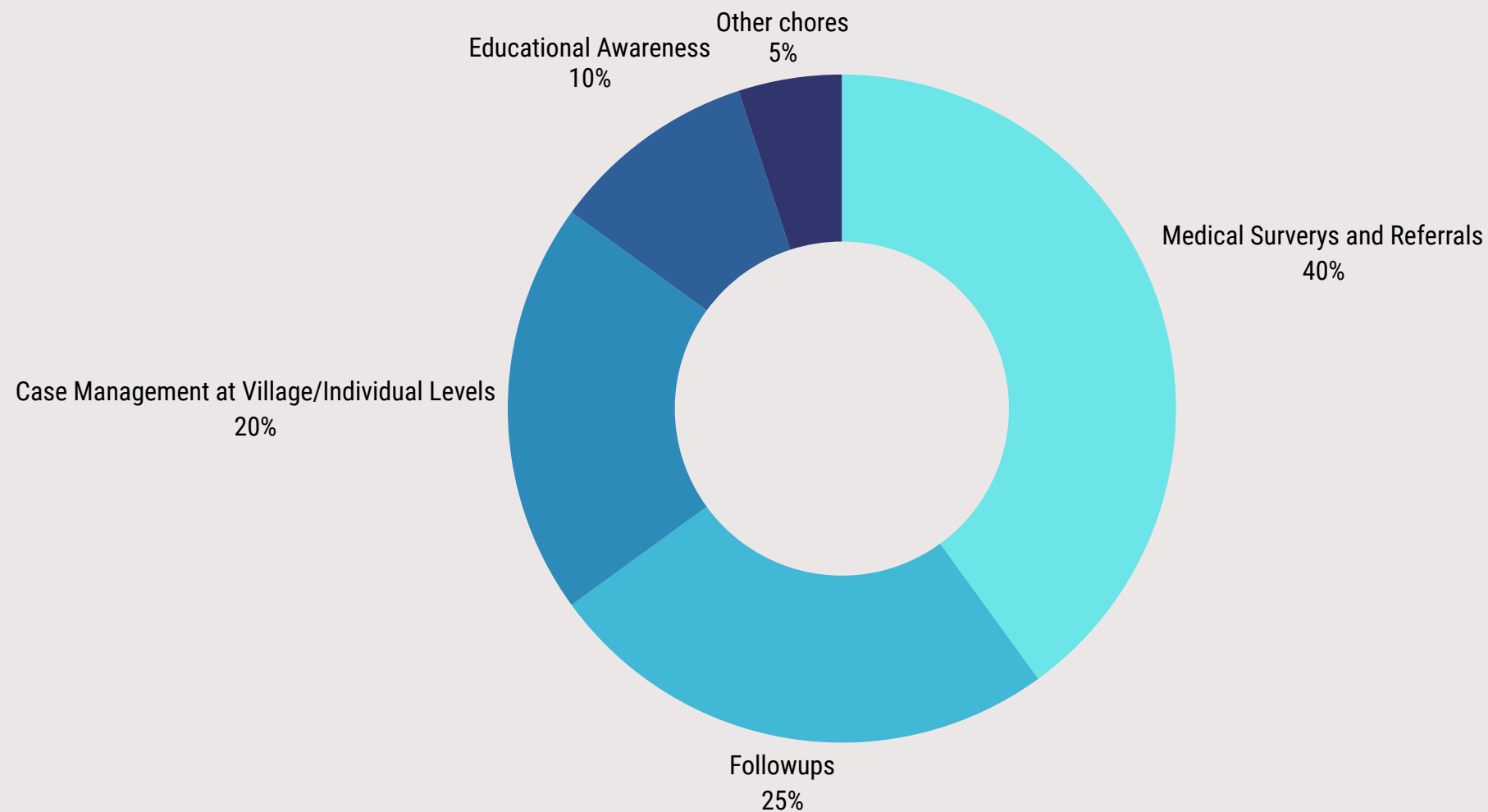


- Poor doctor to patient ratio (1:1500)
- Doctors overloaded; often with non-essential duties
- Low education and technology usage by patients in rural areas

Community Healthcare Workers

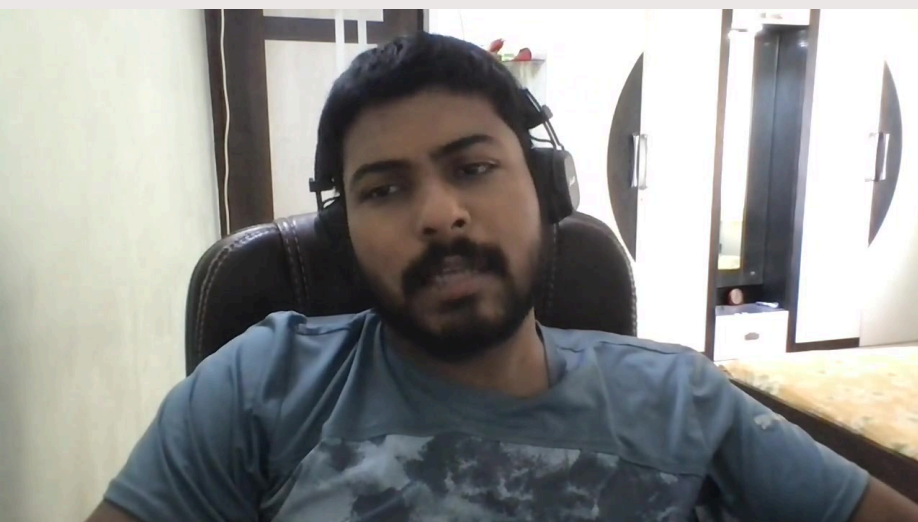


Roles & Responsibilities



Success Stories

- In Rajasthan, CHWs have significantly reduced maternal mortality rates by 30% over the past five years by ensuring timely medical care and education on prenatal and postnatal health
- In Uttar Pradesh, CHWs have increased child immunisation rates from 60% to 85% through persistent community engagement and awareness campaigns
- In Kerala, CHWs played a crucial role in controlling the spread of COVID-19, with a 95% compliance rate for quarantine measures and a significant reduction in infection rates



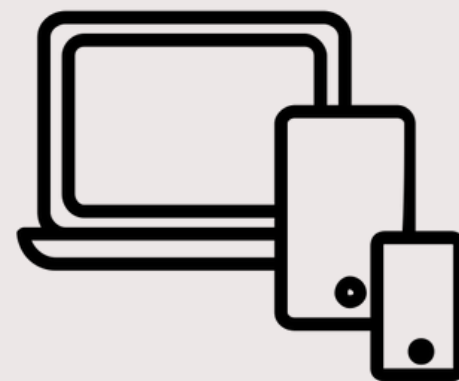
The Problems with CHWs

Not highly
skilled/educated

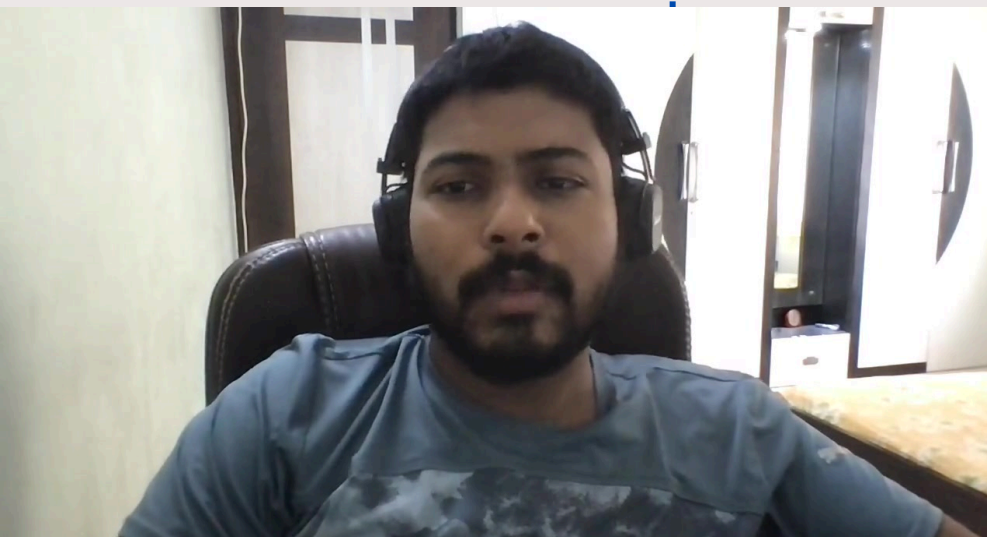


Poor ratio between
CHWs and patients

Lack of proper
digital tooling



Low to no
documentation, lack
of adherence by
rural patients

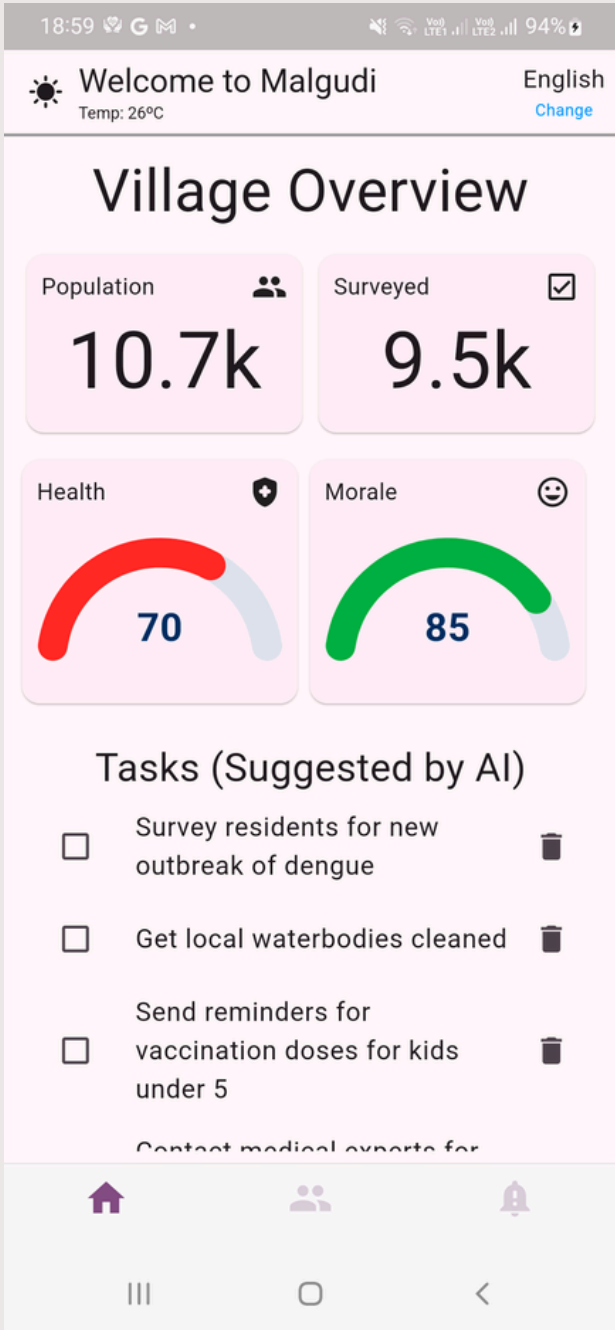


Enter HealthRanger

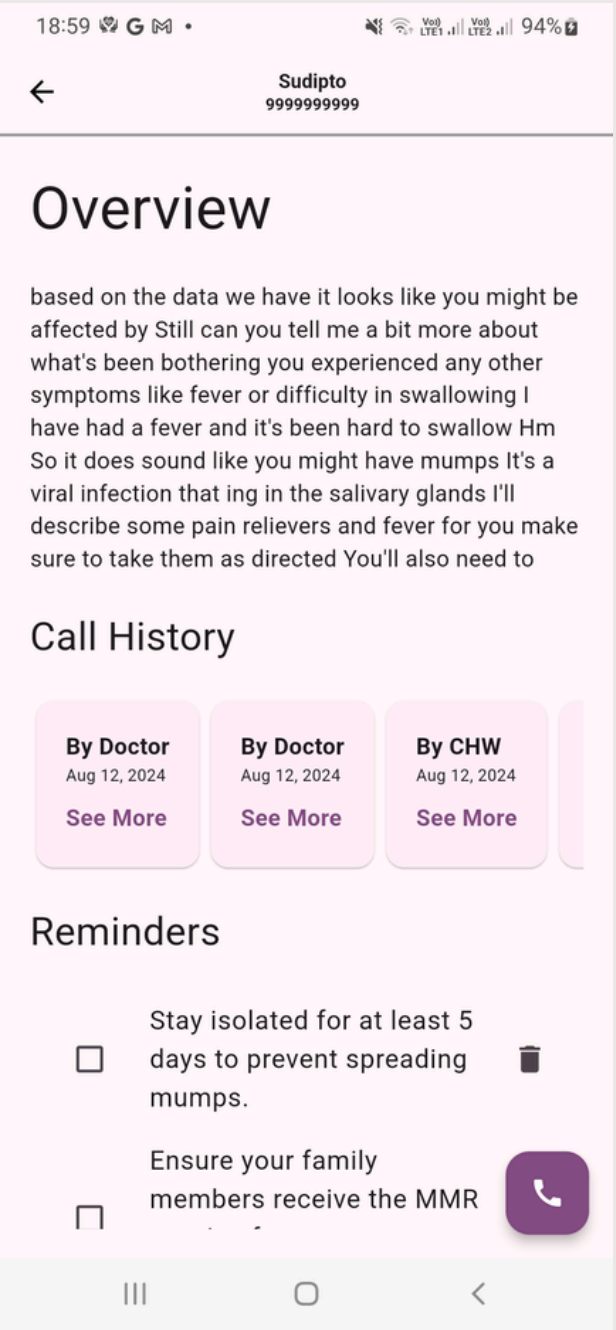
- A CoPilot built for CHWs
- Assists CHWs with
 - Regular surveys
 - Augments survey questions with real time intelligence
 - Helps with case management
 - Creates real time alerts to inform other CHWs/health ministry with updates on outbreaks
 - Automates followups/reminders for patients
- Shoutout to Gemini AI and Firebase tools
 - Long context windows
 - Multimodal and multilingual support
 - Firebase Genkit



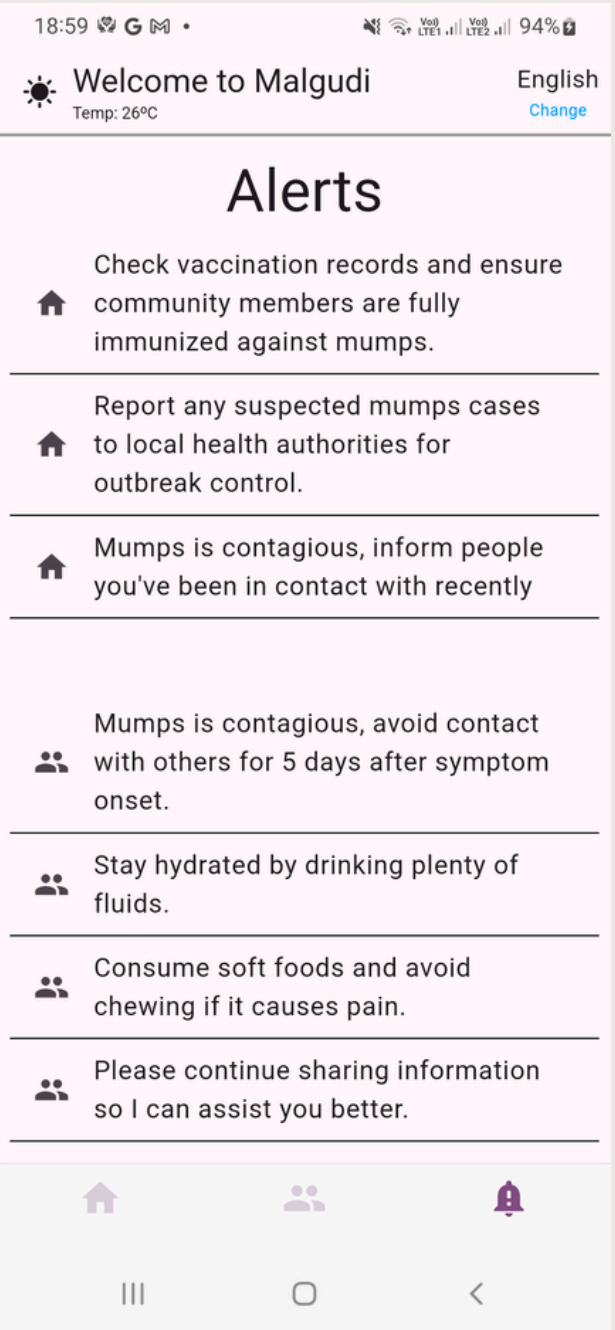
Demo and Basic Walkthrough



Village Page:
Contains details about overall village health, morale of residents, and AI generated tasks to accomplish for wellbeing



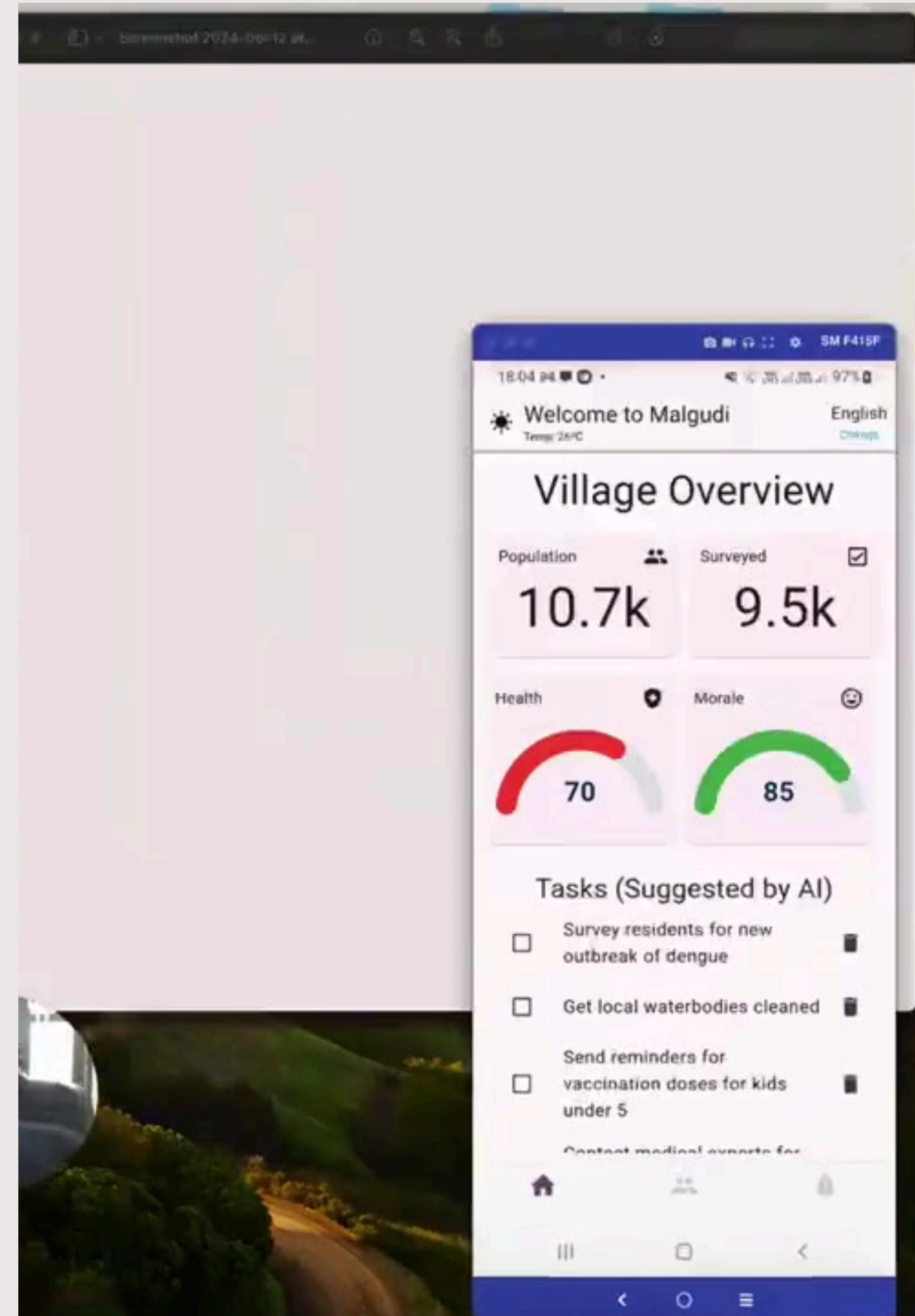
Patient Overview Page:
Contains details about patient's health, call history, reminders and followup schedule



Alerts Page:
Contains patient and village level alerts like dengue outbreak etc.

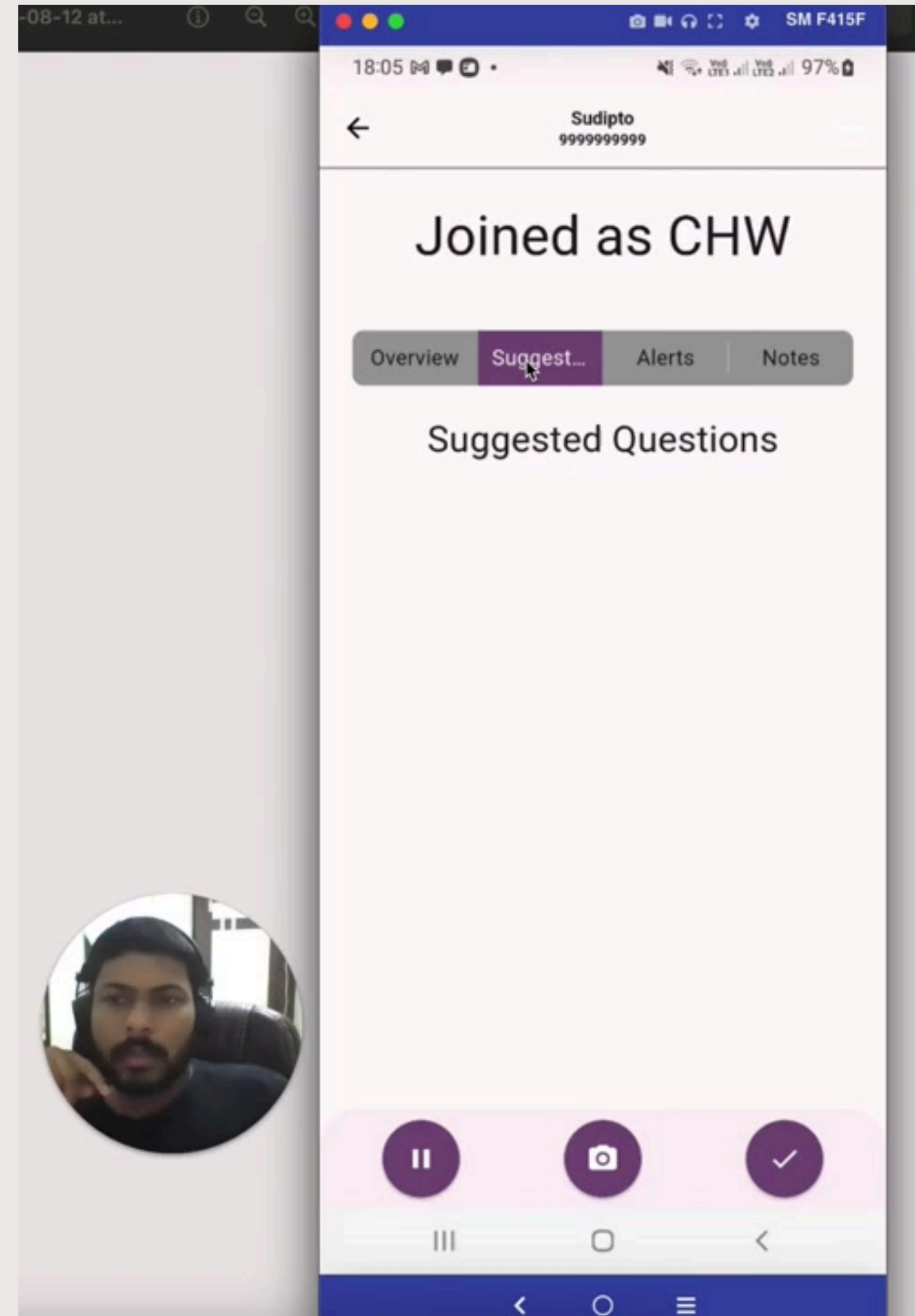
Talk with CHW

- Real time audio transcription using Gemini AI multimodal input
- Real time assistive suggestions for CHW
- Real time photo analysis for further suggestions and alerts
- Real time patient/community level alerts and notifications - powered by Firebase Messaging



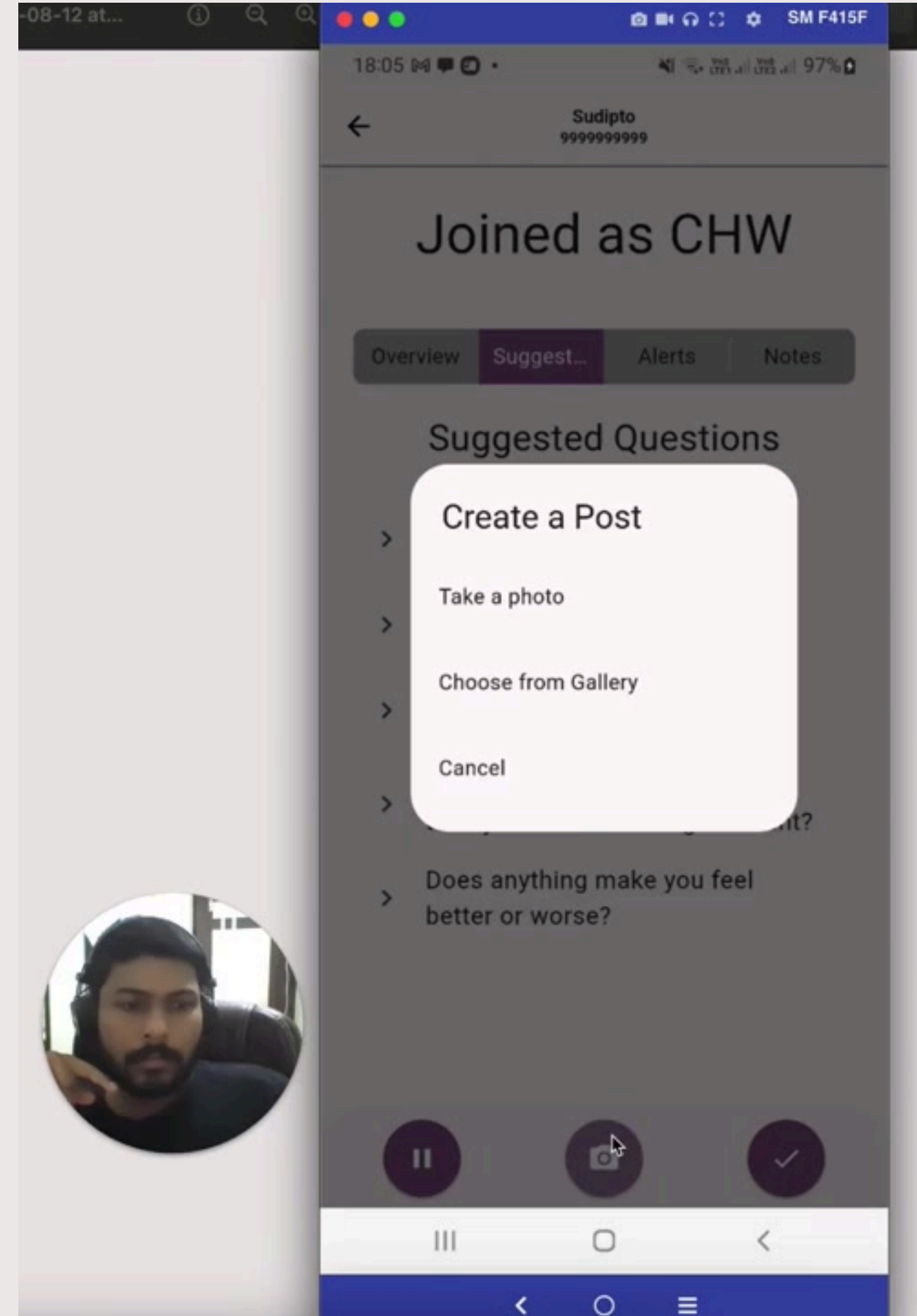
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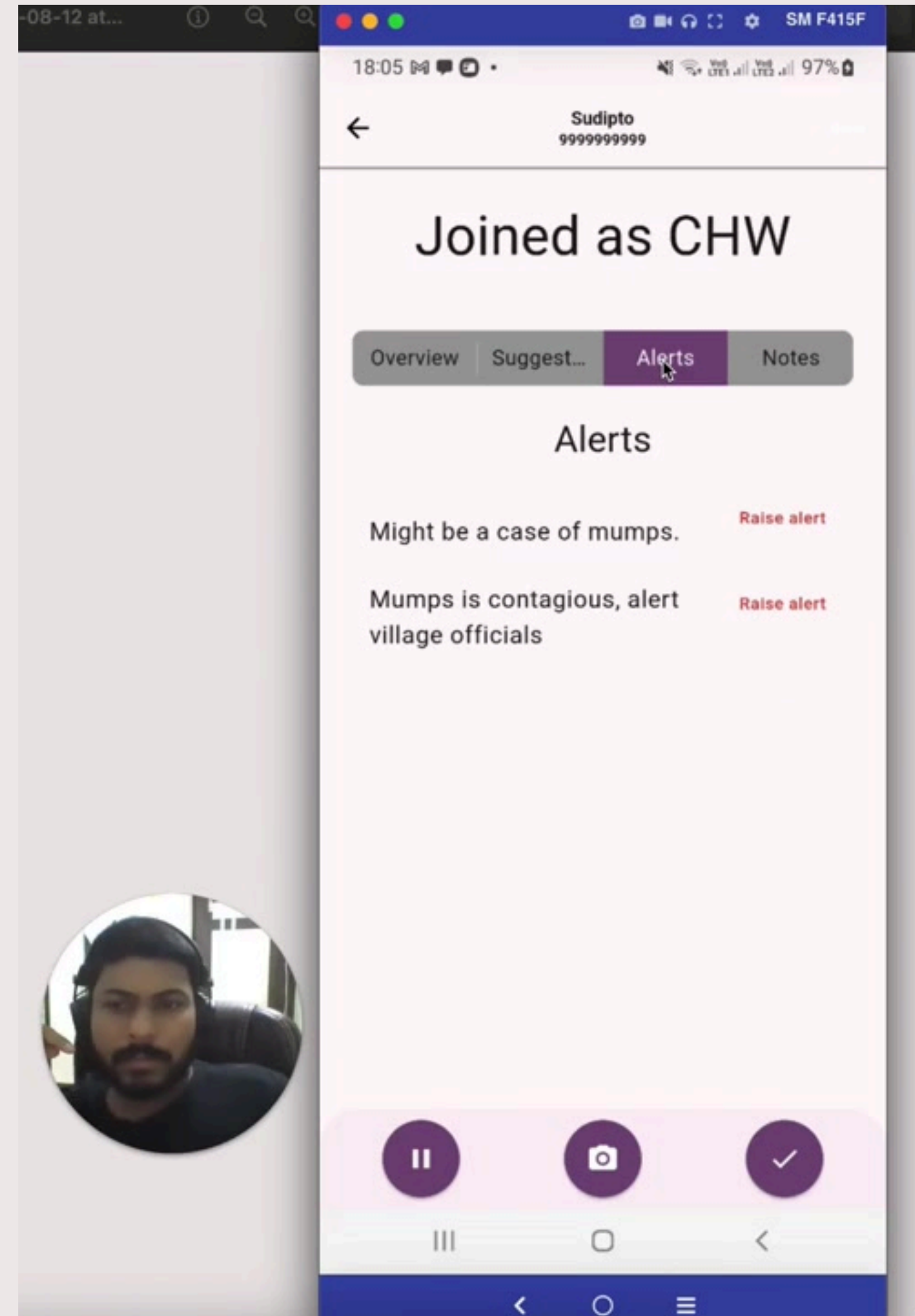
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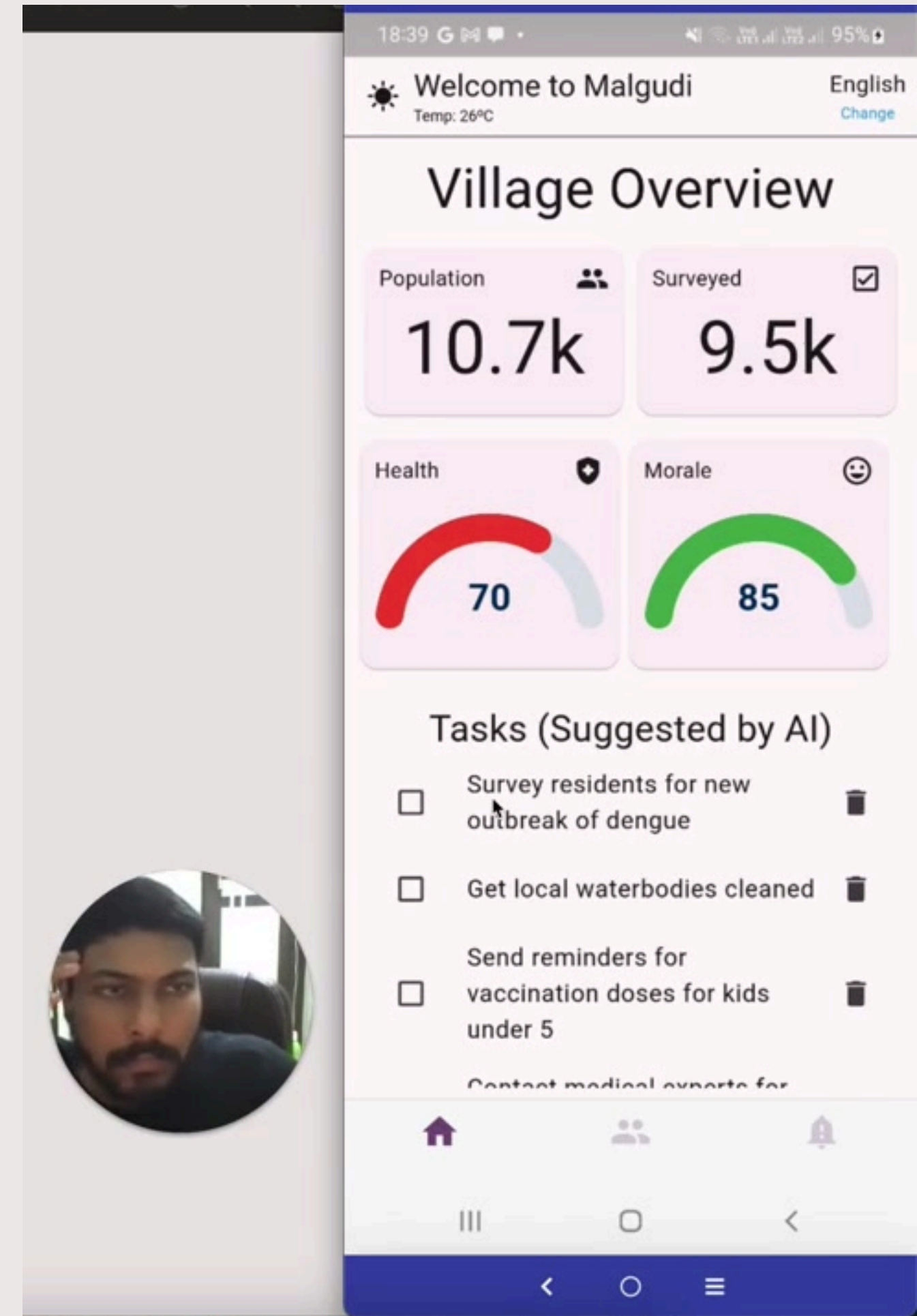
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Talk with Doctor

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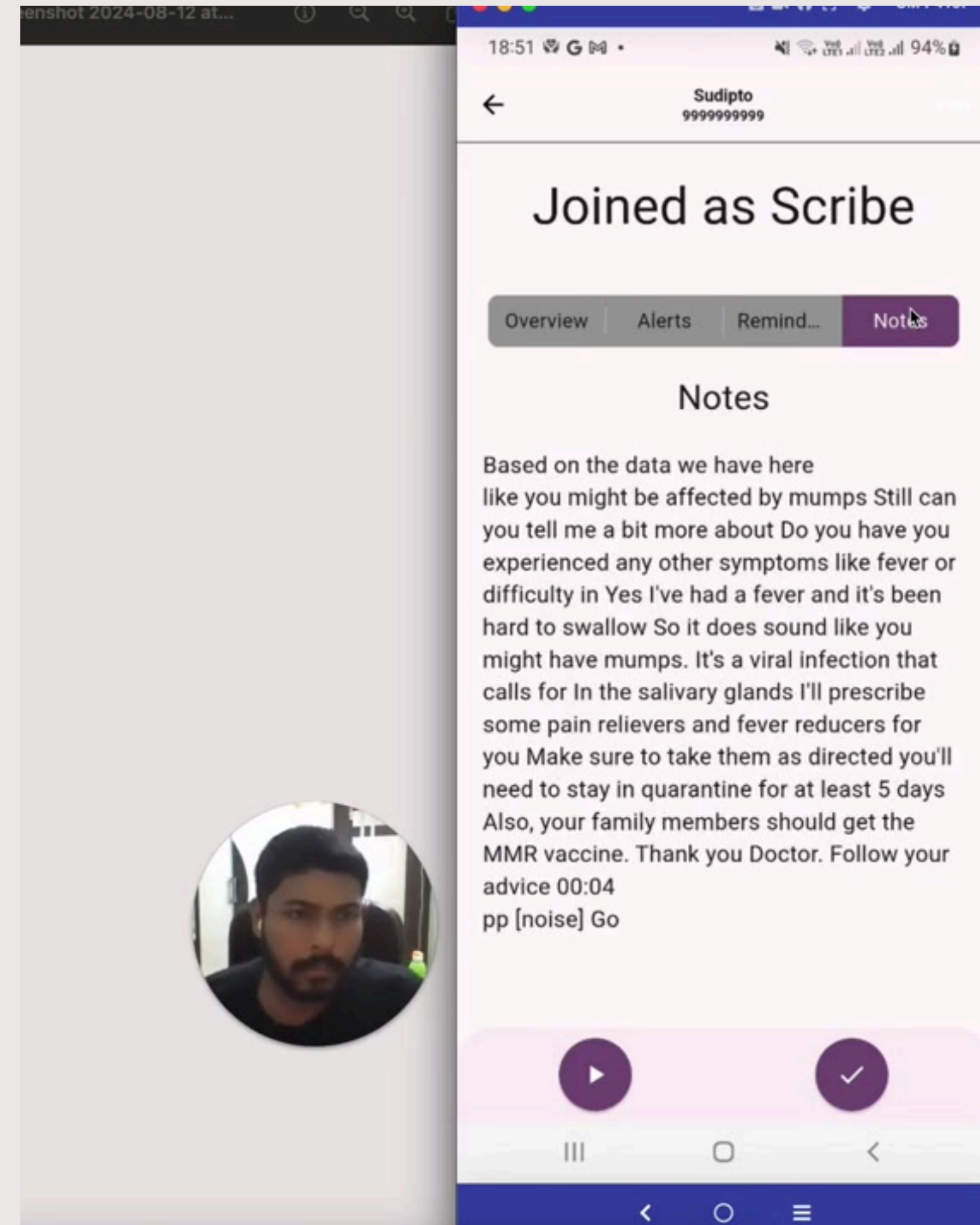
Medical Scribe is essentially a personal assistant to the physician; performing documentation in the EHR, gathering information for the patient's visit, and partnering with the physician to deliver the pinnacle of efficient patient care.



Talk with Doctor

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Talk with AI

- Real time audio transcription using Gemini AI multimodal input
- Uses past context (like reminders/alerts) to ask relevant questions
- Can use tooling with Gemini to schedule future followups



Technical Walkthrough

Feel free to pause and read this part (or find it on Github)

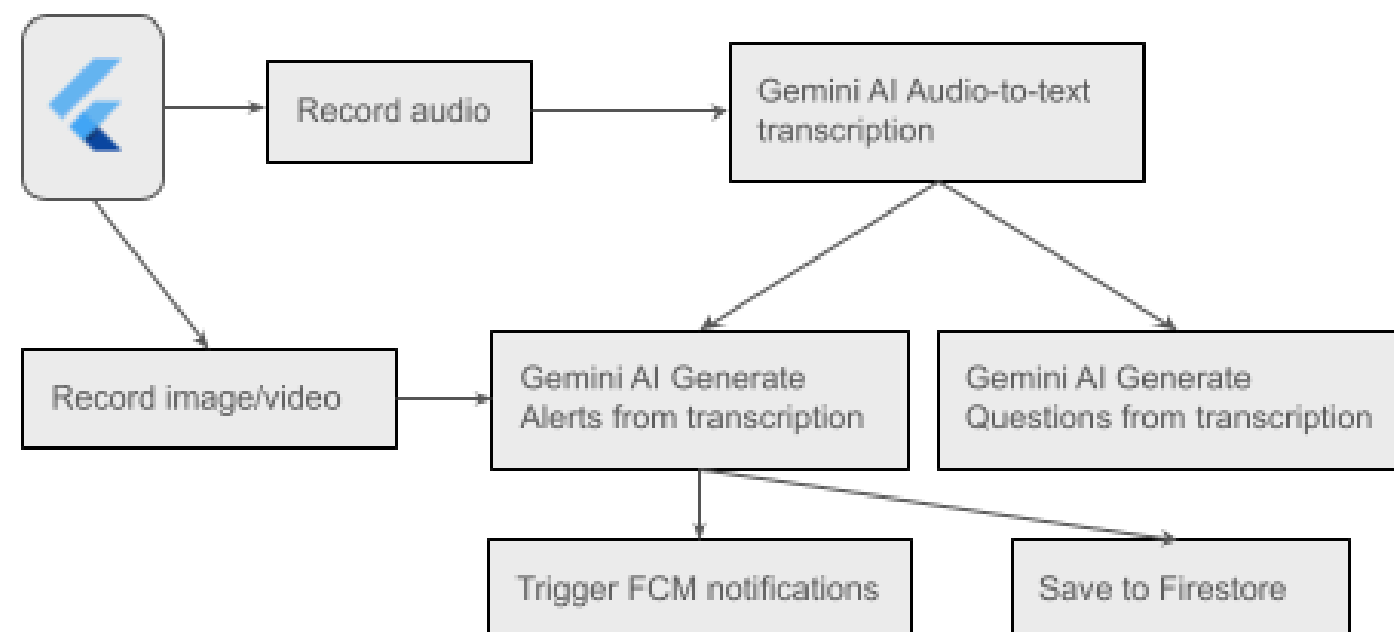
Village level insights



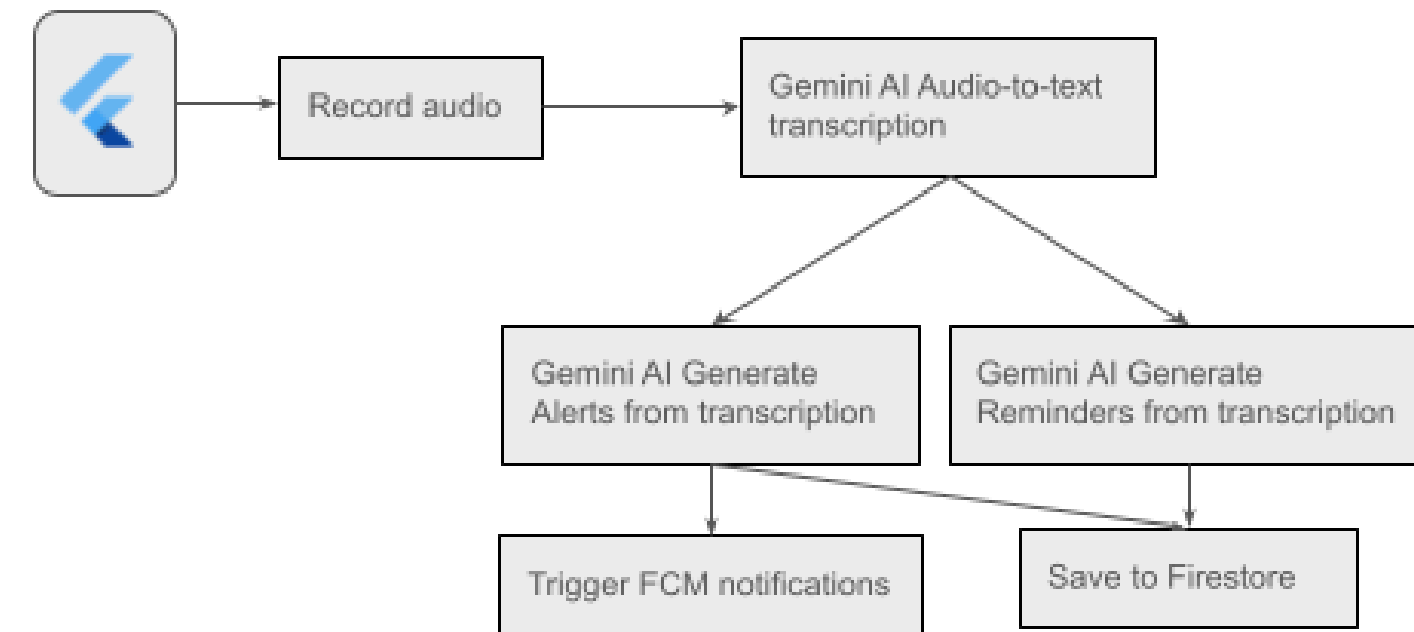
Patient level insights



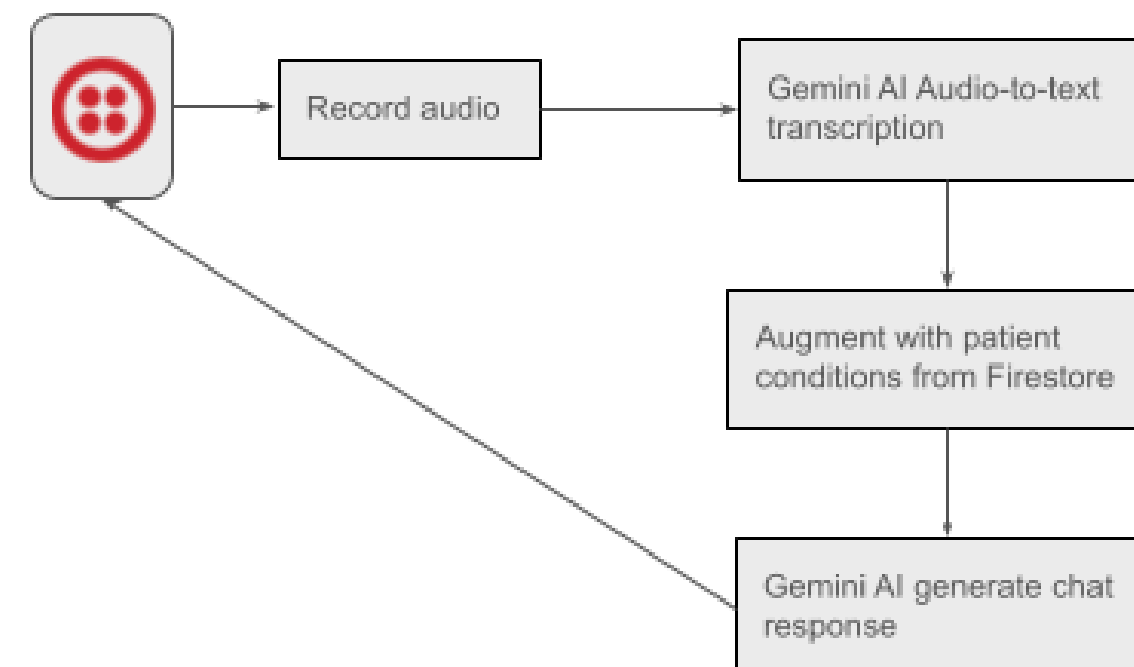
CHW Assistant



Medical Scribe/Doctor's Assistant



AI Follow-up Assistant



THANK
YOU

