

# PULSE – Public Unified Local Health Engine

## Hackathon Pitch Narrative (Problem • Value • Execution)

---

### WHAT IS YOUR PROBLEM STATEMENT

#### Problem Statement

Barangay Health Workers (BHWs) are responsible for monitoring the health of hundreds of residents, yet most still rely on **paper-based records and manual reporting**. This results in:

- Delayed identification of high-risk individuals
- Missed follow-ups for seniors, pregnant women, and PWDs
- Reactive health interventions instead of preventive action
- Inefficient reporting to LGUs and health offices

Without a digital system that helps **prioritize who needs attention first**, health risks are often addressed only when they have already escalated.

---

#### Target Users

**Primary Users** - Barangay Health Workers (BHWs)

**Secondary Users** - LGU Administrators - City / Municipal Health Offices

---

### WHAT IS YOUR VALUE PROPOSITION

#### Present a Solution

PULSE is a **web-based health decision-support system** that digitizes barangay health records and uses an **explainable risk prioritization mechanism** to help health workers identify residents who require urgent follow-up.

The system does **not diagnose or prescribe**. It supports better decision-making by showing **who should be prioritized today**.

---

## Explain the Project

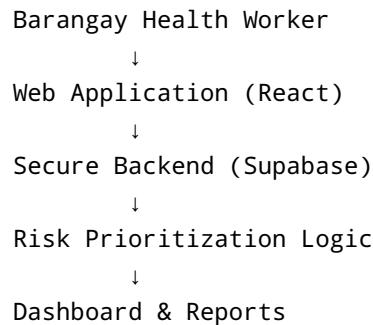
PULSE enables:

- Secure registration of residents per barangay
- Logging of health visits and observed symptoms
- Automatic risk categorization (Low, Medium, High)
- Real-time dashboards for health monitoring

All access is **LGU-provisioned**, role-based, and barangay-isolated to ensure data privacy and accountability.

---

## Tech Stack Flow (Simple Conceptual Flow of Data)



## TARGET MARKET

### Market Size

- The Philippines has **42,000+ barangays** nationwide
- Each barangay typically has multiple Barangay Health Workers
- Every barangay manages hundreds to thousands of residents

This makes barangay-level health monitoring a **large, underserved market** for digital public health systems.

---

### Facts and Evidence

- Barangay Health Workers are the **frontline of preventive healthcare**
- Manual and paper-based systems remain common in local health units
- Delays in follow-ups contribute to preventable complications

Digitizing and prioritizing health data at the barangay level directly supports national health and prevention goals.

---

## Competitors and Differentiation

**Existing Solutions:** - Paper-based logs - Spreadsheet-based reporting - Large hospital or EMR systems (not barangay-focused)

**Why PULSE is Different:** - Designed specifically for barangay workflows - Low-cost and lightweight - Explainable prioritization instead of black-box AI - LGU-controlled access and governance - Scalable from barangay to national level

---

## EXECUTION PLAN

### Project Cost

- Built using open-source technologies
  - Minimal cloud infrastructure cost
  - Can operate within existing LGU IT resources
  - Cost-effective for pilot and gradual rollout
- 

### Team Competence and Skills

The team consists of four developers with strengths in: - Rapid full-stack development - UI/UX design for simple and accessible systems - Backend logic and security concepts - System integration and demo execution

This allows fast prototyping while maintaining system clarity and stability.

---

### Future Plans and Project Timeline

**Phase 1 – Hackathon MVP** - Resident registry - Visit logging - Risk prioritization - Health dashboard

**Phase 2 – LGU Pilot** - SMS reminders - City-level analytics - User training and onboarding

**Phase 3 – Scale-Up** - Advanced decision-support enhancements - Inter-barangay analytics - National-level reporting support

---

### Project Viability

PULSE is viable because it: - Solves a real, documented public health problem - Requires minimal infrastructure - Aligns with LGU governance and privacy requirements - Avoids medical risk by focusing on prioritization, not diagnosis - Can be piloted, improved, and scaled incrementally

---

## **Closing Statement**

PULSE empowers Barangay Health Workers and LGUs with timely, actionable insights—helping them act earlier, plan better, and serve communities more effectively.

From raw data to timely care.