SAMPLE TOOL RECORD (HEALTH)

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1) SNAPSHOT

- **Tool name:** Community Triage Assistant (CTA)
- **Lead organization(s):** HealthBridge Rural + Local Ministry of Health
- **Country / Region:** Northern Malawi (rural district network)
- **Domain:** ☑ Health
- **Deployment status:** ☑ Active
- **Timeframe of deployment:** Jan 2023 – Dec 2024
- **One-sentence use case:**

"This tool helped community health workers prioritize patients and make safer referral decisions in clinics with no doctor on site."

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2) THE REAL-WORLD PROBLEM

Rural clinics in this district serve large populations with very few trained clinicians. On most days, a single community health worker (CHW) is responsible for triage, basic care, and deciding which patients must travel hours to a distant hospital.

Before the tool existed, critical decisions were made under extreme pressure with limited information. Some patients arrived too late for lifesaving care; others were referred unnecessarily, creating travel burdens and costs families could not afford.

Women and children were disproportionately affected, particularly during rainy seasons when roads became impassable. The community did not need more technology – it needed better, more consistent decision support that respected local knowledge rather than replacing it.

For local leaders, success meant fewer preventable deaths, fewer unnecessary referrals, and more confidence that the clinic was acting fairly and safely.

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3) WHAT YOU TRIED (PLAIN ENGLISH)

The Community Triage Assistant (CTA) was a simple tablet-based app that guided CHWs through a structured set of questions about symptoms, vital signs, and risk factors.

Based on answers, the tool suggested one of three actions:

1. treat locally,
2. observe and recheck in 24 hours, or
3. refer to the district hospital.

It worked mostly offline, syncing data only when connectivity was available. The underlying model combined rule-based logic with a lightweight predictive risk score trained on prior referral data from similar clinics.

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4) FIELD CONTEXT

- **Connectivity:** ☑ Intermittent
- **Devices used:** Low-cost Android tablets with solar chargers
- **Languages supported:** Chichewa + English
- **Who used the tool day-to-day?** Community health workers, nurses' aides
- **Local constraints that shaped design:**
  - Limited electricity
  - Seasonal flooding
  - Low digital literacy
  - Strong reliance on oral communication and trust networks

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5) SAFEGUARDS & ETHICS

- **Consent approach:** Verbal informed consent for data use, explained in local language
- **Privacy protections:** Data stored locally with encrypted sync; names pseudonymized in analytics
- **Key risks you anticipated:**
  - Overreliance on the tool
  - Misclassification of high-risk cases
  - Data misuse by external partners
- **Key risks that emerged:**
  - Some CHWs deferred too much to the tool early on
  - Connectivity gaps caused occasional sync delays
- **What mitigations worked best?**
  - Mandatory "clinical override" option in every case
  - Weekly peer review sessions where CHWs discussed decisions

One ethical rule we would give others:

"The tool advises; the human decides."

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6) WHAT ACTUALLY HAPPENED

What worked

- Faster triage during peak clinic hours
- More consistent referral decisions across different CHWs
- Improved documentation of patient cases

What didn't work

- Poor usability for older CHWs at first
- Limited effectiveness during power outages before solar chargers arrived

What surprised us

- Patients trusted the process more when they *saw* the CHW use the tablet
- CHWs began sharing best practices informally with each other

What we changed along the way

- **Technical:** Simplified interface; added visual icons for low-literacy users
- **Operational:** Added daily huddles to review difficult cases
- **Community engagement:** Invited village leaders to observe the process

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7) OUTCOMES

Intended outcomes:

- Safer referrals
- Reduced unnecessary travel
- Better continuity of care

What we can actually point to:

☑ Adoption by users
☑ Time saved
☑ Better decisions
☑ Improved access
☑ Safer outcomes

Evidence:

- 22% reduction in unnecessary referrals
- 15% increase in timely referrals for high-risk cases

- Positive patient feedback in community meetings

Who benefited most?

- Pregnant women and children under five

Who benefited least?

- Patients in the most remote villages during floods (connectivity still limited)

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8) COMMUNITY EXPERIENCE

- **What users valued:**
  - Clearer explanations of decisions
  - Perception of fairness and consistency
- **What they distrusted:**
  - Early concerns that "a machine was deciding their care"

Representative quote:

"Before, we wondered why some people were sent far away and others not. Now we understand the reasons."

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9) COSTS & FEASIBILITY

- **Total project cost (range):** $250,000 – $350,000
- **Ongoing cost after grant:** ~$40,000/year (maintenance + training)
- **Staff required:** 1 program manager + 1 local trainer
- **Hardware required:** 40 tablets + solar chargers
- **Sustainability without new funding?**
  - Yes, if the Ministry of Health adopts maintenance costs.

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10) PATTERNS OBSERVED (FOR PHASE 2)

- **Pattern 1:** In low-resource clinics, *usability matters more than algorithmic precision.*
- **Pattern 2:** Visible use of technology increased community trust rather than reducing it.
- **Pattern 3:** Regular peer reflection sessions were as important as the tool itself.

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11) LESSONS FOR OTHERS

Do this:

1. Design for offline use first.
2. Build mandatory human override into every decision.

Avoid this:

1. Rolling out without community orientation meetings.
2. Assuming digital literacy across all staff.

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12) WHERE THIS COULD BE REUSED

Works well in:

- Rural clinics with limited doctors
- Settings with intermittent connectivity

Must change in new contexts:

- Symptom pathways must reflect local disease patterns
- Language localization is essential

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13) ATTACHMENTS (hypothetical)

- User manual (PDF)
- Training slides
- Summary impact report
- Sample anonymized dataset