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Case Study: THRIVE OpenSRP

OpenSRP Consortium, with Jhpiego, UNICEF, and Harvard partners | Program Manager through 2015 | Team of 4 developers and 6 field workers across 16 districts | Status: project closed

PROBLEM

Migration of standardized clinical intake forms used by Bidan (midwives) and community health workers from a paper instrument to a mobile data capture platform surfaced two distinct failure modes: interrater variability in form completion, arising from inconsistent interpretation of an identical paper instrument across health workers, and performance degradation in the digitized instrument, where XLSForm based mobile forms exhibited high latency or failed to render entirely under field conditions, a defect pattern also documented in other national deployments on the same platform.

ROLE

Program Manager for the THRIVE OpenSRP initiative through 2015, directing a team of 4 software developers and 6 field data collectors across 16 districts, and serving as primary technical liaison to the OpenSRP Consortium and its Principal Investigators (Harvard, Jhpiego, and affiliated partners).

WHAT WAS BUILT

- Conducted structured interviews with Bidan and health workers to isolate the specific form elements responsible for interrater variability
- Facilitated a consensus session with the Lombok health department to establish a standardized completion protocol, since form content itself was fixed by health department rules and could not be independently modified
- Digitized the approved instrument using XLSForm technology within those constraints
- Designed and executed a field timing study, measuring form load and completion latency across multiple form types and areas to characterize the performance defect
- Compiled the resulting latency data into an evidence based report presented to Principal Investigators, Jhpiego, UNICEF, and the Consortium to justify a change in the underlying form rendering technology
- Deployed an interim mitigation, decomposing long form instruments into shorter, functionally equivalent segments, preserving content fidelity while the longer term technology change was pursued

RESULT

- The standardization protocol reduced interrater variability in form completion across Lombok within days of implementation
- Baseline timing data documented latency ranging from 20 seconds to 20 minutes per form, with a subset failing to load entirely
- Post intervention measurement, after the form decomposition mitigation, showed latency reduced to under 10 seconds for most forms and under 5 seconds for a subset
- The quantitative latency data gave the Consortium an empirical basis to authorize the longer term technology change
- The methodology and results received positive feedback at the Consortium review
- The initiative remained active after the role concluded in 2015 and has since closed