

Job Aid Smart Apps for Community Health Workers

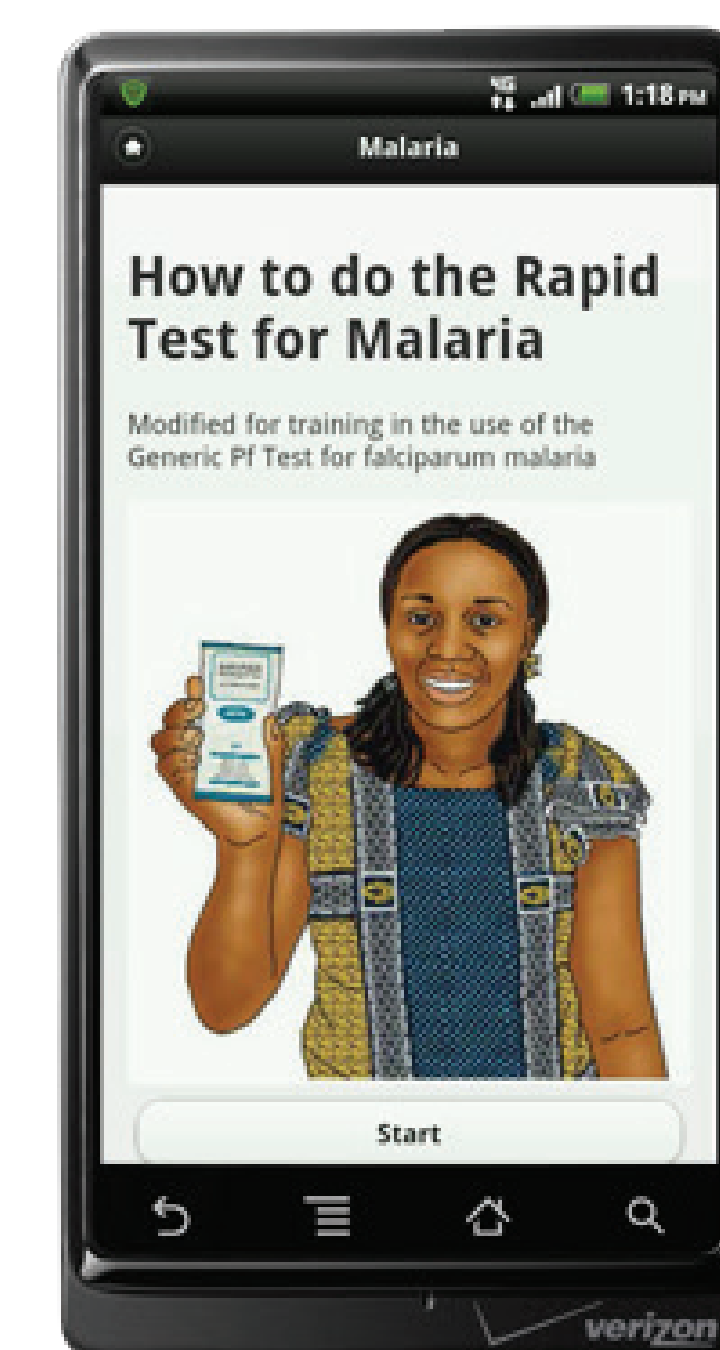
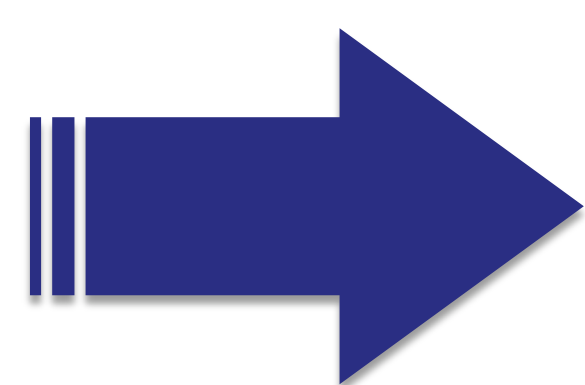
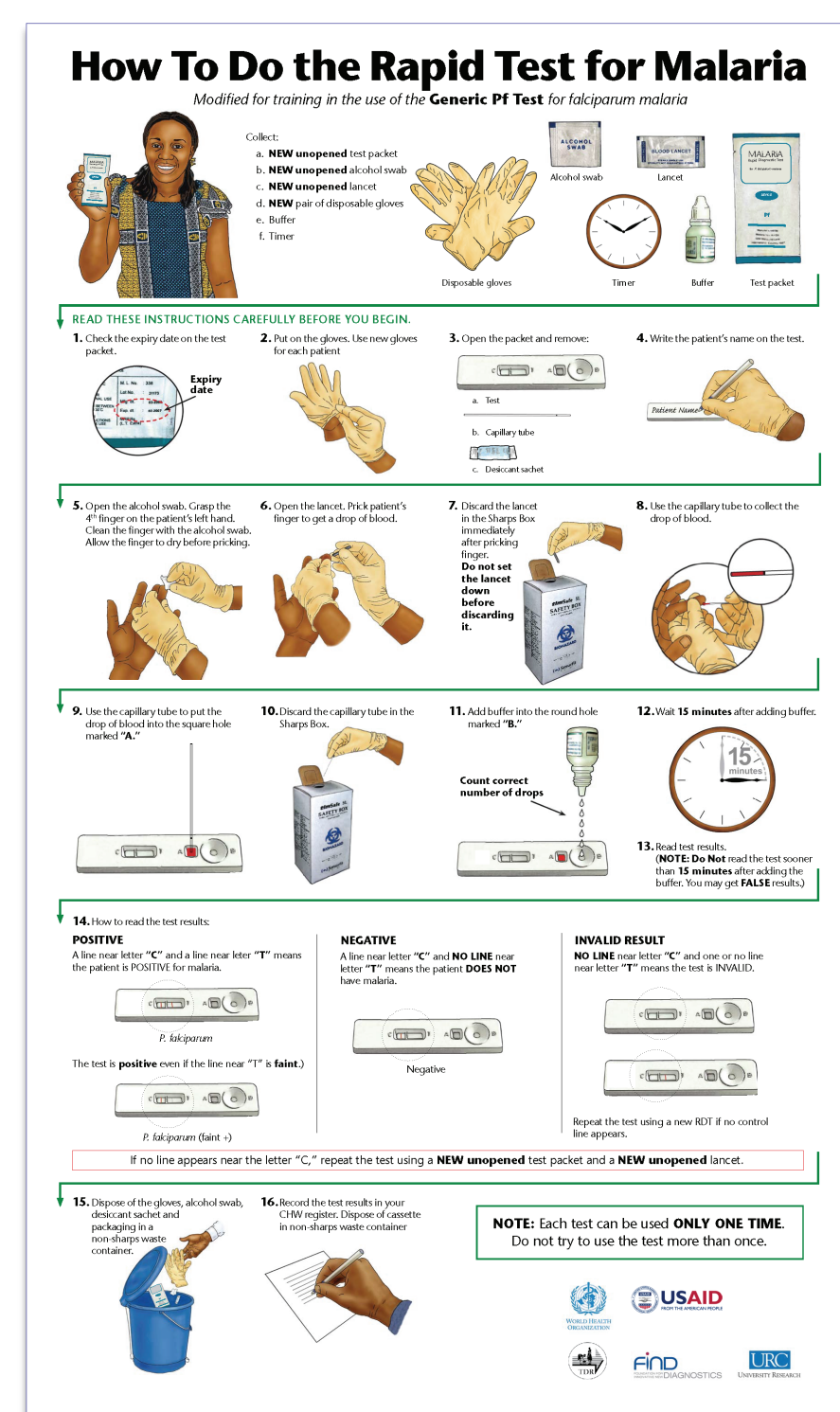
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Problem: Limitations of paper job aids

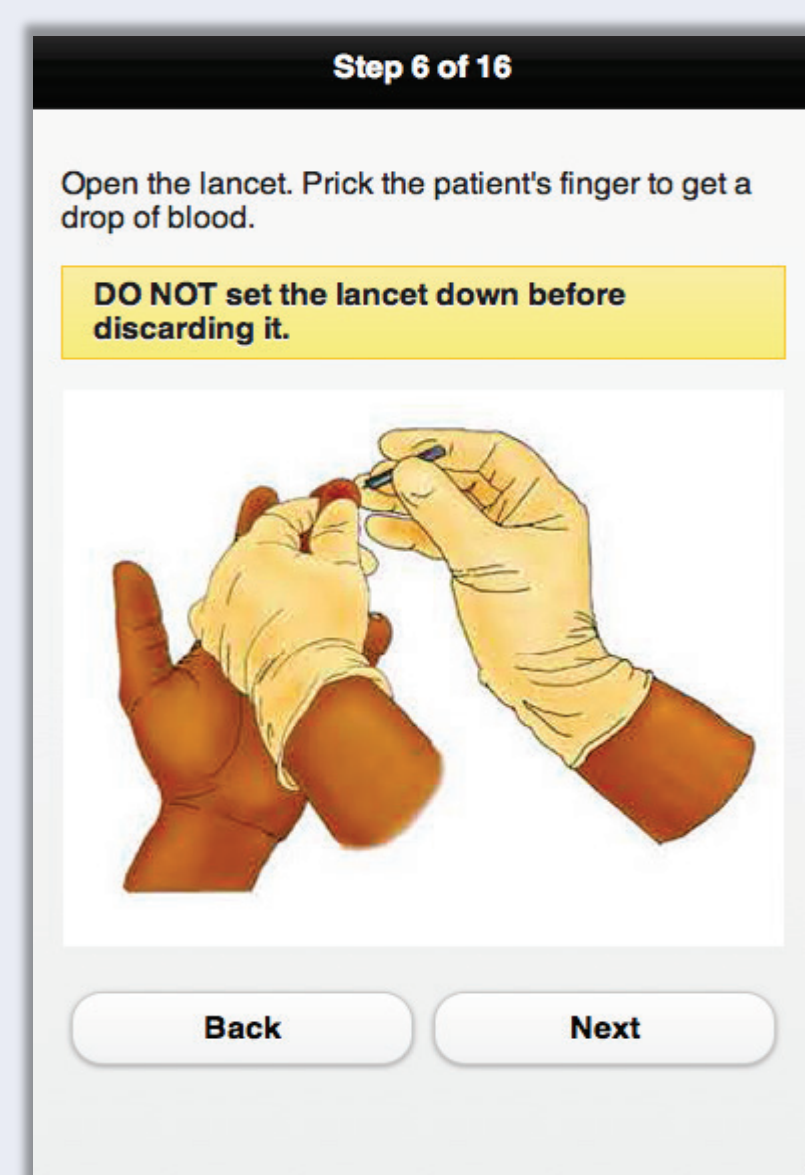
Procedures and calculations can be complex and hard to remember.

Solution: job aid smart apps

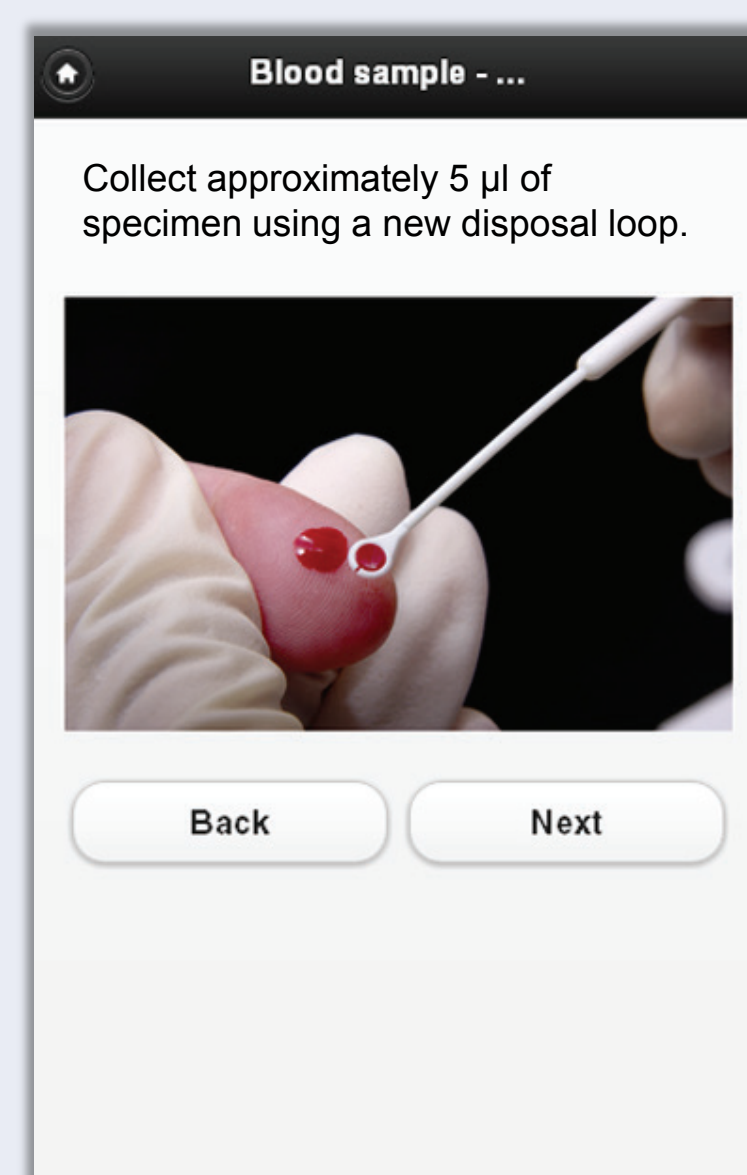
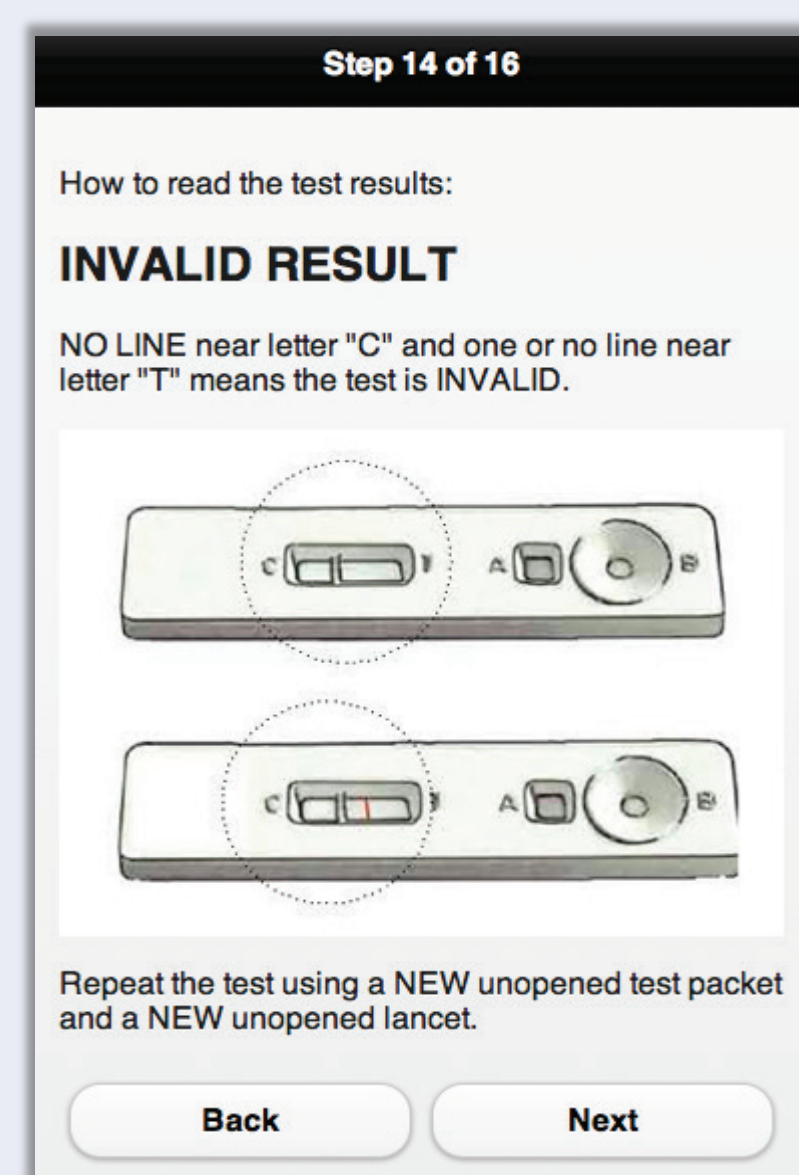
A job aid app could help community health workers perform with limited training.



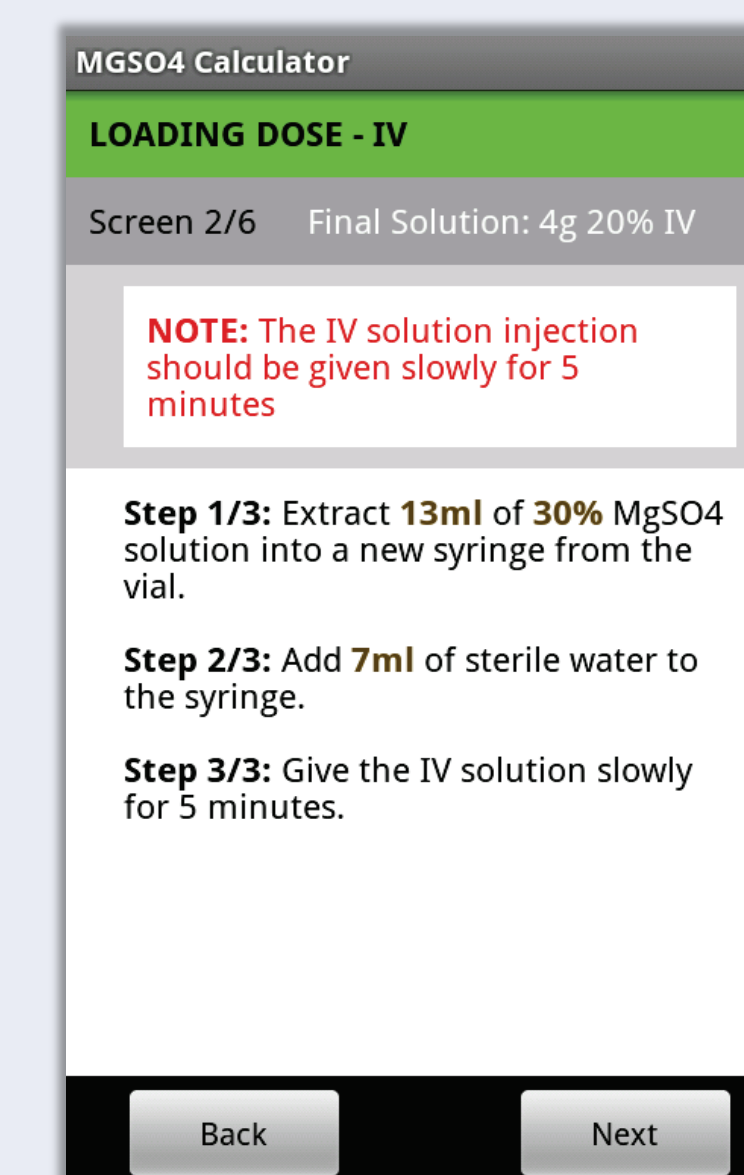
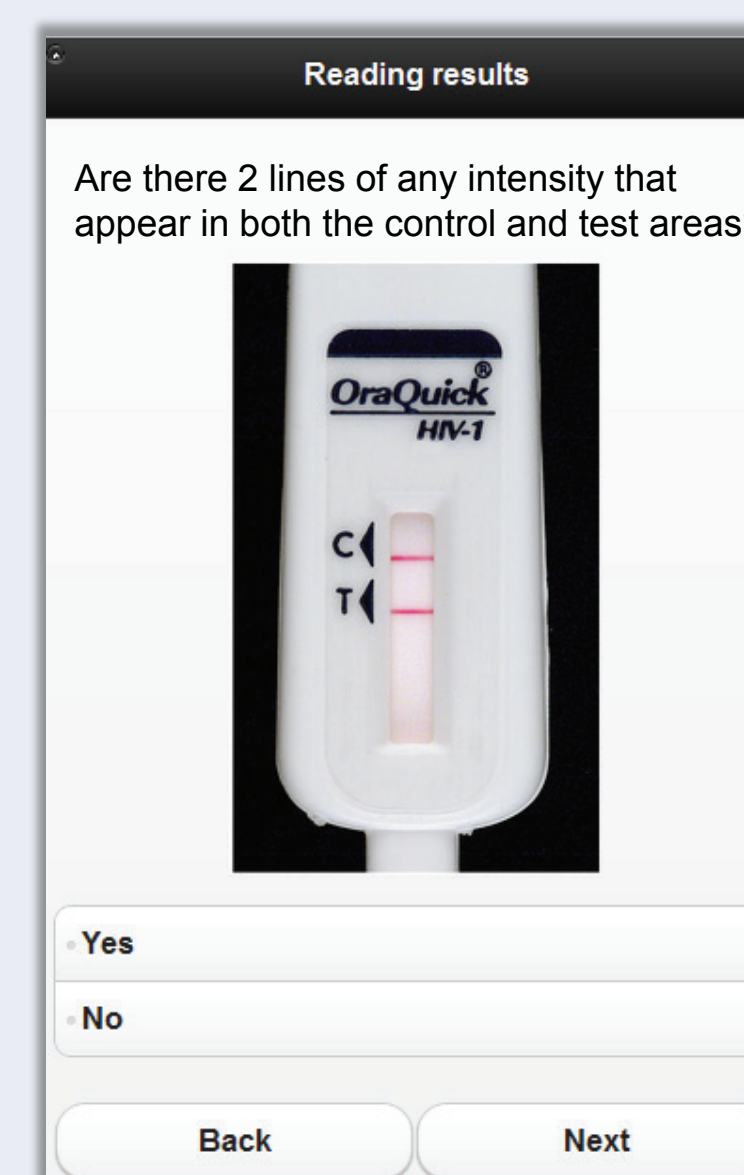
Job aid apps built



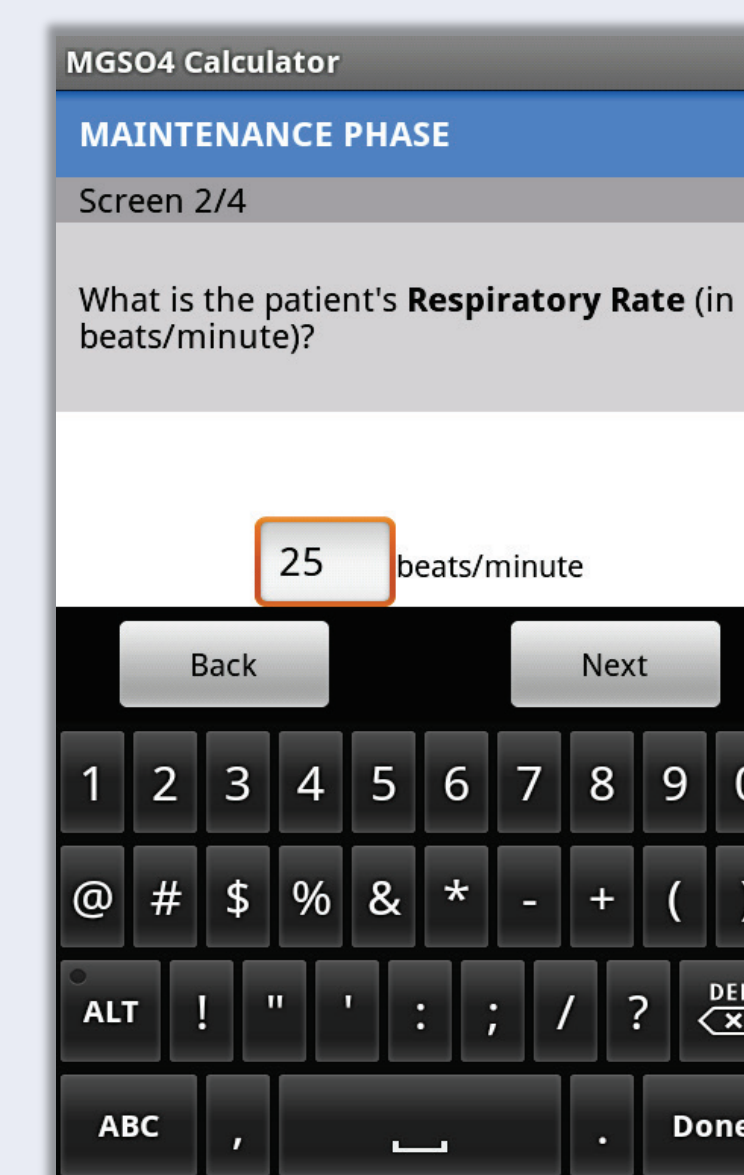
Malaria rapid diagnostic test



HIV rapid diagnostic test



Eclampsia prevention/treatment



Architecture

Rapid diagnostic test apps

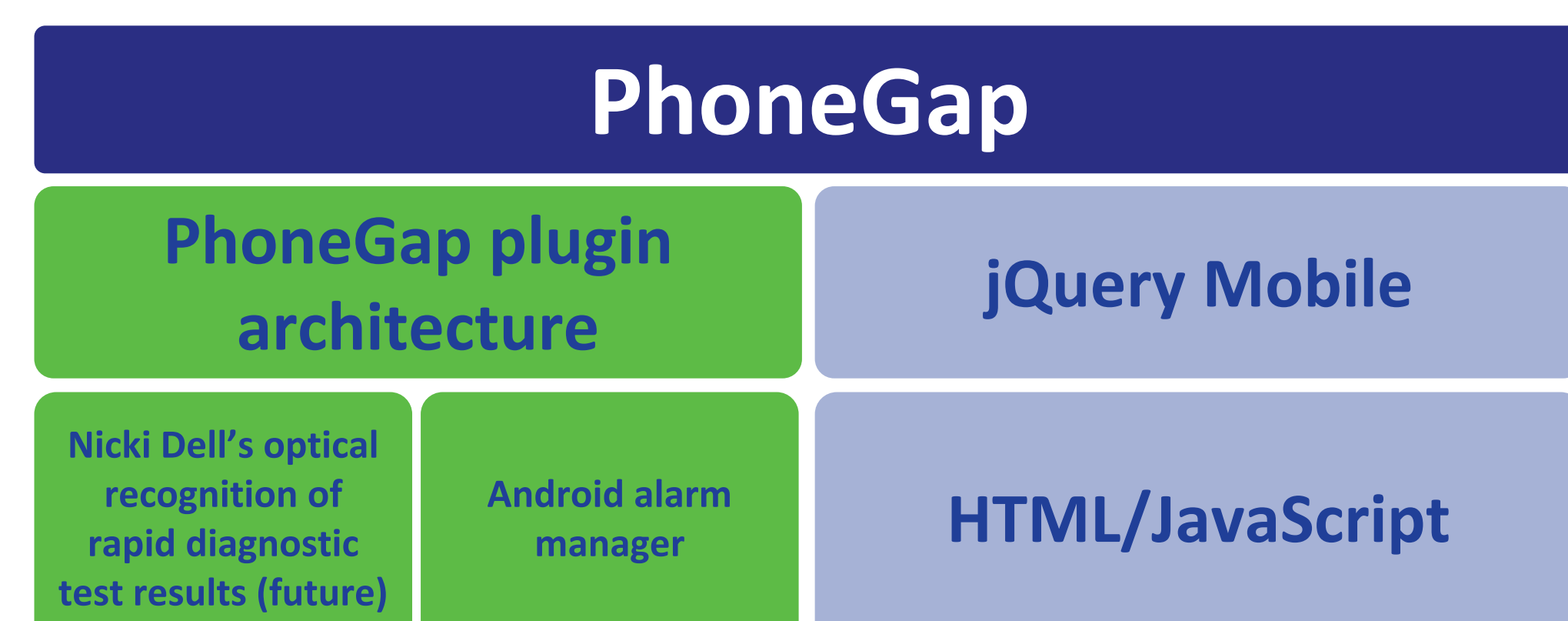
- Web apps using jQuery Mobile
- Deployed as Android app using PhoneGap

Eclampsia prevention app

- Native Android app

Key widgets

- Dosage calculator
- Timers
- Decision trees



Rapid diagnostic test app architecture showing native Android components in green and web app in blue.

Background and related work

- Health worker training and management is a major challenge in global public health.
- While many cell phone health interventions using SMS exist, to date there is limited work using smart apps for health workers in low-resource settings.

Field work

- Interviews and rapid testing with 10 public health professionals (Winter 2012).
- Usability testing with 7 participants familiar with international settings and/or health (Spring 2012).

User feedback

- Touch screen navigation was challenging for some—smart phone training may be needed for new users.
- Wearing gloves while using touch screen presented some difficulties.
- User feedback provided useful instructional design recommendations.
- Many users preferred job aid apps over paper versions.

Future work recommended

- Further testing with target users in low-resource/developing country settings.
- App builder for non-programmers (templating system).
- Integration of optical recognition of rapid diagnostic test results.