**Differing Workflows Require Flexible Software**

Below we show patient workflow diagrams for three different hospitals. Each site has differences in how they manage patients.

At the Lighthouse clinic (Figure S4.A) patients are triaged at a nursing station for referral to a doctor or clinical officer. However, at Salima district hospital (Figure S4.B) the clinical officer on duty is only available in the ART clinic in the mornings. Consequently patients are triaged at reception to ensure that all patients requiring a consultation with the clinical officer are identified as early in the day as possible. Zomba central hospital (Figure S4.C) has a separate workflow for Pre-ART patients (HIV-positive patients who are currently ineligible for receiving ART).

The ART EMR is designed to be sufficiently flexible to accommodate different workflows. This is implemented using a set of rules that control what functions of the EMR may be accessed based on the location of the touchscreen clinical workstation (TCW) appliance.
Patient arrives

Registration: Reception Area

Refer to clinician?

Yes

Diagnosis: Clinician Room

No

Dispense prescription: Pharmacy

Nurse Review: Nurse Room

Write prescription: Nurse Room

Patient leaves

Figure S4.A: Lighthouse clinic workflow diagram

Patient arrives

Registration and vitals: Reception Area

Refer to clinician?

Yes

Diagnosis: Clinician Room

No

Write and dispense prescription: Nurse Room

Nurse Review: Nurse Room

Patient leaves

Figure S4.B: Salima district hospital workflow diagram
Zomba workflow

Patient arrives → Vitals: Vitals Desk → Eligible for ART?

Yes → ART Registration

No → Pre-ART Registration

Nurse Review: Nurse Room

Refer to clinician?

Yes → Diagnosis: Clinician Room

No → Dispense prescription, nurse review: Pharmacy

Drugs prescribed?

Yes

No

Patient leaves

Figure S4.C: Zomba central hospital workflow diagram