Community Health Toolkit Reference App: Antenatal Care

Introduction

Welcome to the Community Health Toolkit's ANC Reference App!

The idea of a reference app was born of two truths: 1. designing and building an app from scratch is a significant undertaking, and 2. many unique program models exist and there is no such thing as a "one size fits all" app.
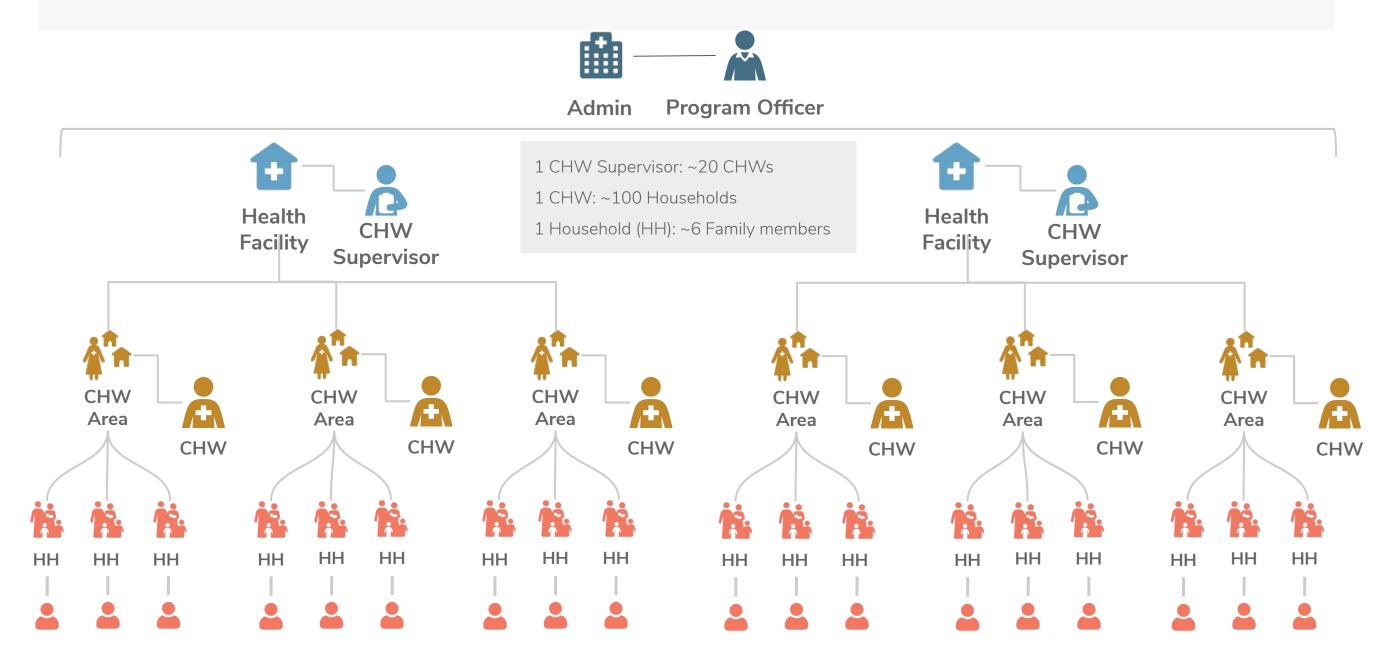
A reference app provides a foundation for forms, data fields, and analytics so that partners can easily customize workflows to their context. It has been designed to model an ideal way of structuring and organizing a workflow, its configuration code, and testing framework. Contained in this documentation is an overview of the ANC Reference App to guide you through its structure and workflows to help you understand how to use or modify it for your needs.

We hope you'll learn a lot and make it your own!

Hierarchies & User Roles:
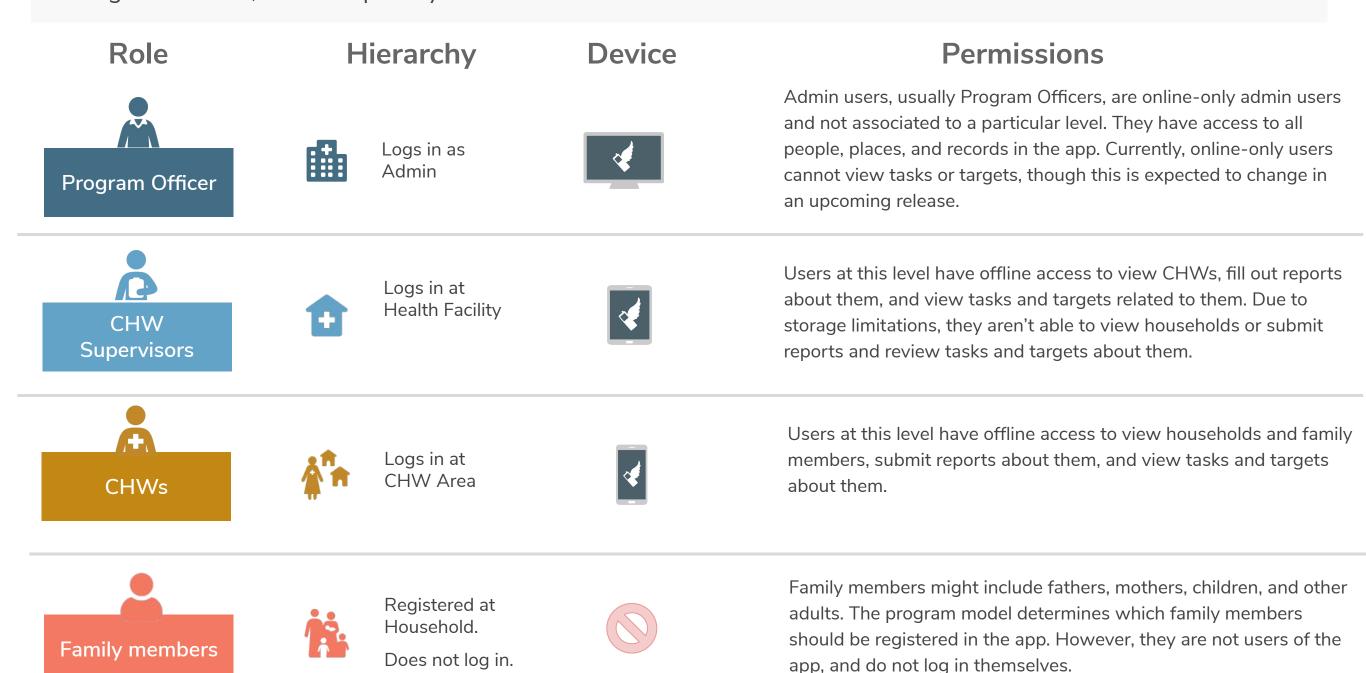## The App Program Structure

App Hierarchy

The app hierarchy is often modeled after the health system, health program or community structure. All people who are registered in the app must be associated with a place. These places are located in a hierarchy with other places. For instance, a Family Member is part of a Household. A Household and CHWs are part of a CHW Area. A CHW Area and nurses are part of a Health Facility. Additional levels may be added as needed. The Admin level operates outside of the hierarchy and gives access to all levels and people.

Admin   Program Officer

1 CHW Supervisor: ~20 CHWs

1 CHW: ~100 Households

1 Household (HH): ~6 Family members

Health Facility   CHW Supervisor

Health Facility   CHW Supervisor

CHW Area   CHW

CHW Area   CHW

CHW Area   CHW

CHW Area   CHW

CHW Area   CHW

CHW Area   CHW

HH   HH   HH

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User Roles

Some of the people who are registered in the app will also be users of the app, with their own login and permissions. Differing levels of access and permissions are assigned based on the role of the user who needs to log in. A user role is created to provide them with access to the information they need. Offline and online access, storage limitations, and data privacy are taken into account.

Role	Hierarchy	Device	Permissions
Program Officer	Logs in as Admin		Admin users, usually Program Officers, are online-only admin users and not associated to a particular level. They have access to all people, places, and records in the app. Currently, online-only users cannot view tasks or targets, though this is expected to change in an upcoming release.
CHW Supervisors	Logs in at Health Facility		Users at this level have offline access to view CHWs, fill out reports about them, and view tasks and targets related to them. Due to storage limitations, they aren't able to view households or submit reports and review tasks and targets about them.
CHWs	Logs in at CHW Area		Users at this level have offline access to view households and family members, submit reports about them, and view tasks and targets about them.
Family members	Registered at Household. Does not log in.		Family members might include fathers, mothers, children, and other adults. The program model determines which family members should be registered in the app. However, they are not users of the app, and do not log in themselves.

Forms and Workflows:
Content and Care Guides

Introduction to Forms & Workflows

This section includes documentation of the forms and workflows that tell a story of how the app will be used and for what purposes.
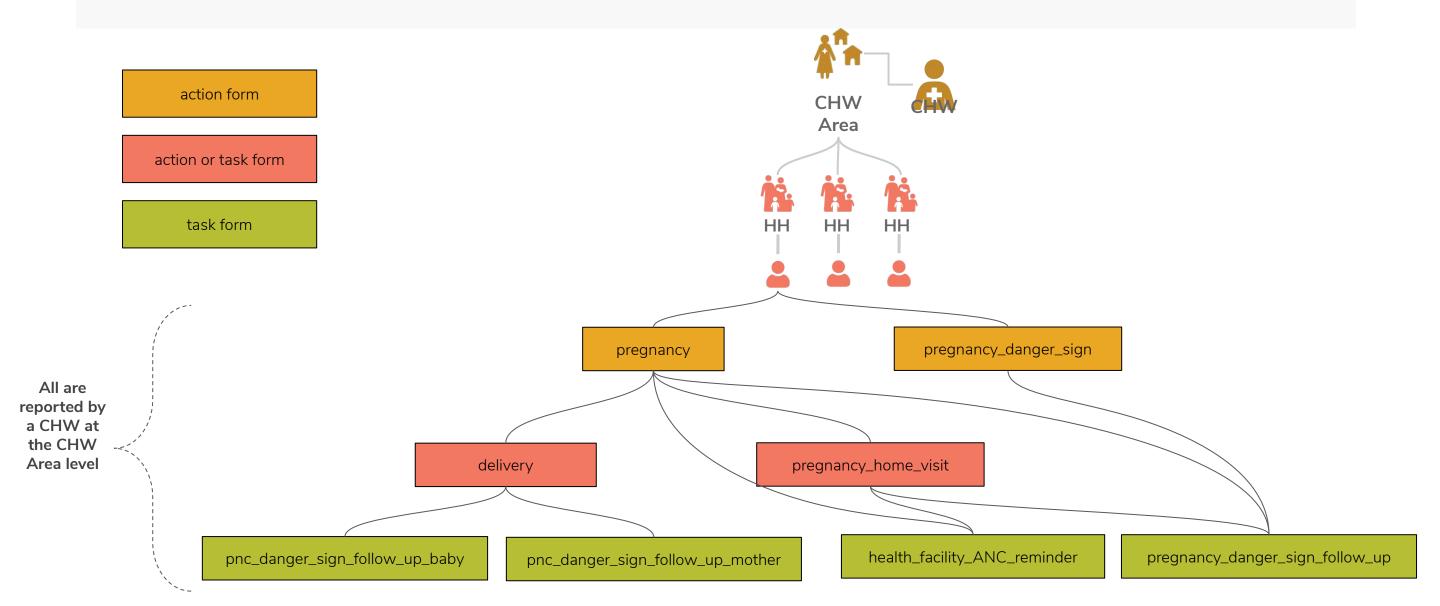
Documentation to forms and task schedules are linked from the workflow diagrams.

Within the form documentation is the summary page that will appear at the end of the form as well as the condition cards that will appear on the person's profile once the form is submitted. Accompanying this documentation are tips and insights into the design decisions made along the way, and suggestions for how and where to customize the forms to another context.

The task documentation are the "task rules" that determine what triggers a task, how long it displays, and what clears it.
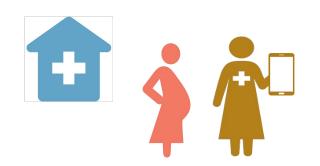
Form Hierarchy

Once a hierarchy of people and places is established, forms are added at different levels and workflows are created. This diagram indicates the forms that can be filled about a person in the app (in this case, family members at the household level), as well as the person/user who will access these forms and make the reports (CHWs at the CHW Area level). Some forms are accessible as actions from the family member's profile as **actions**, others from the CHW's task list as **tasks**, and some as either. For more information about how to control who can access forms and what conditions, check out the Forms Documentation on Github.

Pregnancy Workflow

Upon discovering a pregnancy, a CHW submits a **Pregnancy Form*** confirming a new pregnancy with the estimated gestational age.

Triggers: ➡

At the 8 ANC touchpoints defined by the WHO, the CHW receives a **Pregnancy Home Visit Task** to let her know that it's time to check in on the pregnant woman.

Completed When: ➡

CHW submits **Pregnancy Home Visit Form**, demonstrating that she provided ANC counseling, gathered information from prior facility visits, and screened for danger signs.

A **Pregnancy Form** is submitted with the gestational age unknown.

Triggers: ➡

A **Pregnancy Visit Task** appears every 2 weeks for 42 weeks.

Completed When: ➡

CHW submits **Pregnancy Home Visit Form**. If the gestational age is entered, the workflow will change to **Pregnancy Home Visit Tasks.**

A CHW submits a **Pregnancy Home Visit Form** that includes an upcoming facility visit date.

Triggers: ➡

A **Health Facility ANC Reminder Task** 1 week ahead of the facility visit to remind the woman to attend.

Completed When: ➡

CHW submits **Health Facility ANC Reminder Form,** confirming that she called or visited the woman to remind her of her upcoming facility visit.

If the CHW notices danger signs at any time, then she submits a **Danger Sign Form** and immediately refers the patient to the facility.

Triggers: ➡

A **Danger Sign Follow-Up Task** will appear immediately and is due 3 days later. Tasks persists for 7 days after due date.
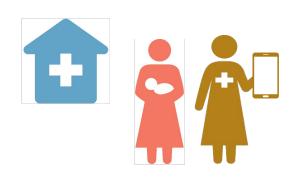
Completed When: ➡

CHW submits a **Danger Sign Follow-Up Form**, verifying that she called or visited the woman to confirm that she attended the facility. If this is not received, another **Danger Sign Follow-Up Task** is triggered.

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*Workflow documentation is available for the more complex forms and for all tasks. See "Additional Documentation" for context regarding their use.

Delivery Workflow

A currently registered pregnant person has reached a gestational age of 42 weeks and has not had a miscarriage or a delivery reported.

Triggers: ➡

A [Delivery Task](#) requesting that the CHW check in on the woman to see whether she has delivered.

Completed When: ➡

CHW submits a [Delivery Form](#), confirming the pregnancy outcomes. Profiles are created for each baby that is alive. This "ends" the pregnancy workflow.

A CHW submits a [Delivery Form](#) that contains a danger sign for mom or baby, or reports that either mom or baby are "alive and unwell."

Triggers: ➡

A [Danger Sign Follow-Up Task](#) appears immediately and is due 3 days later. Persists for 7 days after due date.

Completed When: ➡

The CHW calls or visits woman to confirm that she attended and submits a [Danger Sign Follow-Up Form](#). If this is not received, another [Danger Sign Follow-Up Task](#) is triggered.

If the CHW notices danger signs at any time, then she submits a [Danger Sign Form](#) and immediately refers the patient to the facility.

Triggers: ➡

A [Danger Sign Follow-Up Task](#) will appear immediately and is due 3 days later. Tasks persists for 7 days after due date.

Completed When: ➡

CHW submits [Danger Sign Follow-Up Form](#), verifying that she called or visited the woman to confirm that she attended the facility. If this is not received, another [Danger Sign Follow-Up Task](#) is triggered.

Additional Documentation

Full List of Links and Resources

Form-specific Diagrams
Documents the step-by-step logic of the most complex forms in the app, with context on the decisions that informed their design. This is to aid implementers in making sense of the skip logic and behaviors of these forms as well as serve as a resource in customizing them to different settings.
Pregnancy (Registration)
Pregnancy Home Visit
Delivery

Technical Specifications
Details the configuration of forms, tasks, and targets in the app, including schedules, calculations, formatting, content and more.
Forms
Tasks
Targets

Instructions
How to install, configure, edit, and use the Core Framework and reference app, for developers.
Core Framework repo on GitHub
Modifying the reference app