

## DESIGN REPORT

Supervisor Application - rCHMIS

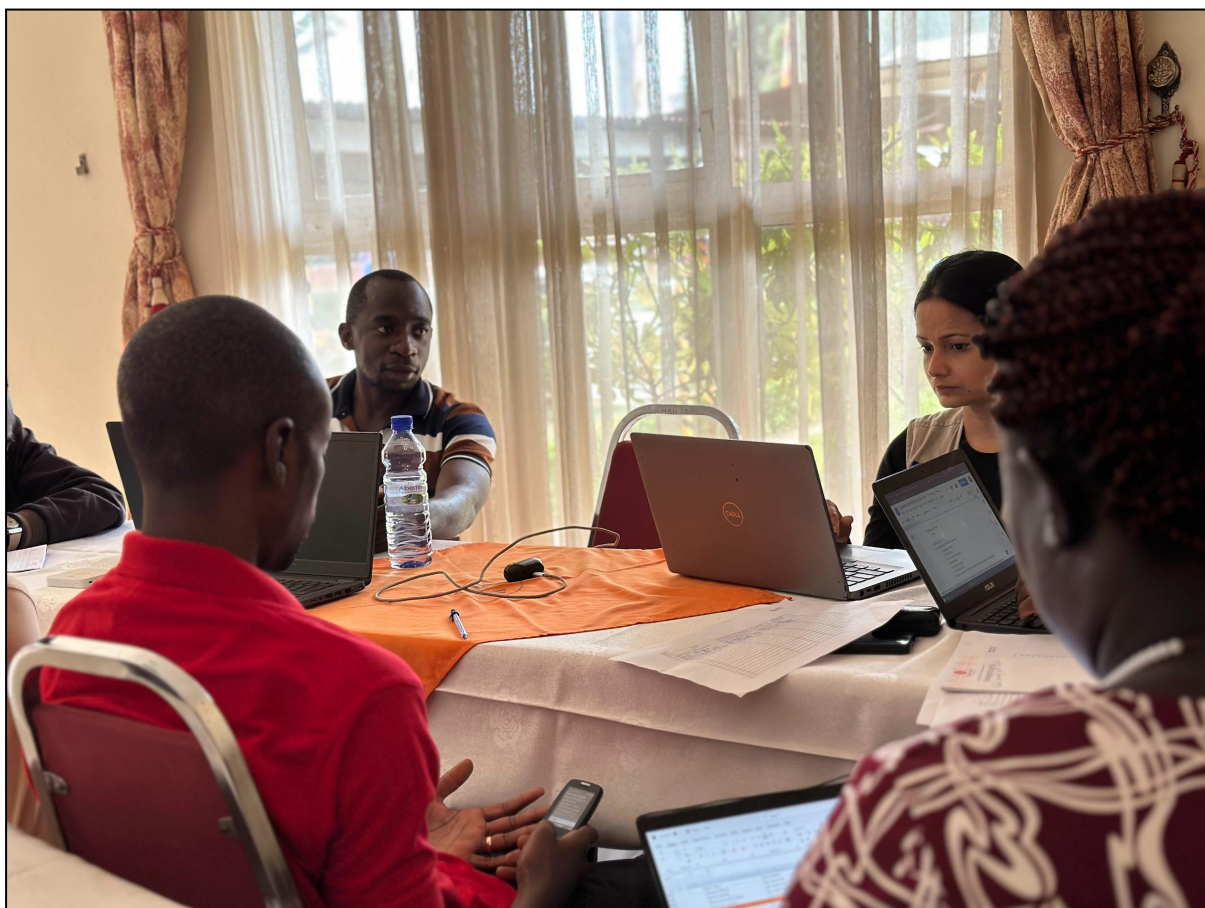
Supervisor Requirement Gathering

Site Location: Hoima, Uganda.

Design Trip Dates: February 27th to March 3rd, 2023

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## [1. Introduction](#)

## [2. Activity Overview](#)

## [3. Summary of Findings](#)

### [2. User Personas and Tools](#)

### [3. Scale Diagram/Infrastructure Availability](#)

### [5. Insights And Key Takeaways](#)

## [4. Next Steps](#)

## [5. Appendix](#)

## 1. Introduction

In 2022, the United Nations High Commissioner for Refugees (UNHCR), the organisation in charge of refugee settlement oversight, took the bold step of transforming the refugee setting health system from a paper-based framework to an integrated digital system. Since then, [Guild Digital Solutions](#) has supported the design, development and successful deployment of a [VHT app](#) and an [impact monitoring](#) platform currently used in two major settlements Kyaka II and Kiryandongo refugee settlements.

This digital system, aptly named the refugee setting Community Health Management Information System (rCHMIS), supports the community health programmes of International Rescue Committee (IRC); Medical Teams International (MTI); African Humanitarian Action (AHA); Save the Children; as well as Water Mission and Oxfam who operate Water and Sanitary Health (WASH) programs. The catalogue of partners and health programmes supported by this intervention is set to increase with the scale of the solution to other settlements.

UNHCR, and partners, in keeping with their commitment to improve the quality of the community health program are partnering with Guild Digital to introduce a Supervision module for the rsCHMIS. While digitising the VHT component of settlements' community health work has strengthened the community health system, it is critical for supervision to be aligned with these efforts in order to maximise the impact of the rCHMIS system within partner health programs. The burden of community health work is mainly shouldered by Village Health Teams (VHTs). This presents numerous challenges to VHTs around workload;

excessively client numbers; and large catchments, among others. This is exacerbated by inadequate supervision and insufficient economic and material support. Supervision of VHTs is an important function of any healthcare system, however, it is frequently misunderstood and undervalued.

In February 2023, Guild Digital conducted the first design activity for a supervisor app with key settlement partners in Hoima and Kikuube district (formerly part of Hoima District) which hosts Kyangwali Refugee settlement to gather requirements for the supervisor app.

This activity spanned 5 days from the 27th of February to 3rd March, 2023. Three (3) key health implementing partners participated in this activity namely, IRC, MTI, and AHA. While in Hoima, Guild also supported partners to build capacity on the deployed products - the VHT app and [Klipfolio dashboards](#) - in preparation for scale up in the eleven (11) remaining settlements distributed around Uganda.



In the refugee community, supervisors who are usually Public Health Assistants (PHAs) are responsible for monitoring the activities of VHTs and supporting them with coaching, technical and moral support.

This design activity aimed to learn and discover current practices of refugee setting supervision; the extent of PHAs and other personnel's involvement in supervision; and areas of opportunity for a digital tool to support supervision, in order to determine an ideal supervisor persona and roles within the current hierarchy of the settlement. These insights will inform workflow development, sketches, and system maps. The people centered approach was preferred for its capacity to derive actionable insights. We scoped for One-on-one interviews and Focus Group Discussions were the qualitative methods used to gather insights.

## 2. Activity Overview

### Visit objectives.

1. To identify key personas involved in supervision in refugee settings.
2. To map out information and data flow between the VHTs and PHAs.
3. To understand the supervision process and activities.
4. To establish a reasonable compromise in the settlements' hierarchies which are presently different on a settlement-to-settlement basis.
5. The objective is to map out the specific workflows and indicators that supervisors monitor and report about, including the indicator targets set for VHTs and the actions they follow-up on to achieve these targets, as well as how these targets are aggregated.

### Methodology

We conducted a focused group discussion with seven supervisor profiles, covering topics such as settlement hierarchies within the settlements and at the national level, supervisor actions and targets, current constraints, and digital opportunities. Additionally, we conducted one-on-one interviews with seven users, using the attached interview guide to direct the discussions. Eight settlements were represented against the total thirteen refugee settlements. These are Rwamwanja, Kyangwali, Kampala, Bidi Bidi, Adjumani, Palorinya, Rhino Camp, and Kyaka II refugee settlements. Out of the fourteen participants, six were Public Health Officers, two MEALS Officers, two Public Health Assistants, one Health Coordinator, one Senior Community Health Officer, one Community Health Advisor and one Assistant Public Health Officer.

Key Informant Interviews were conducted with the following participants:

1. MEAL, MTI - Palorinya refugee settlement
2. Assistant Public Health Officer, UNHCR - Kyaka II Refugee Settlement

## 3. Summary of Findings

### 1. Key findings

The settlement hierarchies of supervision vary from settlement to settlement, as different partners support various program areas within them. For instance, some partners may

support WASH programs while others may support Health Interventions. The role of supervision is typically carried out by Public Health Assistants or Public Health Officers, who are usually based either at the program offices or attached to a health facility. Public Health Officers are mostly responsible for supervising the work of Public Health Assistants.

Supervisors play a crucial role in monitoring the trends of health programs, overseeing and reporting on the activities of Village Health Teams (VHTs), and assessing the reporting rates of program interventions. They track specific indicators to follow up on VHT activities, such as referrals, home visits, community deaths, mute and unmute requests, materials and supplies, maternal and reproductive health, Integrated Community Case Management (ICCM+), community-based disease surveillance, Water, Sanitation, and Hygiene (WASH), nutrition, health promotion, and monitoring of HIV and TB. In addition to desk-based monitoring, supervisors also visit and shadow VHTs during home visits. This type of visit is typically triggered under three circumstances. 1. When a red flag is identified (For example: when a VHT records the same results for clients treated, similar respiratory breaths counted, same temperature recordings, when a client denies being treated by a particular VHT or the state of physical state of medical packages). 2. when supervision is required by a given VHT. 3. During routine supervision.

The individuals primarily responsible for overseeing the activities of Village Health Teams (VHTs) are Public Health Assistants (PHAs), who typically supervise between 150 to 250 VHTs. The information from the two settlements currently deployed indicates that PHAs report to either Public Health Officers or Senior Community Health Officers. A Public Health Officer usually supervises at least 5 PHAs daily and carries out their daily tasks such as administrative duties, coordination of facility activities, and community engagement responsibilities. To report on their activities, PHAs and PHOs utilise a combination of paper-based (yellow report) and digital tools (Klipfolio, 097B, workplan, Epi collect from MTI. For instance, MTI employs Epi Collect, a soft copy form that enables them to collate paper reports, which are then uploaded to MTI dashboards for visualisation. They collect data from VHTs on a weekly or monthly basis, which is also reported weekly, monthly, and quarterly.

## 2. User Personas and Tools

Supervisors train, coach, and support the work of VHTs in the refugee settlement and assist them to meet their weekly, monthly and quarterly targets. They usually split their time between administrative duties at the local health facilities, partner program offices, and accompanying VHTs on community based activities. They are often Public Health Assistants who possess a certificate in Environmental or Public Health.

Table 1: Partner User Personas in the Refugee Settlement Setting

Role	Persona	Description	Tools Used
Public Health Assistant	Siri	A VHT supervisor at Medical Teams International (MTI) based in Palorinya Refugee Settlement. He would like to have control of what VHTs have to do. He trains, provides supervision and support VHTs and helps them meet their weekly, monthly and quarterly goals.	Presently, he uses paper-based tools for VHT support and supervision of set targets, reporting, and facility activities.
Health Coordinator	Naturinda	Designs health programs and oversees their implementation. She would like to receive prompts of VHT activities for consistency per training. She would like a tool that scores VHT performances in terms of consistency and accuracy of reporting. The tool should be able to assess for coherence.	Presently, she uses paper-based tools aggregating VHT performances, and reporting program implementation.
Assistant Public Health Officer	Twinomugisha	Works for UNHCR. He oversees partner supervisors, UNHCR health programs and quality management. He offers training and leadership to partner supervisors and is responsible for resource mobilisation and allocation. He also provides a link between field	He presently uses a combination of digital and paper-based tools to complete his work.

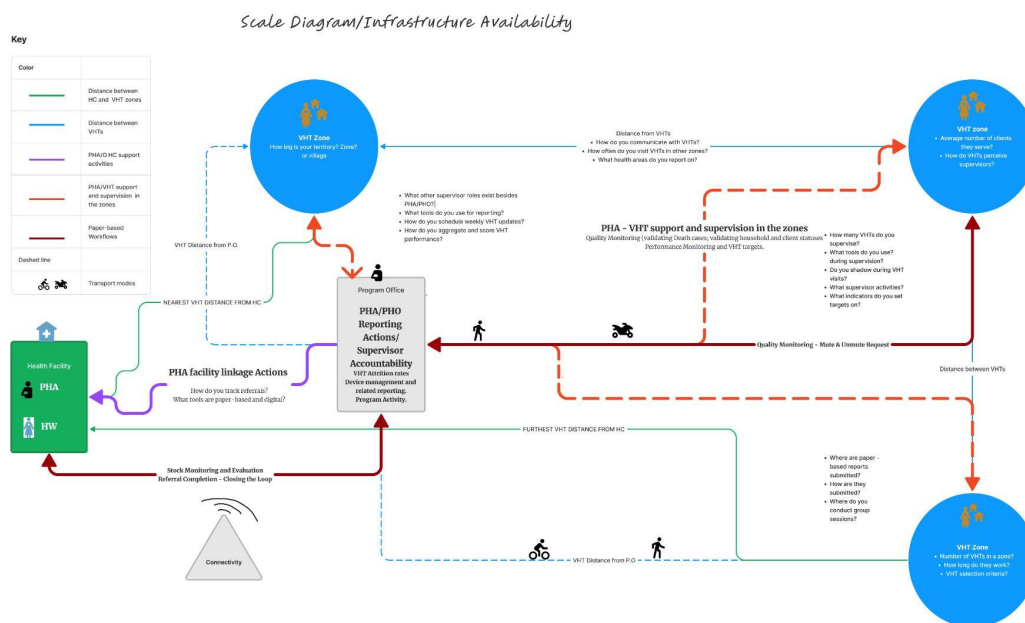


		operations and the head office and supervises health assistants in implementation of community health activities and monitoring of ongoing activities in the community. His wish is for a digital tool that can enable him to view individual VHT work, key community gaps in VHT performance, and quantify gaps in health delivery. He also wants the tool to be able to pick up critical points from VHTs, set tasks for different supervisors, and receive raw data from VHTs.	
Partner &/or UNHCR Data Managers	Lodong	Works with UNHCR and is responsible for collating and reporting on community and health system data. He follows up with supervisors and nurses to verify data and retrieve missing information, oversee programs, quality assurance, training and offer leadership and resource mobilisation and allocation.	He currently uses the dashboard to report on community and health system data collated using the VHT app.
Senior Community Health Officer	Lilith	Who supervises PHAs at the International Rescue Committee (IRC) based in Rhino Camp. She coordinates MOH district and community health activities. She is responsible for community disease surveillance and communication. And supervises all activities of all health assistants, coordinates with the district on project	Presently, she uses paper-based tools for supervisor and VHT support activities, supervision of set targets, reporting, and

		<p>implementation and adherence to Ministry of Health guidelines, disease surveillance, community sensitization, design health delivery systems, and conduct community wellness programs. She would like to have double access to the word done by both PHAs and VHTs.</p>	<p>district coordination.</p>
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### 3. Scale Diagram/Infrastructure Availability



### 4. Current Care Workflows covered by Supervision Work and User Needs and Stories Referrals

In the settlement hierarchy, supervisors' profiles are in charge of confirming referrals made by VHTs to the Health Facilities. They also keep track of the number of referrals who have accessed the facility and follow up on those who haven't. Additionally, they evaluate the VHTs' performance and score them based on program targets. The present referral process is manual and the available CHT infrastructure isn't supported at health facilities to close the referral loop. As a result, sometimes the number of referrals are not accurately captured

*"As a Public Health Assistant, I want to be able to receive a ping/alert on the supervisor app whenever a referral is made. For example when a maternal death report is recorded by a VHT, referral for bloody diarrhoea and any suspected cases for Polio, measles, etc so that I don't have to wait for a full week to receive a report through the dashboard of these cases so verification and confirmation can be promptly made as and when it occurs." Public Health Assistant*

*“As a Health Assistant, I want the tool to capture referrals as a separate workflow as per the new MTI referral register and for the dashboard to incorporate all referrals for example: referral actions that are specific to Household/Home visits. At VHT level, I want a barcode generated referral submission form that can be printable by a VHT and shared with patients to be scanned at the Health Facility so as to close the loop of referral.” Health Assistant*

### Materials and Stock

Supervisors monitor and report on VHT consumption rates, record stock quantities, verify physical quantities against VHT app quantities. This process is currently done manually. A supervisor dispenses medical supplies to VHTs who receive and record the various quantities within their App. Meaning, the supervisor records stock count into the App upon receiving from the Health Facility. This happens at the beginning of the cycle / month. Supervisor assigns stock quantities according to VHT consumption rates. Supervisor compares and verifies physical quantities against VHT app recorded quantities against consumption rates.

*“As a Public Health Assistant, I currently still use paper-based tools to report and monitor stock especially for ICCM. I want to be able to view on the dashboard the consumption rates for Rapid Malaria Test (rMDT) per village, and the stock levels of the same for the 11 VHTs who are specifically tasked with this so as to know when to replenish based on catchment’s consumption rates and verify physical quantities with a physical evaluation.” Public Health Assistant*

### Reporting

Supervisors currently track and monitor VHTs’ reporting trends on the following health indicators; EPI (Expanded Program on Immunisation) - Supervisors report on the number of children vaccinated and track number of defaulters/missed appointments.

Reproductive Health - Supervisors map and report on pregnancy registration, referrals, high risk pregnancies, health facility births, ANC coverage, family planning coverage, post natal, SGBV cases and frequency of VHT visits.

ICCM - Number of VHT reports submitted in a month, referrals against consultations,

number of home visits conducted, children identified as sick for malaria, diarrhoea and pneumonia and recoveries.

TB - Number of persons with TB, 100% screening of TB, and number of persons on TB treatment. HIV - Number of persons with HIV, 100% screening of HIV, and number of persons on HIV treatment.

Nutrition - Supervisors monitor VHT reporting rates on the number of MUAC screening under 5, MUAC screening of expectant mothers, number of MUAC screenings under red or yellow, and number of referrals made by a VHT under MUAC red or yellow.

## WASH

Supervisors track the metrics that support the performance of WASH-related activities and interventions in their respective zones and villages. These indicators help supervisors track the progress towards achieving WASH-related goals, identify areas for improvement, and make data-driven decisions. Some examples of WASH indicators that supervisors may track include:

- Percentage of households with access to improved water sources
- Percentage of households with access to improved sanitation facilities
- Percentage of households practising good hygiene behaviours (e.g., handwashing with soap)
- Number of water points and sanitation facilities constructed or rehabilitated
- Number of community members trained on WASH-related topics
- Number of cases of waterborne diseases reported in the community

The specific WASH indicators tracked may vary depending on the context and the objectives of the program or project.

*"As a Public Health Officer in a refugee setting, I need a standardised reporting tool to effectively collect and manage data collected from VHTs. So that it can standardise reporting across different implementing partners, reducing confusion and over-reporting while ensuring that all required data is captured. And allow for easy compilation and disintegration of data collected from VHTs, reducing the time spent on data management."*  
*Public Health Officer*

*"As a Public Health Officer, I need a unified reporting tool that captures all the relevant*

*indicators for VHT reporting, so that I can streamline the reporting process and ensure accurate and timely data collection. Currently, I am faced with challenges such as the absence of a standard form of reporting and over-reporting during surveillance, which can lead to inaccuracies in the data collected. A unified reporting tool would enable me to collect all the necessary information in one place, reducing the chances of errors and improving the efficiency of the reporting process.” Public Health Officer*

## Home Visits

Settlement supervisors track various indicators related to home visits, including:

- Frequency of home visits: Supervisors track the frequency of home visits made by VHTs to ensure that they are visiting households as per the schedule and meeting their target. VHTs are required to visit at least one household per month and in the case of households with under 5s at least twice monthly.
- Quality of services provided during home visits: Supervisors track the quality of services provided by VHTs during home visits, such as counselling on family planning, hygiene promotion, or nutrition advice, to ensure that the VHTs are providing accurate and reliable information to the community members.
- Completion of home visit checklist: Supervisors track the completion of the home visit checklist by VHTs , which includes various indicators like maternal and child health, WASH, and nutrition status of the household, to ensure that VHTs are collecting complete and accurate information during home visits.
- Identification of red flags: Supervisors track the identification of red flags by VHTs during home visits, which include signs and symptoms of different diseases, to ensure that VHTs are identifying sick individuals and referring them to health facilities.
- Follow-up of referrals: Supervisors track the follow-up of referrals made by VHTs during home visits to ensure that patients are receiving the necessary treatment and care at health facilities.

*“As a Public Health Officer, I need a workflow for home visits that is integrated into the Refugee Setting Community Management Information System (rCHMIS) to ensure that VHTs are able to efficiently track their progress and report on their work. It should also allow easy communication between VHTs and supervisors, enabling us to provide guidance and*

*support remotely.” Public Health Officer*

*“As a Public Health Officer, I need a workflow for home visits in the new reporting tool, so that I can track the progress of VHTs and ensure that they are providing quality services to the community. VHTs face challenges such as unwilling households to receive services, and the absence of a workflow for home visits can make it difficult to monitor their work. A workflow for home visits would enable me to ensure that VHTs are conducting visits in a systematic manner and addressing the needs of the community effectively.” Public Health Officer*

### Performance Monitoring

*“As a Public Health Officer, I hope the tool can allow real-time monitoring of the performance of VHTs with built-in alerts and notifications so that I am notified of critical issues as they arise and can identify areas where additional support is needed for improvements and additional support.” Public Health Officer*

### Quality Monitoring

**Death Report** - Supervisors support the quality of VHT reporting by sharing some of the responsibility in case completion actions performed at the community. Previously, supervisors used to perform manual verification of death cases that were recorded in the paper-based tools used by Village Health Teams (VHTs). In such cases, when a client was reported as deceased, a supervisor would physically visit the location or household of the deceased to confirm the report. However, with the introduction of the VHT app, VHTs began submitting death reports using the app, under the longitudinal profiles. In this new system, supervisors occasionally conduct spot-checks to verify the information that has been reported on the dashboards. This verification activity is still documented manually.

**Mute and Unmute Requests** - Similarly, they verify mute reports, approve mute and unmute requests. Supervisors support the quality of VHT reporting by sharing some of the responsibility in verifying household movement and relocation i.e) verifying a mute request. Upon the discovery of a household or client that has relocated, a VHT completes and submits a mute request form within their app. Supervisors currently access updates on mute and unmute requests through the dashboard, and then schedule with the VHT to verify this

information. Supervisor visits the case site to verify and complete the verification form. VHT records reflect the verified report (muted household) under client's longitudinal record.

*"As a Public Health Assistant, I need to verify death reports submitted by Village Health Teams (VHTs) on the Supervisor App. This involves occasional spot-checks to confirm the accuracy of the reported information, including visiting the location or household of the deceased to verify the report. By doing so, I can ensure the quality of VHT reporting and provide accurate information to the relevant authorities." Public Health Assistant*

*"As a Public Health Officer, I am responsible for verifying mute and unmute requests filed by VHTs via the app. This entails visiting the reported client's home or location to verify the information submitted and complete the verification form. This allows me to ensure that the client's profile and record is accurate and up to date, and that the VHTs report household movement and relocation in a timely and accurate manner." Public Health Officer*

## 5. Insights And Key Takeaways

1. All supervisors within the selected eight settlements share common workflows.
2. All supervisors agree to the same hierarchy of roles as per the Ministry of Health.
3. Settlement hierarchies of supervision may differ from one settlement to another.
4. The most common supervisors of VHT roles are Public Health Officers.
5. There has been a tool used for supervision be it paper-based or software but not unified for all work flows carried out by the VHTs.

## 4. Next Steps

Guild Digital will use the next quarter to review reference workflow documentation and literature; document workflow design; validate workflow; and workflow configuration. The defining stage will include a collective design sprint through ideation and brainstorming with settlement supervisor profiles to better define supervisor needs and requirements.

## 5. Appendix

-  Supervisor Workflows [Discovery Interviews]
-  Supervisor Workflows [Discover FGDs]
-  Supervisor Workflows Discovery Interview Questions
-  Resource Gathering Call
-  Refugee referral Form.doc
-  VHT Supervision Checklist\_Uganda.docx
-  VHT Supervision Checklist Instructions.doc
-  REGISTER FOR CHILDREN.xlsx
-  REGISTER PLW WOMEN.xlsx
-  VHT DAILY HOME VISITS.xlsx
-  VHT POPULATION COVERAGE.xlsx
-  VHT WEEKLY REPORT.xlsx