

# Collecting patient level dHTS data in intermittent power and internet environment

## ScanForm Technology



# Where from

1. Malaria surveillance Project-Kenya
2. Piloted in Malawi -2021
3. First deployment-2022
4. Phased approach – now in 692/800 sites



Ministry of Health, Government of the Republic of Malawi

## Report and Recommendations from Field Evaluation and Pilot

3-Test Rapid Diagnostic Algorithm for HIV

ScanForm Technology for Digitizing Client-Level Records from HIV  
Testing and Self-Test Distribution Registers

# Why ScanForm

1. Basic smartphone, simple user training
2. Phones can be charged anywhere and last for days, no need for stable connectivity
3. Cheap/easy national scale up (already in 692/800+ testing sites)!
4. Convenient data access and use via ScanForm phone, data portal, DHIS2, DHA-MIS

# How ScanForm works

## Rapid and Accurate Data Collection at National Scale



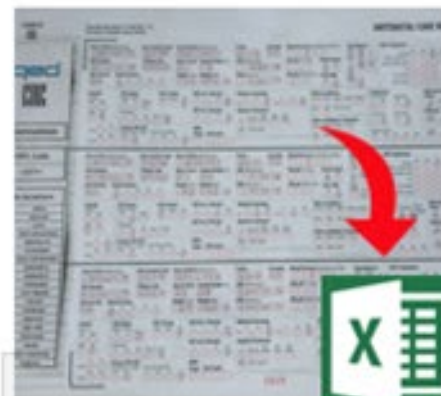
STEP 1

**Write  
on paper**



STEP 2

**Take a picture**



STEP 3

**Get  
the data**



STEP 4

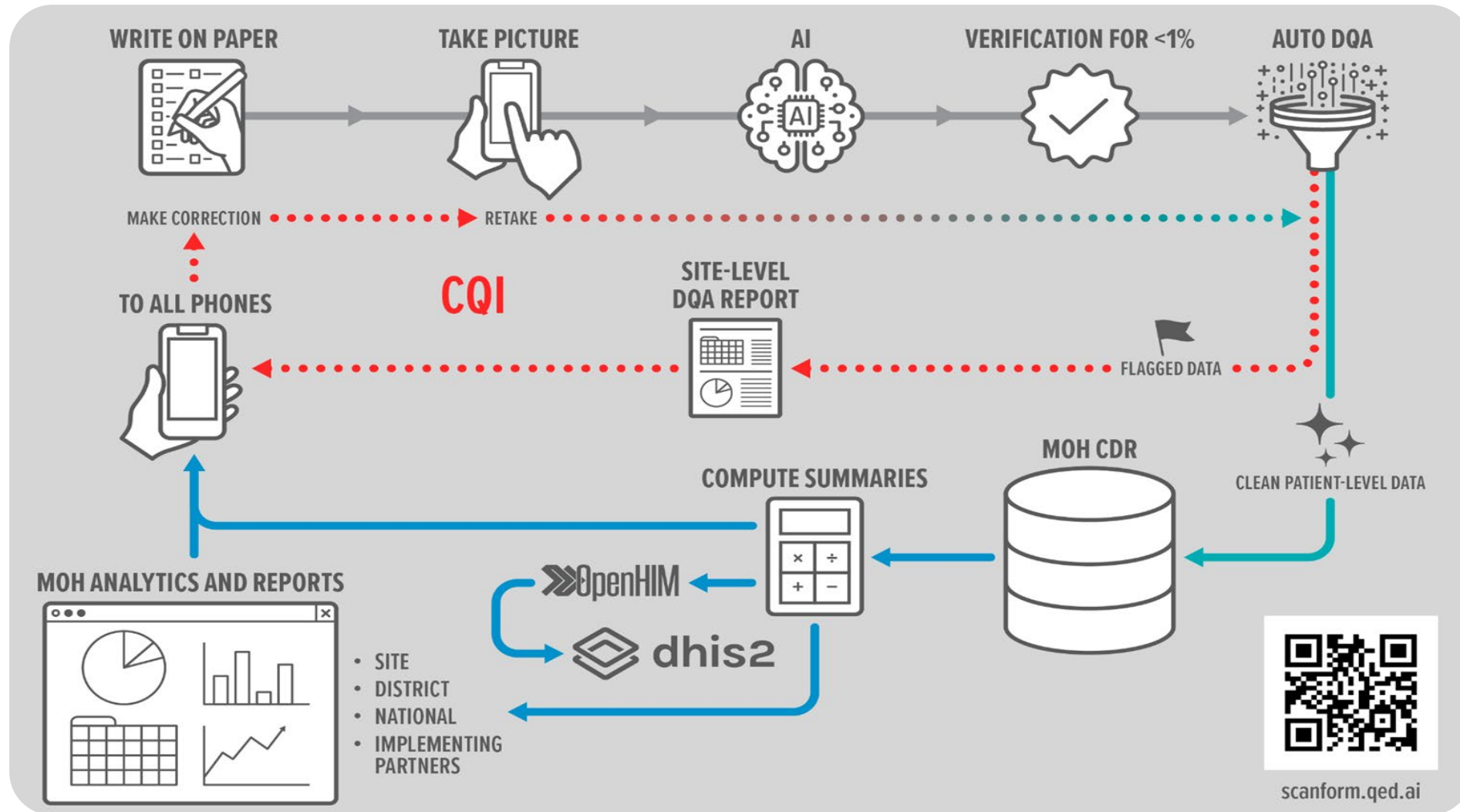
**Use  
the data**



*(not required: computers or scanners)*

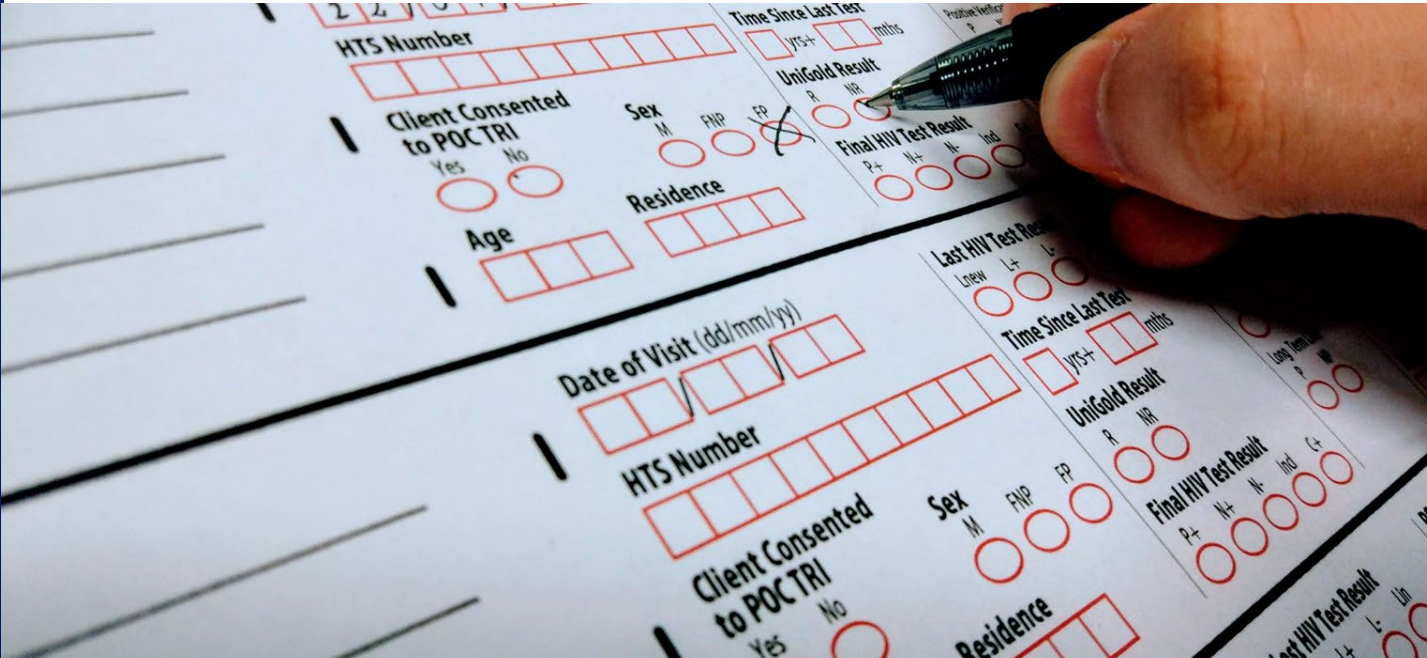
*(intermittently needed: electricity for phone charging and network for auto-upload of pictures)*

# ScanForm data flow



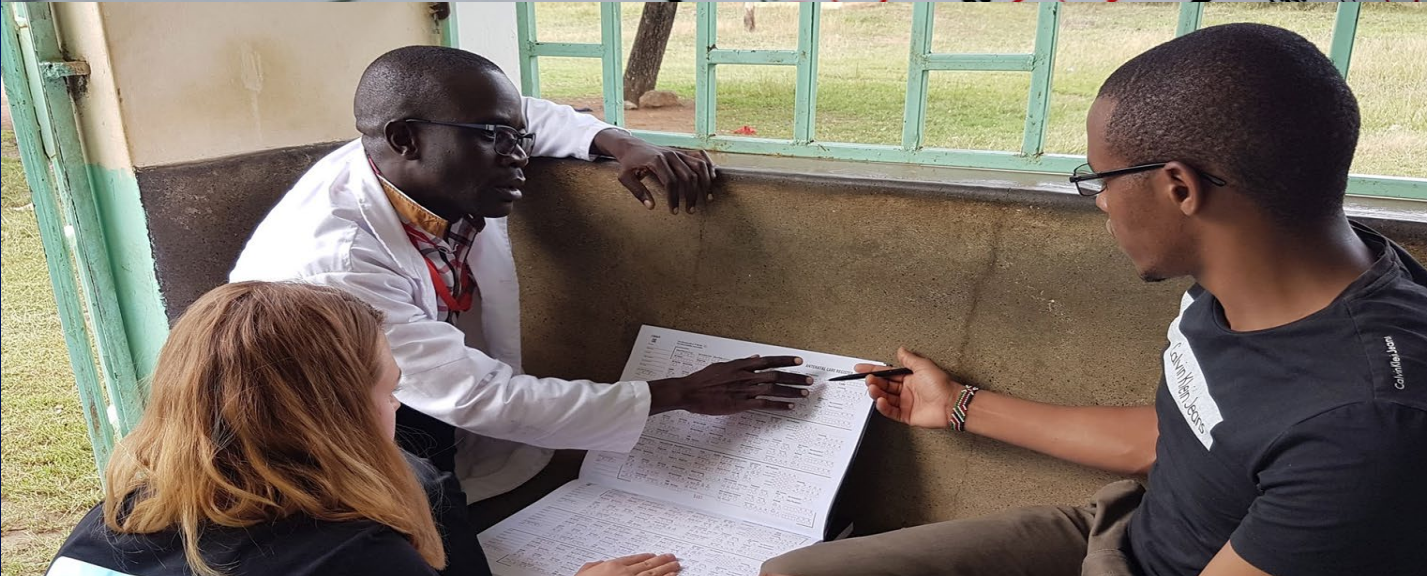


# Write on paper



A close-up photograph of a hand using a black pen to fill out a form. The form contains various fields for data entry, including checkboxes and radio buttons. Some fields are already filled with red ink. The visible text on the form includes:

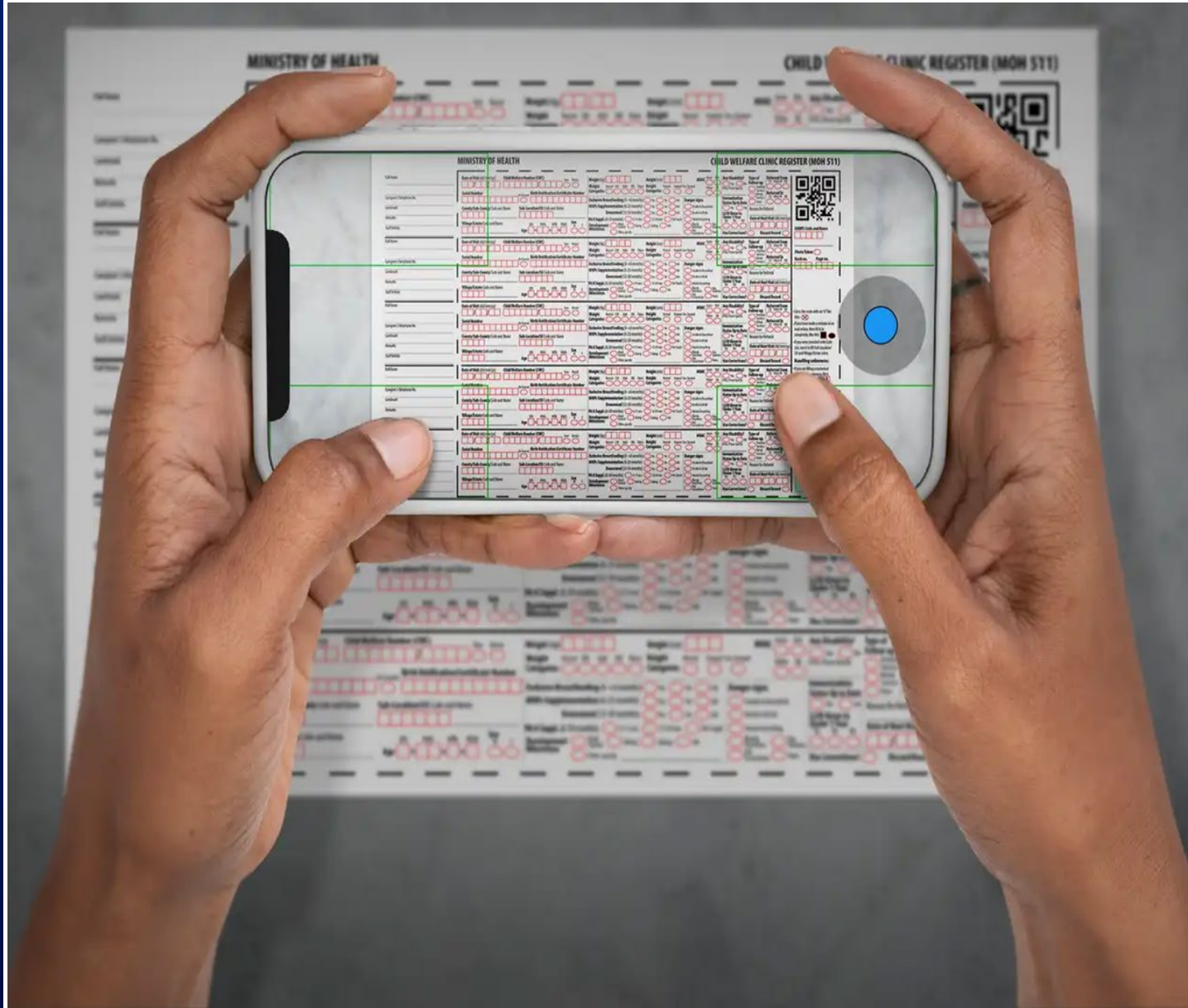
- HTS Number
- Client Consented to POC TRI (Yes/No)
- Sex (M, F, NP, FP)
- Residence
- Age
- Date of Visit (dd/mm/yy)
- Time Since Last Test
- UniGold Result
- Final HIV Test Result
- Last HIV Test Result



Currently :

1. *Initial register (HIV, Syphilis, HBV)*
2. *Confirmatory register (When T1 is reactive)*
3. *HIVST distribution register*

# Take a picture

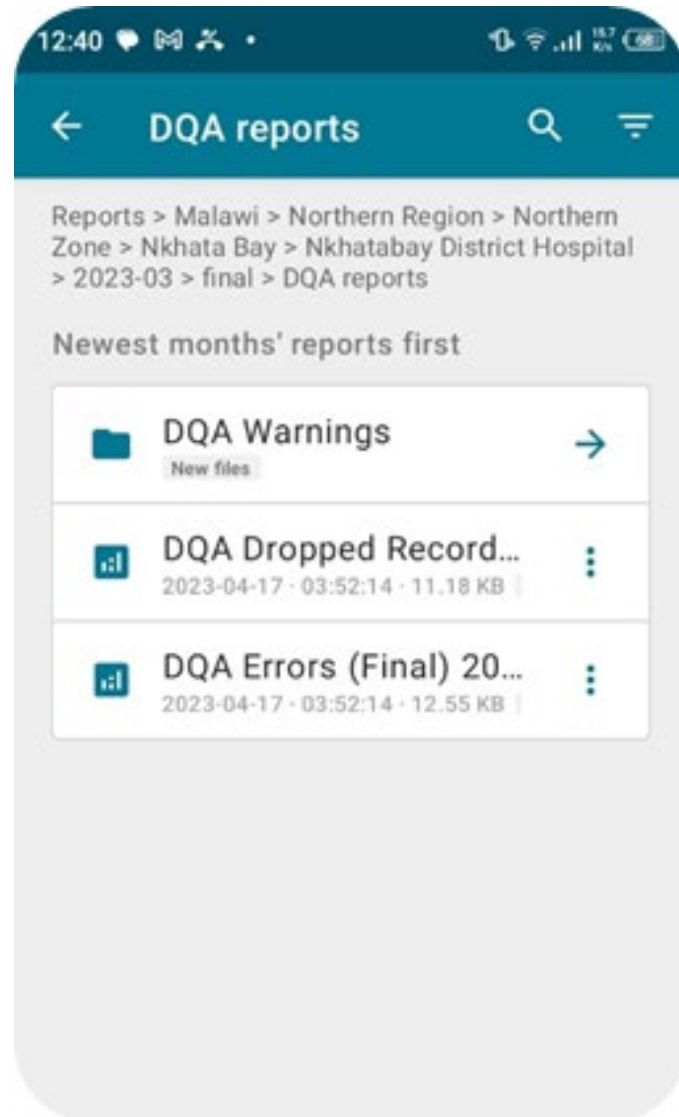


*Using basic Android smartphone:*

- 1. When page is full*
- 2. At end of month  
( For monthly report)*
- 3. After making correction  
( data for this page is updated)*



# Continuous data quality improvement

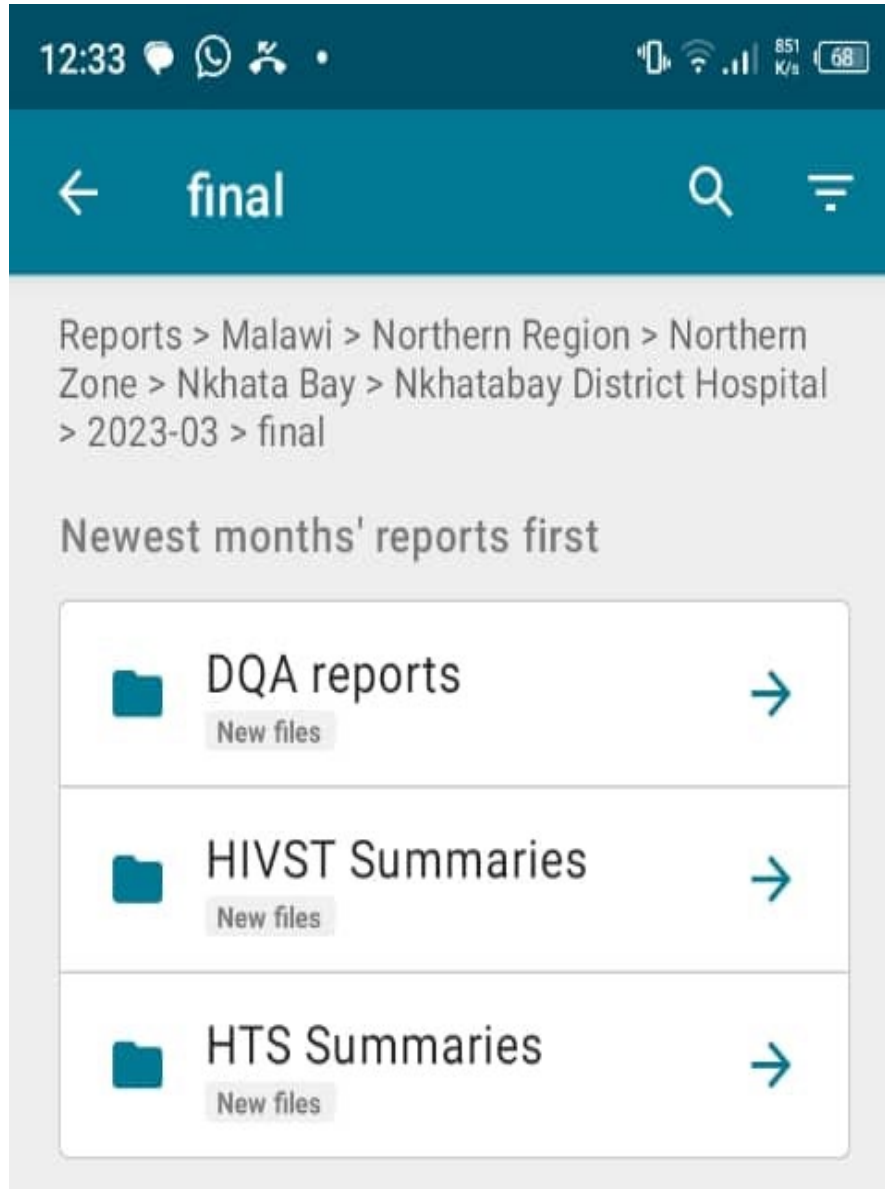


*Data Quality Assurance reports:*

- 1. Warnings*
- 2. Errors*
- 3. Dropped records*

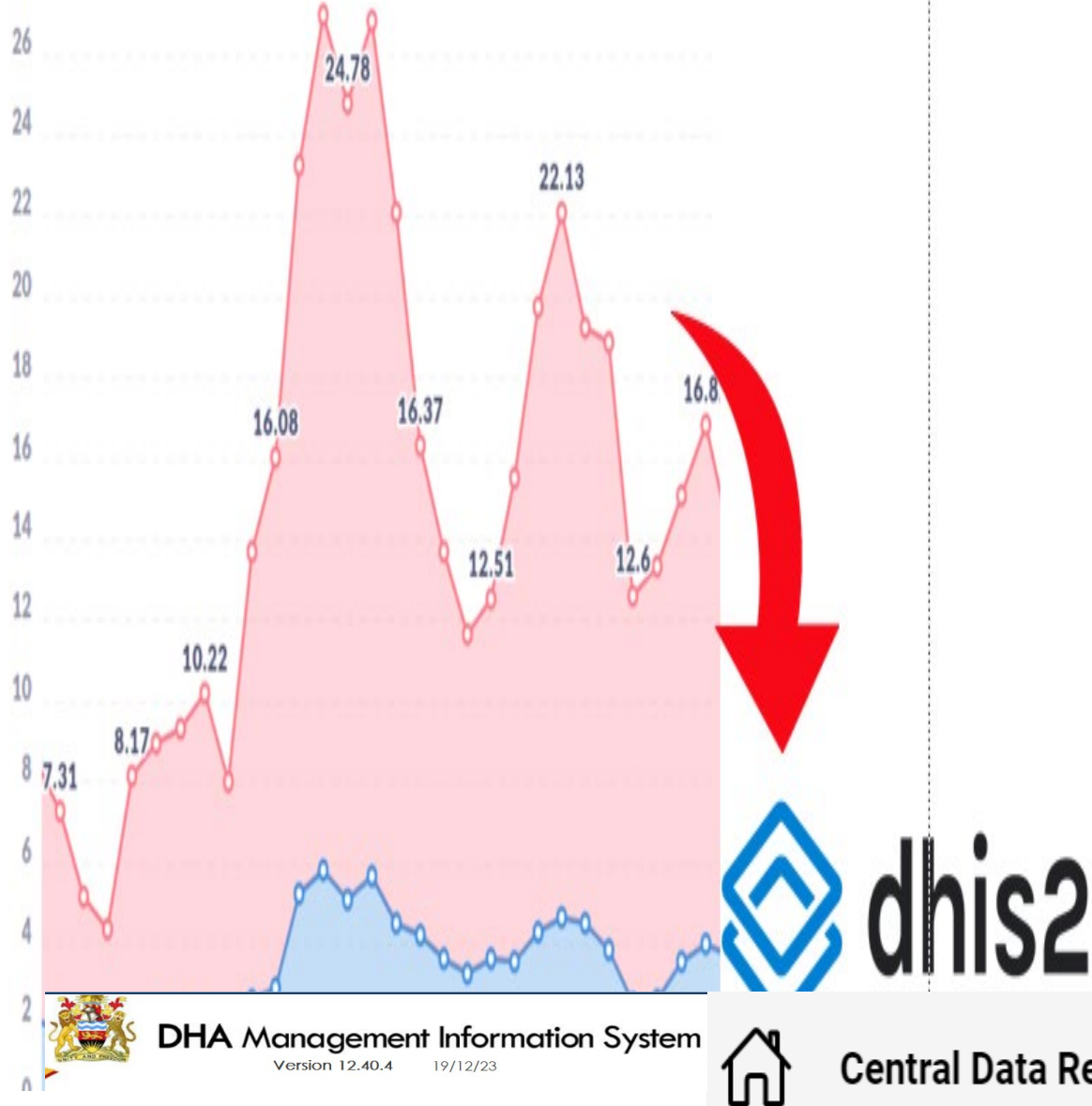


# Added value to providers



1. *No page and monthly summaries*
2. *No report writing hassles ( auto generated reports)*
3. *Report easily accessible ( Through ScanForm phones)*
4. *Errors in register easily identified*
5. *Readily available technical support (Videos, pdf via phone )*



# Added value to national HMIS



*ScanForm interoperability with other systems*

- 1. No manual data entry on DHIS2 and DHAMIS*
- 2. Improved timeliness*
- 3. Improved data quality*

 **DHA Management Information System**  
Version 12.40.4 19/12/23

 **dhis2**  
 **Central Data Repository**

# Where we are



## HIV, Syphilis, and Hep B Testing and Counseling in Malawi

Field operations for epidemiological surveillance for HIV Testing Services (HTS), Syphilis Testing, and Hep B Testing, in Malawi. All data collected from phone-scannable integrated HTS registers, implemented using [ScanForm](#) technology from [QED.ai](#) and the technical and programmatic support of the [Department of HIV and AIDS](#). These programs are being deployed to all HIV testing points nationwide.

**4,256,148**

Total Clients Tested for HIV

**1,651,395**

Total Self-Test Kits Distributed



**834,245**

Total Clients Tested for Hepatitis B

**912,329**

Total Clients Tested for Syphilis

**692**

# of Participating Clinics

**1,903**

Estimated # of Access Points

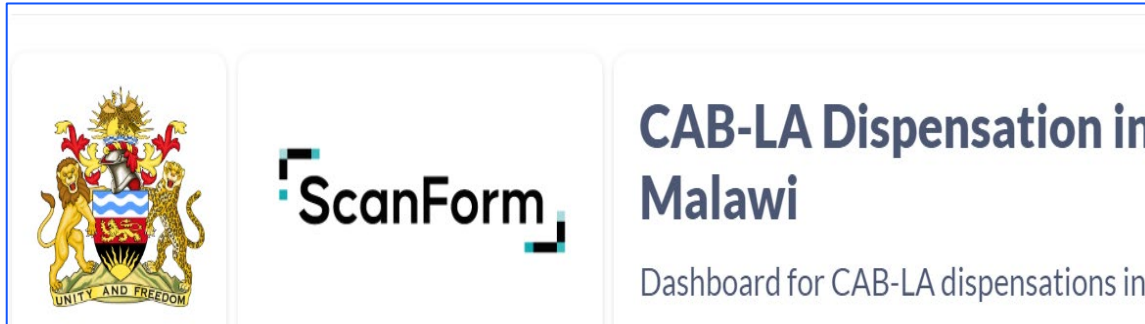
**593**

Number of Clients Saved from HIV Misdiagnosis

**660**

Number of Negative Clients Prevented from an Inconclusive Result

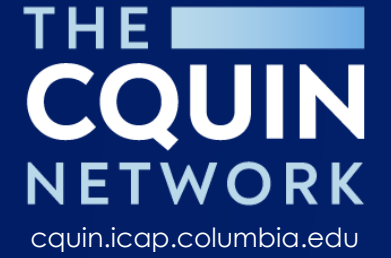
# Where we want to be



The image shows a form titled 'Malawi MOH Molecular-Lab Requisition Form'. At the top left, it says 'Book 0' and 'Page 0'. Below this is a QR code placeholder labeled 'QR code here'. To the right of the placeholder is the Malawi coat of arms and the ScanForm logo 'ScanForm MW-Molecular 1.0'. The form is divided into 'Section 1: Health Facility Information' with fields for 'District', 'Facility Name', and 'Facility HMIS Code'. There are also two radio buttons labeled 'Discard Whole Page' and 'Photo Taken'. A large QR code is visible on the right side of the form.

1. All 800 + sites providing testing services by August, 2024 ( Global Fund)
2. ScanForm used for PrEP services ( Already used in CAB-LA study sites)
3. ScanForm used for molecular lab Form ( Scannable Form already designed)
4. ScanForm used for STI services ( In discussion with MBF for support)





# Thank You!

