GHANA HEALTH SERVICE

USER GUIDE

dhis2

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COVID-19 Case-based Surveillance & Contact Tracing System

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COVID-19 Case-based Surveillance & Contact Tracing Tracker System

Purpose

The COVID-19 Surveillance and contact tracing user manual provides an overview of the conceptual design used to configure COVID-19 digital data package in DHIS2 and also a simple guide for end users. The COVID-19 package was developed configured in response to an expressed need for the country to efficiently manage COVID-19 data as well aide Disease Control and Surveillance to effectively track all cases and contacts. This document is intended for use by end users national, regional, district, sub district and facility levels to be able to support the national fight against COVID-19.

The system has been built using the tracker module on the DHIS2 platform which the Ghana Health Service have been using for health data management for over 8yrs.

The e-Tracker module (also known as a Community Module) is an integrated module in DHIMS2, built to support community health systems and facilitate a smooth integration between the community health data and aggregated data management.

The module supports definition of types of entities which can be tracked through the system, which can be anything from persons to commodities, e.g. medicine, person, For the types of entities defined, users can manage community health programs, such as communicable diseases during outbreaks, child immunization, maternal health and e.g. allows tracking of individuals enrolled in various programs and activity planning for community health workers.

What the Tracker does

- The system collects, manage and analyze transactional, case-based data records.
- It stores information about individuals and track these persons over time using a flexible set of identifiers
- The system captures information about anonymous events and cases as well.
- Send SMS-reminders
- Track missed appointments
- Generate visit schedules.
- The system also generates on-the-fly statistical reports
- The reporting module creates dynamic reports bases on cases.
- The tracker has a functionality that allows transactional data to be aggregated and pushed automatically into their respective datasets in DHIMS2.

Background

The system has been designed reflect the Integrated Disease Surveillance and Response guidelines of the Ghana and the new aggregate reporting requirements from the WHO interim surveillance guidelines updated March 20, 2020.

The objectives of COVID-19 Case-based surveillance and contact tracing system are:

1. to monitor trends of the disease where human to human transmission occurs;
2. rapidly detect and report new cases in our communities across the country;
3. provide epidemiological information to conduct risk assessments at the national, regional and district level; and
4. provide epidemiological information to guide preparedness and response measures.

The system design builds upon existing case-based disease surveillance principles and information system requirements that have been developed collaboratively between the Ghana Health Service and UiO since 2012. The COVID-19 case-base surveillance and contact tracing system was developed with the intent to align to WHO technical guidance on nCoV-19 surveillance and case definitions, updated March 20, 2020.Note that this design may not necessarily reflect the latest available interim global guidance developed by WHO as updates may be released rapidly.

System Design Summary

The DHIS2 case-based surveillance tracker metadata was based on the WHO inspired Case-based investigation template for Ghana.

The Ghana COVID-19 case-based surveillance and contact tracing tracker system supports surveillance workflows and automated analysis for key components of routine and active surveillance.

1. **Use Case 2: COVID-19 Case-based surveillance tracker**: enrolls & tracks suspected cases; captures symptoms, demographics, risk factors & exposures; creates lab requests; links confirmed cases with contacts; and monitors patient outcomes.

2. **Use Case 2: Contact registration & follow-up**: strengthens active case detection through contact tracing activities, such as identification and follow-up of contacts of a suspected or confirmed COVID-19 case.

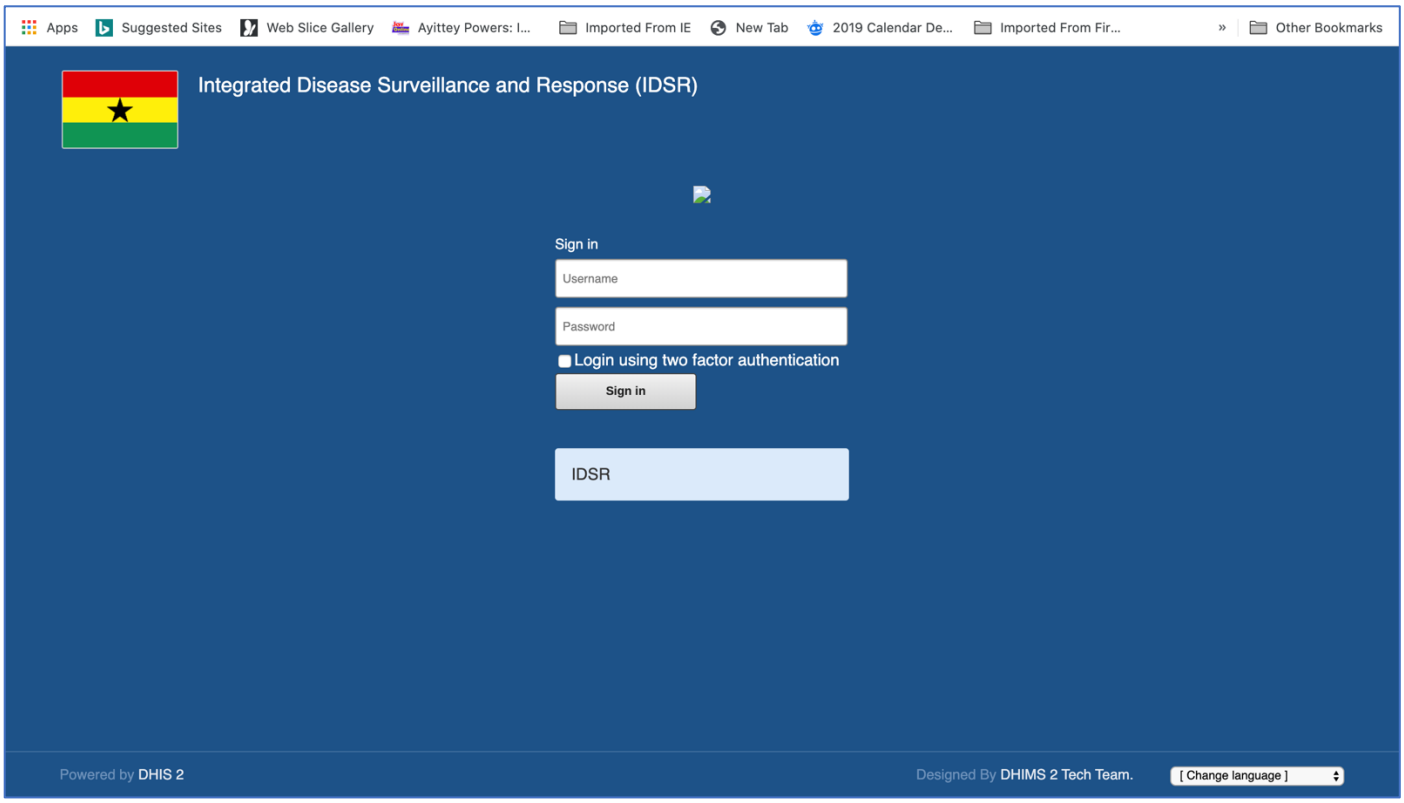
3. **Use Case 3: Points of entry Tracking System:** The POE tracker program use case was designed to support the registration of travelers entering a country with a history of travel to, or residence in, a country/area/territory reporting local transmission of COVID-19 who may need to be followed up to ensure no symptoms develop. For this use case, it is assumed that a traveler may be 1) screened and cleared immediately with no follow-up needed; 2) screened and followed up for 14 days [with or without isolation measures] to ensure no symptoms develop; or 3) screened and referred for testing and/or initial case management. The current design proposes that a traveler meeting the country's definition of a suspected case would be enrolled into the complementary DHIS2 COVID-19 Case-Based Surveillance (CBS) Tracker. For example, a traveler enrolled in this program who later meets the definition of a suspected case during follow-up (i.e. an asymptomatic traveler from a country with known transmission is registered at the POE and later develops symptoms) is enrolled as a suspected case into the COVID-19 CBS program to capture all clinical details, exposures and follow the case through laboratory diagnosis and case outcome.

The system is optimized for Android data collection with the DHIS2 Capture App, free to download on the Google Play store.

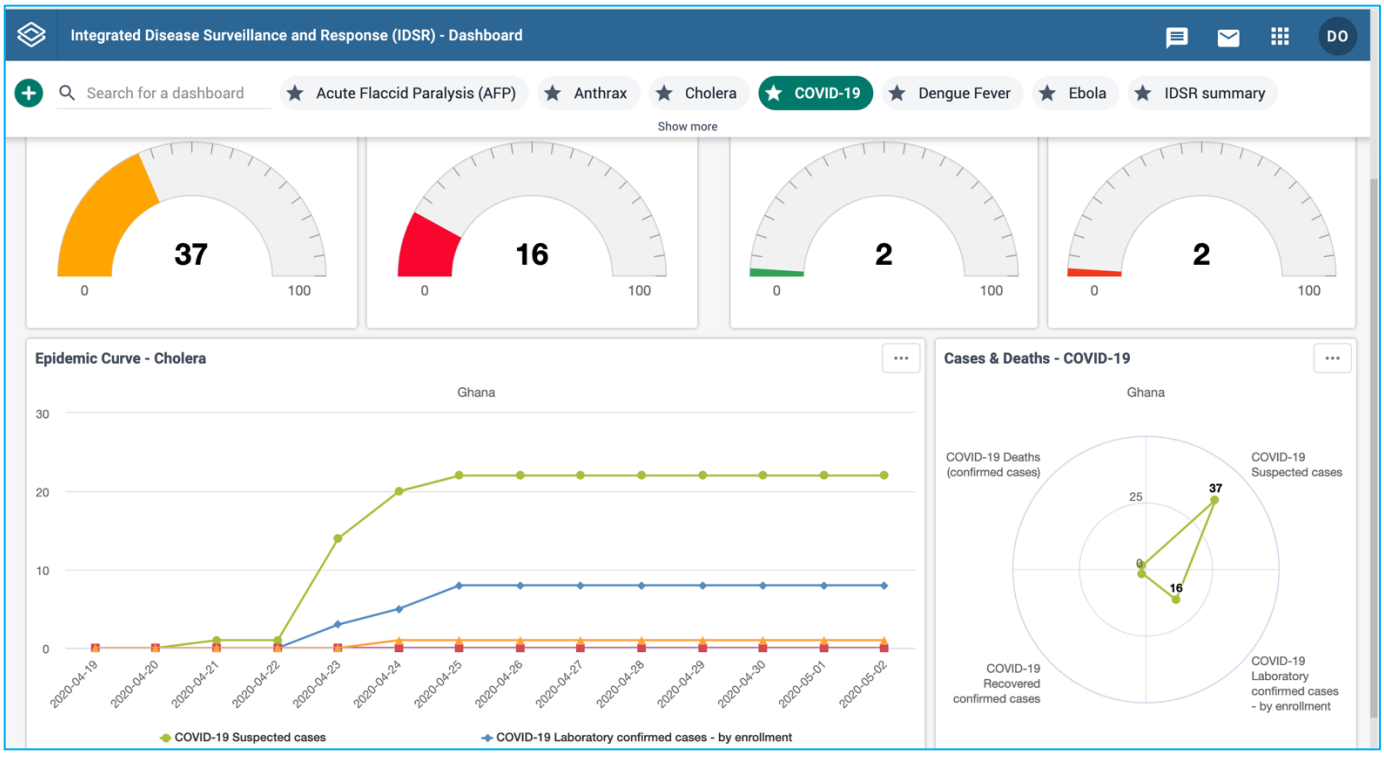
Logging on to Covid-19 case-based Surveillance and contact tracing system

To log on to the tracker application, enter the URL https://idsr.chimgh.org/idsr/ into the address bar of your browser. Preferred browsers are Mozilla Firefox or Google chrome.

A successful access to the URL shown above, is as shown below Ghana Health Service reporting portal.

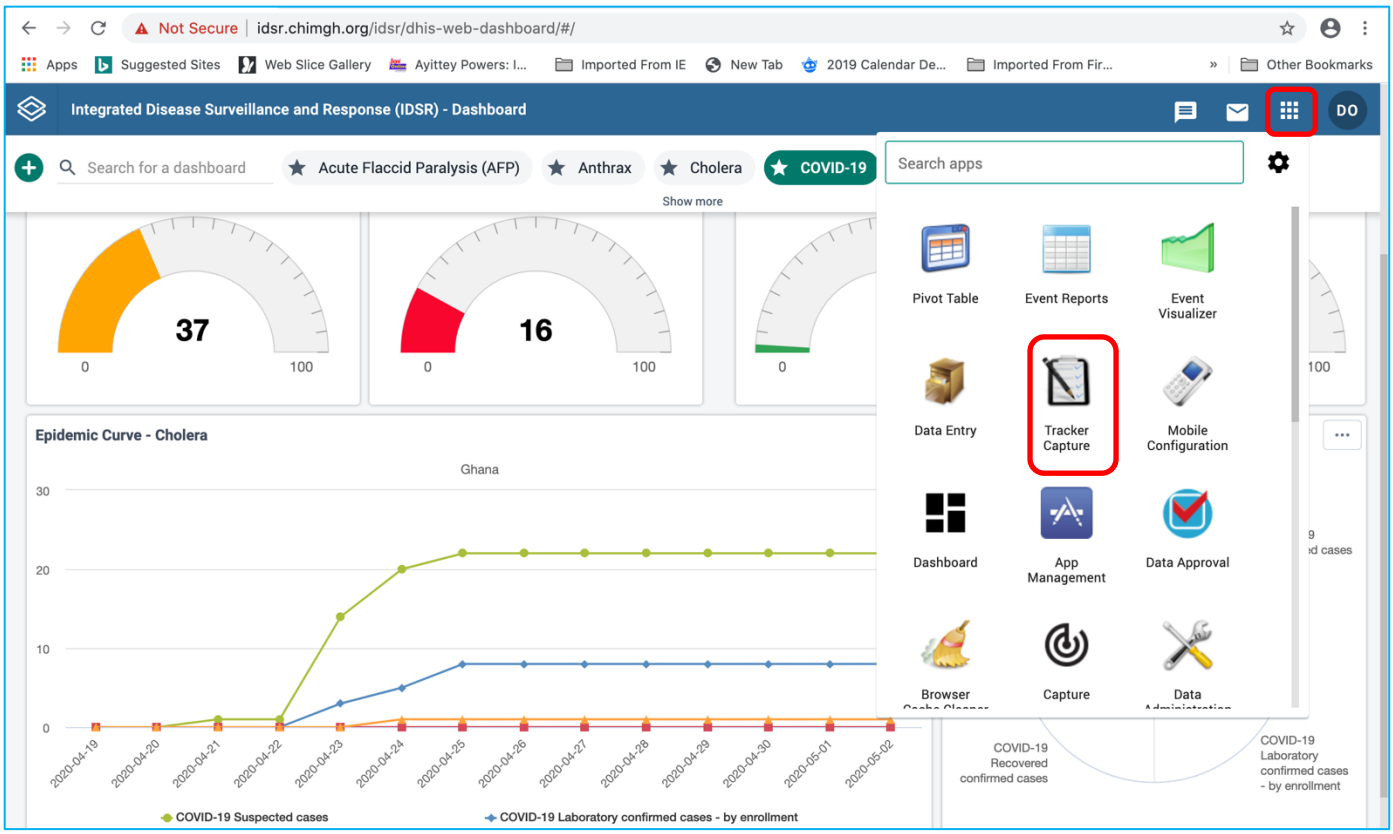


Key in the Username and Password provided to you and click on Sign in to log into the system. After a successful log-in, a dashboard will be displayed as the first screen. The dashboards provide a quick analytic overview of data stored in the tracker in the form of tables charts, maps and graphs.

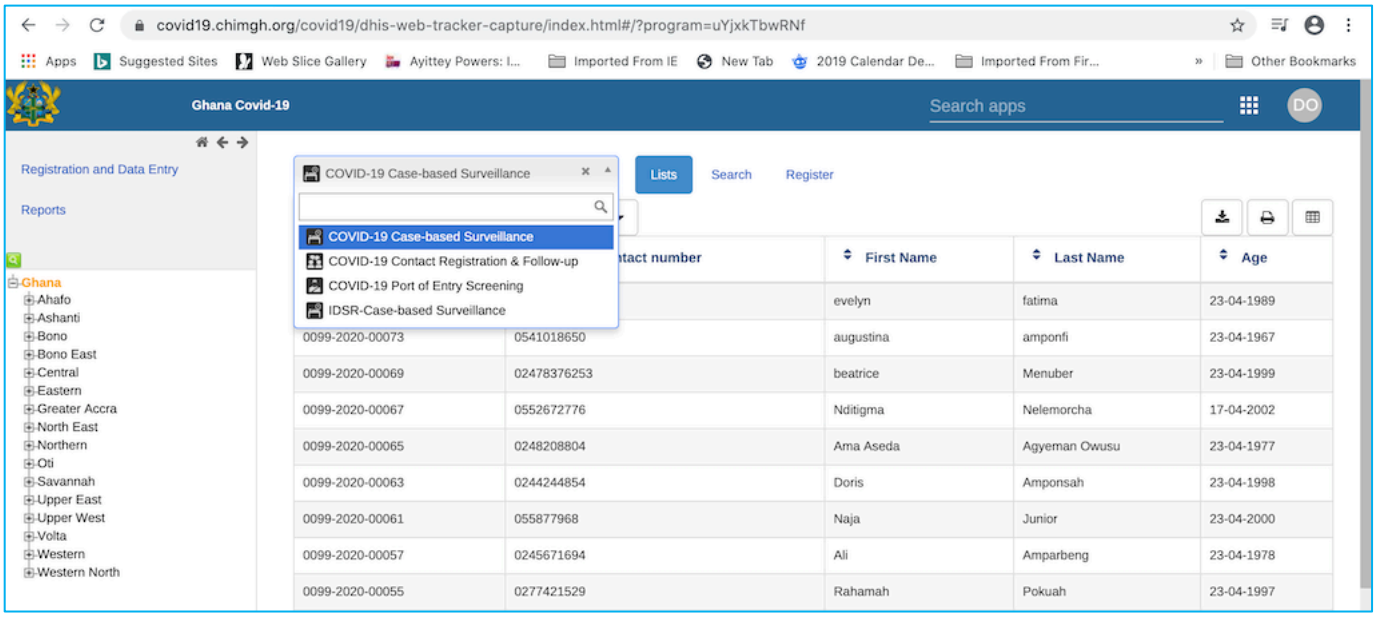


Registration and Enrolment of cases

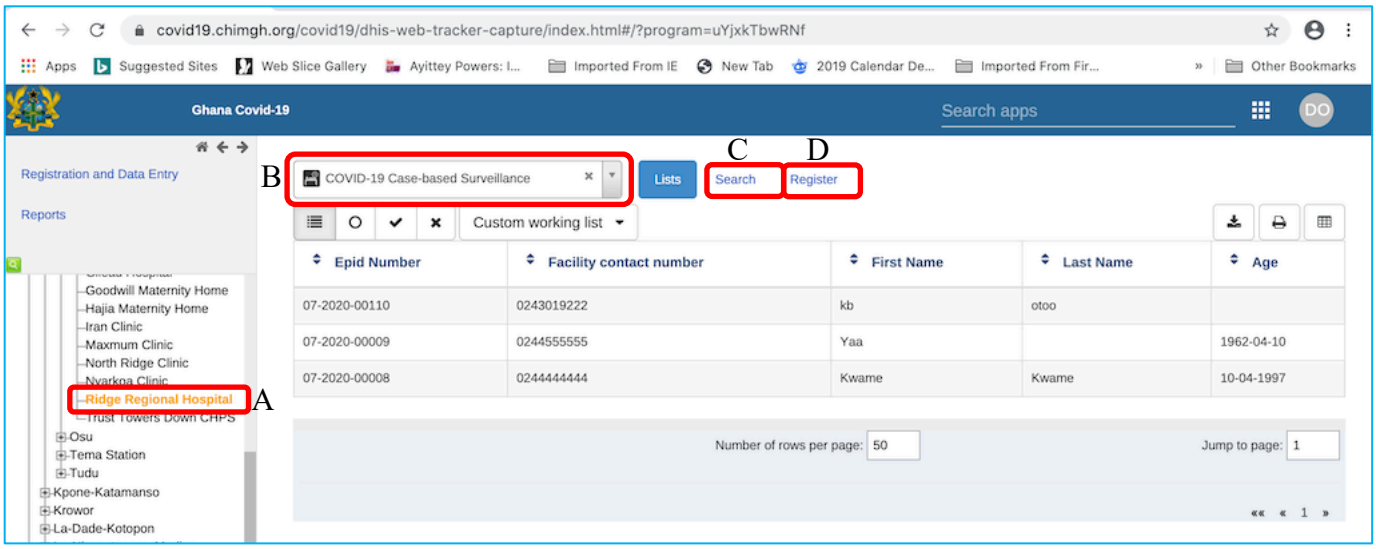
1. Click on either the Apps icon or the search apps placeholder.
2. Select Tracker Capture from the drop down



A click on the Tracker capture app takes you to the Tracker capture interface as shown below.



To register a case or a contact, Select District or Health Facility from the organisation Unit Tree on the left and select the appropriate program from the list of programs and click on the Register button.



A= Organization Unit. The programs for data entry is assigned to the District and Health Facilities, so once a district user who are supposed to do these entries logs on the system, select organisation unit that owns the case or contact you are about to enter (select District for cases identified during contact tracing while you select the Health Facilities for cases suspected or identified in routine clinical services.

B= Program. Pull down the program menu and select the appropriate program**.**

C= Search or find button. Search for an existing case of contact already registered in the system by clicking on the search button and entering any of the attributes allowed to search for a person.

D=Register Button. Click on the button to display the registration page

Use Case 1: COVID-19 Case-based surveillance tracker

The basic case surveillance program is designed to:

1. Enroll suspected* COVID-19 cases (*generally appearing at a health facility, but may be enrolled at other places*)
2. Capture key information about the suspected case including demographics and exposures, such as symptoms, contact with a previously confirmed case & travel history
3. Generate lab requests
4. Record laboratory diagnosis
5. Record contacts of a confirmed** or probable*** case for follow-up
6. Record case outcome
7. Facilitate case notification and national/regional/global case reporting
8. Generate dashboards and analytics tools for monitoring disease trends and planning response efforts

The design of the case-based tracker program assumes that WHO case definitions are followed in the use case; its use can be adapted to local case definitions as needed.

The WHO case definitions were updated on March 20, 2020 and noted below.

***Suspected case**: A) a patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath), AND with no other aetiology that fully explains the clinical presentation AND a history of travel to or residence in a country/area or territory reporting local transmission of COVID-19 disease during the 14 days prior to symptom onset; **OR,** B) A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to onset of symptoms; **OR,** C) A patient with severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness breath) AND requiring hospitalization AND with no other aetiology that fully explains the clinical presentation.*

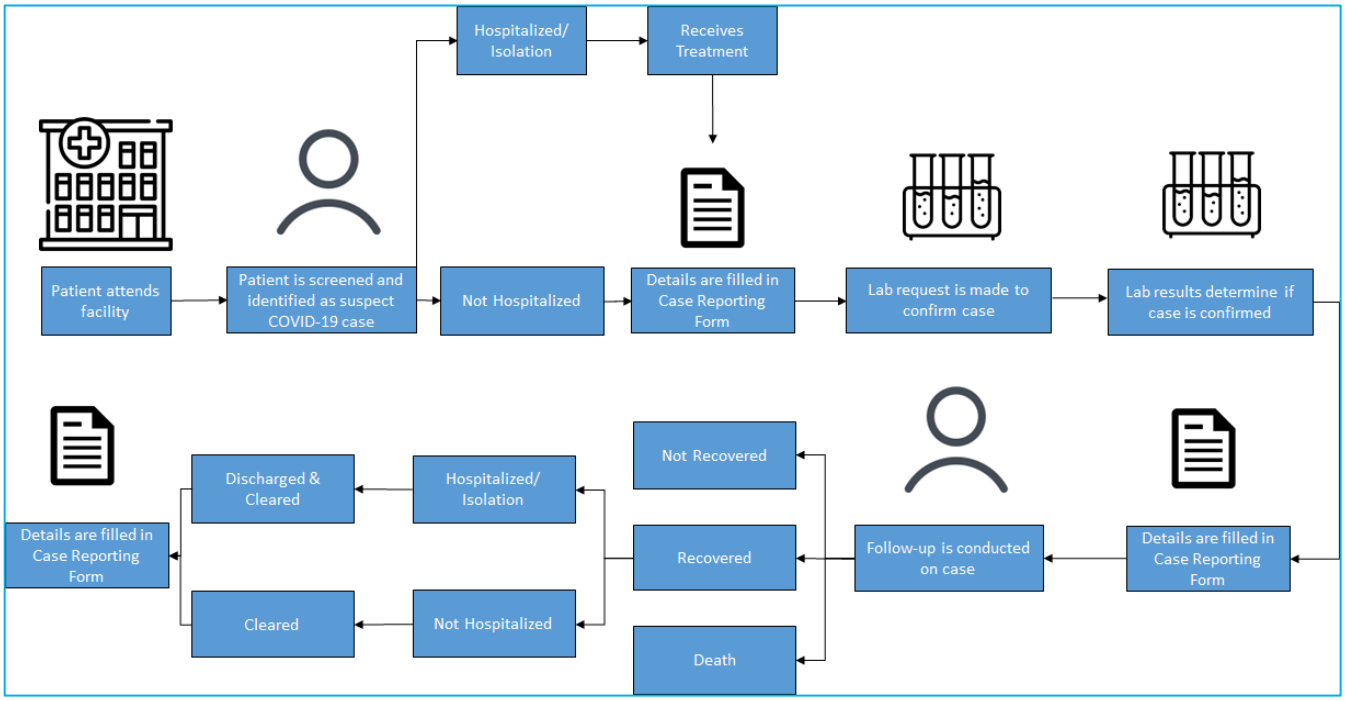
***Probable case:** A) a suspect case for whom testing for COVID-19 is inconclusive (inconclusive being the result of the test reported by the laboratory) **OR,** B) a suspect case for whom testing could not be performed for any reason.*

****Confirmed case:** A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.*

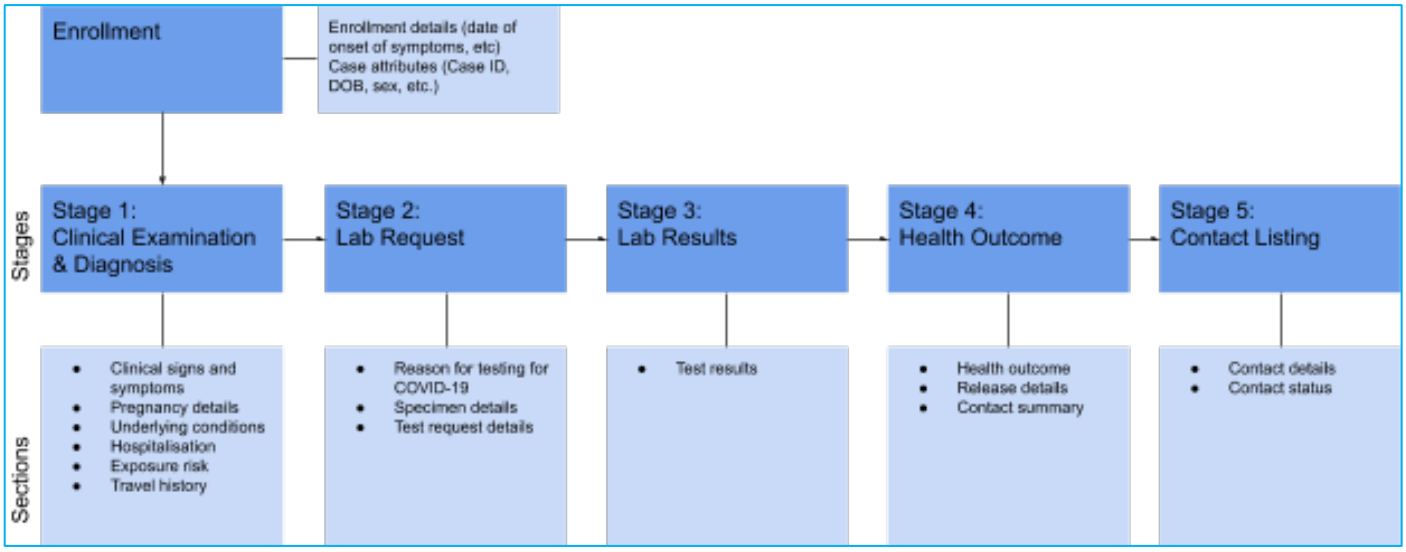
Intended users

- District and Health facility users: capture and record details about a suspected case, including clinical symptoms & exposures; track lab results; record case outcome
- Laboratory users: receive lab requests and record laboratory results for a particular suspected case
- National, Regional and District health authorities: monitor and analyse disease surveillance data through dashboards and analytics tools to conduct risk assessments and plan response measures; generate reports for regional and global reporting.

Workflow: COVID-19 Case-based Surveillance Tracker



Structure: COVID-19 Case Surveillance Tracker Program



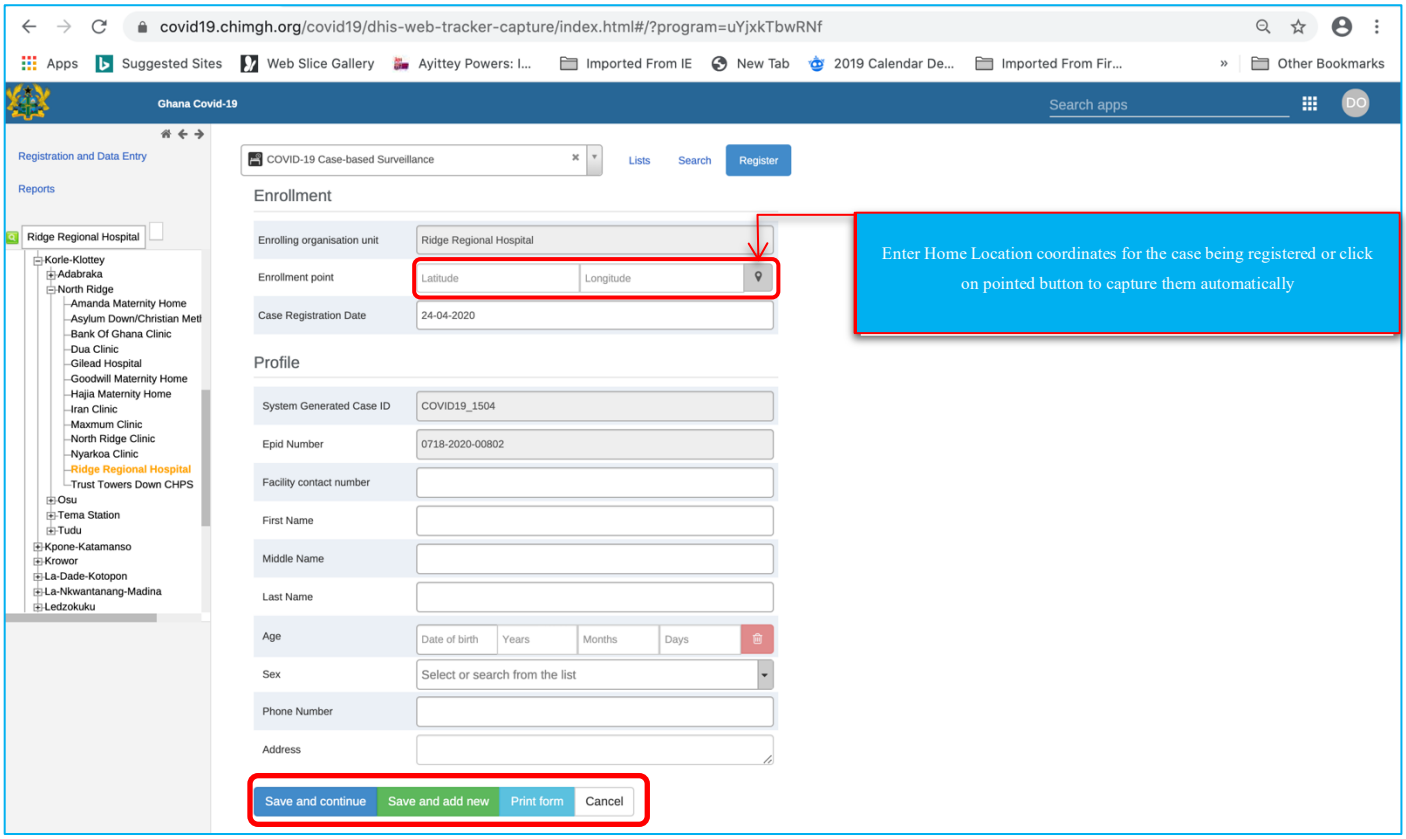
Program Description: COVID-19 Case Testing, Diagnosis & Outcome

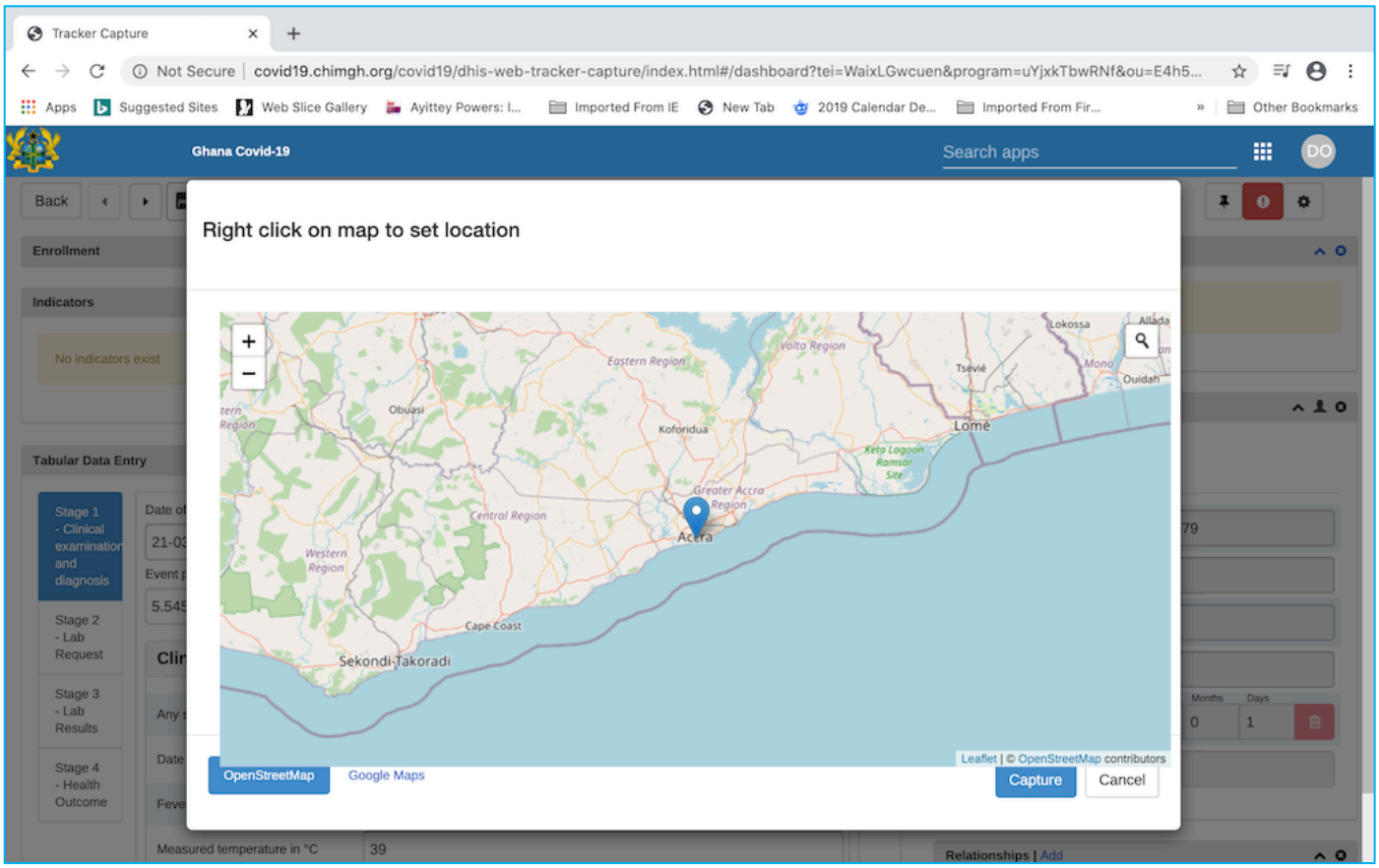
Stage	Description
Enrollment details	The Tracked Entity is the case, which is represented by a Tracked Entity Type of 'person.'

Attributes	Enrollment date = Date of registration of the case. Related programs = COVID-19 Contact registration & follow-up Attributes include basic personal information and unique case identifiers • GPS Coordinates • System Generated Case ID • EPID Number • Age • First Name • Middle Name • Surname • Sex • Case phone number • Home Address • Facility contact number
Stage 1: Clinical Examination and Exposures	This stage records a suspected case's clinical signs/symptoms and exposures including: • Symptoms and Signs • Pregnancy and underlying conditions • Hospitalisation and Isolation • Exposures in 14 days prior to symptoms • Travel history • Contact with confirmed case After examination, you can record if the case has been hospitalised or isolated, and information surrounding this.
Stage 2: Lab Request	The lab request records the reason for testing and other information that a lab needs to process a sample and test it for COVID19. The information provided here can help lab personnel prioritize lab tests when resources are limited. The person entering this data could be the same person who registered the suspected case and recorded the patient's

[repeatable]	clinical exam and exposures; or may be other personnel charged with making lab requests.
Stage 3: Lab Results [repeatable]	The Lab Results stage records the type and results from laboratory testing. It can be done directly at the lab or as secondary data entry. This stage is repeatable as samples for a given case may be tested multiple times (i.e. in the case of an inconclusive laboratory results, a new lab test can be conducted and results recorded).
Stage 4: Health Outcome	The health outcome records the final outcome of the case: (recovered, not recovered, dead or unknown) including date of discharge or death as applicable.

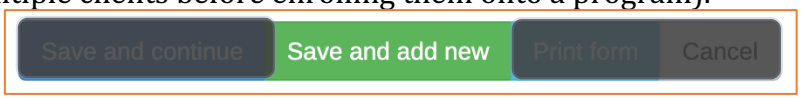
Enrolment and Case Registration



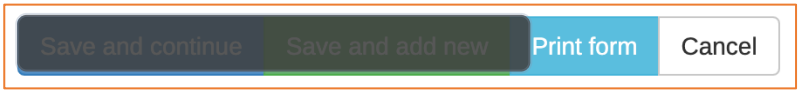


Click on **Save and Continue** button to save the current registration and display an interface to enroll the client on a program.

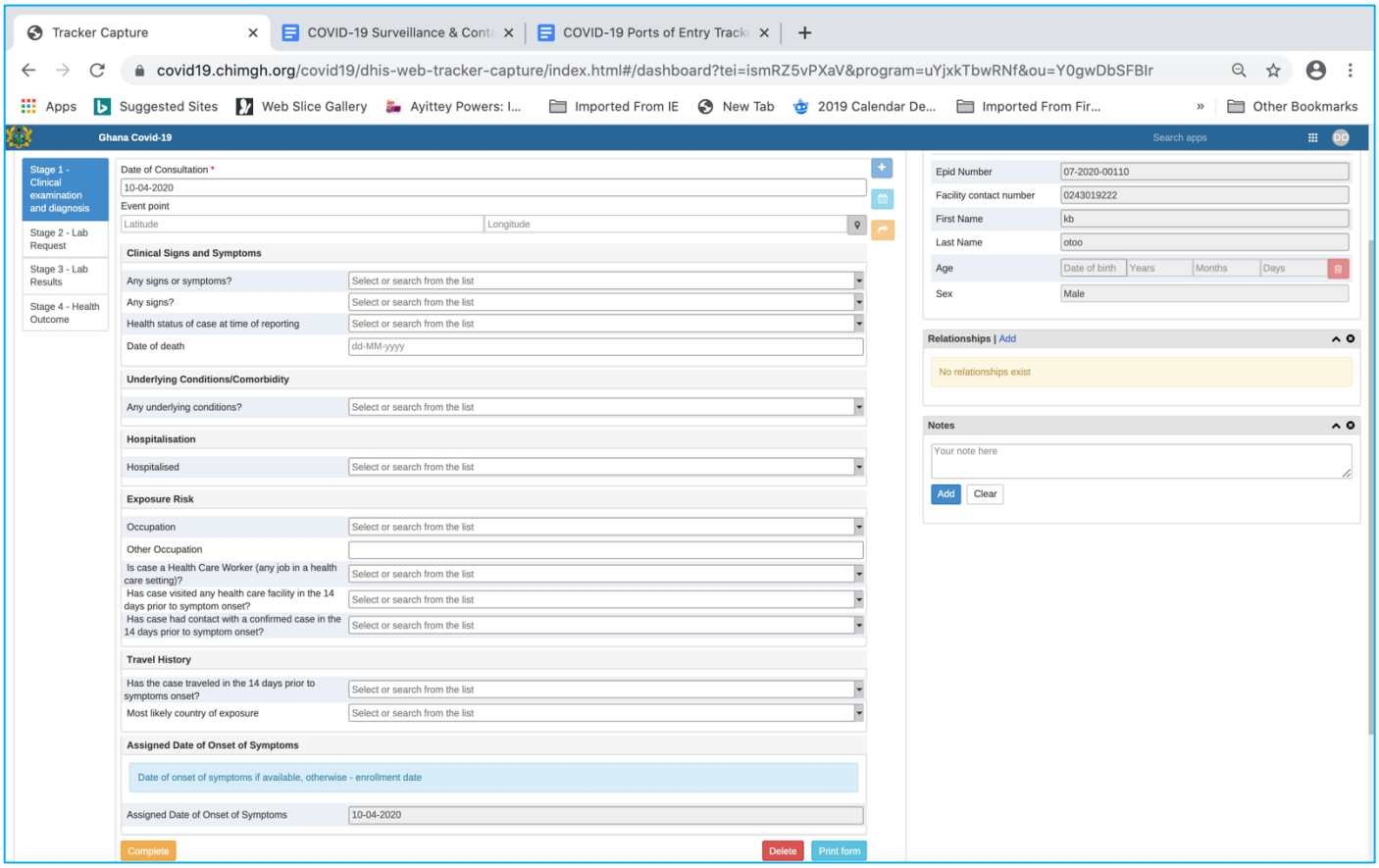
A click on Save and add new to save the current registration and open another interface for a new registration (this allows you to register multiple clients before enrolling them onto a program).



Click on "Print form" to print the registration form or Cancel to cancel a registration



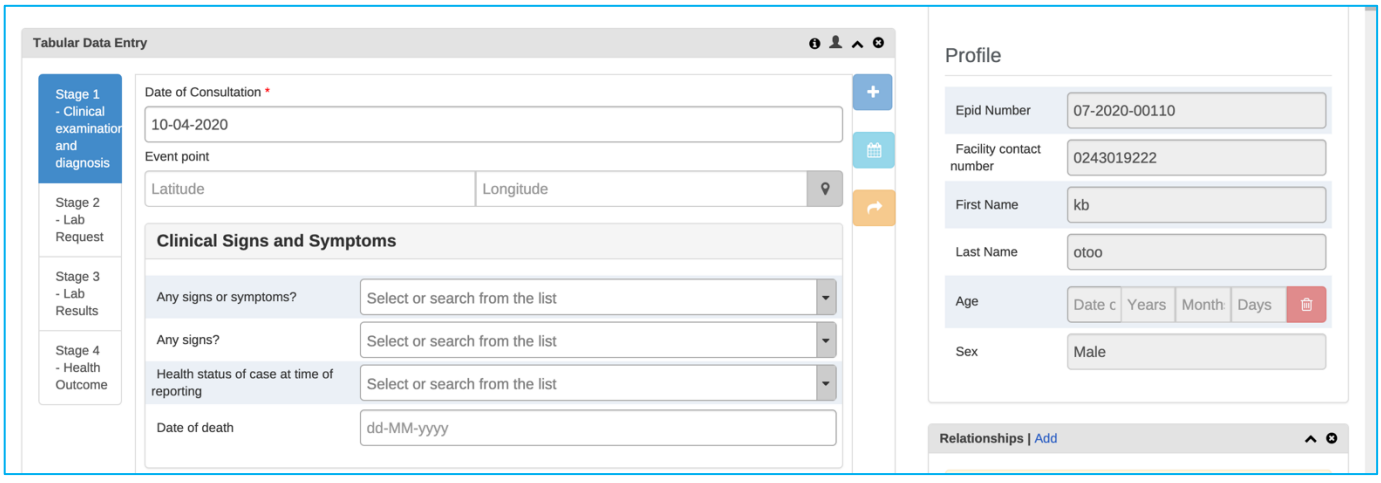
Save and Continue will display the page below.



Program Stage 1: Clinical Examination & Diagnosis

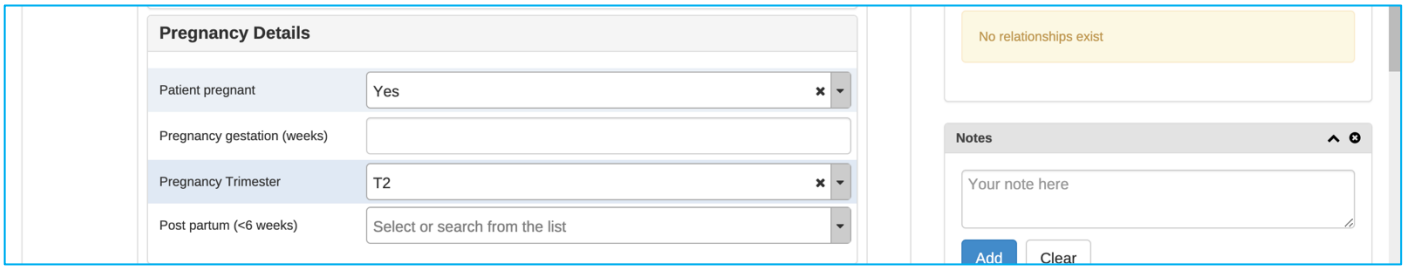
Section 1 - Clinical Signs and symptoms

Selecting “yes” to the Data Delement ‘Any signs or symptoms?’ reveals the rest of the options.



Section 2 - Pregnancy Details

This section is hidden unless gender is selected as 'Female.'

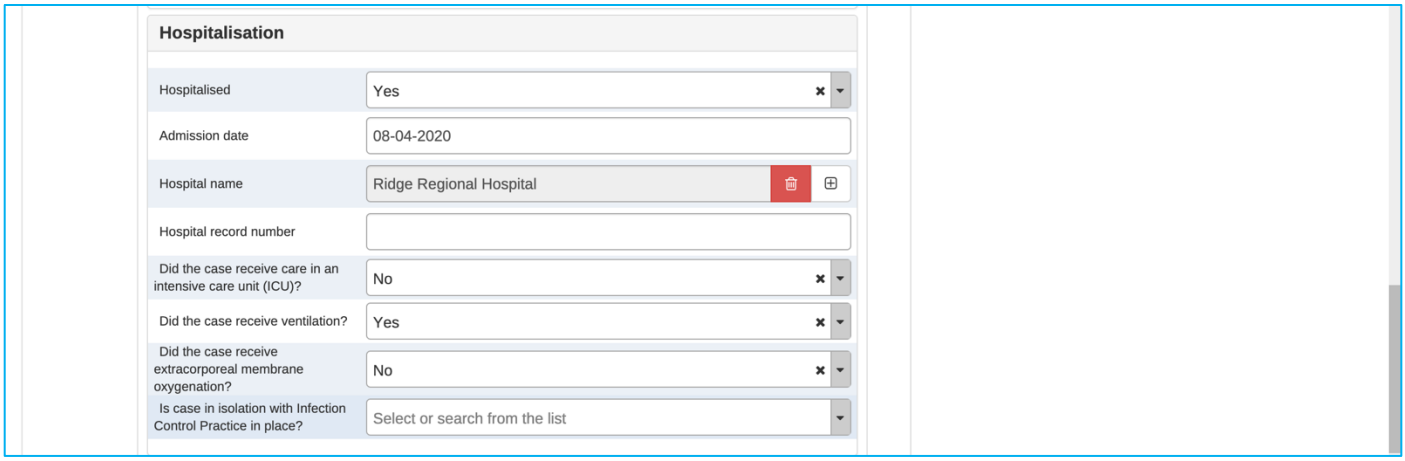


Section 3 - Underlying Conditions/Comorbidity

This section is hidden unless "Any underlying conditions" is marked as "Yes".

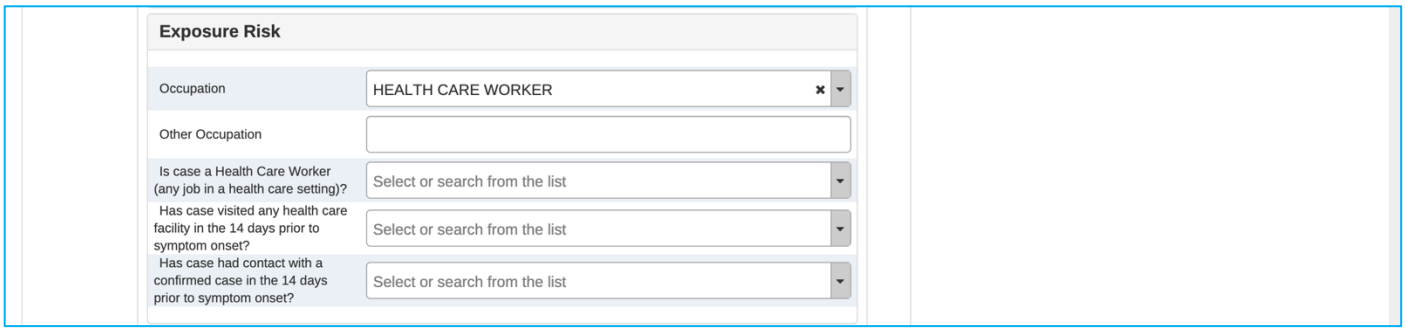
Section 4 - Hospitalisation

This section is hidden unless "Hospitalised" is marked as "Yes".

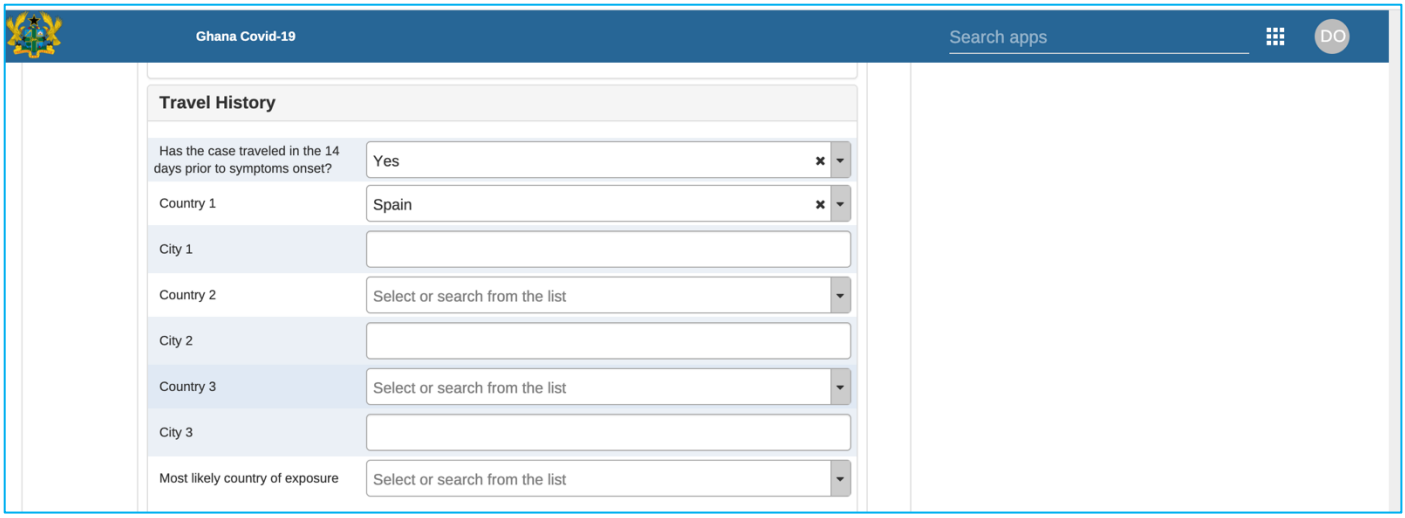


Section 5 - Exposure Risk

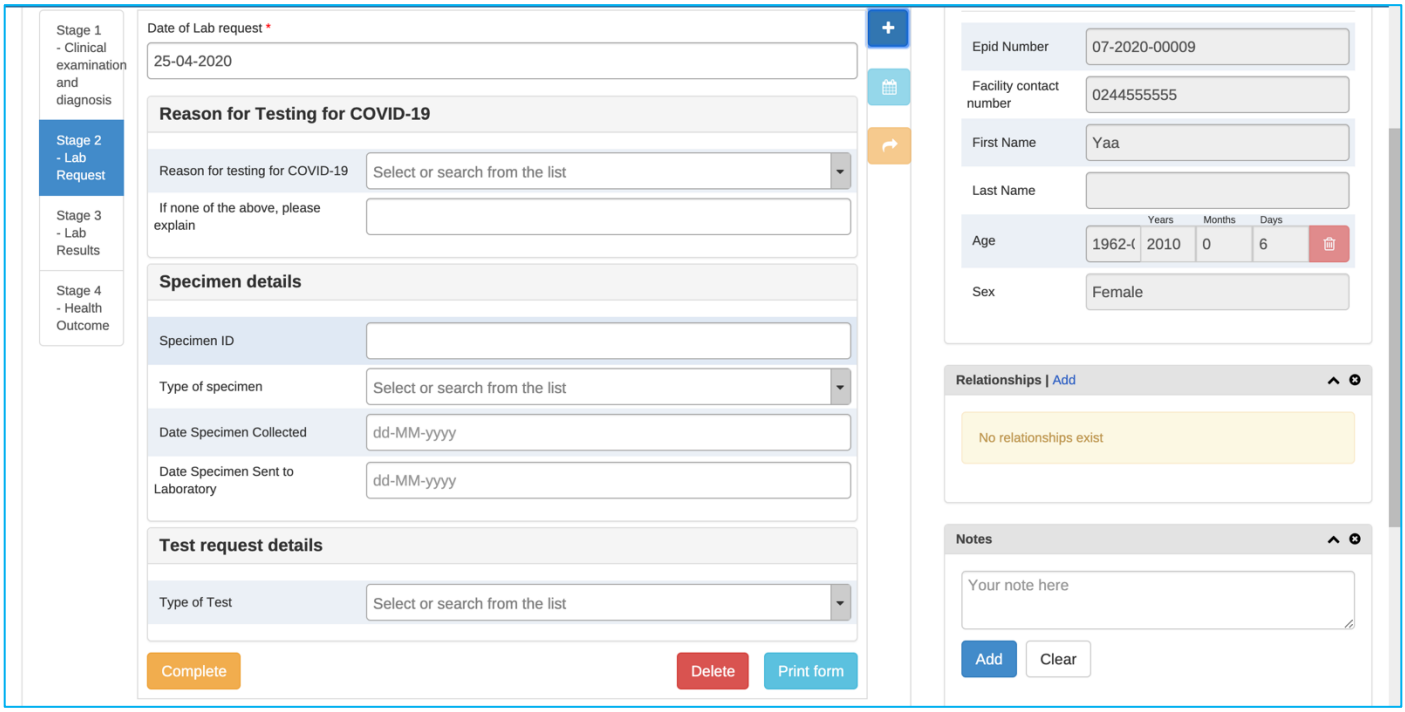
This section is used to record exposures (fields are hidden by program rules if the case is not a health care worker; if the case has not had contact with a confirmed case in 14 days). A suspected case's exposure to a previously confirmed case is distinct from prospective contact tracing in Program Stage 5.



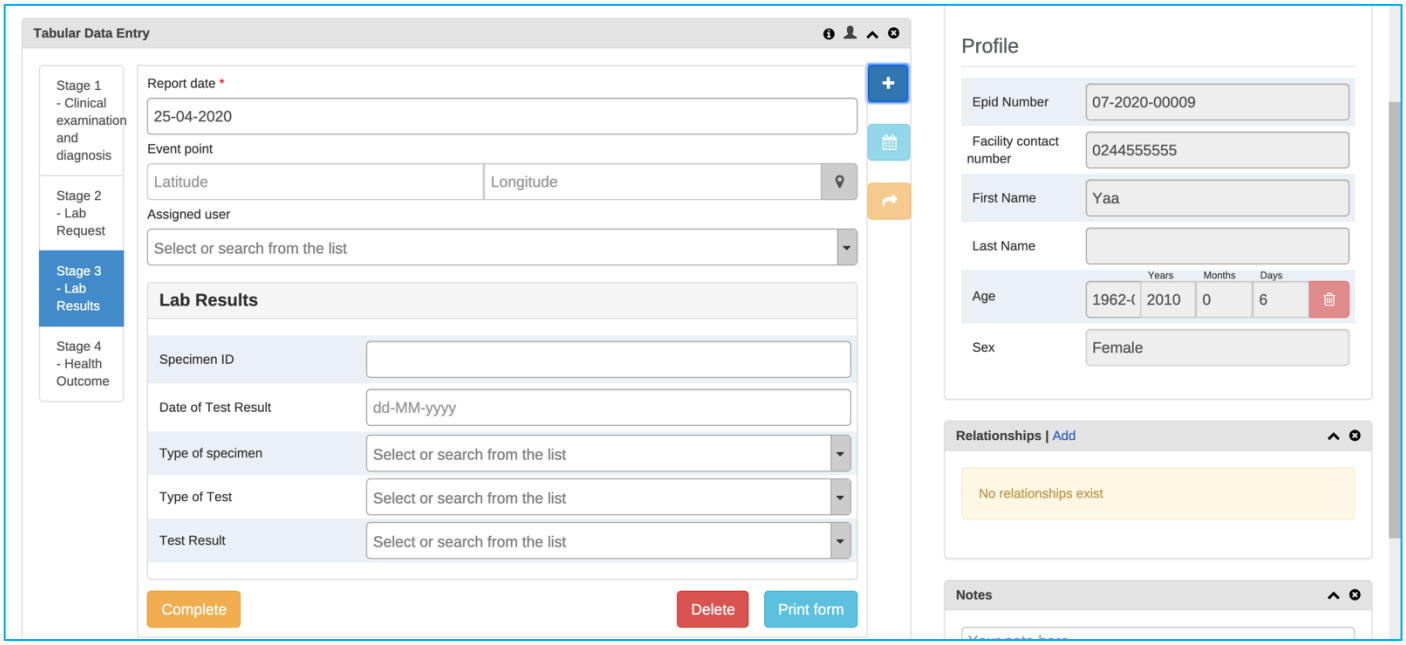
Section 6 - Travel History



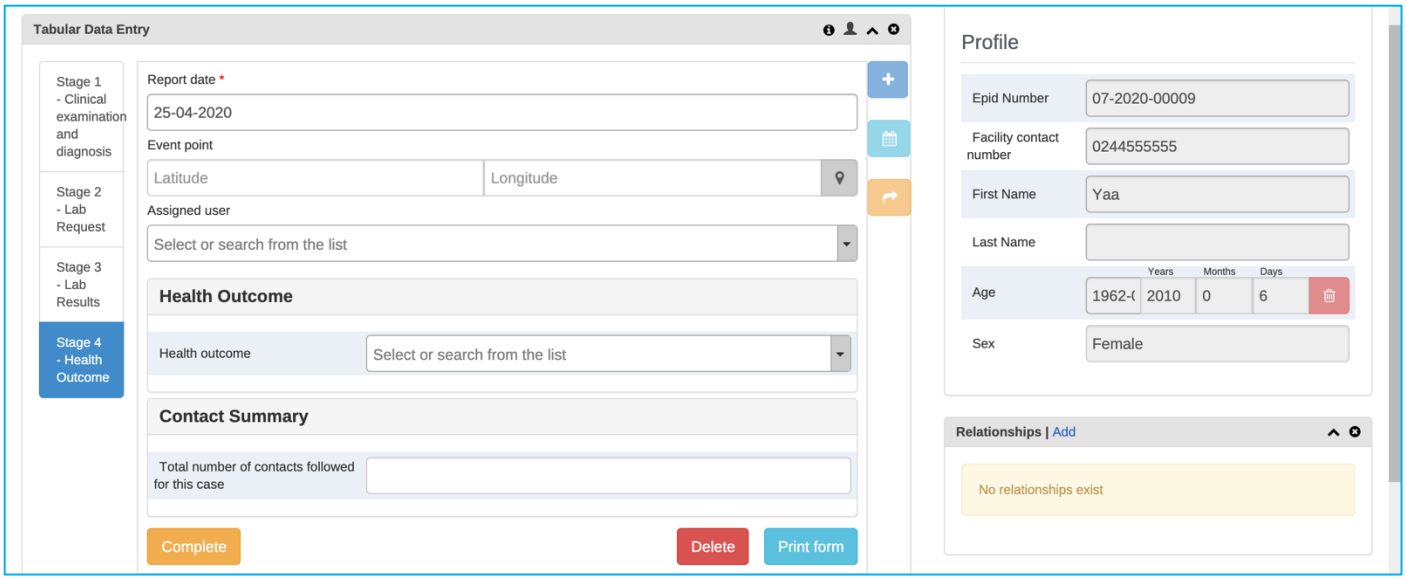
Program Stage 2: Lab Request



Stage 3: Lab Results



Stage 4: Health Outcomes

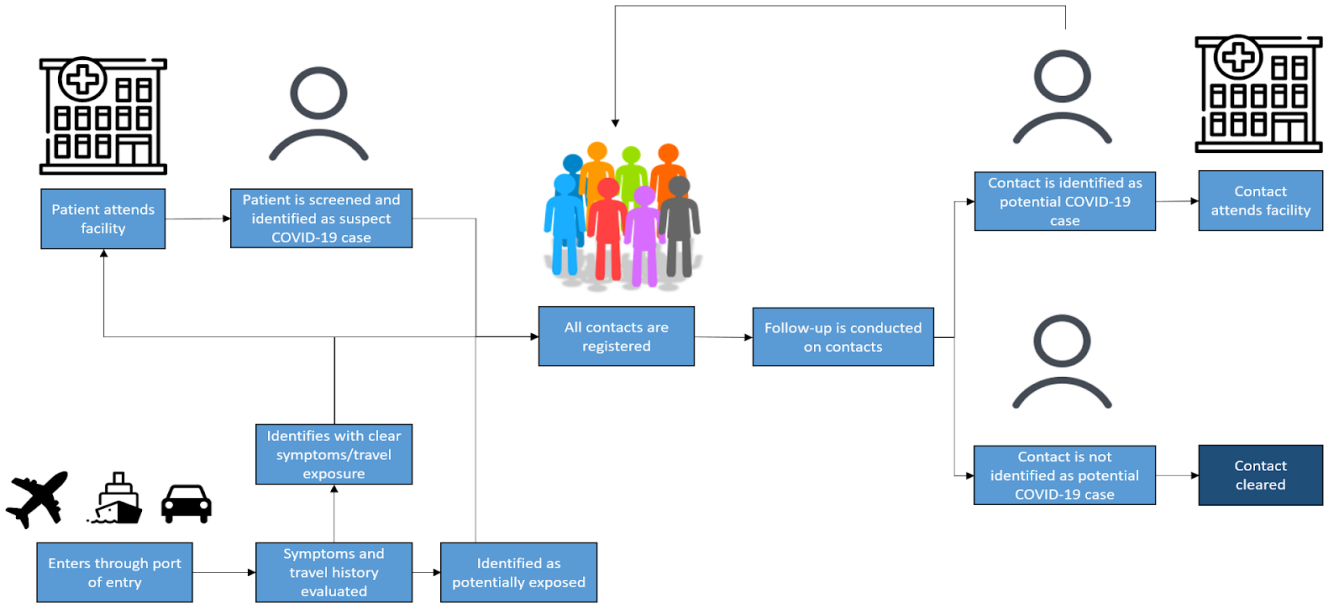


Use Case 2: COVID-19 Contact registration & follow-up

The Contact registration & follow-up program is to facilitate the registration and follow-up of contacts of a confirmed case. In this scenario, it is assumed that if any contacts of a confirmed case meet criteria for suspected case and are referred for testing, the case will be enrolled into the COVID-19 Case Surveillance tracker program.

The Contact registration & follow-up program registers each contact of a case (as described in COVID-19 Case Surveillance Use Case) as a new Tracked Entity Instance (person) and links them to the case in the COVID-19 Case Surveillance Program via a 'relationship.' It has a simple repeatable follow-up stage where symptoms and any follow-up undertaken can be registered.

Workflow: Contact registration & follow-up

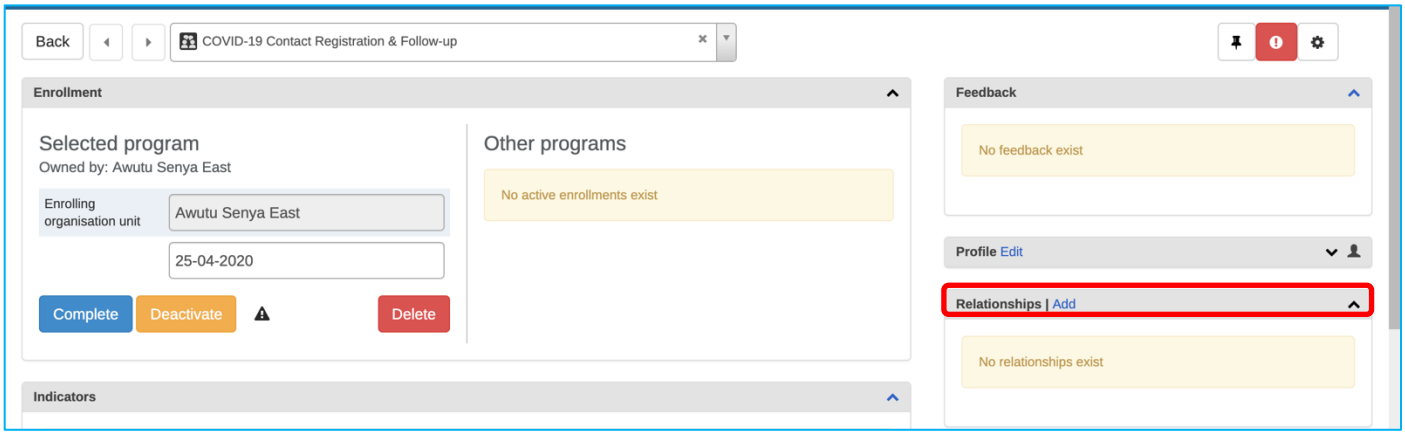


Program Description: Contact registration & follow-up

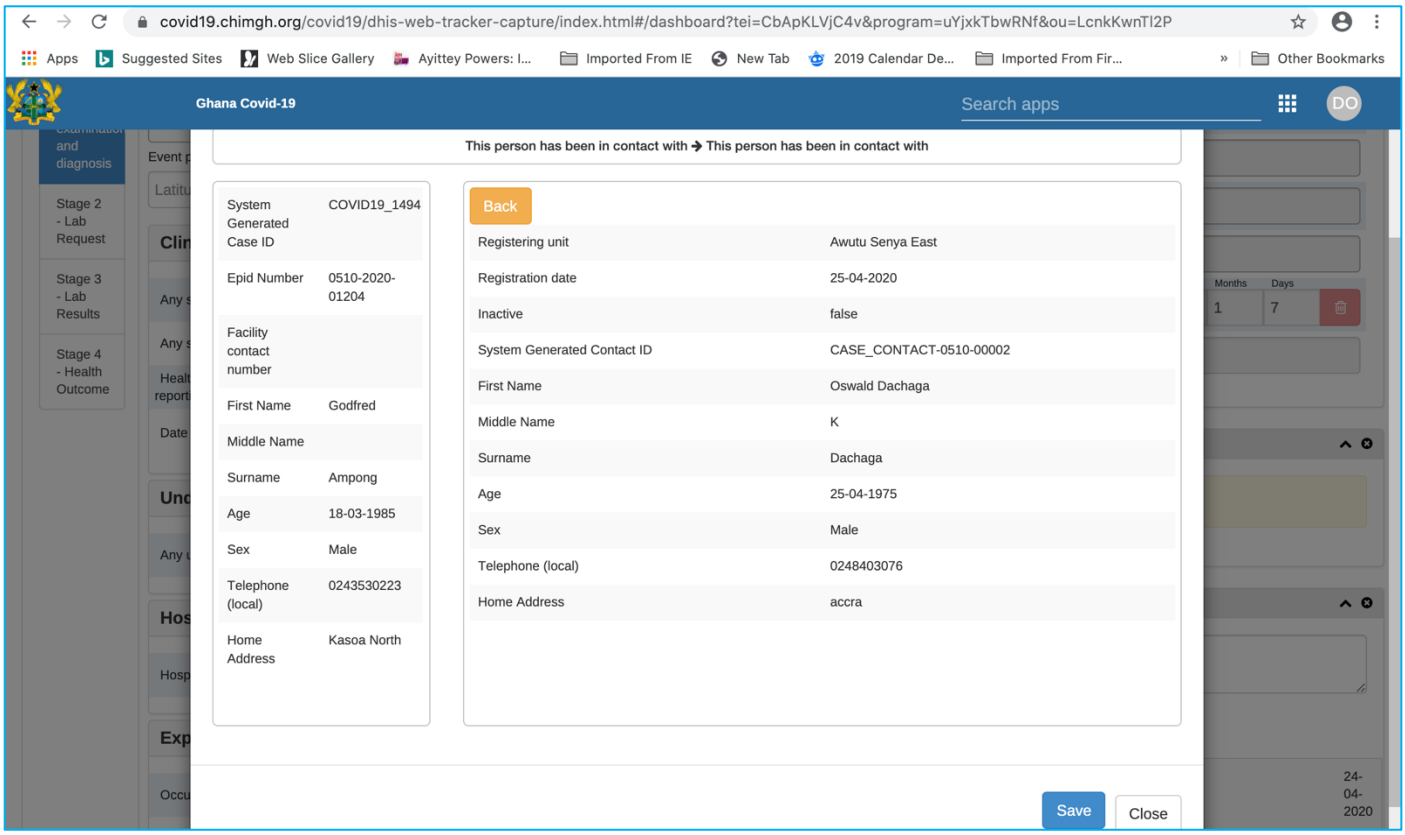
Stage	Description
Enrollment details	The Tracked Entity is represented by a Tracked Entity Type of 'person.' Related programs: COVID-19 Case based surveillance
Attributes	Attributes include basic personal information and unique case identifiers • System Generated Case ID • Local Case ID • First Name • Surname • Date of birth • Age • Sex • Phone number (local)

	• Home Address • Country of Residence
Stage 1: Follow-Up [non-repeatable]	This stage is meant to record information related to contact tracing follow up, given that a contact has already been identified. It is divided into two sections: 1. Relation with case 2. Exposure Assessment
Stage 2: Symptoms [repeatable]	This stage is intended to record symptoms of the case. Follow-up to check on the symptoms of a contact can be repeated until the follow-up period is complete (for example, after 14 days or according to national guidelines). When follow-up period is complete, the enrollment can be 'completed.' 1. Symptoms

Contacts are added to the index case using the relationships menu in the case surveillance program:

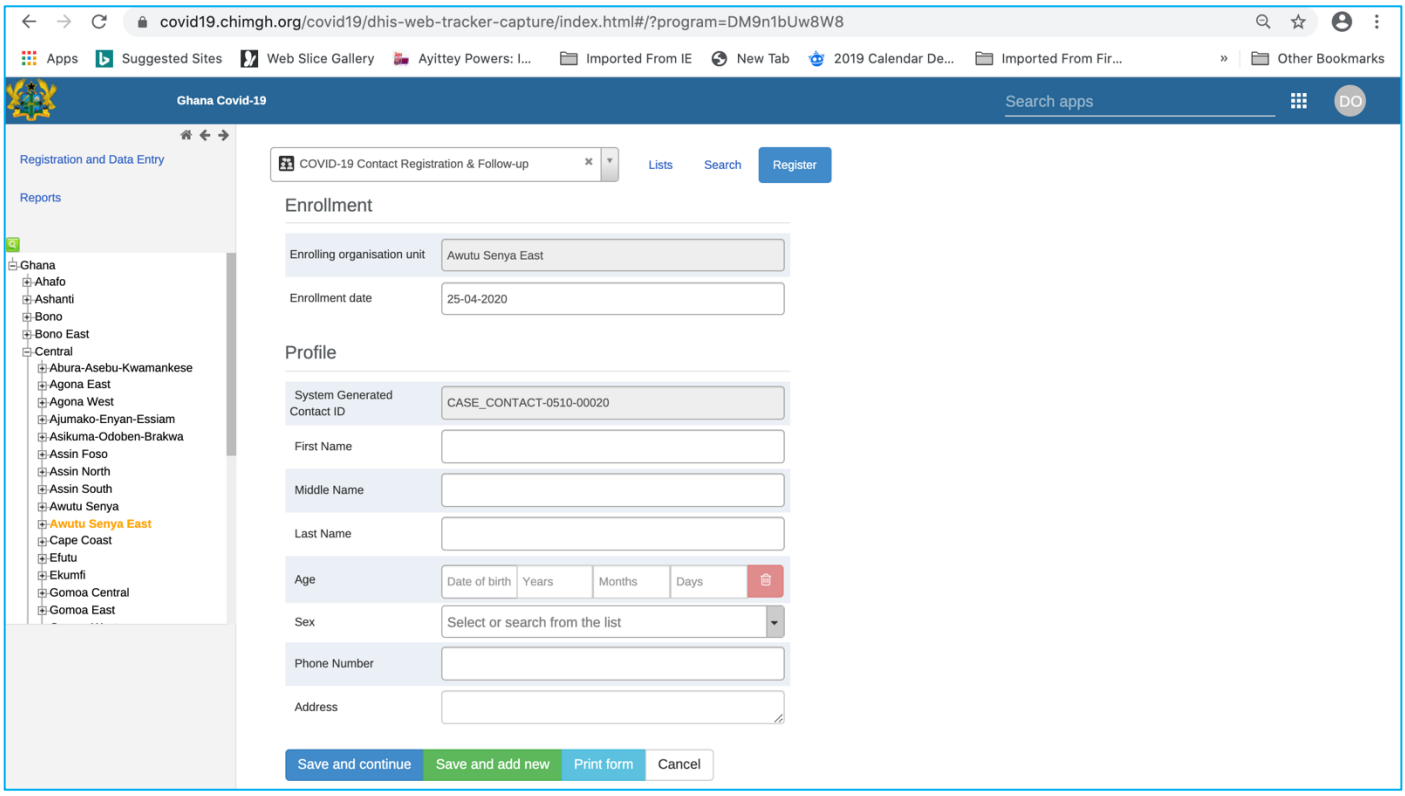


Once you select "Add" from the relationships box, you are able to select the relationship and program and either select an existing person or enroll a new contact using the enrollment stage that appears. This will enroll the contact into the contact registration and follow-up program. Contacts can be added by searching for existing contacts already registered or register new contacts from the relationship screen.

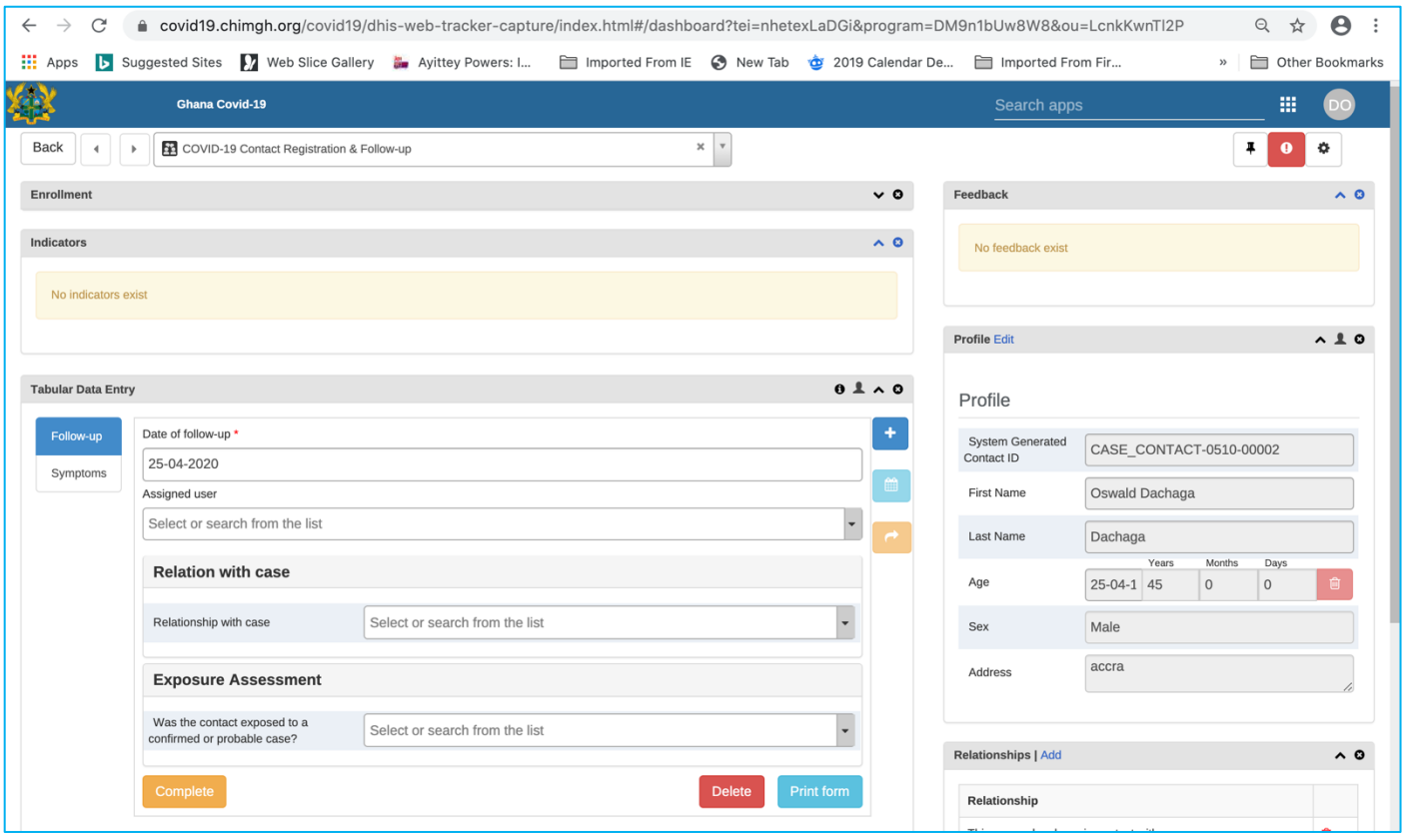


Contacts that are added will then be listed on the case's tracker dashboard in the relationship widget.

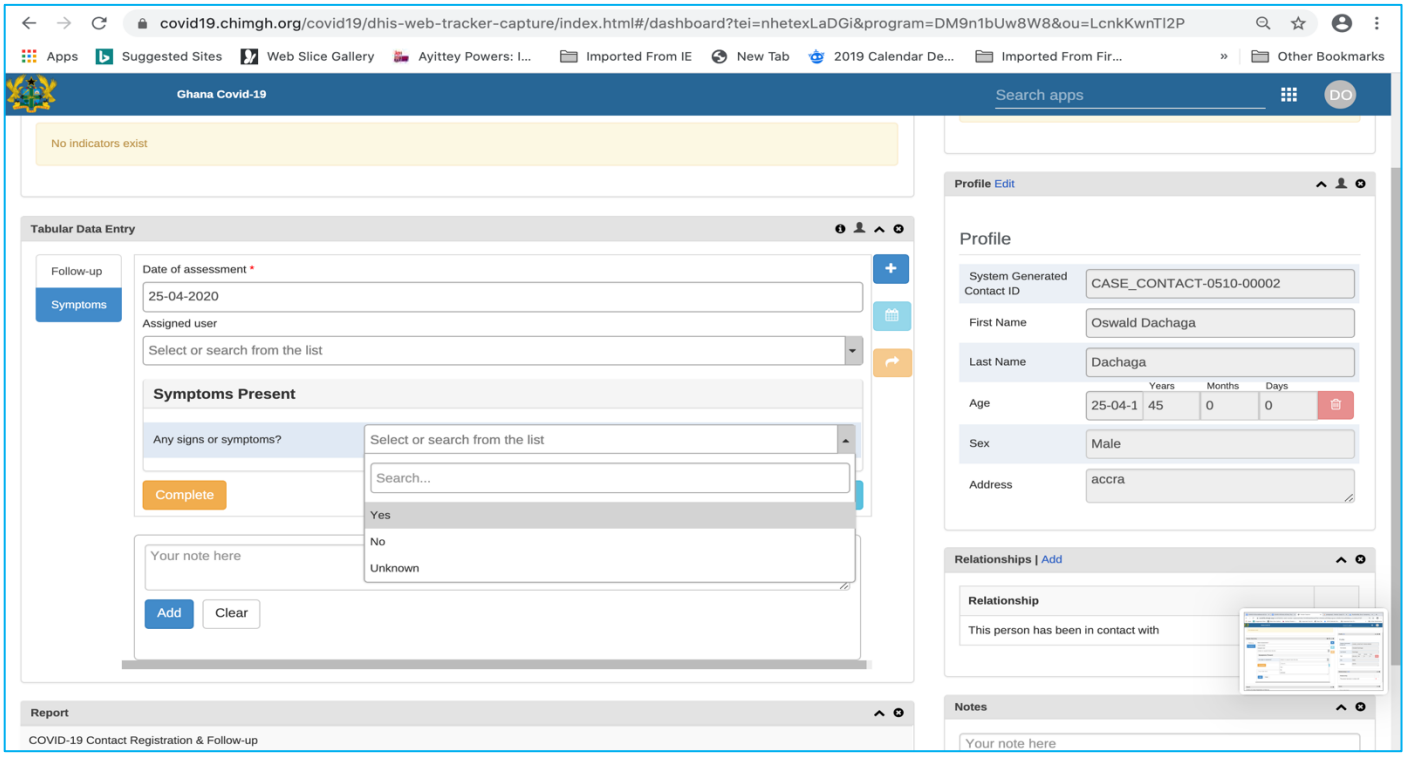
You may also enroll them separately into the program. Once enrolled, you will be able to find them for the follow-up as required.



Program Stage 1 : Follow - Up



Program Stage 2 : Symptoms



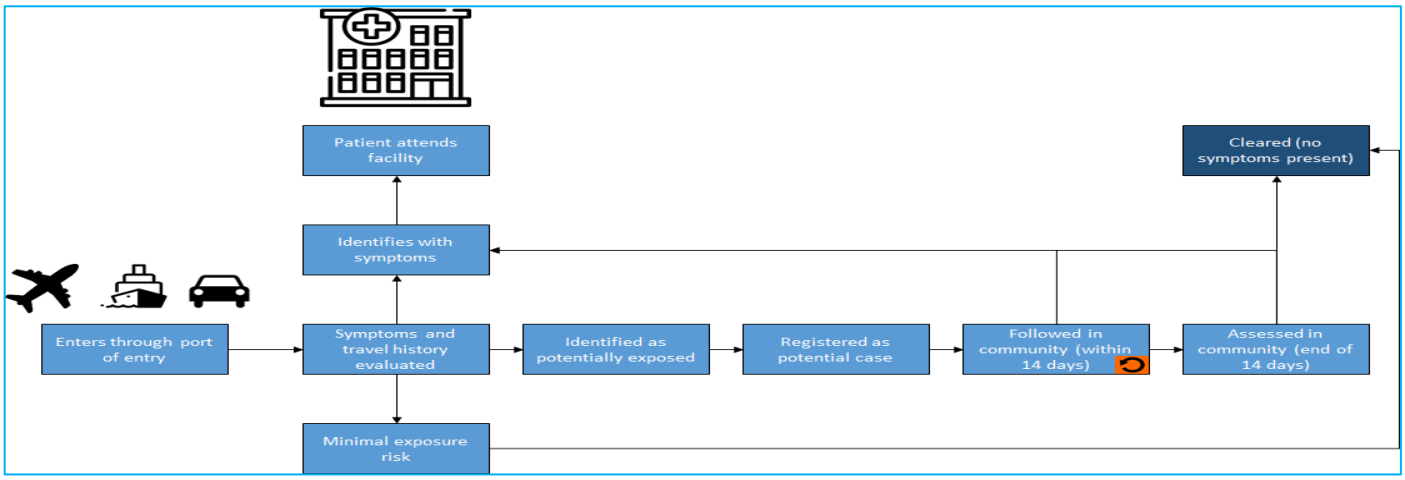
Use Case 3: COVID-19 Points of Entry Tracker System

Intended users

- POE users: personnel responsible for screening travelers at points of entry such as airports, seaports and land crossings who may conduct initial screening at POE, make a determination about the traveler's clearance and register the traveler into the Tracker program.
- Public health workers: personnel responsible for following up with travelers for 14 days to inquire about onset of symptoms and refer the person for testing if required.
- National and local health authorities: monitor and analyse data through dashboards and analytics tools to conduct risk assessments and plan response measures.

Workflow

The Points of Entry program workflow is based on the following scenario:

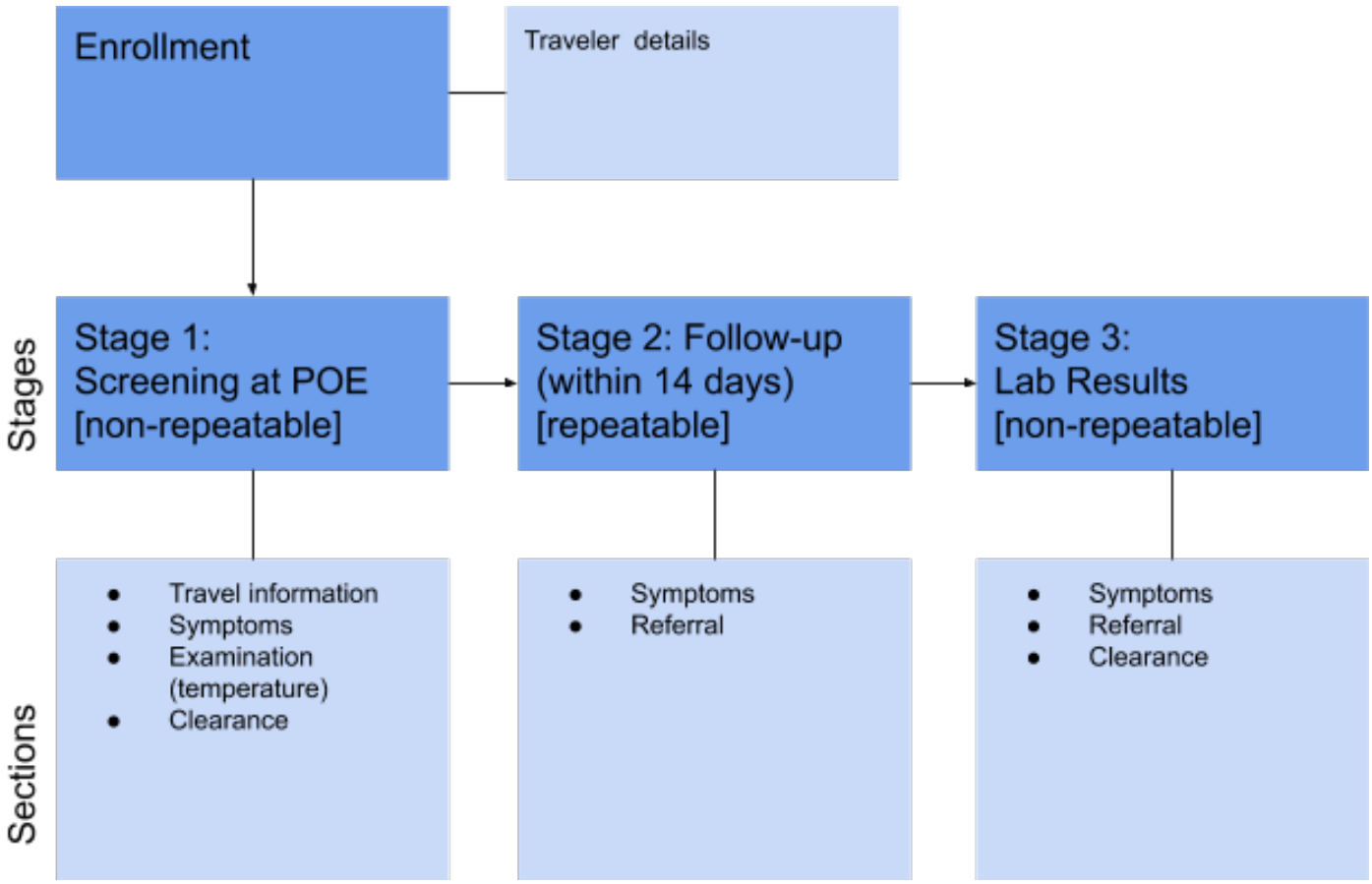


In this design, it is assumed a traveler would complete their enrollment in the POE under the following scenarios:

1. Traveler is marked as 'cleared' during initial screening or after 14 day follow-up
2. Traveler is referred to health facility at any point during follow-up

A traveler that is referred to a health facility is expected to be enrolled in the COVID-19 Case-based Surveillance Tracker as a suspected case (according to national guidelines). Details about a suspected case including clinical exam, exposures, laboratory results and case outcome would be recorded in the CBS program.

Structure: Points of Entry Screening Tracker Program



Consideration for Organisation Units & Geography

This program design assumes that Points of Entry such as airports, seaports or land crossings will be created as organisation units included in the OU hierarchy. The program would be assigned to the POE org units. Primary analysis is based on the enrolling Org Unit (the port of entry).

Additional geographical components are also captured as other dimensions:

1. TEI coordinates: It is possible to capture TEI coordinates when registering the traveler as TEI. These can be displayed in the maps app. Local protocols may choose what coordinates to enter, for example the TEI's local residence where he/she may be self-quarantined for 14 days.
2. Event coordinates: for screening and follow-up stages, coordinates can be captured on the event and displayed in a map. For example, the user may capture a traveler's location each time they are followed up (i.e. in the case of tourists or others not in home quarantine).

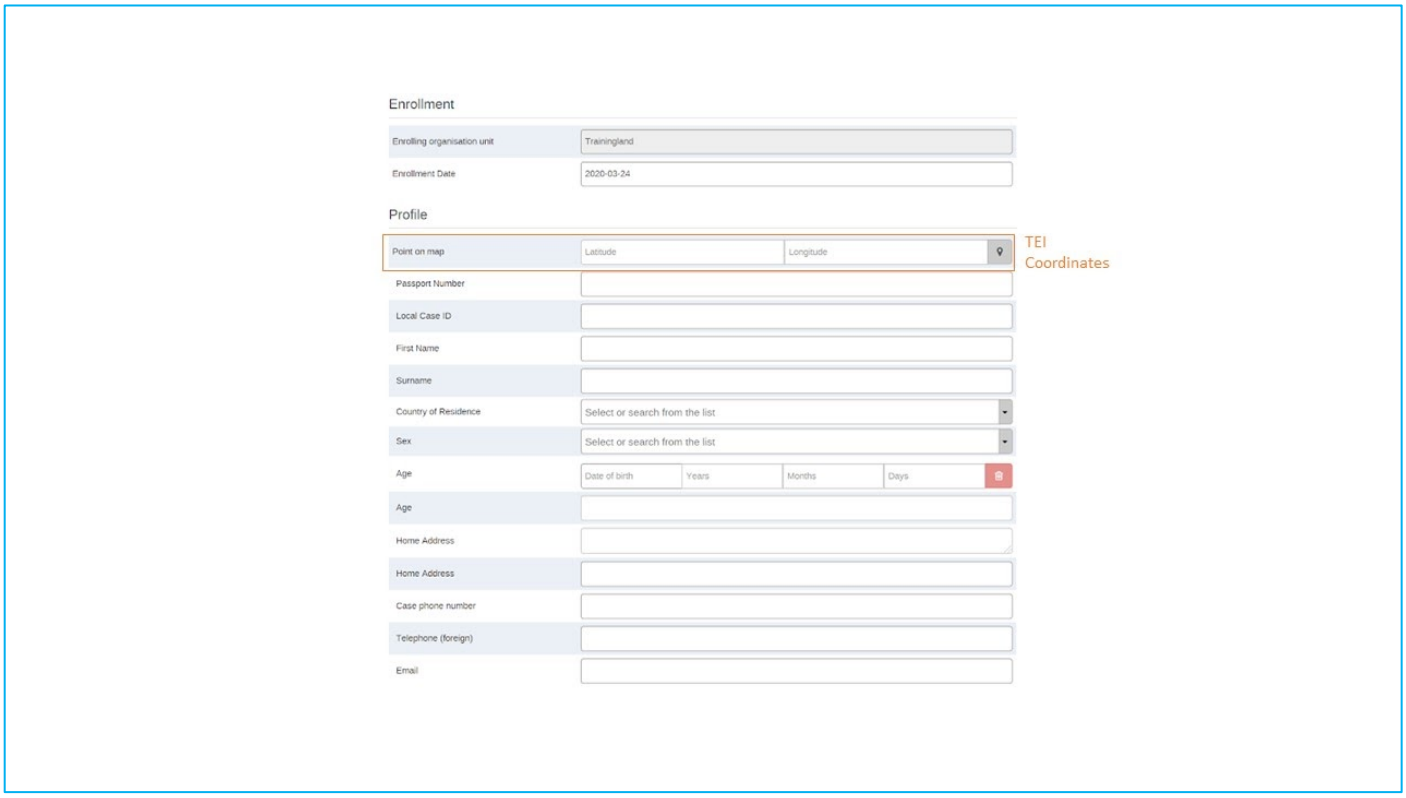
Program Description

Stage	Description
Registration	The Tracked Entity is the traveler, which is represented by the Tracked Entity Type of 'person.' The TEI is configured to collect a geographic 'point' during registration. These can be analyzed in a map.
Enrollment details	Enrollment date The first Program Stage is configured to appear on the Registration page so that a user does not need to click through to add the first event.
Attributes	Attributes include basic personal information and unique case identifiers • Passport number • Local Case ID • Age • First Name • Surname • Country of residence • Sex • Date of birth • Local address • Home address • Telephone (local) • Telephone (foreign) • Emergency contact • Emergency contact phone • Email
Stage 1: Screening at POE	This stage records: • Traveler details (countries visited, flight number, date of departure, etc) • Examination: recorded temperature • Symptoms: this list includes symptoms typically checked for both COVID-19 symptoms and symptoms of other potential notifiable diseases • Case clearance

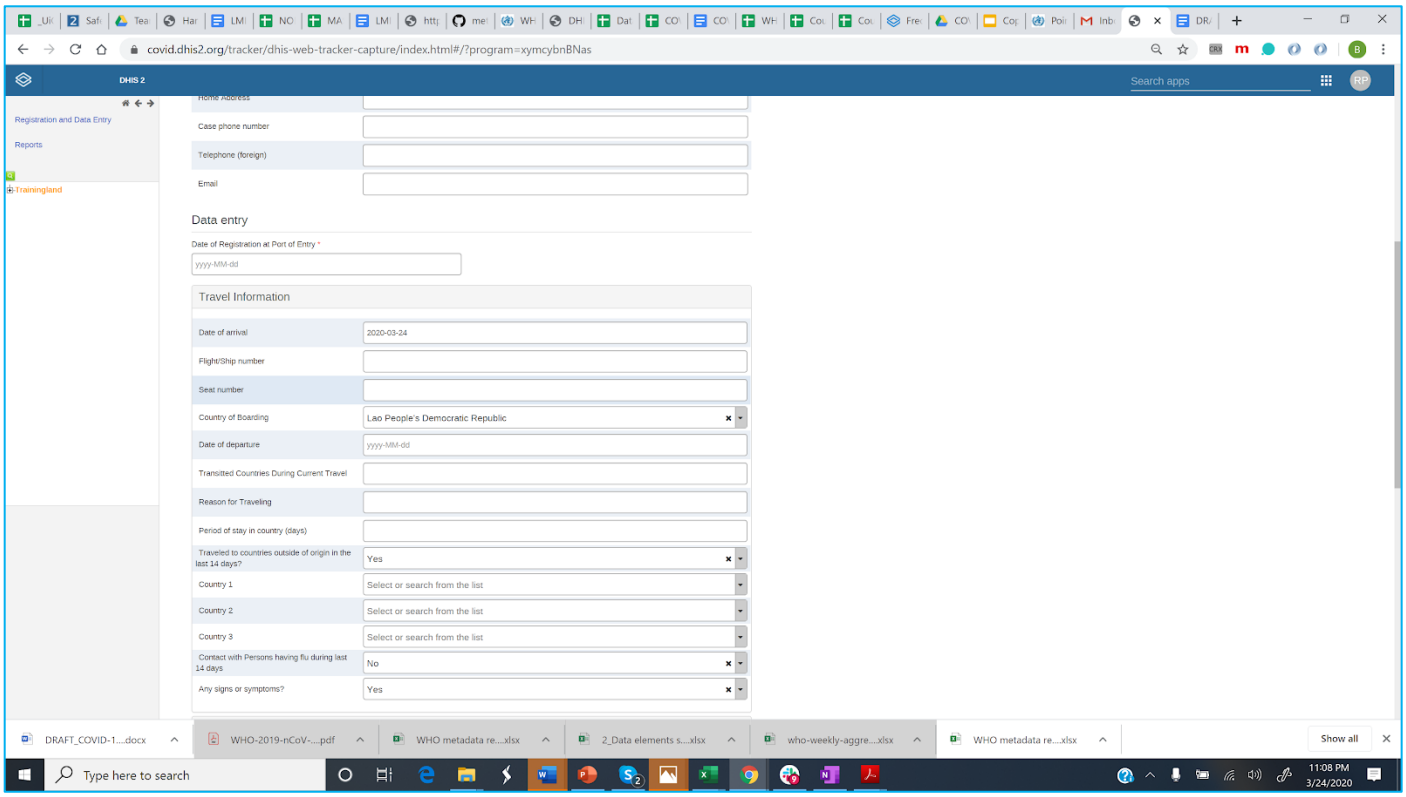
[non-repeatable]	If the traveler is marked as 'cleared', no further follow up is required; the enrollment may be closed. If the traveler requires follow-up, an event can be scheduled for follow-up. The data entry form is blocked after completion; no further changes can be made without authorization.
Stage 2: **Follow-up (within 14 days)** **[repeatable]**	Data is entered at this stage if any interim follow-up is performed before the end of 14 days. Event coordinates can be captured (i.e. the current location of the traveler at the time follow-up was completed) to present in a map. • Symptoms • Referral (user may select an Organisation Unit in a Data Element configured as type OU, for example to select a health facility where a traveler was referred after reporting symptoms) If a traveler has symptoms and is referred to a health facility for testing, the traveler should be enrolled into the Case based Surveillance program. The enrollment may be closed if no further monitoring & follow-up is planned in this program. The data entry form is blocked after completion; no further changes can be made without authorization.
Stage 3: **Follow-up (after 14 days)** **[non-repeatable]**	Data is entered at this stage at the end of 14 days. Event coordinates can be captured (i.e. the current location of the traveler at the time follow-up was completed) to present in a map. • Symptoms • Referral (user may select an Organisation Unit in a Data Element configured as type OU, for example to select a health facility where a traveler was referred after reporting symptoms) • Case clearance

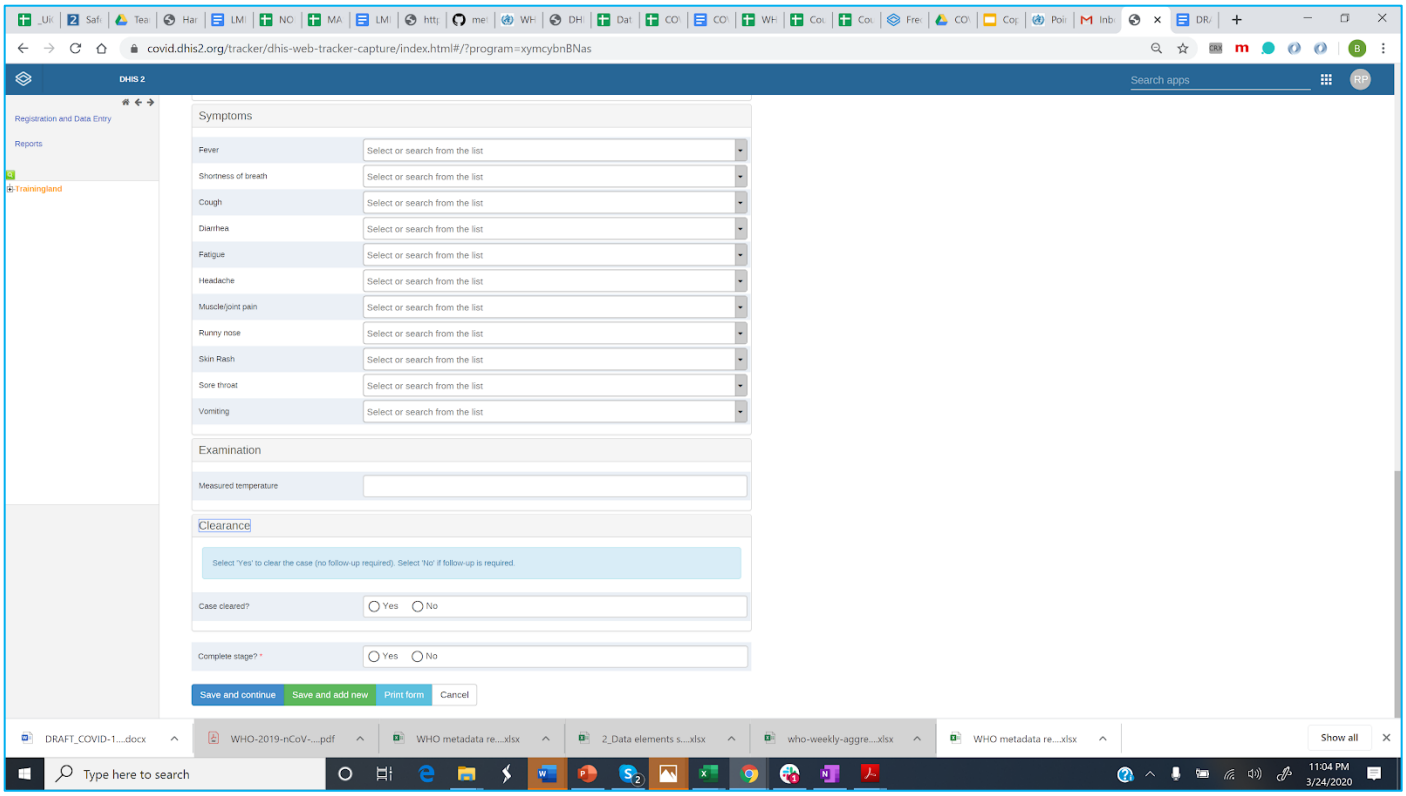
	If a traveler has symptoms and is referred to a health facility for testing, the traveler should be enrolled into the Case based Surveillance program. The enrollment should be closed at the completion of 14 day follow-up. The data entry form is blocked after completion; no further changes can be made without authorization.

Enrollment

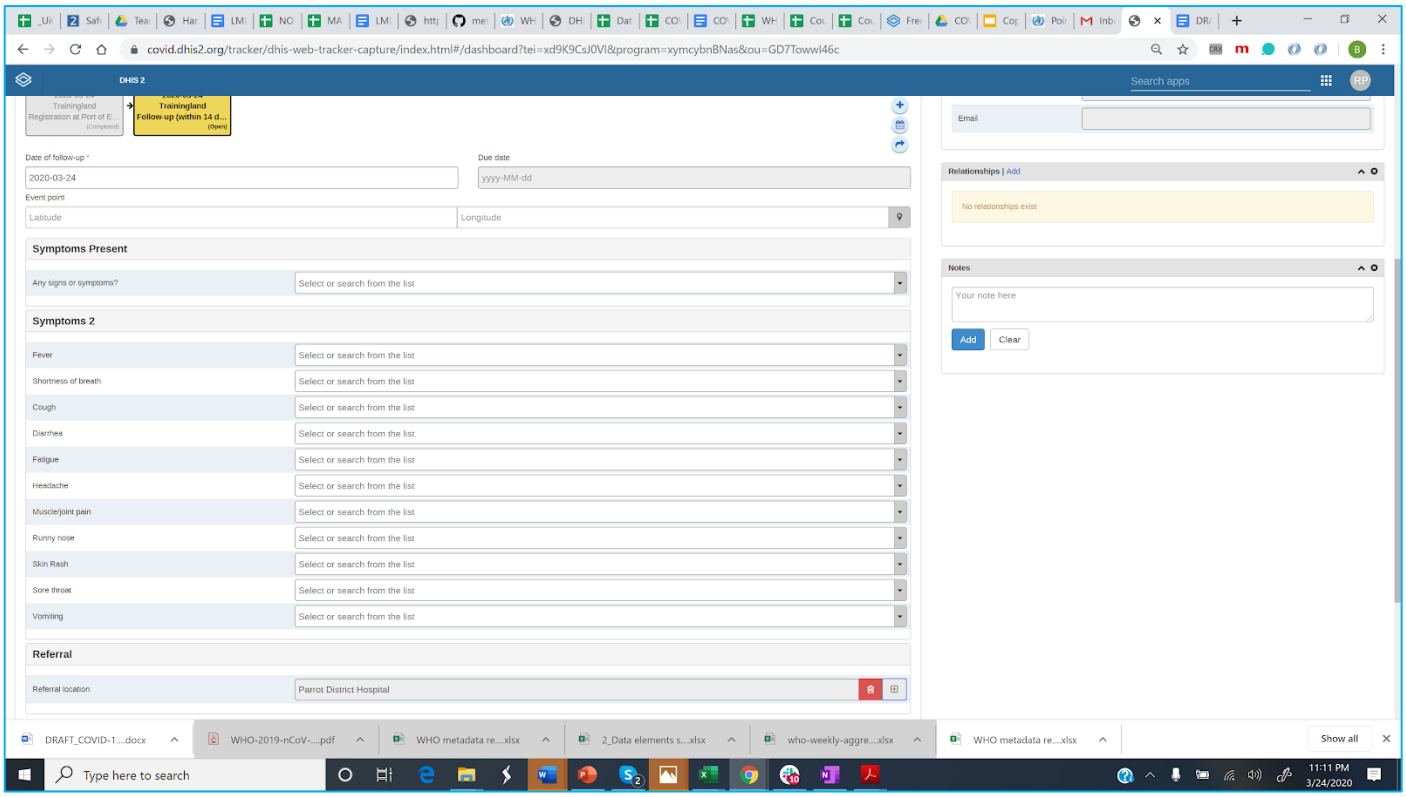


Program Stage 1 - Screening at POE

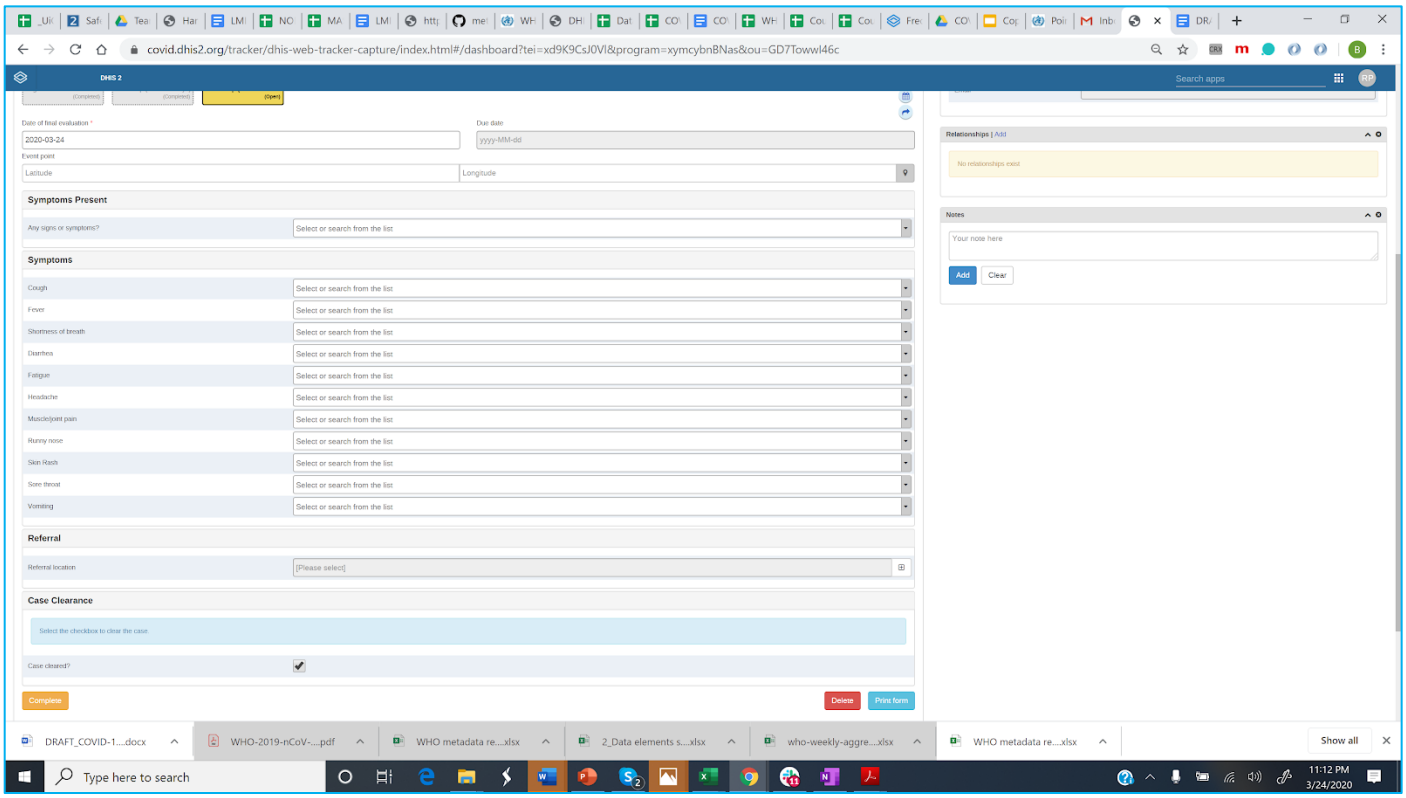

covid.dhis2.org/tracker/dhis-web-tracker-capture/index.html#/?program=xymcybnBNas
DHIS 2
Search apps
Registration and Data Entry
Reports
Trainingland
Case phone number
Telephone (foreign)
Email
Data entry
Date of Registration at Port of Entry *
yyyy-MM-dd
Travel Information
Date of arrival
2020-03-24
Flight/Ship number
Seat number
Country of Boarding
Lao People's Democratic Republic
Date of departure
yyyy-MM-dd
Transited Countries During Current Travel
Reason for Traveling
Period of stay in country (days)
Traveled to countries outside of origin in the last 14 days?
Yes
Country 1
Country 2
Country 3
Select or search from the list
Contact with Persons having flu during last 14 days
No
Any signs or symptoms?
Yes
DRAFT_COVID-1....docx
WHO-2019-nCoV-....pdf
WHO metadata re....xlsx
2_Data elements s....xlsx
who-weekly-aggre....xlsx
WHO metadata re....xlsx
Show all
Type here to search
11:08 PM
3/24/2020


covid.dhis2.org/tracker/dhis-web-tracker-capture/index.html#/?program=xymcybnBNas
DHIS 2
Search apps
Registration and Data Entry
Reports
Trainingland
Symptoms
Fever
Shortness of breath
Cough
Diarrhea
Fatigue
Headache
Muscle/joint pain
Runny nose
Skin Rash
Sore throat
Vomiting
Select or search from the list
Examination
Measured temperature
Clearance
Select 'Yes' to clear the case (no follow-up required). Select 'No' if follow-up is required.
Case cleared?
Yes
No
Complete stage? *
Save and continue
Save and add new
Print form
Cancel
DRAFT_COVID-1....docx
WHO-2019-nCoV-....pdf
WHO metadata re....xlsx
2_Data elements s....xlsx
who-weekly-aggre....xlsx
WHO metadata re....xlsx
Show all
Type here to search
11:04 PM
3/24/2020

Program Stage 2: Follow-up (within 14 days)



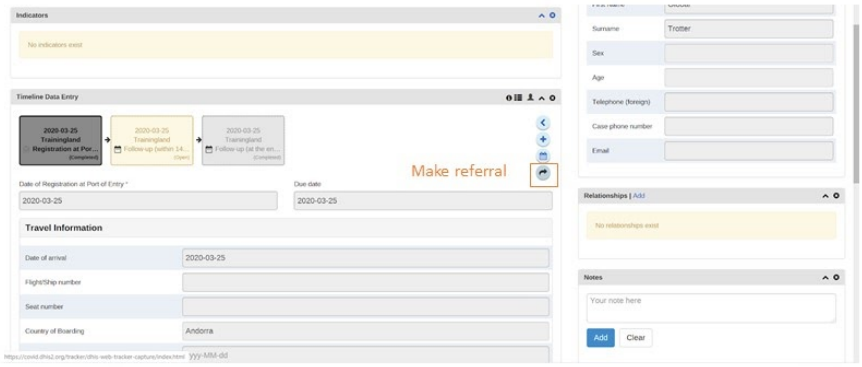
Program Stage 3: Follow up (after 14 days)



How to refer the TEI to another Organisation Unit

Primary analysis is completed on the enrolling organisation unit (the port of entry). Referral facility is captured as a Data Element (type: Organisation Unit) in order to display travelers by referral to health facility in the analytics apps (i.e. Event Report). In some use cases, it may be desirable to refer the TEI (the traveler) to another Org Unit for follow-up.

A TEI can be 'referred' to another org unit such as a health facility for one event or permanently. In this case, health facility user must be able to search TEIs enrolled in the relevant Points of Entry org units. For example, if after screening a traveler at the POE, the traveler may be "referred" to a district health office near the traveler's local address for follow-up by district health staff. After completing the data entry for Stage 1 (screening), the user would refer the TEI to a District Health Center.



Program Relationships

This program has the relationshipType 'Has been in contact with'. Users can create a relationship between TEIs enrolled in the POE program and TEIs in other COVID-19 tracker programs (Case-based Surveillance, Contact Registration & Follow-up). The relationship can be added at any point in the program stages during data entry.

Using Event Reports

Event Reports Overview

- The event reports app enables analysis of events in two fashions.
- Pivot table-style analysis with aggregated values of events
- Lists of events based on queries / filters

Pivot Tables with Aggregated Values

- By selecting "Aggregated values" from the top-left menu you can use the event reports app to create pivot tables with aggregated numbers of events. An event report is always based on a program. You can do analysis based on a range of dimensions. Each dimension can have a corresponding filter. Dimensions can be selected from the left-side menu and includes the following:
- Data elements: Start by selecting the program and program stage for the event report. The data elements associated with the selected program will be listed under available items. Each data element acts as a dimension, and can be selected by double-clicking on it. After selecting a data element, it will be visible under "selected data items". Here you can specify a filter for each data element, with operators such as "greater than", "in" or "equal" together with a filter value.
- Periods: For the period dimension you have three options: relative periods, fixed periods and start/end dates. Relative periods can e.g. be "last 12 months", and has the advantage that it keeps the data in the report up to date as time goes. Fixed periods can e.g. be "January 2019". You can switch to start/end dates by selecting from the drop-down menu under the periods tab, which lets you specify flexible dates for the time span in the report.
- Organization units: The organization unit dimension lets you select any org unit from the hierarchy. You can use the org unit mode selector to select org units explicitly, by org unit hierarchy levels and by organizational unit groups.

By clicking Layout from the top menu, you can control which dimensions should appear as columns, rows and filters in the pivot table. Note that each data element appears as individual dimensions and can be placed on any of the axes.

Note that data elements of continuous value types (real numbers/decimal numbers) can only be used as filters, and will automatically be positioned as filters in the layout dialog. The reason for this is that continuous number cannot be grouped into sensible ranges and used on columns and rows.

Event reports can be saved as favorites by clicking on “Favorites" in the top menu. Favorites can later be restored by clicking on them in the list of favorites.

Event reports can be downloaded in various popular formats by clicking on the "Download" button on the top menu.

Event Queries

By selecting "Individual cases" from the top-left menu you can use the event reports app to make searches or queries for events based on a flexible set of criteria. The report will be displayed as a table with one row per event. Each dimension can be used as a column in the table or as a filter. Each dimension can have a criteria (filter). Data elements of type option set allows for “in” criteria, where multiple options can be selected. Numeric values can be compared to filter values using greater than, equal or less than operators.

Options

An event report can be customized using a range of options, which can be accessed by clicking on “Options" in the top menu. The following options apply to aggregated values-type reports only:

- Show totals: Show totals at the end of each column and row in the pivot table.
- Show sub-totals: Show sub-totals for each column and row in the pivot table. • Hide empty rows: Hide empty rows in the pivot table.
- Limit: Set a limit on the max number of rows to display in the table, combined with a setting for showing top or bottom values.
- Show hierarchy: Include the names of all parents of each organization unit in labels.

These style-related options apply to both types of reports:

- Display density: Control padding around values inside cells.
- Font size: Control font size of values.
- Digit group separator: Control character to use for splitting digit groups.

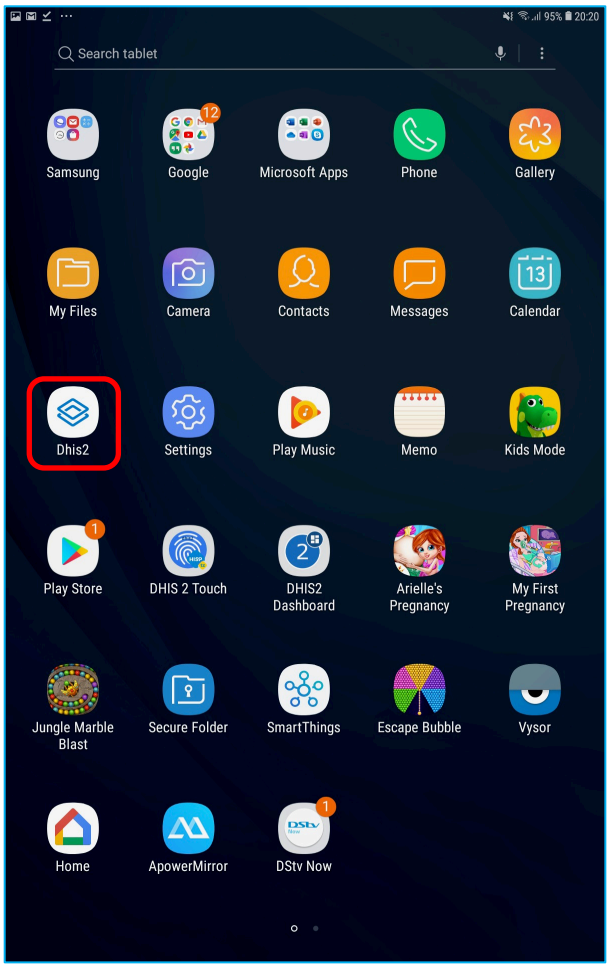
Using the covid-19 Case-based surveillance App –Offline Android Tracker Capture

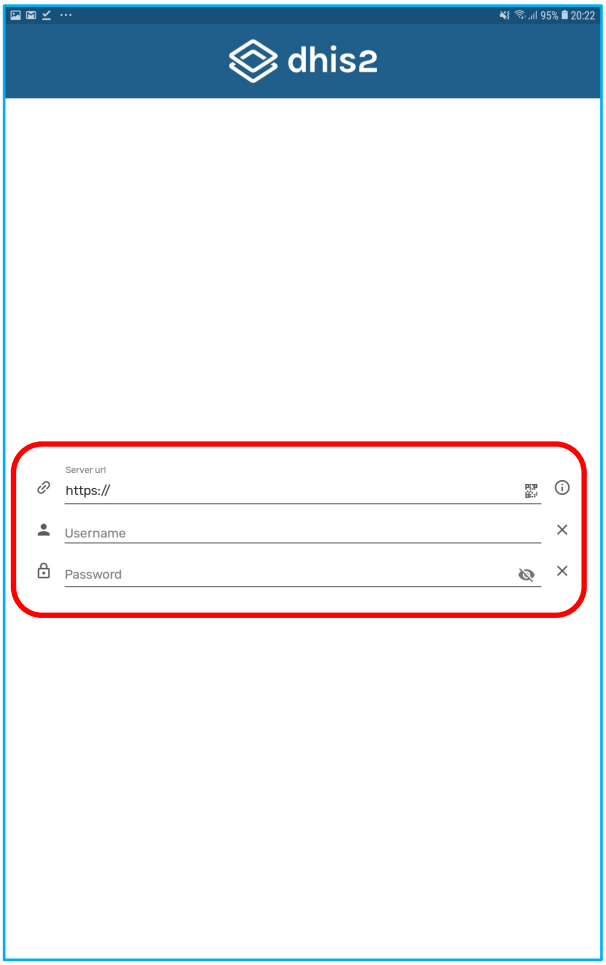
The Tracker Capture Android app allows you to capture, modify and list tracked entity instances with its enrolments and events. The Tracker Capture app works with multiple event-based programs in DHIS2, which handles events linked to registered entities. These programs are suitable for handling disease programs where multiple visits is required. The Tracker Capture app can be used for disease programs such as Covid-19, tuberculosis, HIV and malaria. However, the app is not tied to any specific domain and can potentially be utilized for any scenario of multiple event-based information.

The Tracker Capture app allows you to capture events offline, i.e. without Internet connectivity. The app will automatically synchronize events with the online e-tracker server when connectivity is present. This makes the app suitable for environments where Internet connectivity is scarce or unstable.

Installation and Login

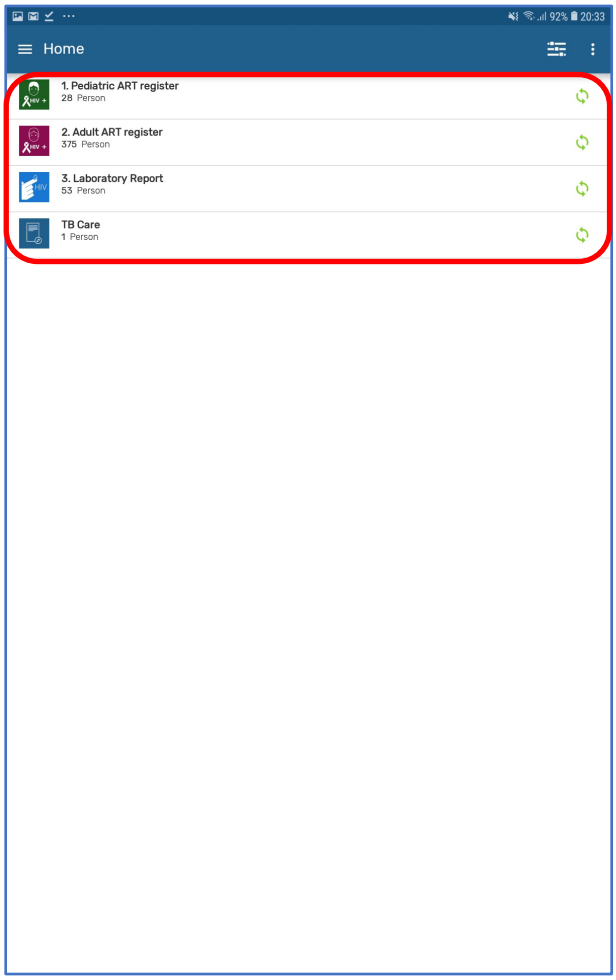
You will be guided to install the stable version of the DHIS2 android capture app on your android device. After installation, locate app icon on your device and click to launch it. Enter URL as will be provided to you (https://covid19.chimgh.org/covid19/) as well as your user credentials and click log in a the bottom of your screen as shown b. These initial steps should be done while your android device is connected to the internet.





Your device will take few minutes to authenticate your credentials, and also complete a configuration and data synchronization process; be patient and allow this process to completed before proceeding to do anything else on your device.

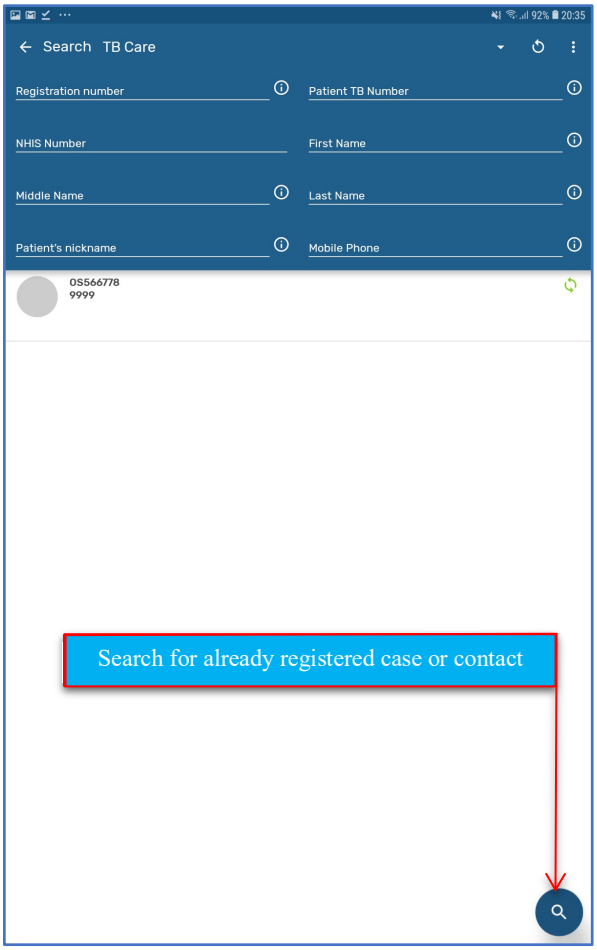
After logging in the first time, the app will download meta-data from the online instance and then display the list of programs that have been assigned to your facility. Look out for the appropriate program (Case-base surveillance, contact tracing and follow-up or Point of Entry) to display the interface for searching for existing clients on the system.

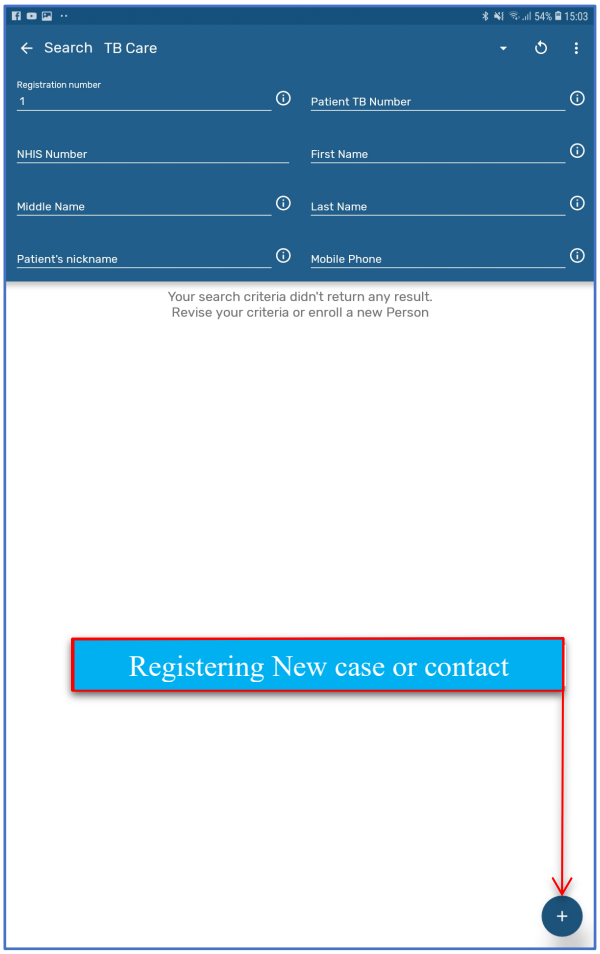


Searching and Registration of Clients

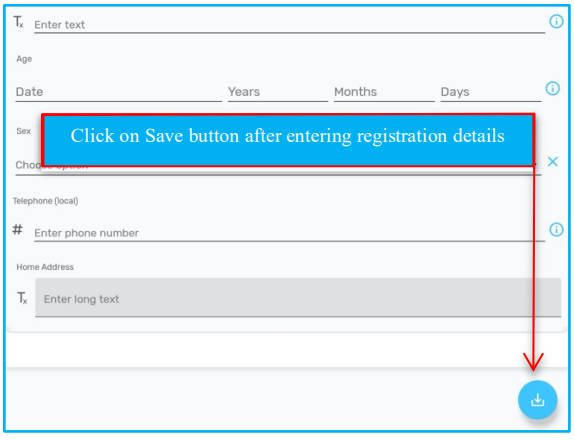
Before being able to register a new client, users automatically conduct a search. If offline, the search is on the local copy of data captured by the user for their organisation unit. and when online, the search is on the server online. For online search, the system will automatically suggest records for download, based on user's Org Unit search setup. As a result, potential duplicates are minimized.

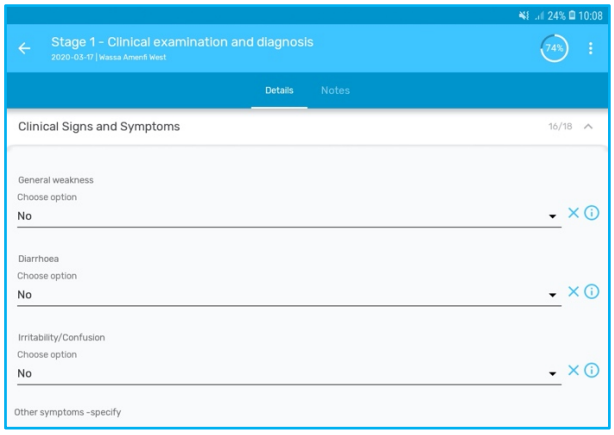
A new client is registered by clicking on the Add (+) button on the down left corner of the page.





Fill the registration form and click on the save button to save the registration. This action takes you to the first stage of the program (Clinical examination and diagnosis) page as shown below.

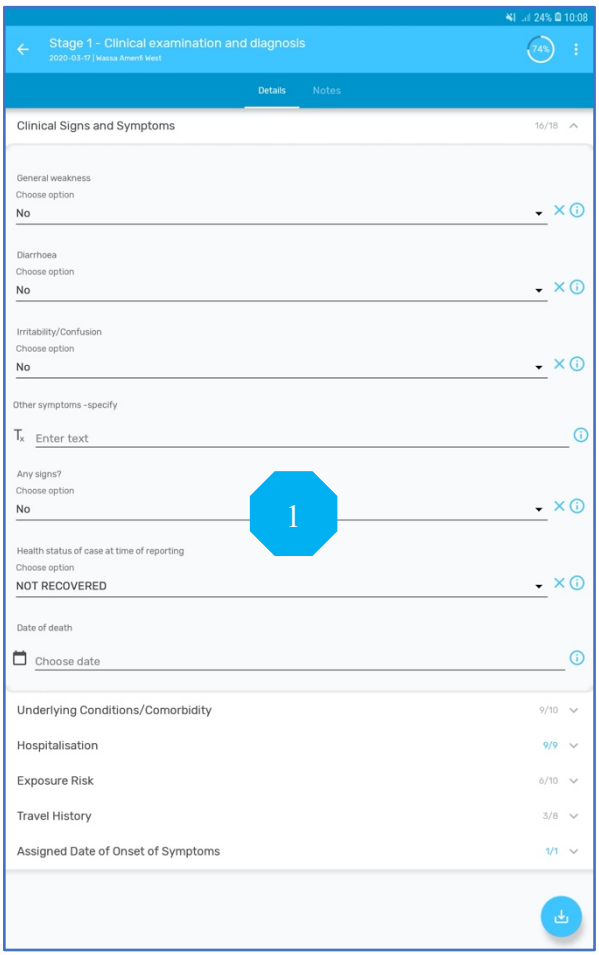


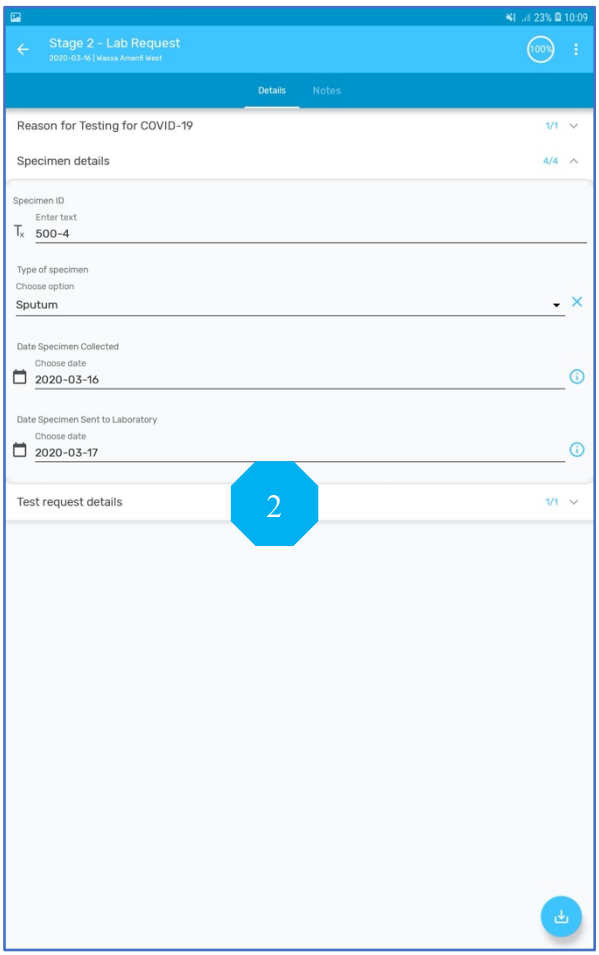


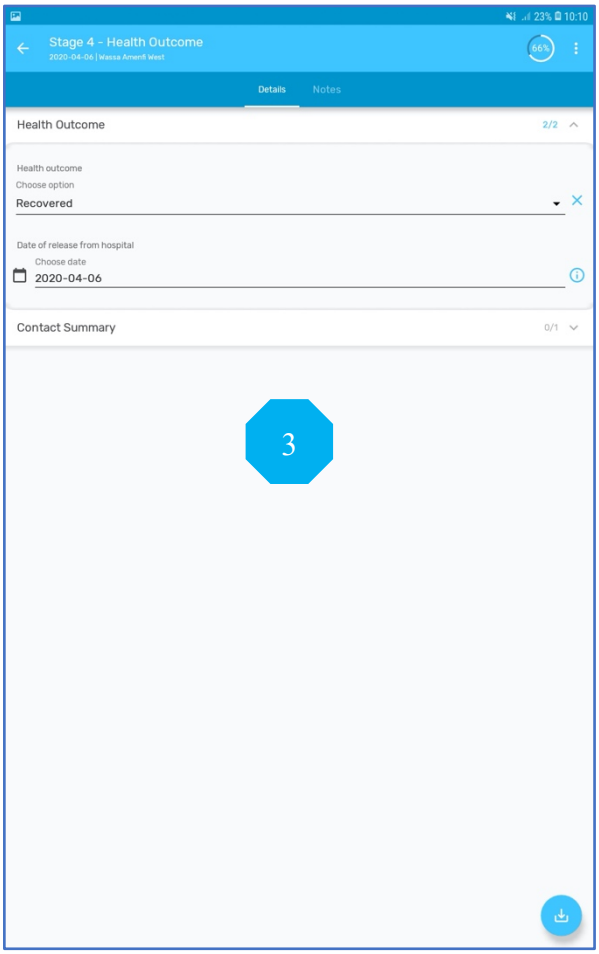
Each section of the the case-based surveillance appears on a separate page. Navigation to each section is done by using the NEXT/update button on the bottom right corner of the page. You can also use the PREV button to move to previous pages of the Initial assessment.

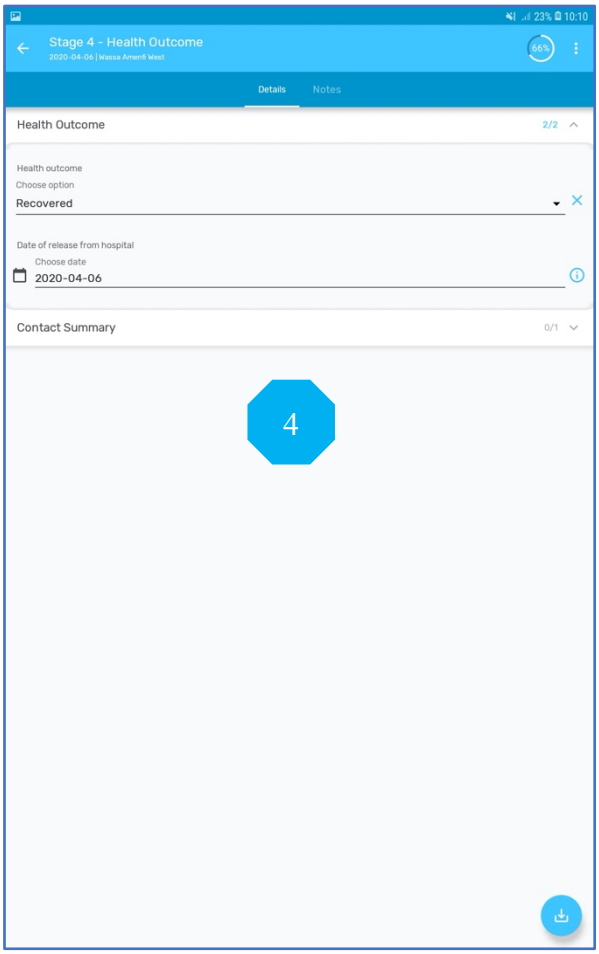
When data entry is done, you click on the small icon on the bottom right corner of the page and select Complete from the pop-up menu below. (This takes you to the next page to add the follow up)

Click on the See Details button to edit the registration details of the case if there is need for that. The initial Assessment can also be updated by clicking back on it.


Stage 1 - Clinical examination and diagnosis
Details
Notes
Clinical Signs and Symptoms
General weakness
No
Diarrhoea
No
Irritability/Confusion
No
Other symptoms -specify
Enter text
Any signs?
No
Health status of case at time of reporting
NOT RECOVERED
Date of death
Choose date
Underlying Conditions/Comorbidity
Hospitalisation
Exposure Risk
Travel History
Assigned Date of Onset of Symptoms
1


Stage 2 - Lab Request
Details
Notes
Reason for Testing for COVID-19
Specimen details
Specimen ID
500-4
Type of specimen
Sputum
Date Specimen Collected
2020-03-16
Date Specimen Sent to Laboratory
2020-03-17
Test request details
2





Adding Follow Up

To add the follow up, click on the Add (+) symbol on the bottom right corner of the previous page and click on the follow up

Select the visit date and click on the create button. This opens the follow up data entry screen.

Fill in the details and complete, following the processes used in completing the Initial assessment.

Scheduling Another Follow up

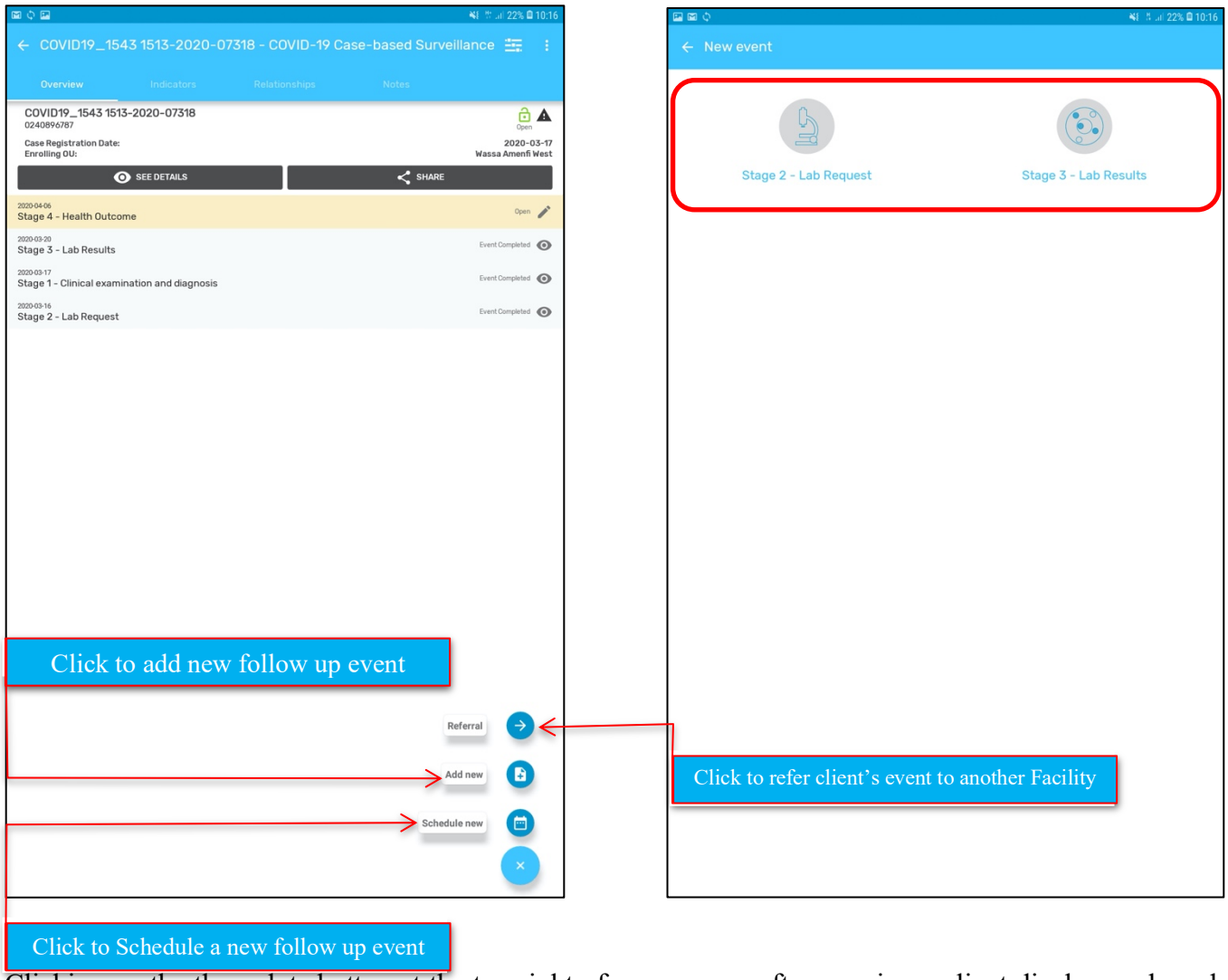
After completing the follow up, click on the Add button on the bottom of the page and choose the Schedule new button from the list shown above.

Provide the next follow up date and click on create to reschedule the client for the next follow up.

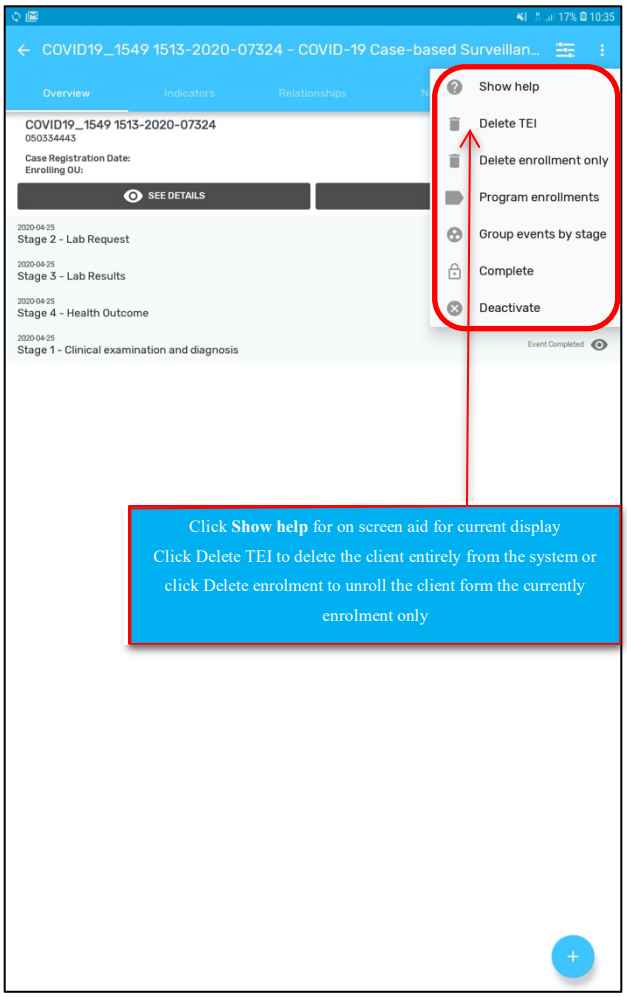
This new follow up visit is created and added to the number of events for the client. This new event has a green colour coding, indicating that the event is a scheduled event.

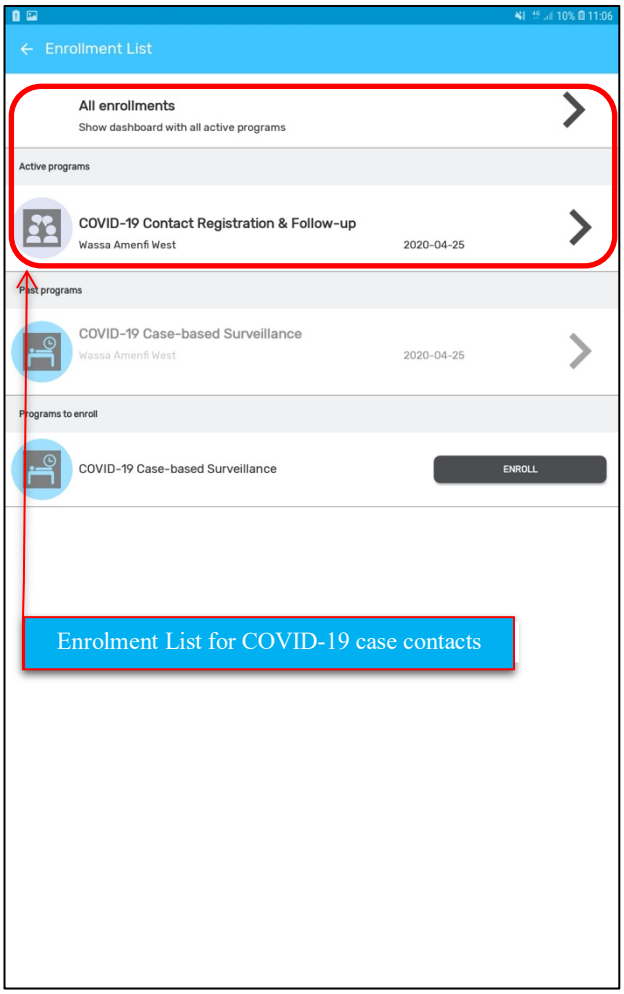
For subsequent follow ups, click on the Add (+) button and reschedule another follow up after data entry is done for the current follow up.

The resulting page from click the add new or schedule new button shows three categories of events that can be added for the client as shown below (i.e. DST, Lab and Treatment)



Clicking on the three dots button at the top right of your screen after opening a client displays a drop down menu as shown below.





Synchronizing Data to the server

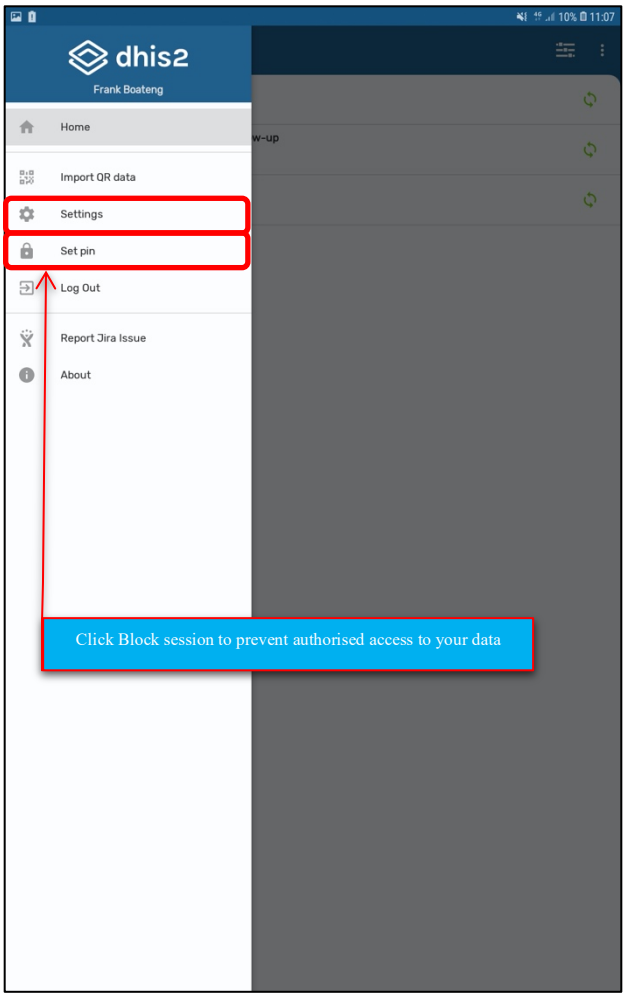
The app allows users to synchronize data to the server manually or automatically.

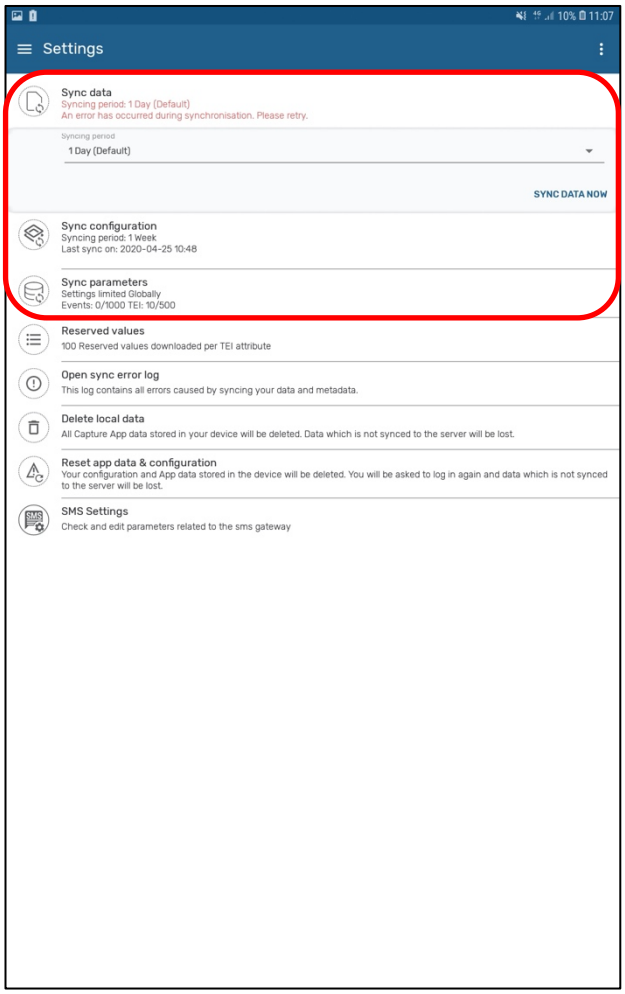
The automatic synchronization has frequencies at which data can be synched. Once you set the frequency, data is synched as soon as there is internet connectivity. Users have to click on the Synch Data Now button to manually synchronize their data to the server.

Apart from synchronizing data to the server, system configuration can also be synchronized with the server. This is to have an updated version of the database on individual tablets from time to time.

To do synchronization, user has to click on the menu bar on the top left corner of the home page and click on settings from the pop-up menu to display the page below.

Users can also restrict access to their tracker data by clicking on the 'block session' button to prevent unauthorised access to data on the tracker app.

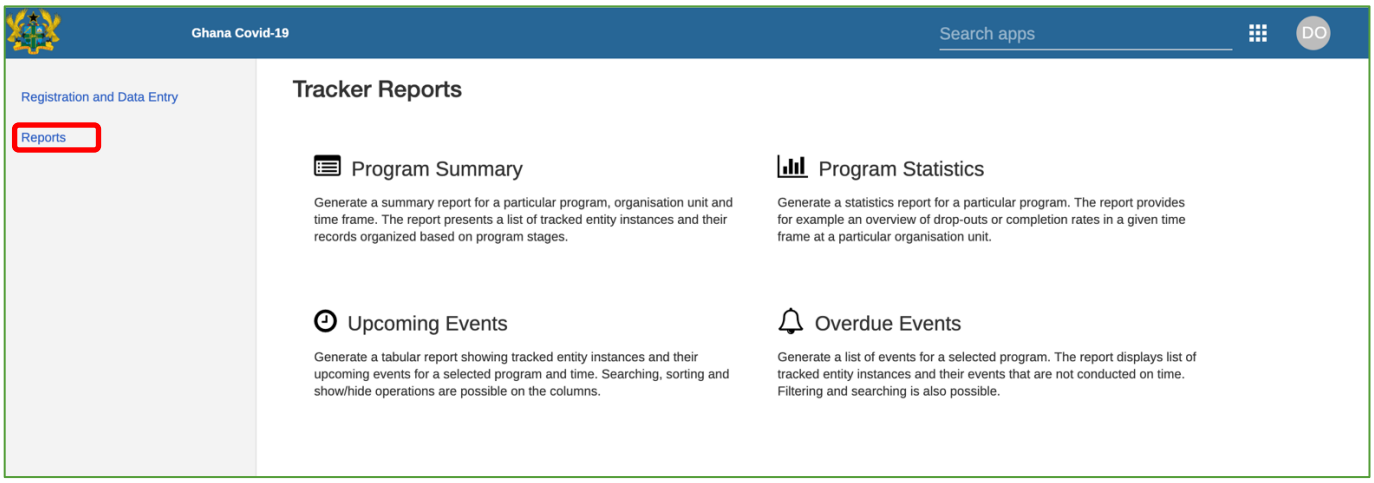




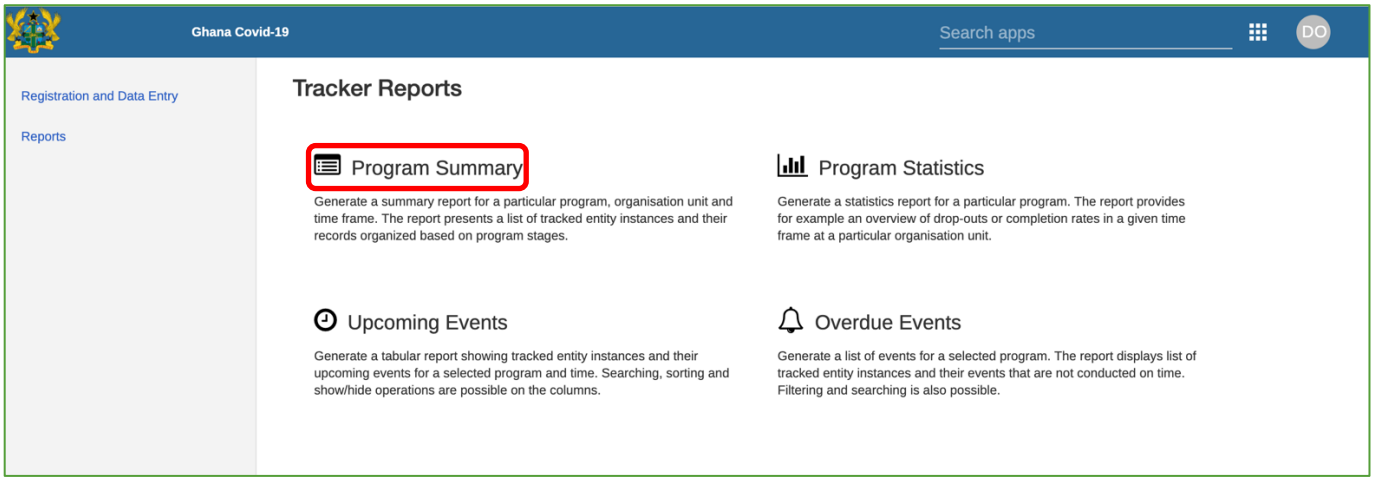
Reporting Within Tracker Capture Interface.

The Tracker capture interface provides on-the-fly statistical report on selected programs.

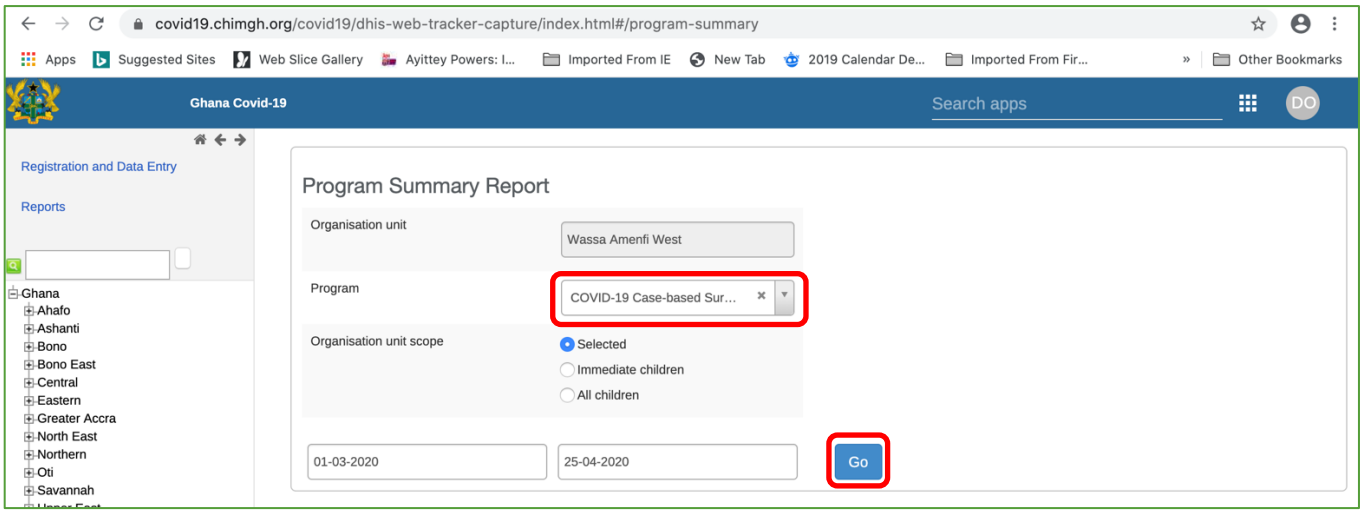
1. Click on ‘report’ on the top left corner of the tracker capture interface to display the various report types.



Click on any of the report types (E.g. **Program Summary**) above to display a page for **report parameters** to be selected.



Select the **program**, **organization unit scope** and the **report period (Start date & End date)**. Click on the **Go button** to get your report.



References

- Ghana Integrated Disease Surveillance and Response Manual
- Installation guidance: https://www.dhis2.org/covid-19
- WHO Technical guidance on COVID-19 surveillance and case definitions (last updated 20 March 2020)

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/surveillance-and-case-definitions

- WHO Data Dictionary for COVID-19 Case Reporting Form

https://www.who.int/docs/default-source/coronaviruse/2020-02-27-data-dictionary-en.xlsx

- WHO Laboratory testing for 2019 novel coronavirus (2019-nCoV) in suspected human cases (last updated 2 March 2020) https://www.who.int/publications-detail/laboratory-testing-for-2019-novel-coronavirus-in-suspected-human-cases-20200117
- WHO Considerations in the investigation of cases and clusters of COVID-19 (last updated 13 March 2020) https://www.who.int/internal-publications-detail/considerations-in-the-investigation-of-cases-and-clusters-of-covid-19
- WHO Coronavirus situation reports

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports