

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

## v0.3.3

Last updated 27/03/2020

Package version: 0.3.3

DHIS2 Version compatibility 2.33.2

Demo: <https://covid.dhis2.org/>

### Purpose

The COVID-19 Surveillance System Design document provides an overview of the conceptual design used to configure a COVID-19 digital data package in DHIS2. The COVID-19 package was developed in response to an expressed need from countries to rapidly adapt a solution for managing COVID-19 data. This document is intended for use by DHIS2 implementers at country and regional level to be able to support implementation and localisation of the package. The COVID-19 metadata package can be adapted to local needs and national guidelines. In particular, local work flows and national guidelines should be considered in the localization and adoption of the programs included in this package.

### Background

**This design has been updated to reflect new aggregate reporting requirements from the [WHO interim surveillance guidelines updated March 20, 2020](#).** The COVID-19 digital data package was developed in response to an expressed need from countries to rapidly adapt a solution for managing COVID-19 data. UiO has developed COVID-19 surveillance packages for three types of data models (tracker, event-based aggregate) to enable countries to select the model that is most appropriate for their context given the burden of disease and available resources. These models and their relative benefits/limitations are summarized below:

Type of Surveillance Package	Case-based Surveillance (Tracker)	Surveillance (Event)	Surveillance (Aggregate)
<i>Description</i>	Enrolls a case and tracks over time through laboratory	Captures critical case details in line-listing	Enables daily or weekly reporting of key

	confirmation & case outcome	format	aggregate data points
<b>Pros</b>	Highly granular data and multiple time dimensions for analysis, can support decentralized workflow, all events linked to the case	More granular than aggregate and can capture key time dimensions (i.e. report date vs onset of symptoms); reduced burden of data entry compared to tracker and little complexity	Low complexity, easy to implement, most manageable when cases numbers are high
<b>Cons</b>	Burden of data entry may be overwhelming when number of cases reach threshold; complexity of implementation	Does not support case-follow up or other decentralized workflows	Less granularity for detailed analysis (i.e. analysis only based on case reporting date, limited disaggregation)

**This document covers only the design of the surveillance tracker program package;** separate system design documents are available for DHIS2 event and aggregate packages.

WHO is “urging all countries to prepare for the potential arrival of COVID-19 by readying emergency response systems; increasing capacity to detect and care for patients; ensuring hospitals have the space, supplies and necessary personnel; and developing life-saving medical interventions.”

The objectives of COVID-19 surveillance are:

1. to monitor trends of the disease where human to human transmission occurs;
2. rapidly detect new cases in countries where the virus is not circulating;
3. provide epidemiological information to conduct risk assessments at the national, regional and global 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 WHO and UiO since 2017. The COVID-19 surveillance package 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. National guidelines and policies may vary and it is recommended to adapt this package to local context.

## System Design Summary

The DHIS2 case-based surveillance tracker metadata is based on the [WHO COVID-19 case reporting template](#) and the mapping of data dictionaries can be accessed at: [DHIS2 CBS tracker metadata WHO line-list data dictionary](#).

In the development of this configuration package, an effort has been made to follow UiO's [general design principles](#) and a common [naming convention](#).

The COVID-19 digital data package supports surveillance workflows and automated analysis for key components of routine and active surveillance. This package includes a Case Surveillance Tracker and a Contact registration & follow-up tracker, which are installed together in the same metadata package. The tracker programs are optimized to be installed with other COVID-19 surveillance packages, including the Points of Entry Screening Tracker and aggregate daily surveillance dataset.

1. **[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. This package can be installed as a standalone COVID-19 package or can be integrated into a country's existing integrated disease surveillance & response tracker. Metadata for the case-based surveillance tracker is aligned with the WHO [COVID-19 surveillance data dictionary](#)

*n.b. The COVID-19 case-based tracker can be implemented either as a 'standalone' program for COVID-19 specific disease surveillance as described here; or, COVID-19 concepts can be integrated into an existing case-based surveillance tracker program if one already exists in-country. Please refer to installation and implementation guidance for more details.*

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.

Digital data packages are optimized for Android data collection with the DHIS2 Capture App, free to download on the [Google Play store](#).

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

The COVID-19 case-based surveillance tracker can be adapted and used by countries to supplement existing national disease surveillance programs. 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 of 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.*

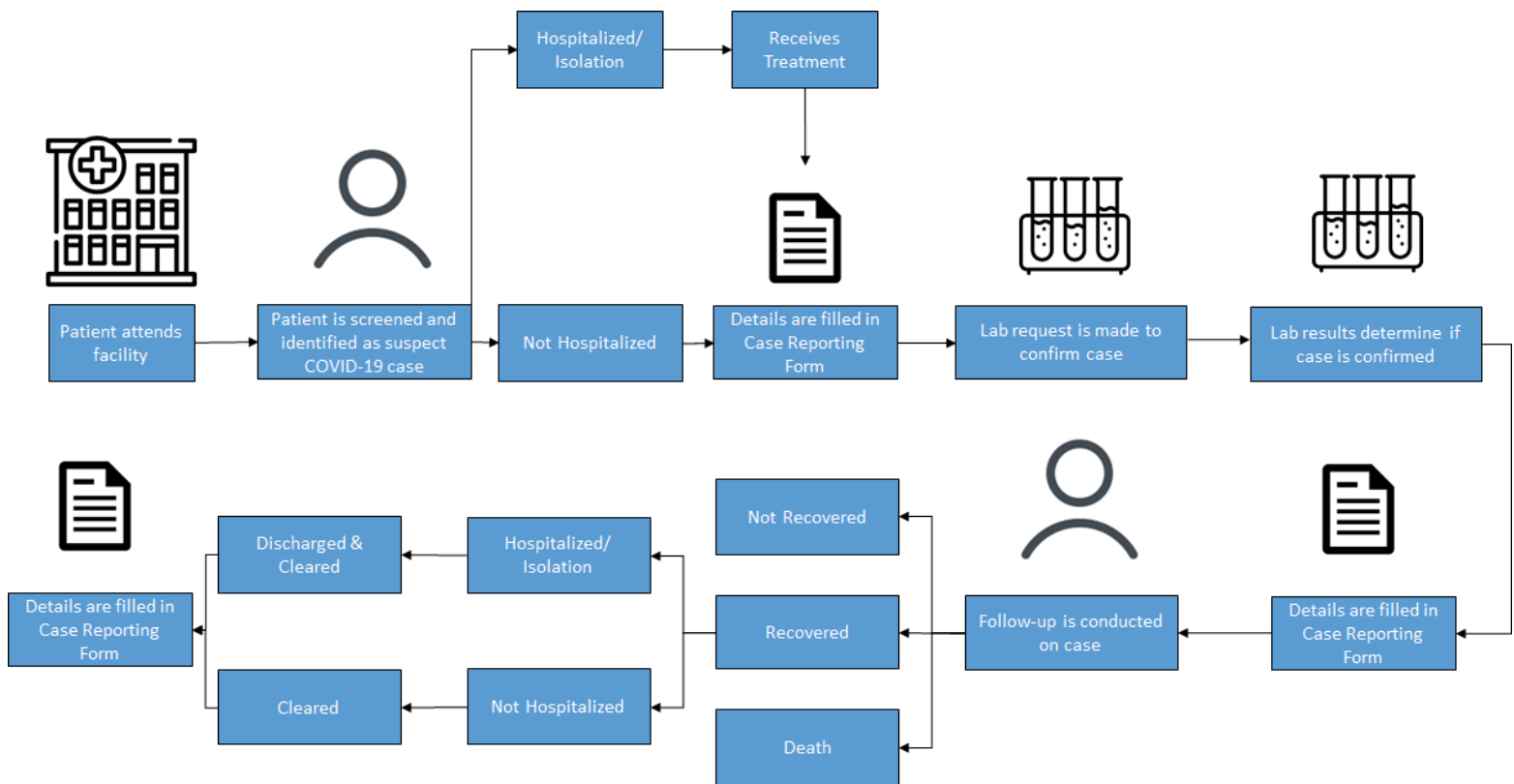
*\*\*\*Confirmed case: A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.*

### Intended users

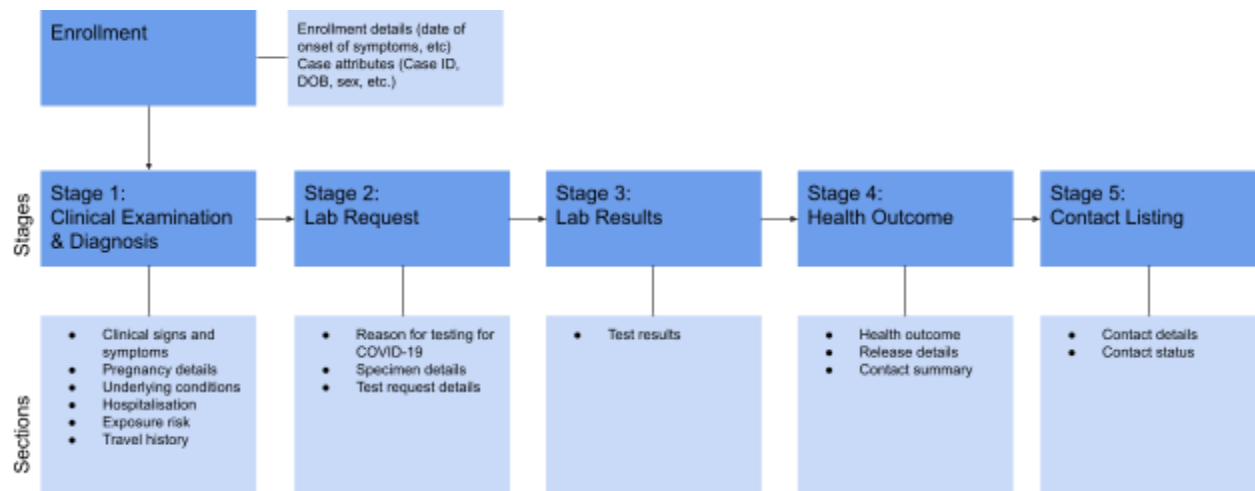
- Health facility users: capture and record details about a suspected case, including clinical symptoms & exposures; track lab results; record case outcome

- Laboratory users: receive lab requests and record laboratory results for a particular suspected case
- National and local 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
<b>Enrollment details</b>    <b>Attributes</b>	<p>The Tracked Entity is the case, which is represented by a Tracked Entity Type of ‘person.’</p> <p>Enrollment date = Date of registration of the case. Related programs = COVID-19 Contact registration &amp; follow-up</p> <p>Attributes include basic personal information and unique case identifiers</p> <ul style="list-style-type: none"> <li>● System Generated Case ID</li> <li>● Local Case ID</li> <li>● Age</li> <li>● First Name</li> <li>● Surname</li> <li>● Sex</li> <li>● Case phone number</li> <li>● First Name (parent or carer)</li> <li>● Surname (parent or carer)</li> <li>● Home Address</li> <li>● Workplace/school physical address</li> <li>● Country of Residence</li> <li>● Facility contact number</li> </ul>
<b>Stage 1:</b>  <b>Clinical Examination and Exposures</b>	<p>This stage records a suspected case’s clinical symptoms and exposures including:</p> <ul style="list-style-type: none"> <li>- Symptoms</li> <li>- Pregnancy and underlying conditions</li> <li>- Hospitalisation and Isolation</li> <li>- Exposures in 14 days prior to symptoms</li> <li>- Travel history</li> <li>- Contact with confirmed case</li> </ul> <p>After examination, you can record if the case has been hospitalised or isolated, and information surrounding this.</p>
<b>Stage 2:</b>  <b>Lab Request</b>  <b>[repeatable]</b>	<p>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 clinical exam and exposures; or may be other personnel charged with making lab requests.</p>

<b>Stage 3:</b>  <b>Lab Results</b>  <b>[repeatable]</b>	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).
<b>Stage 4:</b>  <b>Health Outcome</b>	The health outcome records the final outcome of the case: (recovered, not recovered, dead or unknown) including date of discharge or death as applicable.

## Enrollment

COVID-19 Diagnosis & Lab Testing
Lists
Search
Register

### Enrollment

Enrolling organisation unit	Trainingland		
Date of notification	2020-03-10		

### Profile

System Generated Case ID	COVID19_0350		
Local Case ID	qwewew		
Age	1942-03-11 Years 77 Months 11 Days 28		
First Name	Joe		
Surname	Smith		
Sex	Male		
Case phone number	09829921		
First Name (parent or carer)	Lisa		
Surname (parent or carer)	Smith		
Home Address	Palm street 105		
Workplace/school physical address	Long street 123		
Country of Residence	Botswana		
Facility contact number	12312312		

Save and continue
Save and add new
Print form
Cancel



## Program Stage 1 - Clinical Examination & Diagnosis

### Section 1 - Clinical Signs and symptoms

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

Clinical Signs and Symptoms/Signes et symptômes cliniques	
Any signs or symptoms?	Yes <span>✕</span> <span>▼</span>
Date of symptoms onset	yyyy-MM-dd
Fever	Select or search from the list <span>▼</span>
Cough	Select or search from the list <span>▼</span>
Shortness of breath	Select or search from the list <span>▼</span>

### Section 2 - Pregnancy Details

This section is hidden unless gender is selected as ‘Female.’

Pregnancy Details/Détails sur la grossesse	
Patient pregnant	Yes <span>✕</span> <span>▼</span>
Pregnancy gestation (weeks)	
Pregnancy Trimester	Select or search from the list <span>▼</span>
Post partum (<6 weeks)	Select or search from the list <span>▼</span>

### Section 3 - Underlying Conditions/Comorbidity

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

Underlying Conditions/Comorbidity	
Any underlying conditions?	Yes <span>✕</span>
Cardiovascular disease, including hypertension	Yes <span>✕</span>
Diabetes	No <span>✕</span>
Liver Disease	Select or search from the list <span>▼</span>
Chronic neurological or neuromuscular disease	Select or search from the list <span>▼</span>
Immunodeficiency	Select or search from the list <span>▼</span>
Renal Disease	Select or search from the list <span>▼</span>
Chronic Lung Disease	Select or search from the list <span>▼</span>
Malignancy	Select or search from the list <span>▼</span>
Others (please specify)	<input type="text"/>

### Section 4 - Hospitalisation

This section is hidden unless “Hospitalised” is marked as “Yes”.

Hospitalisation	
Hospitalised	Yes <span>✕</span>
Admission date	yyyy-MM-dd <input type="text"/>
Hospital name	[Please select] <span>⊞</span>
Hospital record number	<input type="text"/>
Did the case receive care in an intensive care unit (ICU)?	Select or search from the list <span>▼</span>
Did the case receive ventilation?	Select or search from the list <span>▼</span>
Did the case receive extracorporeal membrane oxygenation?	Select or search from the list <span>▼</span>
Is case in isolation with Infection Control Practice in place?	Select or search from the list <span>▼</span>

### 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.

### Exposure Risk

Is case a Health Care Worker (any job in a health care setting)?	Yes	✕ ▼
Country	Select or search from the list	▼
City		
Facility		
Has case visited any health care facility in the 14 days prior to symptom onset?	Yes	✕ ▼
Has case had contact with a confirmed case in the 14 days prior to symptom onset?	Yes	✕ ▼
Contact ID #1		
Contact ID #2		
Contact ID #3		
Contact ID #4		
Contact ID #5		

## Section 6 - Travel History

### Travel History




Has the case traveled in the 14 days prior to symptom onset?	Yes	✕ ▼
Country 1	Select or search from the list	▼
Country 2	Select or search from the list	▼
Country 3	Select or search from the list	▼
Has case visited any health care facility in the 14 days prior to symptom onset?	Select or search from the list	▼
Has case had contact with a confirmed case in the 14 days prior to symptom onset?	Select or search from the list	▼
Most likely country of exposure	Select or search from the list	▼

Complete




Delete

Print form

## Program Stage 2: Lab Request

Date of Lab request *		2020-03-05	  
<b>Reason for Testing for COVID-19</b>			
Reason for testing for COVID-19	Select or search from the list		
If none of the above, please explain			
<b>Specimen details/Détails de l'échantillon</b>			
Specimen ID			
Type of specimen	Select or search from the list		
Date Specimen Collected	yyyy-MM-dd		
Date Specimen Sent to Laboratory	yyyy-MM-dd		
<b>Test request details/Détails d'une demande de test</b>			
Testing or Reference Laboratory	Select or search from the list		
Type of Test	Select or search from the list		
<b>Complete</b>		<b>Delete</b>	<b>Print form</b>
Your note here			

## Stage 3: Lab Results

Date of test *		2020-03-05	  
Specimen ID			
Type of Test	Select or search from the list		
Test Result	Positive		
<b>Complete</b>		<b>Delete</b>	<b>Print form</b>
Your note here			
<b>Add</b> <b>Clear</b>			

## Stage 4: Health Outcomes

<b>Health Outcome</b>	
Health outcome	Healthy
<b>Release Details</b>	
Date of death	yyyy-MM-dd
Date of release from hospital	2020-03-10
<b>Contact Summary</b>	
Total number of contacts followed for this case	4
<b>Complete</b>	
<b>Delete</b> <b>Print form</b>	

## Program Rules: COVID19 Case Surveillance Tracker

The following program rules have been configured. If a country has an existing case-based surveillance program and wishes to incorporate elements of the COVID-19 case-based tracker into their existing program, special attention must be paid to the configuration of program rules.

Program Rule Name	Program Rule Description
Calculate and assign patient age in years	Calculate and assign patient age in years based on DOB
Display patient age in years + days	Display patient age in years + days
Hide health care worker details if not a health worker	Hide health care worker details if not a health worker
Hide health outcome explanation if health outcome is not other	Hide health outcome explanation if health outcome is not other
Hide hospitalisation details if hospitalisation is no or unknown	Hide hospitalisation details if hospitalisation is no or unknown
Hide isolation date if case is not in isolation	Hide isolation date if case is not in isolation
Hide pregnancy details for a female if not pregnant	Hide pregnancy details for a female if not pregnant
Hide pregnancy details section if sex is male	Hide pregnancy details section if sex is male
Hide reason for testing explanation if an option is selected	Hide reason for testing explanation if an option is selected
Hide travel history details if no travel 14 days prior to symptom onset	Hide travel history details if no travel 14 days prior to symptom onset
Hide underlying conditions if case does not have any	Hide underlying conditions if case does not have any
Show warning if the event date is after the enrollment date	Show warning on completion of an event if the event date is before the enrollment date

You can read more about program rules here:

[https://docs.dhis2.org/master/en/user/html/configure\\_program\\_rule.html](https://docs.dhis2.org/master/en/user/html/configure_program_rule.html)

## Program Indicators

From the data captured in the COVID-19 case surveillance program, we can calculate at least the following indicators including those recommended by the WHO for daily and weekly aggregate reporting and present them in a dashboard:

COVID-19 - Cases treated with mechanical ventilation or ECMO or admitted in intensive care unit (ICU)	Cases treated with mechanical ventilation or ECMO or admitted in intensive care unit (ICU)
COVID-19 Contacts	Counts the number of relationships ('has been in contact with') created that are linked to the case TEI
COVID-19 - Deaths (all suspected cases)	COVID-19 related deaths (deaths recorded among all suspected cases)
COVID-19 - Deaths (confirmed cases)	COVID-19 related deaths (deaths recorded among confirmed cases)
COVID-19 - Deaths (probable cases)	COVID-19 related deaths (deaths recorded among all probable cases)
COVID-19 - Confirmed Hospitalised Cases	Number of confirmed cases that were admitted into hospital
COVID-19 - Imported Cases	Cases where likely source of infection is recorded as another country or imported from another country.
COVID-19 - Laboratory confirmed cases	Suspected cases that were confirmed through laboratory testing (multiple lab tests may be conducted; this indicator assumes that the last test result is "Positive"); displayed by report date
COVID-19 - Laboratory confirmed cases - by onset of symptoms	Suspected cases that were confirmed through laboratory testing (multiple lab tests may be conducted; this indicator assumes that the last test result is "Positive"); displayed by date of onset of symptoms
COVID-19 - Laboratory tested cases	Number of suspected cases that received a laboratory test (includes inconclusive lab testing results)
COVID-19 - Local transmission cases	Number of suspected cases where transmission is local (no travel in last 14 days)
COVID-19 - Probable cases	Suspected cases with inconclusive laboratory results or not tested for any reason, by reported date
COVID-19 - Probable cases - by onset of symptoms	Suspected cases with inconclusive laboratory results or not tested for any reason, by date of onset of symptoms

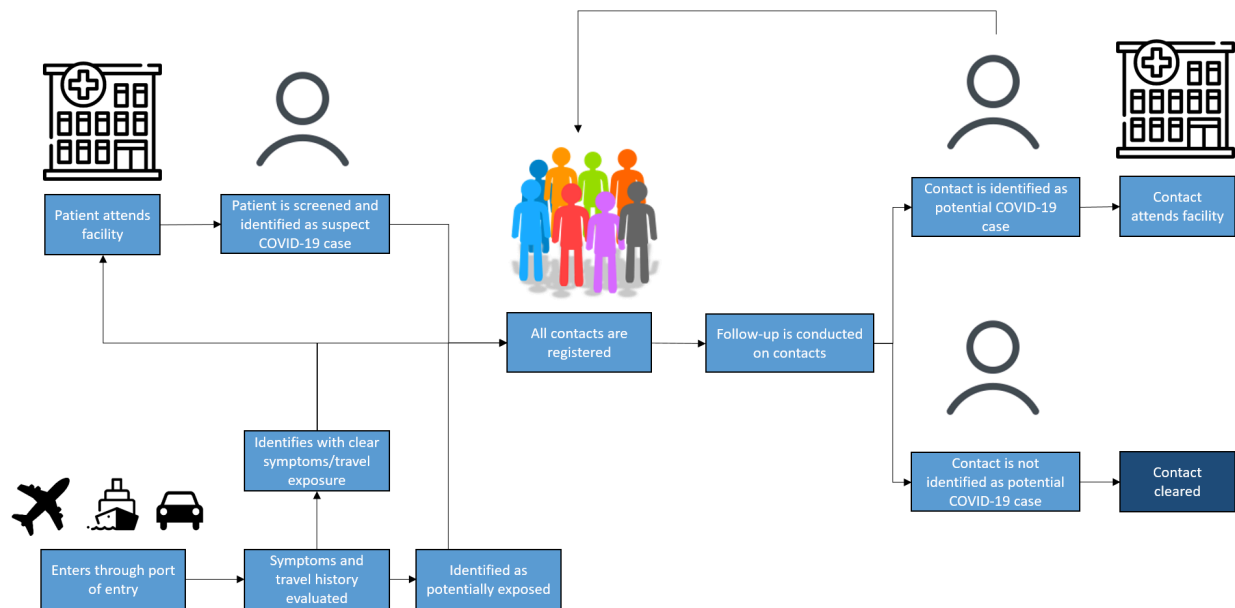
COVID-19 - Recovered confirmed cases	Number of laboratory confirmed cases with outcome recovered
COVID-19 - Suspected cases	Total number of cases suspected with COVID-19, by report date
COVID-19 - Suspected cases - by onset of symptoms	Total number of cases suspected with COVID-19, by date of onset of symptoms
COVID-19 - Suspected cases without a positive test result	Total number of suspected cases without a positive lab result
COVID-19 Total number of laboratory tests conducted	Total number of lab tests conducted (count of tests, not cases)
COVID-19 Total number of positive tests	Total number of lab tests returned with positive results (count of tests, not cases)
COVID-19 Deaths by sex and age group	Male, 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+
	Female, 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+
COVID-19 Confirmed cases by sex and age group	Male, 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+
	Female, 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+
COVID-19 Suspected cases by sex and age group	Male, 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+
	Female, 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+

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

This program can be used in addition to the case-based surveillance tracker 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
<b>Enrollment details</b>	<p>The Tracked Entity is represented by a Tracked Entity Type of 'person.'</p> <p>Related programs: COVID-19 Case based surveillance</p>
<b>Attributes</b>	<p>Attributes include basic personal information and unique case identifiers</p> <ul style="list-style-type: none"> <li>• System Generated Case ID</li> <li>• Local Case ID</li> <li>• First Name</li> <li>• Surname</li> <li>• Date of birth</li> <li>• Age</li> <li>• Sex</li> <li>• Phone number (local)</li> <li>• Home Address</li> <li>• Country of Residence</li> </ul>



<b>Stage 1: Follow-Up [non-repeatable]</b>	<p>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:</p> <ol style="list-style-type: none"> <li>1. Relation with case</li> <li>2. Exposure Assessment</li> </ol>
<b>Stage 2: Symptoms [repeatable]</b>	<p>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.'</p> <ol style="list-style-type: none"> <li>1. Symptoms</li> </ol>

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

Profile Edit




Profile

System Generated Case ID

COVID19\_0000575

First Name

Dana



Surname

Houston

Sex

Female

Facility contact number

Relationships | Add



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.

## Add relationship




Has Been in Contact with ▼

This person has been in contact with → This person has been in contact with

System Generated Case ID	COVID19_0000575
Local Case ID	
Date of birth	1986-03-07
Age	34
First Name	Dana
Surname	Houston
Sex	Female
Telephone (local)	
First Name (parent or carer)	
Surname (parent or carer)	
Home Address	
Workplace/school physical	

COVID19_0401	jon	cox	Male	
COVID19_0600	Frederick	Smith	Male	
COVID19_0399	jose	garcia	Male	
COVID19_0392	manal	ahmad	Female	
COVID19_0380	Nelson	Otis	Male	
COVID19_0378	Rose	Jameson	Female	
COVID19_0376	Rusty	Nelson	Transgender	
COVID19_0372	Lan	Mandragoran	Male	
COVID19_0368	Samantha	Carter	Female	
COVID19_0366	Jimmy	Marsden	Male	
COVID19_0364	Kimmy	Schmidt	Female	
COVID19_0360	Leia	Organa	Female	
COVID19_0356	Lolita	Lolas	Female	123123
COVID19_0354	Ryan	Lebowski	Male	
COVID19_0350	1	Smith	Male	123123123

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

Relationships   Add		
Relationship	Person First Name	
This person has been in contact with	Leila	
This person has been in contact with	Jennifer	
This person has been in contact with	Anti	

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

## Enrollment

COVID-19 Contact Registration & Follow-up

Lists

Search

Register

### Enrollment

Enrolling organisation unit	Trainingland		
Enrollment date	2020-03-18		

### Profile

Point on map	Latitude	Longitude	
System Generated Contact ID	COVID19_CONTACT0000886		
Local Case ID			
First Name			
Surname			
Date of birth	yyyy-MM-dd		
Age			
Sex	Select or search from the list		
Telephone (local)			
Home Address			
Country of Residence	Select or search from the list		

Save and continue

Save and add new

Print form

Cancel

## Program Stage 1 : Follow - Up

DHIS 2

Search apps

RP

Tabular Data Entry

Follow-up

Symptoms

Date of follow-up \*

2020-03-27

Assigned user

Select or search from the list

Relation with case

Relationship with case

Spouse

Exposure Assessment

Was the contact exposed to a confirmed or probable case?

Yes

Date of contact with the confirmed or probable case

2020-03-04

Common exposures with case

Type of contact

Complete

Delete

Print form

Sex

Country of Residence

Relationships | Add

Relationship	Person First Name
This person has been in contact with	Patient

Notes

Your note here

Add

Clear

## Program Stage 2 : Symptoms

Tabular Data Entry

Follow-up

Symptoms

Date of assessment \*

2020-03-27

Assigned user

Select or search from the list

Symptoms Present

Any signs or symptoms?

Yes

Symptoms

Date of symptoms onset

yyyy-MM-dd

Fever

Select or search from the list

Cough

Select or search from the list

Shortness of breath

Select or search from the list

Diarrhea

Select or search from the list

Fatigue

Select or search from the list

Headache

Select or search from the list

Muscle/joint pain

Select or search from the list

Runny nose

Select or search from the list

Skin Rash

Select or search from the list

Sore throat

Select or search from the list

Vomiting

Select or search from the list

Complete

Delete

Print form

## References

- 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>