

Cold Chain Tutorial

This tutorial focuses on installing and using the ODK-X Cold Chain application.

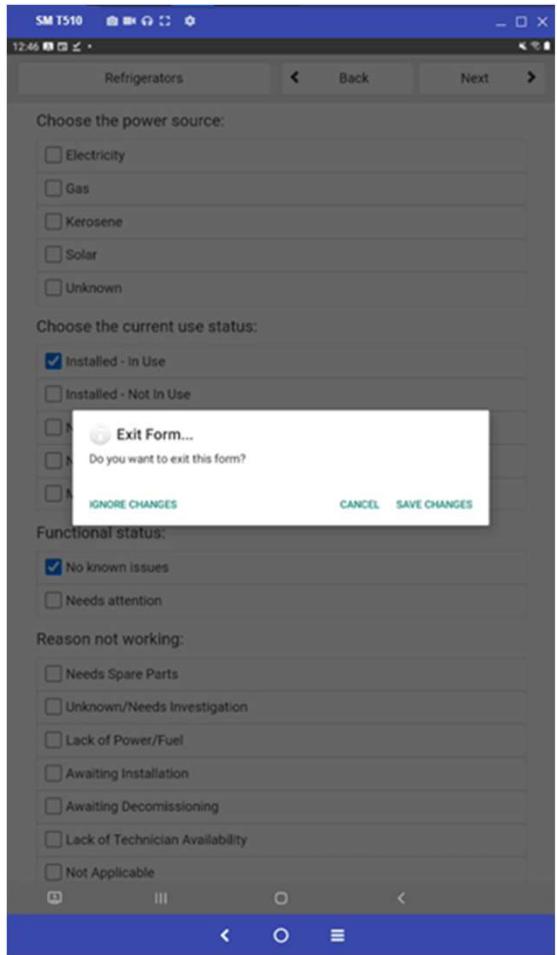
Android vs app basics

ODK-X is being used to collect, update, and maintain vaccine cold chain equipment information. ODK-X has specific forms that render questions about equipment, facilities, and temperature readings. Navigating “the form or survey” is different navigation than native Android back navigation for moving between applications. The “back” functionality is different because a user needs to complete the form or survey before they navigate away (e.g., exit).

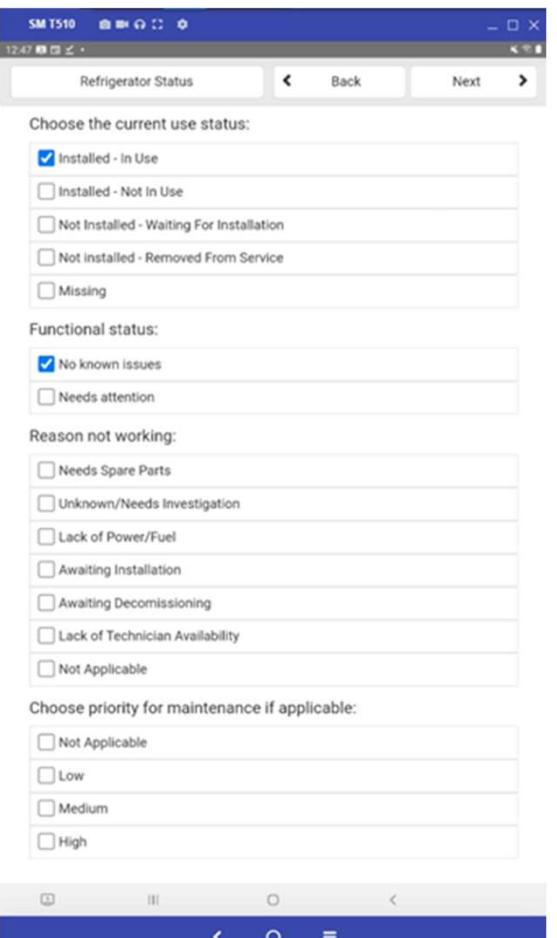
- To get back to the first screen of the application, hit the Android back button until you see the desired screen.
- The image on the left shows the back button for moving backward between questions in a form/survey. The image on the right shows the Android system back button.

The screenshot shows the 'Refrigerator Status' form. At the top, there is a header bar with the title 'Refrigerator Status' and three buttons: a left arrow, a 'Back' button, and a right arrow. Below the header, there are several sections of questions with checkboxes. The first section is 'Choose the current use status:' with five options: 'Installed - In Use' (checked), 'Installed - Not in Use', 'Not Installed - Waiting For Installation', 'Not installed - Removed From Service', and 'Missing'. The second section is 'Functional status:' with two options: 'No known issues' (checked) and 'Needs attention'. The third section is 'Reason not working:' with eight options: 'Needs Spare Parts', 'Unknown/Needs Investigation', 'Lack of Power/Fuel', 'Awaiting Installation', 'Awaiting Decommissioning', 'Lack of Technician Availability', and 'Not Applicable'. The fourth section is 'Choose priority for maintenance if applicable:' with four options: 'Not Applicable', 'Low', 'Medium', and 'High'. The bottom of the screen shows the standard Android navigation bar with icons for home, back, recent apps, and menu.

The screenshot shows the 'Refrigerators' form. At the top, there is a header bar with the title 'Refrigerators' and three buttons: a left arrow, a 'Back' button, and a right arrow. A modal dialog box is overlaid on the screen, titled 'Exit Form...', with the message 'Do you want to exit this form?'. It contains two buttons: 'IGNORE CHANGES' (selected) and 'SAVE CHANGES'. Below the dialog, there are sections for 'Functional status:' (with 'No known issues' checked), 'Reason not working:' (with eight options listed), and 'Choose priority for maintenance if applicable:' (with four options listed). The bottom of the screen shows the standard Android navigation bar with icons for home, back, recent apps, and menu.



- The Android home screen button brings the user back to the android home screen (if the user wanted to change to a different application, for example)
- The Android back button is located on the bottom left, and lets users navigate to the previous page of the app
- To get back to the first screen of the application, hit the Android back button until you see the desired screen.
- When navigating a form, use the app back button to navigate within the form



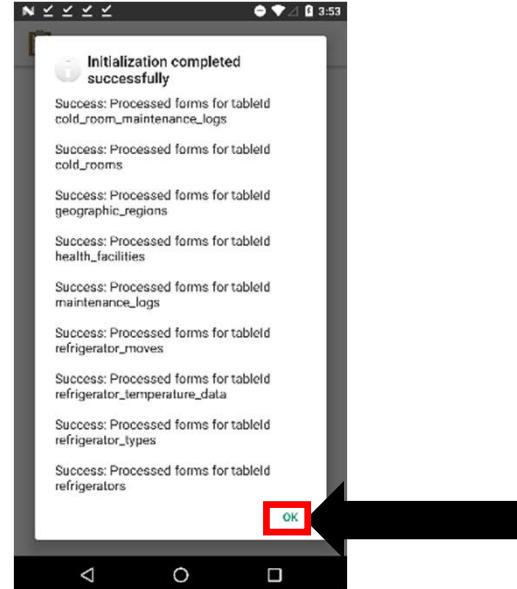
Using the Cold Chain Equipment Inventory app

Using the Cold Chain Application (Facility)

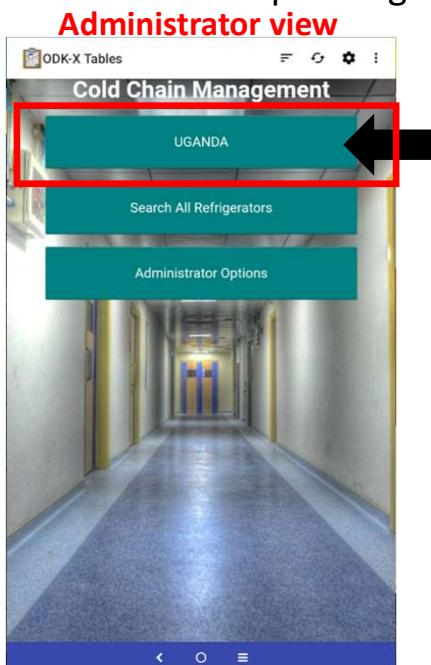
Finding A Health Facility

This section will cover instructions on how to find a health facility within the application

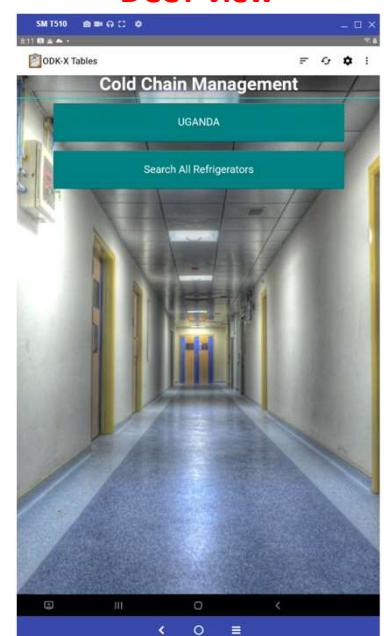
1. After the synchronization of the app has completed, open the **ODK-X Tables** app by clicking on the icon. If you see a popup that the app is initializing, wait until you see a popup indicating that initialization has completed successfully. Click *OK*.



2. You should see the Uganda Cold Chain home screen. To use this application, you will need to navigate to a facility in order to find the corresponding cold chain equipment. Click on *UGANDA*.



DCCT view



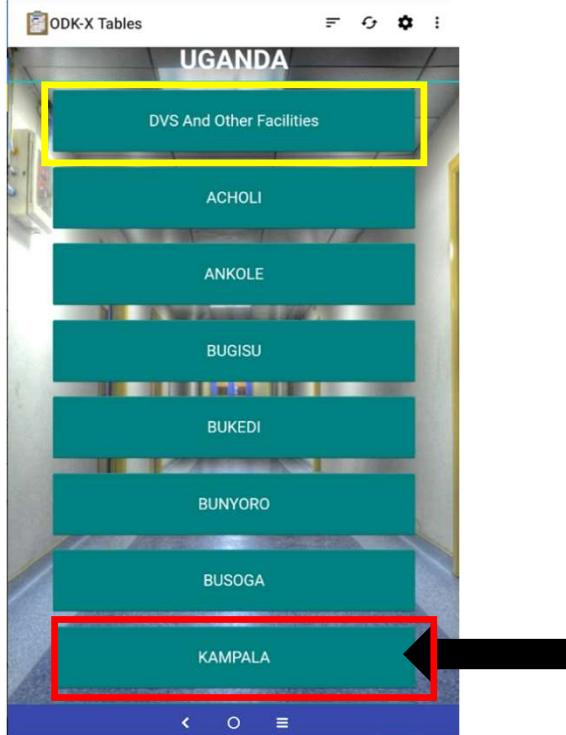
Note: if you want to search for a specific cold chain equipment, you can click the **SEARCH ALL REFRIGERATORS** button to search for CCE if you know the TrackingID or serial # (more on this in Section XX later)

Training tip:

Administrator options: Administrators have access to certain rights and functionalities other users may not have (see above images for example). If you are a DCCT/A, you may not see "Administrator Options" on your menu. Similarly other screen shots in the training guide may be slightly different from what your phone shows due to user rights

Using the Cold Chain Application (Facility)

- Click on the district the facility is located in. For this example, *KAMPALA* is clicked.

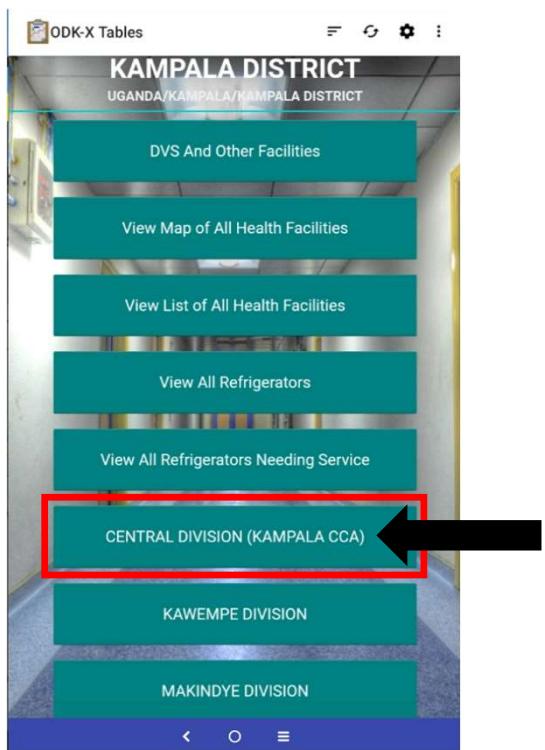


Trainer tip:

DVS and other facilities: this represents national vaccines stores, district vaccine stores, or other facilities that are not classified as sub-county or health facilities based on how they are entered in the geographic hierarchy. Additional guidance on searching for these facilities can be found later in this section.

Note: DCCTs will only have visibility to facilities in the region they are assigned. If a facility does not show up, contact an administrator or national level user at NMS for support

- Click on the applicable sub-region. *CENTRAL DIVISION* is clicked.



Trainer tip:

The District and sub-district menus have several options for viewing facilities as well as CCE

DVS and Other Facilities: mentioned above

View Map of All Health Facilities: shows facilities on a map

View List of All Health Facilities: provides an alphabetical list

View All Refrigerators: provides a list of all CCE in the level selected (district), CCE can also be searched for under this option

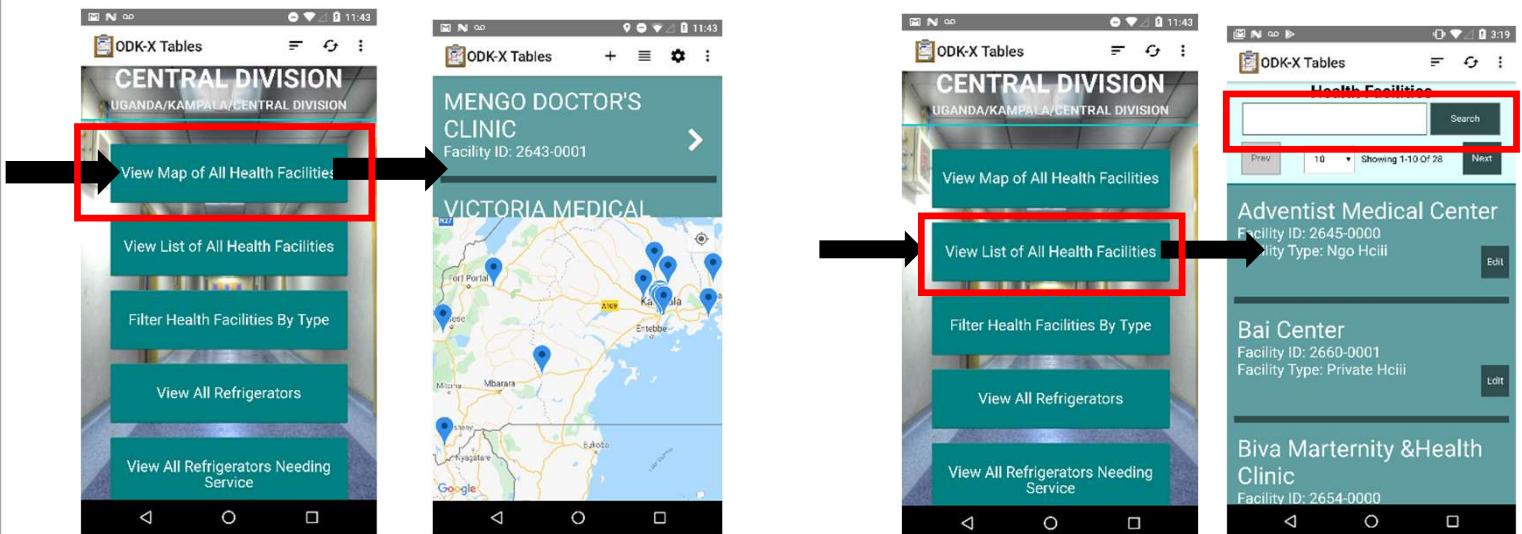
View All Refrigerators Needing Attention: This will pull a list of all CCE with status set as "Needs Attention" within the geography. This is an easy way to see where attention should be focused for maintenance and repairs.

Determined by Functional Status (AND priority?)

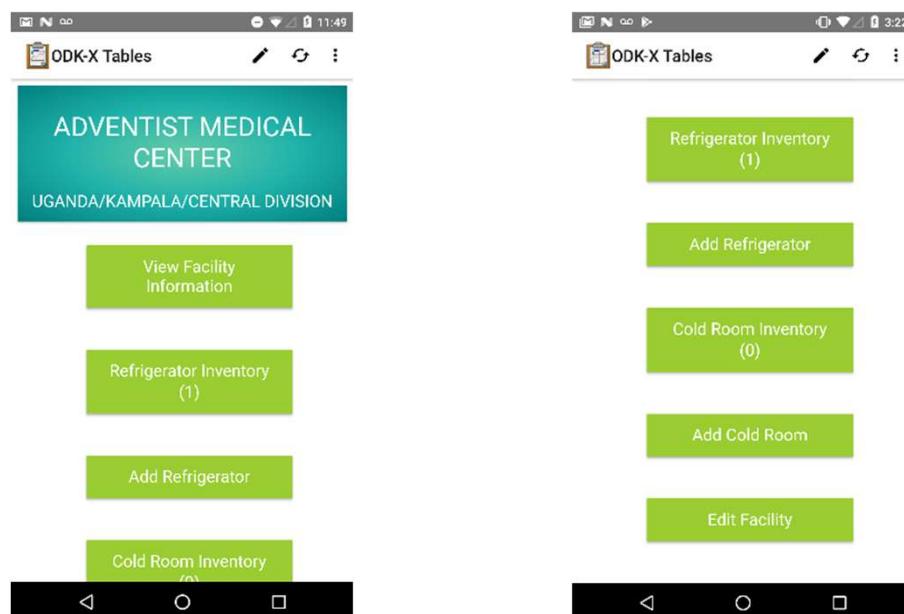
List of available sub-geographies: sub county or districts under the geography

Using the Cold Chain Application (Facility)

5. To see all of the facilities in this sub-region either click on *View Map of All Health Facilities* or *View List of All Health Facilities*. For this example, we selected *Adventist Medical Center* from the health facility list.



6. All of the functions that can be performed on this facility are on this screen. Here you can view the facility information, view and add refrigerator/cold room inventories, edit facility, and delete facility.
7. Note: within a district, you can also use the *Search* box and type part of a facility name
- Those with permission can edit/add/delete refrigerators/cold rooms, and edit/delete facility information.



Using the Cold Chain Application (Facility)

Facility Information

This section will cover pages and functionalities related to viewing, adding, editing, and deleting health facilities.

View Facility Information

- Once you have navigated to a facility, click *View Facility Information*. Here you will see information on the facility ID, type, level, contact name, contact information, and other relevant data.

The figure consists of three side-by-side screenshots of a mobile application interface for managing health facilities. The top bar of each screen shows the title 'ADVENTIST MEDICAL CENTER' and its location 'UGANDA/KAMPALA/KAMPALA DISTRICT/CENTRAL DIVISION (KAMPALA CCA)'. The first screenshot shows a list of buttons: 'View Facility Information' (highlighted with a red box and a black arrow pointing to it), 'Refrigerator Inventory (1)', 'Add Refrigerator', 'Cold Room Inventory (0)', 'Add Cold Room', and 'Edit Facility'. The second screenshot shows the 'Basic Facility Information' section with fields: Primary Facility ID: aWtkpwtp9JE, Secondary Facility ID: 2645-0000, Facility Level: Hcili, Contact Name: Mokaya Judth, Catchment Population: 7497, Ownership: Pnfp, Authority: Sda, Facility Status: Functional, and Contact Phone Number: 0775400533. It also includes a 'Power Information' section with Electricity Source: Both Grid And Generator, Gas Cylinder Availability: Not Available, and Grid Availability: More Than 16 hrs/day. The third screenshot shows 'Location Information' with Latitude (GPS): 0.3257099 and Longitude (GPS): 32.56994. It also includes a 'Stock Information' section with Distance To Supply Point: 2 km, Vaccine Supply Mode: Both, and Vaccine Supply Interval: 4 weeks.

Primary Facility ID:	Catchment Population:
aWtkpwtp9JE	7497
Secondary Facility ID:	Ownership:
2645-0000	Pnfp
Facility Level:	Authority:
Hcili	Sda
Contact Name:	Facility Status:
Mokaya Judth	Functional
Contact Phone Number:	0775400533

Electricity Source:	Gas Cylinder Availability:
Both Grid And Generator	Not Available
Grid Availability:	
More Than 16 hrs/day	

Latitude (GPS):	Longitude (GPS):
0.3257099	32.56994

Distance To Supply Point:	Vaccine Supply Mode:
2 km	Both
Vaccine Supply Interval:	
4 weeks	

Trainer tip:

When conducting initial inventory updates make sure users review and update facility information. Is it correct? See something that needs to be updated? We'll get to that later in this section, specifically the '*Edit Facility*' page.

What if you can't find a specific health facility? You can search by name or facility ID number at the district level page. Still can't find it? Contact: your supervisor or Central

Using the Cold Chain Application (Facility)

Edit Facility

- Once you have navigated to a facility, click *Edit Facility* to edit information on the facility.

Key facility information to update in this section

- Geography
- GPS
- Facility level
- Ownership, authority
- Electricity source
- Vaccine delivery type & supply
- Contact info
- Gas and transport device availability

Trainer tips and glossary of key information:

Health facility name & ID – this will come from a national master facility list.

GPS – users should hit the "Record location" button that will automatically update the GPS fields

Facility level, ownership, authority – entered by DCCT and updated as necessary

Functional status – meant to indicate if the facility is operating and seeing patients (functional) or not

Catchment population – estimate of population served

Electricity source – identify the primary and secondary (if available) energy sources used by the health facility

Vaccine delivery type and supply – information classifying the health facility's vaccine delivery services and supply intervals

Contact info – name and contact information for the primary vaccine/EPI contact at the health facility (e.g., in-charge vaccine nurse)

Gas and transport devices – there are also fields to enter availability of gas cylinders and passive transport devices (vaccine carriers, cold boxes, and coolant packs)

Using the Cold Chain Application (Facility)

Edit Facility

1. Additional screens when editing a facility. Updating the GPS location fo a facility
2. This is where updating the number of cold boxes and vaccine carriers is found.

Health Facilities Back Next >

Capture location

Latitude: 0.9422407
Longitude: 31.15602
Altitude: 0
Accuracy: 0

Record Location

Do you want to move this facility to a different region/district?

Yes
 No

< O = >

Health Facilities Back Next >

Total number of usable cold boxes at facility?
not specified

Total number of usable vaccine carriers at facility?
not specified

< O = >

Trainer tips and glossary of key information:

GPS – When at the facility, users should hit the "Record location" button that will automatically update the GPS fields. For best results, stand outside near the entry so the phone can get a strong GPS signal.

Cold boxes and Vaccine Carriers (and coolant packs) - when updating a facility or inventory, passive devices are updated in the *Edit Facility* section.

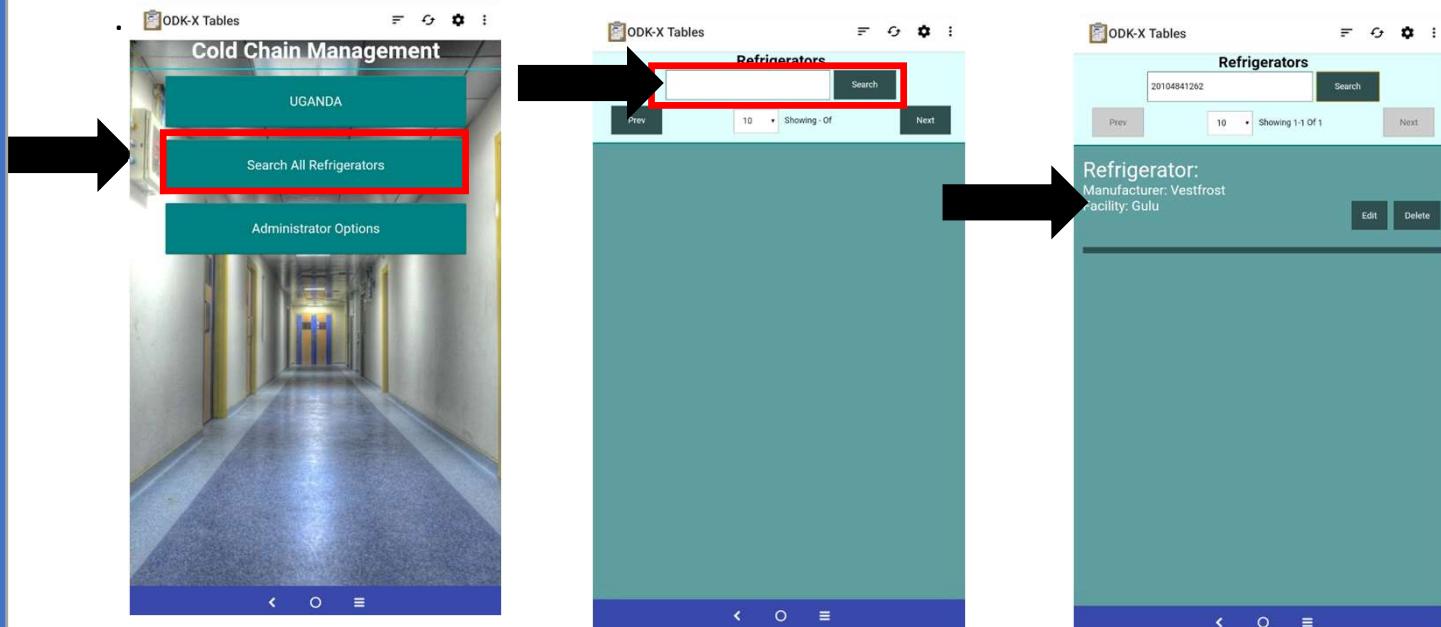
Using the Cold Chain Application (Refrigerator)

Search for a refrigerator

These search instructions apply for adding a refrigerator or general searches for CCE and can be accessed from several menus within the app. This example is for adding a refrigerator.

NOTE: The following search and edit processes for a refrigerator are similar to adding a cold rooms. Please refer to this section for cold room modification.

1. Before adding a new refrigerator, search to make sure it does not already exist in the national inventory.
2. To do this, navigate to the initial CCIS home page. Select *Search All Refrigerators* and enter the serial number or tracking ID number in the search box.
 - The search is also available in any refrigerator list so one can search within a district or sub-county as well



3. If an option does come up, select the refrigerator and review the information for that unit. If it aligns with the refrigerator you are adding, select *Move Refrigerator*.
4. If no options come up, contact your Central/NMS representative to confirm the refrigerator does not exist in the national CCE inventory in a different region. Once confirmed that the CCE (serial #) does not exist, you may add a refrigerator.

Cold Chain Application (Refrigerator/Cold Room)

Refrigerator/Cold Room Information

This section will cover pages and functionalities related to viewing, adding, editing, and deleting refrigerator/cold rooms.

View Refrigerator Inventory

- Once you have navigated to a facility, click *Refrigerator Inventory*.
- Three options exist here. You can 1) click on the Refrigerator to find more information on it; 2) click edit to edit details on the refrigerator; or 3) delete.

The left screenshot shows a facility dashboard for NEBBI, Uganda/West Nile/Nebbi District. It includes buttons for 'View Facility Information', 'Refrigerator Inventory (10)', 'Add Refrigerator', 'Cold Room Inventory (0)', 'Add Cold Room', 'Edit Facility', and 'Delete Facility'. A large black arrow points to the 'Refrigerator Inventory (10)' button, which is highlighted with a red box. The right screenshot shows a list of refrigerators with their details and edit/delete buttons. The first item is a Vestfrost refrigerator from Nebbi. The second item is a Sibir refrigerator from Nebbi. The third item is another Vestfrost refrigerator from Nebbi. The fourth item is another Vestfrost refrigerator from Nebbi. The fifth item is another Vestfrost refrigerator from Nebbi.

- Now click on a refrigerator and we'll walk through the information required to update that CCE.

Trainer tip:

View detailed refrigerator information: Ask users to tap on a refrigerator to view more detailed information. See something that needs to be updated? We'll get to that later in this section, specifically the '*Edit refrigerator*' page.

Finding the refrigerator in the list: The refrigerator list displays a default of 10 refrigerators per page. You may need to click "NEXT" to see additional items or change the # of items displayed if there are more than 10. (see image below)

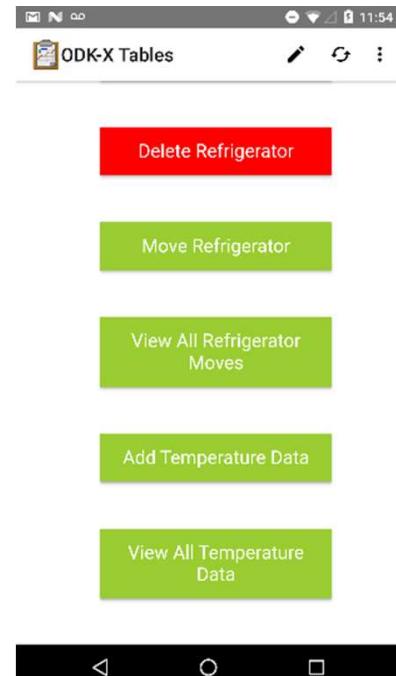
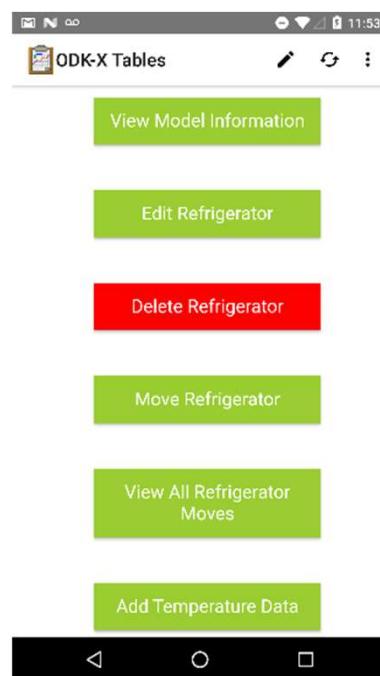
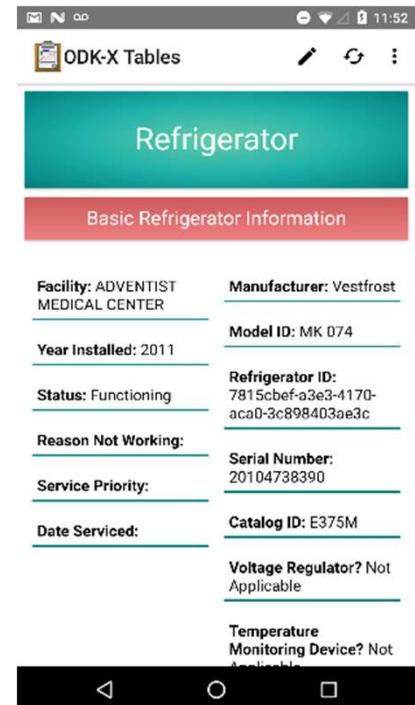


Using the Cold Chain Application

Basic Refrigerator Information menu

1. All of the functions that can be performed on this basic refrigerator information page are here.
2. The top part of the screen displays the refrigerator information (see image on right). We will look more at this page on the next screen.
3. The screen shots below display the buttons that allow users to modify information related to:

- Edit Refrigerator Status
- Add/View Maintenance Record
- View Facility information
- View refrigerator model
- Edit/delete/move the refrigerator
- View all refrigerator moves
- View temperature data



4. The following sections will walk through each of these functionality buttons.

Using the Cold Chain Application

Basic Refrigerator Information menu

The *Basic refrigerator information* page provides a lot of useful data for users.

The screenshot shows a mobile application interface for managing a refrigerator. At the top, there's a blue header bar with the text "Basic Refrigerator Information menu". Below this is a white header section with a green bar at the top containing the title "Refrigerator Test SDD". Underneath is a red bar labeled "Basic Refrigerator Information". The main content area contains several data fields in a grid format:

Facility: National Repair Center	Manufacturer: Vestfrost
Year Installed: 2021	Model ID: VLS 054 SDD Greenline
Status: Not Functioning	Serial Number: Testing123
Use Status: Installed In Use	Catalog ID: E003041
Reason Not Working: Unknown Needs Investigation	Voltage Regulator? Not Applicable
Service Priority: High	Temperature Monitoring Device? Functioning
Date Serviced:	

Below the data fields are three green buttons with white text:

- Edit Refrigerator Status
- Add Maintenance Record
- View Facility Information

At the bottom of the screen are standard mobile navigation icons: back, home, and recent apps.

Trainer tips and glossary of key information:

Tracking ID – this unique asset number can typically be found on the lid of the CCE.

Serial number – this alpha-numerical number can be found normally on the back plate of the CCE. Length will vary by manufacturer.

Catalogue ID – refers to the WHO PQS or PIS reference number

Installation year – If the year is unknown, leave this field blank. If it is a new CCE, note the year the CCE is first installed. If the date is known and the device is moved to a new facility, update year with new installation date.

Warranty status – this may be difficult for DCCTs to know. Generally CCE installed within 3-5 years from today will be under warranty from manufacturer.

Voltage regulator - If the refrigerator is an ice-lined refrigerator (ILR) the voltage regulator question will be present. If it is a solar-direct drive (SDD) refrigerator (as above), it will show Not Applicable

Cold Chain Application (Refrigerator)

Edit Refrigerator Status

Use this Edit Refrigerator Status form when you need to update the refrigerator use status, functional status, reason not working, and maintenance priority.

1. In the *Basic Refrigerator Information* page, you can edit the status of the refrigerator by clicking *Edit Refrigerator Status*.
2. ODK-X Survey will be launched with the corresponding form. Choose the appropriate values for the current use status, functional status, reason not working, and priority for maintenance if applicable. Click *Next*.

The screenshot shows the Cold Chain Application interface. On the left, the 'Basic Refrigerator Information' page is displayed, listing details like Facility: NEBBI, Manufacturer: Vestfrost, and various status indicators. A large black arrow points from the 'Edit Refrigerator Status' button on this page to the right. On the right, the 'Edit Refrigerator Status' form from ODK-X Survey is shown in three panels. The first panel asks for the current use status, with 'Installed - In Use' selected. The second panel asks for functional status, with 'No known issues' selected. The third panel asks for reasons why it's not working, with 'Unknown/Needs Investigation' selected. Both the second and third panels have a checked checkbox for 'Needs attention'.

Trainer tips and glossary of key information:

Refrigerator use status - A very important data point. Users can select four options that describe whether the unit is installed and whether it is in use.

Refrigerator functional status: Another very important data point that indicates whether the unit is functioning without any known issues or if it needs maintenance support. Selecting needs attention adds this unit to a list of Refrigerators Needing Service list.

Reason not working: Predefined list of reasons that users can select to describe why the refrigerator is not working.

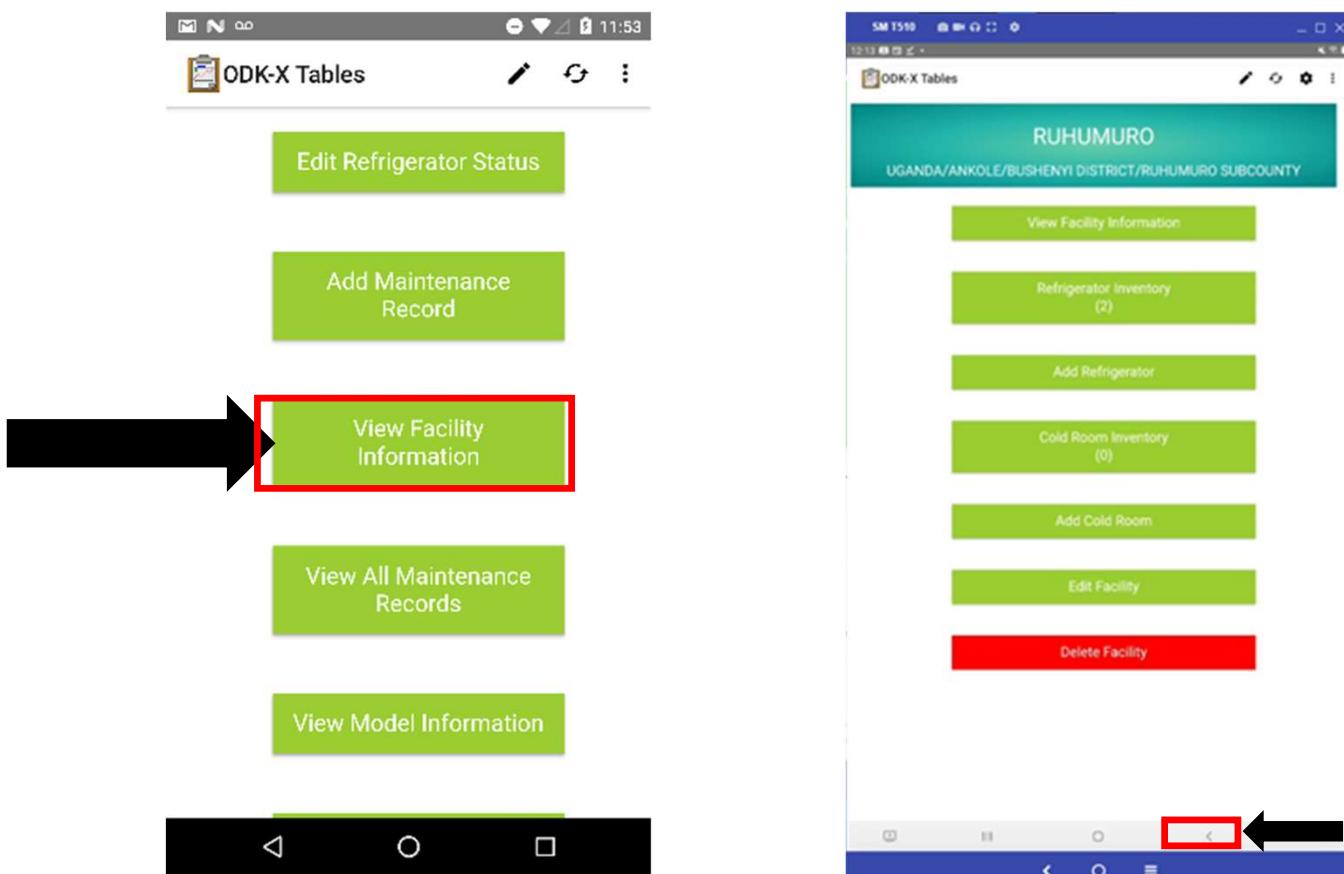
Priority for maintenance: Users will select the level of maintenance priority.

NOTE: If you need to edit the make/model of the refrigerator, delete the refrigerator, or move the refrigerator, look for those options in the basic refrigerator information page. Steps for these processes are covered next.

Cold Chain Application (Refrigerator)

View Facility Information for Refrigerator

- Once you have successfully navigated to a refrigerator, the *View Facility Information* allows you to navigate to additional information on the facility. This includes general facility information, an inventory of the refrigerators in the facility, add refrigerator, cold room inventory, add cold room, edit facility, and delete facility (last option only available to administrators).



- Hit the back button on the Android menu at the bottom of the screen to return to the *Basic refrigerator information* page.

Cold Chain Application (Refrigerator)

View Model Information for Refrigerator

1. In the *Basic Refrigerator Information* page, you can view additional information on the refrigerator model by clicking *View Model Information*.



Note: The app uses the WHO PQS/PIS model number to find similar fridges. These may be unfamiliar as they are used in the background.

2. On the *refrigerator model information* page, you will see a summary description of the refrigerator.
3. Lower on that same page, below the model image, is a button that will allow you to pull up all of refrigerators in the inventory that match that model. Select the *View all [model ID] Refrigerators*. Use the Android back button to navigate back to the *Basic refrigerator information* page.



Refrigerator:	Manufacturer: B Medical Systems Sarl (Dometic) Facility: Kaabong	Edit	Delete
Refrigerator:	Manufacturer: B Medical Systems Sarl (Dometic) Facility: Panyimur	Edit	Delete
Refrigerator:	Manufacturer: B Medical Systems Sarl (Dometic) Facility: Kiboga	Edit	Delete
Refrigerator:	Manufacturer: B Medical Systems Sarl (Dometic) Facility: Koboko	Edit	Delete

Cold Chain Application (Refrigerator)

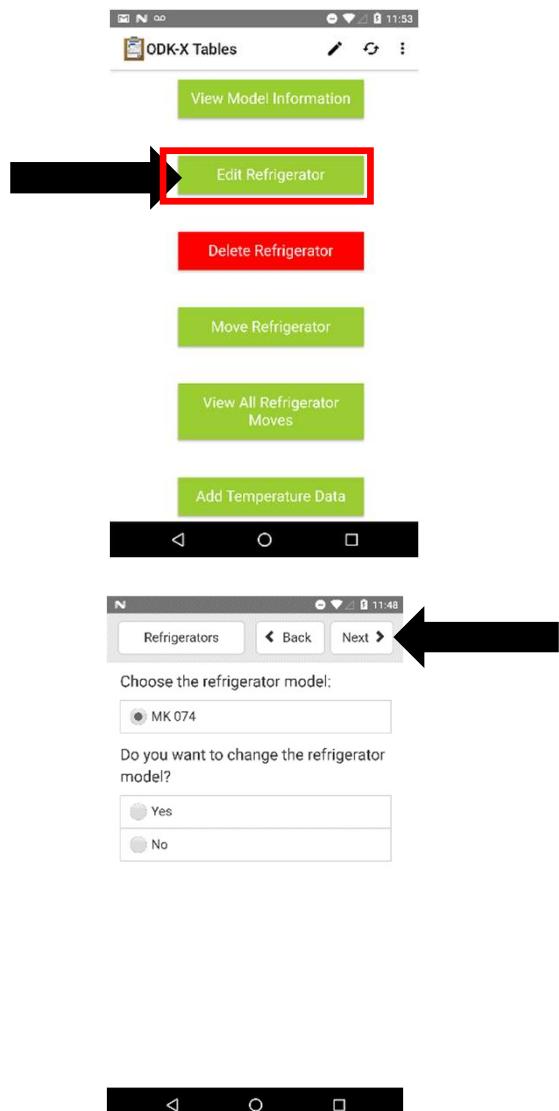
Edit Refrigerator

The *Edit Refrigerator* function will primarily be used when updating inventories, or making changes to existing CCE – tracking ID, energy source, warranty status, etc.

Key refrigerator information to edit

- Tracking ID
- Serial number
- Warranty status
- Functional status
- Use status

1. On the *Basic refrigerator information* page, you can edit information on the refrigerator by clicking on the *Edit Refrigerator* button.



Trainer tips and glossary of key information:

The edit refrigerator/cold room workflow is very similar to adding a new refrigerator or cold room. When updating inventories be sure to update via Edit Refrigerator as well as Edit Status.

Cold Chain Application (Facility)

Edit Refrigerator

Continue entering updated information on the refrigerator

5. Enter the tracking ID, year of installation, and year of procurement (if known)

Refrigerators Back Next >

Enter the tracking ID:

not specified

Enter the year installed:

Enter 0 if year is unknown

not specified

Enter the year procured:

Enter 0 if year is unknown

not specified

6. Enter serial # (normally found on back plate of CCE)

Refrigerators Back Next >

Enter the serial number:

not specified

7. Is this CCE under warranty?

Refrigerators Back Next >

Under warranty?

- Yes
 No
 Unknown

Enter warranty service provider name:

not specified

Enter warranty service provider contact phone number:

not specified

Trainer tips and glossary of key information:

Tracking ID – this unique asset number can typically be found on the lid of the CCE.

Serial number – this alpha-numerical number can be found normally on the back plate of the CCE. Length will vary by manufacturer.

Installation year – If the year is unknown, leave this field blank. If it is a new CCE, note the year the CCE is first installed. If the date is known and the device is moved to a new facility, update year with new installation date.

Warranty status – this may be difficult for DCCTs to know. Generally CCE installed within 3-5 years from today will be under warranty from manufacturer.

Cold Chain Application (Facility)

Edit Refrigerator

Continue entering updated information on the refrigerator

9. Enter CCE details (Power source, Use status, Functional status). If the refrigerator is not working and "needing attention" is selected, enter reason not working and maintenance priority

Refrigerators Back Next

Choose the power source:

Electricity
 Gas
 Kerosene
 Solar
 Unknown

Choose the current use status:

Installed - In Use
 Installed - Not In Use
 Not Installed - Waiting For Installation
 Not installed - Removed From Service
 Missing

Functional status:

No known issues
 Needs attention

Reason not working:

Needs Spare Parts
 Unknown/Needs Investigation

Refrigerators Back Next

10. Enter temperature monitoring device information

Refrigerators Back Next

Is there a temperature monitoring device in the unit?

Yes
 No

What type of temperature monitoring device is in use?

not specified

Is temperature monitoring device functional?

Functioning
 Not Functioning

Refrigerators Back Next

11. Enter Energy Harvest Control (EHC) answer if SDD (typically "No"). Enter Voltage Stabilizer answer if ILR

Refrigerators Back Next

Does the refrigerator have an Energy Harvest Control (EHC) that charges or powers other electronic devices (e.g. lights, fan, or other)?

Yes
 No

Refrigerators Back Next

12. Enter any additional notes, then Next to save

Trainer tips and glossary of key information:

Functional status – two options allow DCCTs to note whether the CCE "needs attention" or servicing/repair or has "no known issues"

Use status – allows users to note whether the CCE is installed and in/out of use or not installed and waiting for installation/decommissioning.

Refrigerators Back Next

Voltage regulator?

Yes
 No
 N/A

Voltage regulator serial number?

not specified

Is voltage regulator functional?

Functioning
 Not Functioning

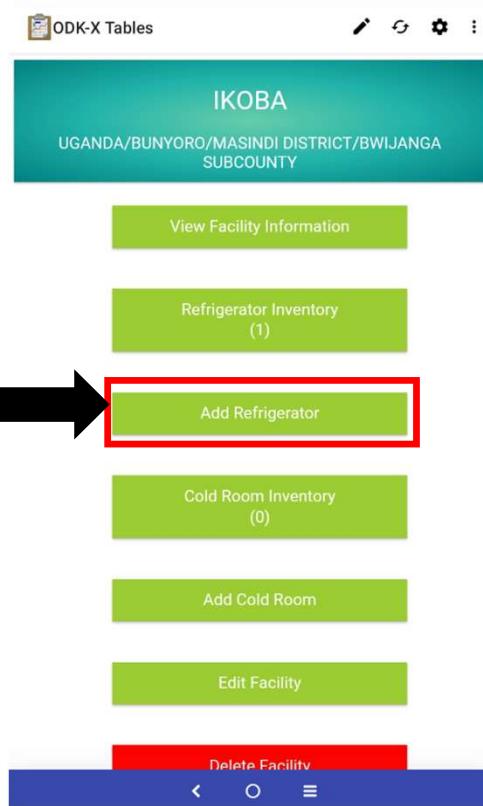
Refrigerators Back Next

Using the Cold Chain Application (Refrigerator)

Add Refrigerator

Now let's suppose you hear from Central/NMS that the refrigerator does not exist in the national CCE inventory and needs to be added.

1. Navigate to the appropriate facility where the refrigerator will be installed. Once on the health facility page, select, *Add Refrigerator*.



Key refrigerator information to update

- Refrigerator model
- Tracking ID
- Installation year
- Serial number
- Warranty status
- Functional and use status

Trainer tips and glossary of key information:

Tracking ID – this unique asset number can typically be found on the lid of the CCE.

Serial number – this alpha-numerical number can be found normally on the back plate of the CCE. Length will vary by manufacturer.

Installation year – If the year is unknown, leave this field blank. If it is a new CCE, note the year the CCE is first installed. If the date is known and the device is moved to a new facility, update year with new installation date.

Warranty status – this may be difficult for DCCTs to know. Generally CCE installed within 3-5 years from today will be under warranty from manufacturer.

Functional status – two options allow DCCTs to note whether the CCE "needs attention" or servicing/repair or has "no known issues"

Use status – allows users to note whether the CCE is installed and in/out of use or not installed and waiting for installation/decommissioning.

Using the Cold Chain Application (Refrigerator)

Add Refrigerator

Next, follow the prompts on the screen as also shown below.

2. Do you want to change the refrigerator model?

Select "Yes" since this is a new refrigerator.

3. Enter Manufacturer name, model #, PQS or PIS # if known. Can be a partial entry. For example, type B and NEXT.

This screenshot shows a user interface for changing a refrigerator model. At the top, there are buttons for 'Refrigerators', 'Back', and 'Next'. Below that, a question asks 'Do you want to change the refrigerator model?'. Two radio buttons are present: 'Yes' (selected) and 'No'. A search bar below the question is labeled 'Search for model id:' and contains the placeholder text 'Search by PIS/PQS Code, Model Id, or Manufacturer'. A text input field next to it has 'not specified' typed into it. At the bottom right, a link says 'Hit next to see model options on the next screen'.

4. Select the appropriate model then NEXT

This screenshot shows a list of refrigerator models for selection. At the top, there are buttons for 'Refrigerators', 'Back', and 'Next'. Below that, a heading says 'Choose the refrigerator model:'. A vertical list of models is shown, each preceded by a radio button:

- TCW 2043 SDD
- TCW 3000
- TCW 1990
- TCW 1152/CF
- TCW 80 AC
- TCW 2000 SDD
- TCW 40 SDD
- TCW 40R AC
- TCW 40R SDD
- TCW 15R SDD (selected)
- TCW 3000 DC
- TCW 2000
- TCW 2000 DC
- TCW 3000 SDD
- TCW 3043 SDD
- TCW 15 SDD
- TCW 4000 SDD
- TCW 2000 AC

At the bottom right, there are navigation buttons for 'Back', 'Next', and a menu icon.

Using the Cold Chain Application (Refrigerator)

Add Refrigerator

Continue entering information on the new refrigerator. These screens are essential and need to be updated for the inventory accuracy.

5. Enter the tracking ID, year of installation, and year of procurement (if known)

Refrigerators < Back Next >

Enter the tracking ID:
not specified

Enter the year installed:
Enter 0 if year is unknown
not specified

Enter the year procured:
Enter 0 if year is unknown
not specified

6. Enter serial # (normally found on back plate of CCE)

Refrigerators < Back Next >

Enter the serial number:
not specified

7. Is this CCE under warranty?

8. If yes, enter service provider and contact information

Refrigerators < Back Next >

Under warranty?
 Yes
 No
 Unknown

Enter warranty service provider name:
not specified

Enter warranty service provider contact phone number:
not specified

Trainer tips and glossary of key information:

Tracking ID – this unique asset number can typically be found on the lid of the CCE.

Serial number – this alpha-numerical number can be found normally on the back plate of the CCE. Length will vary by manufacturer.

Installation year – If the year is unknown, leave this field blank. If it is a new CCE, note the year the CCE is first installed. If the date is known and the device is moved to a new facility, update year with new installation date.

Warranty status – this may be difficult for DCCTs to know. Generally CCE installed within 3-5 years from today will be under warranty from manufacturer.

Using the Cold Chain Application (Refrigerator)

Add Refrigerator

Continue entering information on the new refrigerator

9. Enter CCE details (Power source, Use status, Functional status). If the refrigerator is not working and "needing attention" is selected, enter reason not working and maintenance priority
10. Enter temperature monitoring device information
11. Enter Energy Harvest Control (EHC) answer if SDD (typically "No"). Enter Voltage Stabilizer answer if ILR
12. Enter any additional notes, then Next to save

Refrigerators Back Next

Choose the power source:

- Electricity
- Gas
- Kerosene
- Solar
- Unknown

Choose the current use status:

- Installed - In Use
- Installed - Not In Use
- Not Installed - Waiting For Installation
- Not installed - Removed From Service
- Missing

Functional status:

- No known issues
- Needs attention

Reason not working:

- Needs Spare Parts
- Unknown/Needs Investigation

Refrigerators Back Next

Is there a temperature monitoring device in the unit?

Yes

No

What type of temperature monitoring device is in use?

not specified

Is temperature monitoring device functional?

Functioning

Not Functioning

Does the refrigerator have an Energy Harvest Control (EHC) that charges or powers other electronic devices (e.g. lights, fan, or other)?

Yes

No

Refrigerators Back Next

Voltage regulator?

Yes

No

N/A

Voltage regulator serial number?

not specified

Is voltage regulator functional?

Functioning

Not Functioning

Refrigerators Back Next

Trainer tips and glossary of key information:

Functional status – two options allow DCCTs to note whether the CCE "needs attention" or servicing/repair or has "no known issues"

Use status – allows users to note whether the CCE is installed and in/out of use or not installed and waiting for installation/decommissioning.

Cold Chain Application (Refrigerator)

Add Maintenance or Repair Record for Refrigerator

1. In the *Basic Refrigerator Information page*, you can add maintenance records by clicking *Add Maintenance Record*.

NOTE: if CCE is under warranty the service provider and phone # will pop up for any repair needs

Within the *Add Maintenance Record* page, you can enter both preventative maintenance and repair activities.

2. ODK-X Survey will be launched with the corresponding form. Select who is conducting the maintenance or repair, enter relevant name/contact information, and click *Next*
3. Enter the date of the record to be entered and select type of record: maintenance, repair, or other.

The next pages will go through repair, preventative, and maintenance options.

ODK-X Tables

Refrigerator

Basic Refrigerator Information

Facility: NYAKASHEBEYA Manufacturer: Dulas

Year Installed: 2012 Model ID: VC-65 F

Status: Not Functioning Serial Number: 1922112

Use Status: Catalog ID: E3103M

Reason Not Working: Voltage Regulator? Not Applicable

Service Priority: Temperature Monitoring Device? Not Applicable

Date Serviced:

Edit Refrigerator Status

Add Maintenance Record

View Facility Information

Who performed the service?

Warranty/Service Provider
CCE Technician
Facility Staff
Other

Enter technician name

Enter technician phone number if available

Refrigerator under warranty contact [Warranty Service Provider name] at Phone #

Warranty alert

Maintenance Logs Back Next

Maintenance Logs Back Next

Trainer Tip:

Preventative maintenance: Routine activities such as cleaning, defrosting, tightening, checking seals/cooling unit can be captured here. This is important especially to show maintenance for warranty claims

Repair: Allows users to note the type of repair activity completed and add relevant notes. This section also allows users to note any spare parts installed.

Other: Any other maintenance performed on the device.

Error: Accidentally make a mistake and close out the record? You can edit the maintenance record as needed by going to the *View All Maintenance Records* page.

Cold Chain Application (Refrigerator)

Add Repair Record for Refrigerator

4. When selecting Repair a list of checkboxes will appear. Check all applicable boxes for the types of repair that were or will be conducted.

There is also space at the bottom to add comments about the activities conducted. Click *Next* when ready

Maintenance Logs Back Next >

Enter the date of service
2021 / 11 / 26

Select type of maintenance
 Repair
 Preventative
 Other

Select type of repair
 Electrical and Control System
 Cabinet
 Refrigeration System
 Power
 Solar
 Temperature Monitoring
 Other

Enter additional repair notes
not specified

< O = >

5. The next screen provides a list of parts. Use this page to check any boxes for parts that were fixed or replaced.

Parts are grouped by the Type of repair from the previous screen. If a part is not listed, use the Other option at the bottom of the page to list the part

Maintenance Logs Back Next >

Select Electrical and Control System parts replaced/used
 Capacitor
 Compressor Electronic Unit
 Control Panel
 Display Battery
 Display LED
 Keypad External
 Fuse
 Indicator Light
 Power Switch
 Relay
 Resistor
 Starting Device
 Thermostat Controller
 Wiring
 Wiring Connections
 Wiring Terminals

Select Hardware parts replaced/used
 Baskets

< O = >

6. When finished, click *Next*. You will see a reminder that if repairs are complete to update Refrigerator status (and maintenance priority) from the refrigerator menu. Click *Next* once more to return to refrigerator menu

Trainer Tip:

Types of repair: These are general categories for the repair meant to capture general data about what fails in CCE. Please use the Additional repair notes section to add details to the work completed, or if work was not yet completed.

Parts: This section is designed to collect data about the parts replaced in CCE. This form is designed to help understand and look for common failures as well as help inform planning and budgeting for spare parts

Cold Chain Application (Refrigerator)

Add Maintenance Record for Refrigerator

4. When selecting *Preventative*, a list of checkboxes will appear. Check all applicable boxes for activities conducted. There is also space to add comments about the activities at the bottom
5. When finished, click the *Next* button to save the maintenance record

Maintenance Logs Back Next

Enter the date of service
2021 / 09 / 14

Select type of maintenance

Repair
 Preventative
 Other

→

Select type of preventative maintenance

Cleaning - cabinet
 Cleaning/drying - storage compartment
 Cleaning - solar panels
 Defrosting
 Tightening
 Check seals
 Check/clean cooling unit

Enter additional preventative maintenance notes
not specified

Maintenance Logs Back Next

Enter the date of service
2021 / 09 / 14

Select type of maintenance

Repair
 Preventative
 Other

Select type of preventative maintenance

Cleaning - cabinet
 Cleaning/drying - storage compartment
 Cleaning - solar panels
 Defrosting
 Tightening
 Check seals
 Check/clean cooling unit

Enter additional preventative maintenance notes
minimum moisture and no frost present

Trainer Tip:

Preventative maintenance: Routine activities such as cleaning, defrosting, tightening, checking seals/cooling unit can be captured here. This is important especially to show maintenance for warranty claims

Repair: Allows users to note the type of repair activity completed and add relevant notes. This section also allows users to note any spare parts installed.

Other: Any other maintenance performed on the device.

Cold Chain Application (Refrigerator)

Add Other Record for Refrigerator

4. If you select *Other* for the type of maintenance, a text box will appear. Enter any notes for the activities conducted and click Next when complete

Maintenance Logs Back Next

Enter the date of service
2021 / 12 / 14

Select type of maintenance

Repair
Preventative
 Other

Enter additional notes for other maintenance
not specified

< O =

Trainer Tip:

Other: After entering any notes about the activities conducted. The next screen will show the list of parts. This is in case there are any specific parts related to this activity. This page is not required but available in case useful.

Cold Chain Application (Refrigerator)

View All Maintenance Records for Refrigerator

1. In the *Basic Refrigerator Information* page, you can view all maintenance records by clicking on *View All Maintenance Records*.
2. If a record exists, to view the record click on it.

The left screenshot shows the 'Basic Refrigerator Information' page with several buttons: 'Edit Refrigerator Status', 'Add Maintenance Record', 'View Facility Information', 'View All Maintenance Records' (which is highlighted with a red box), and 'View Model Information'. A black arrow points from the 'View All Maintenance Records' button to the right screenshot.

The right screenshot shows the 'Maintenance Log' page with three entries:

- Date Serviced: 2021-09-14
- Date Serviced: 2021-11-26
- Date Serviced: 2021-12-15

Each entry has 'Edit' and 'Delete' buttons next to it.

3. You will see a summary of the maintenance record along with the *Edit Log* and *Delete Log* buttons.

The left screenshot shows the 'Refrigerator' page with various details like 'Refrigerator ID: 78150ef44f3d4170-0000000000000000', 'Functional Status: Functioning', 'Reason Not Working:', 'Date Serviced: 2021-01-08', 'Type of Maintenance:', and lists for 'Spare Parts (Electrical)', 'Spare Parts (Hardware)', 'Spare Parts (Monitoring)', and 'Spare Parts (Power)'. A red box highlights the 'Edit Log' button.

The right screenshot shows the 'Edit Log' page with two buttons: 'Edit Log' (highlighted with a red box) and 'Delete Log'.

Cold Chain Application (Refrigerator)

Edit Maintenance Log for Refrigerator

4. Click *Edit Log* to make changes to the maintenance record.
5. ODK-X Survey will be launched with the corresponding form. Choose the appropriate values for the current use status, functional status, reason not working, and priority for maintenance if applicable. Click *Next*.

The first screenshot shows the main screen of the ODK-X Tables application. It lists various categories of spare parts and actions taken. A black arrow points to the green "Edit Log" button, which is highlighted with a red box. Below it is a red "Delete Log" button. The second screenshot shows the ODK-X Survey interface for editing a maintenance log. It includes fields for selecting who performed the service (radio buttons for Warranty/Service Provider, CCE Technician, Facility Staff, or Other), entering the technician's name (text field "not specified"), and entering the technician's phone number (text field "not specified"). A red box highlights the "Next >" button at the top right. The third screenshot shows the survey interface again, with a confirmation message: "The page at 'http://localhost' says: Are you sure you want to delete this maintenance log?". It has "CANCEL" and "OK" buttons, with "OK" highlighted by a red box. The final screenshot shows the survey interface with a success message: "The page at 'http://localhost' says: Maintenance log deleted successfully". It has an "OK" button highlighted by a red box.

Delete Maintenance Log for Refrigerator

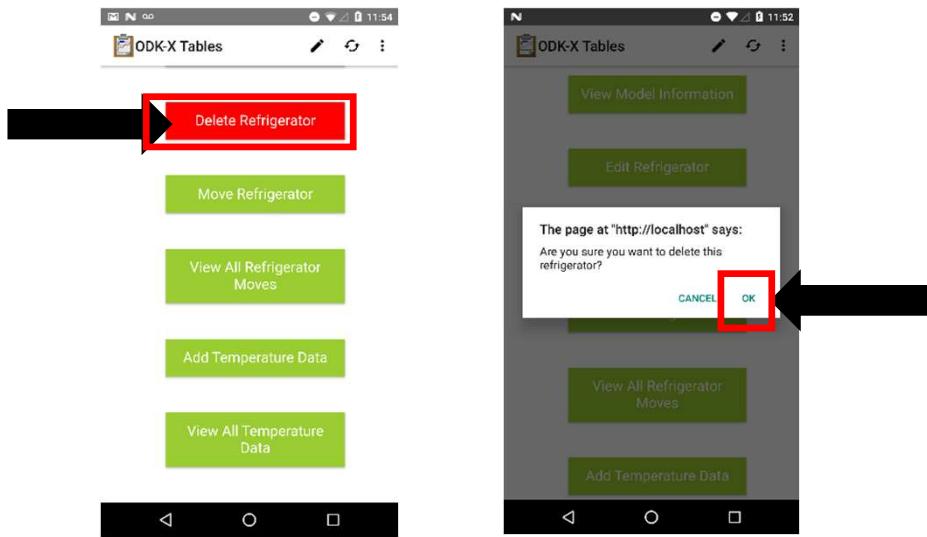
6. Click *Delete Log*. You will see a popup asking you to confirm. Click *OK*. You will see a confirmation popup. Click *OK*.

The first screenshot shows the main screen of the ODK-X Tables application, identical to the previous one. A black arrow points to the red "Delete Log" button, which is highlighted with a red box. The second screenshot shows a confirmation dialog box with the text: "The page at 'http://localhost' says: Are you sure you want to delete this maintenance log?". It has "CANCEL" and "OK" buttons, with "OK" highlighted by a red box. The third screenshot shows the confirmation message: "The page at 'http://localhost' says: Maintenance log deleted successfully". It has an "OK" button highlighted by a red box.

Cold Chain Application (Refrigerator)

Delete Refrigerator

1. On the *Basic refrigerator information* page, you can delete a refrigerator by clicking *Delete Refrigerator*. You will see a popup asking you to confirm. Click *OK*.



Training tip:

Only administrators should delete CCE.

If it does not exist in the search, update Use status to “missing” and move to the “Major Repair Facility” and set a priority for Central administrators to delete.

Why would a refrigerator need to be deleted?

- The ONLY reason to delete a refrigerator is if you created a new refrigerator and made a mistake. This would be the refrigerator you entered, and not one that already exists in the system.

If a refrigerator is scheduled to be removed or decommissioned, should I delete it? No. You can change the current use status and functional status to reflect what will be done with the refrigerator.

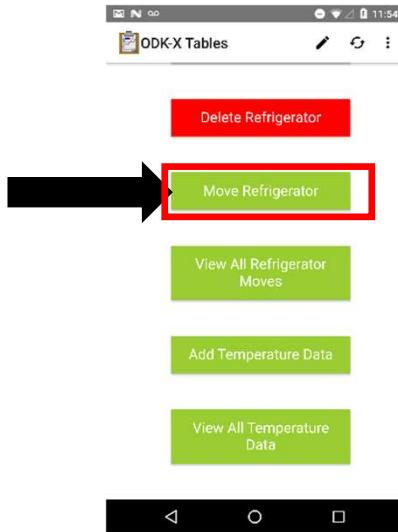
What do I do if I accidentally deleted a refrigerator? Immediately contact your technical point of contact and let them know about the accidental deletion. Best practice, DON’T DELETE.

What if I simply need to change some of the information related to the health facility? Navigate to the *Edit Refrigerator Status* or *Edit Refrigerator Model* to modify information on the refrigerator.

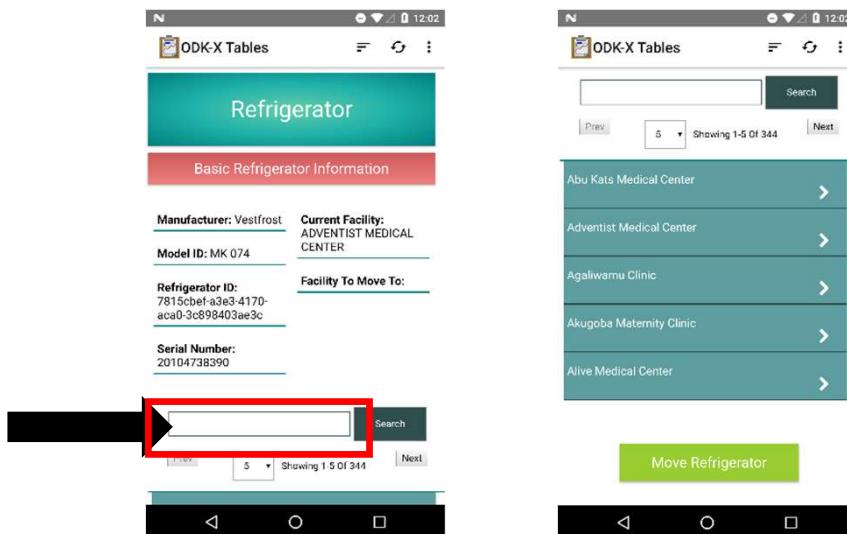
Cold Chain Application (Refrigerator)

Move Refrigerator

1. On the *Basic refrigerator information* page, you can edit the location of the refrigerator by clicking on the *Move Refrigerator* button.

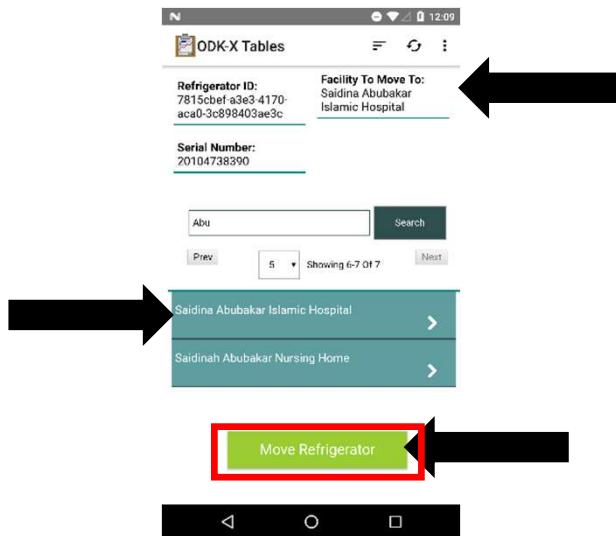


2. You will see a summary for the refrigerator and a list of facilities with a search box. Enter the name of the facility and hit search. The full name does not have to be entered. The search box is capable of finding partial matches.

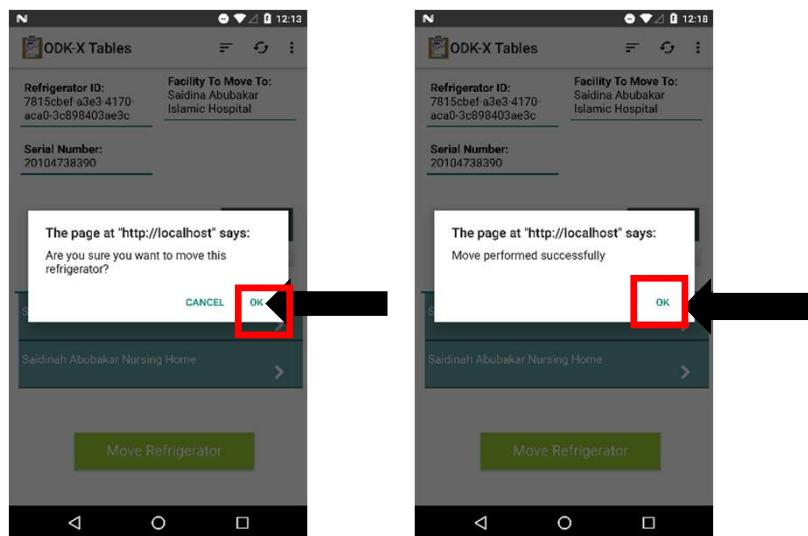


Cold Chain Application (Refrigerator)

3. Click on the facility name in the list to move the refrigerator to. “Facility To Move To:” will be populated with the name of the facility. Click on *Move Refrigerator*.



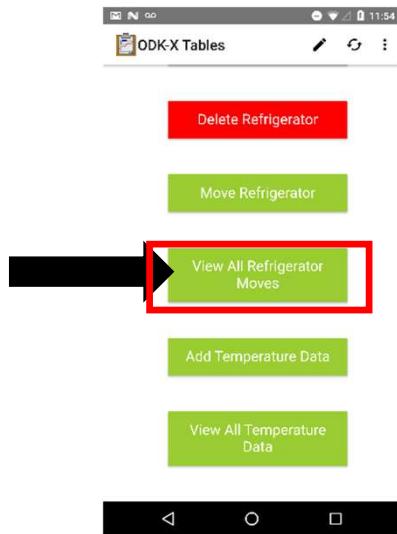
4. You will see a popup asking you to confirm. Click *OK*. You will see another popup indicating that the move was performed successfully. Click on the Android back button to go back to the screen in step 1.



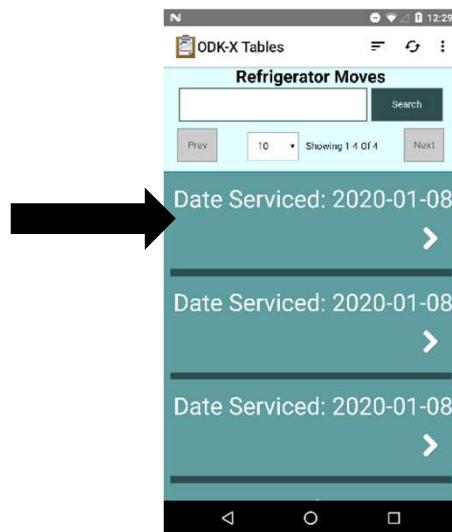
Cold Chain Application (Refrigerator)

View All Refrigerator Moves

1. On the *Basic refrigerator information* page, you can review all the instances in which the refrigerator was moved by clicking *View All Refrigerator Moves*.



2. You will see a list of the dates for the refrigerator moves. Click on one of the list items.



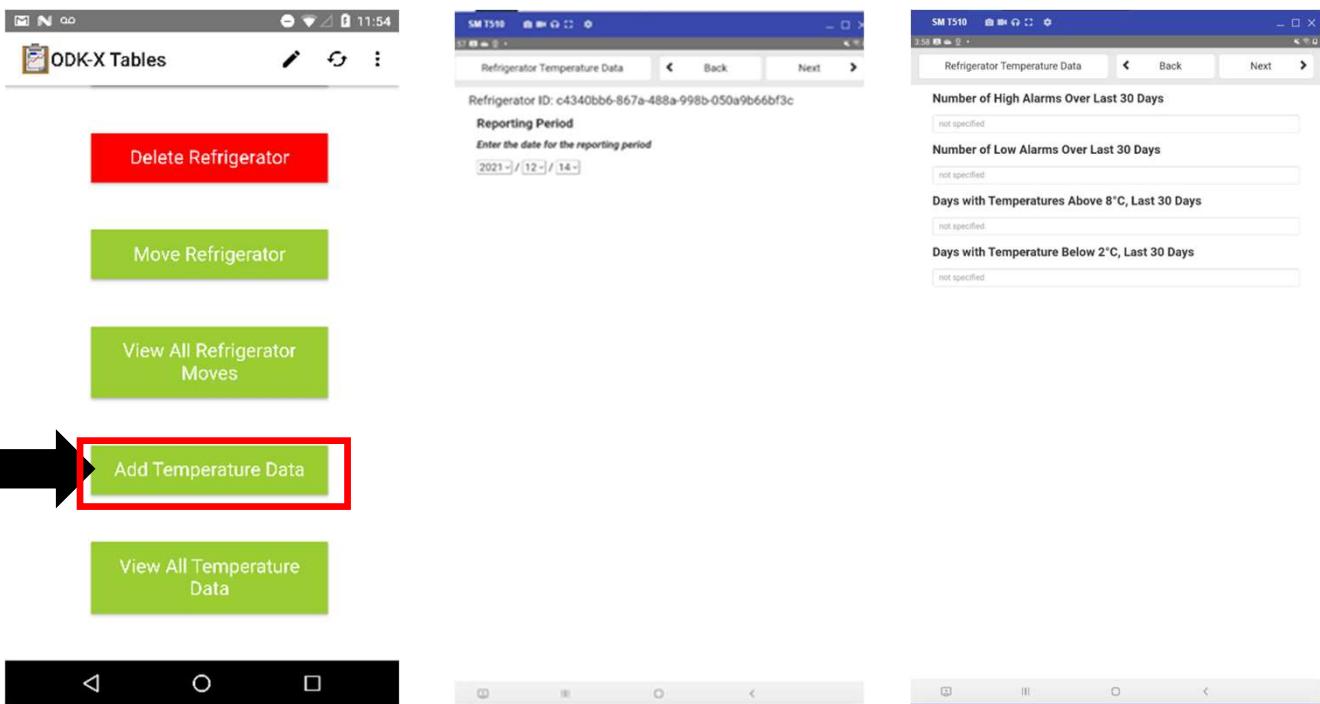
Cold Chain Application (Refrigerator)

Add Temperature Data

1. On the *Basic refrigerator information* page, you can add temperature performance records from the refrigerator through two methods. Start this process by clicking on the *Add Temperature Data*.
2. Select the appropriate date for the temperature data collection. Enter the number of alarms and days with high and low alarms in the requested fields.

Key temperature data information to update

- Reporting period
- # high alarms over last 30 days
- # low alarms over last 30 days
- Days with >8°C over last 30 days
- Days with <2°C over last 30 days



Trainer tips and glossary of key information:

Reporting period - The last day of data reported

Number high alarms over last 30 days: Number of alarms recorded by EPI staff in the facility where the temperature monitoring device inside the CCE read higher than 8°C.

Number low alarms over last 30 days: Number of alarms recorded by EPI staff in the facility where the temperature monitoring device inside the CCE read lower than 2°C.

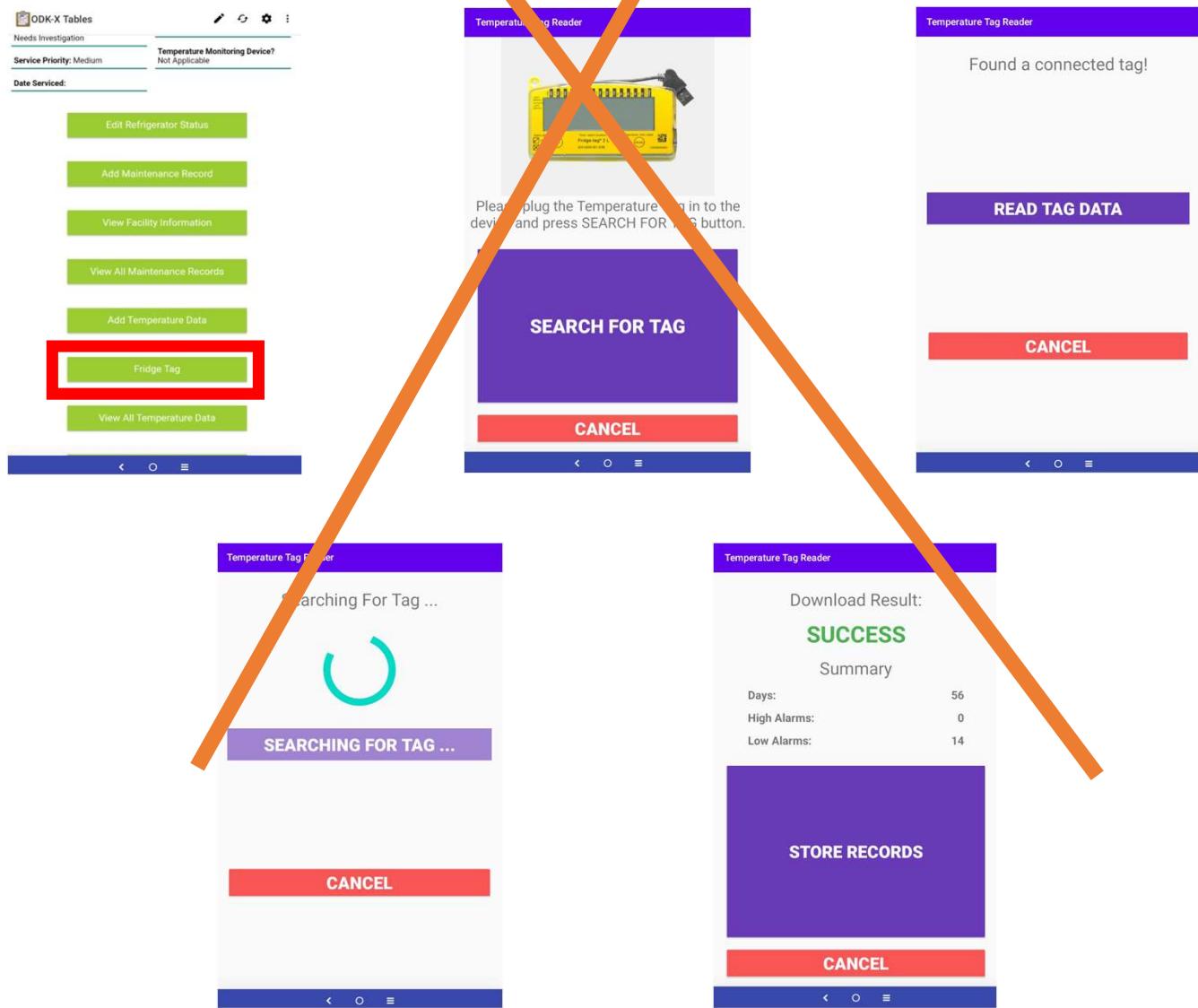
Number of days with temperature >8°C over last 30 days: Number of days recorded in the last 30 days where the temperature monitoring device inside the CCE read higher than 8°C.

Number of days with temperature <2°C over last 30 days: Number of days recorded in the last 30 days where the temperature monitoring device inside the CCE read lower than 2°C.

Cold Chain Application (Refrigerator)

Add Temperature Data via FridgeTag2 NOT YET FUNCTIONAL

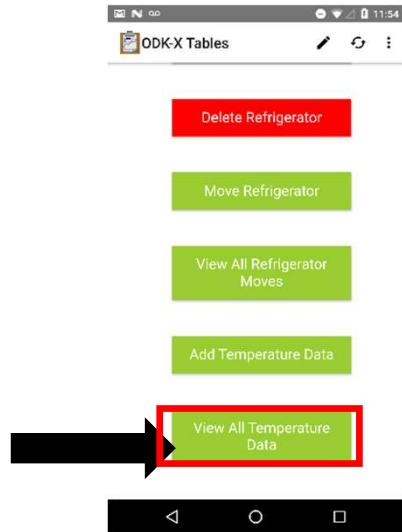
3. Select Add Temperature Data from menu
4. Select the Temperature Tag Reader button
5. Connect the phone/tablet to the FridgeTag2 with the USB dongle
6. Click **Search for Tag** the system will search
7. Once the FT2 is found, click **Read Tag Data**
8. The screen should show a Success message and summary of the data downloaded. Click **Store records** to save to the refrigerator temperature log



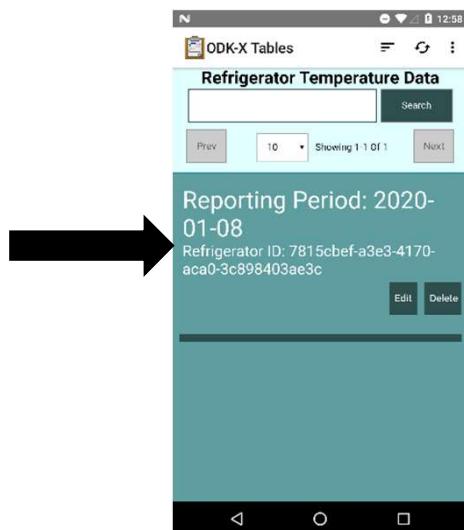
Cold Chain Application (Refrigerator)

View All Temperature Data for Refrigerator

1. On the *Basic refrigerator information* page, you can view all past temperature data records submitted by clicking *View All Temperature Data*.



2. If a record exists, click on it.



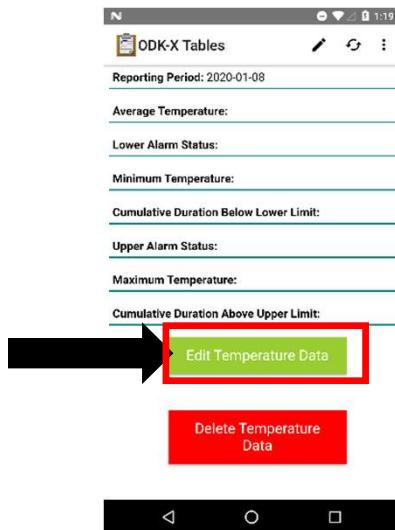
Cold Chain Application (Refrigerator)

3. You will see a summary of the temperature data along with the *Edit Temperature Data* and *Delete Temperature Data* buttons.

The image consists of two side-by-side screenshots of a mobile application interface. Both screens have a header bar with icons for back, forward, and search, and a timestamp of 1:19. The left screen has a teal header with the word "Refrigerator". Below it is a red header with the text "Refrigerator Temperature Data". Underneath are several input fields with placeholder text: "Refrigerator ID: 7815cbef-a3e3-417d-acb0-3c898403ae3c", "Reporting Period: 2020-01-08", "Average Temperature:", "Lower Alarm Status:", "Minimum Temperature:", "Cumulative Duration Below Lower Limit:", "Upper Alarm Status:", "Maximum Temperature:", and "Cumulative Duration Above Upper Limit:". The right screen also has a teal header with "Refrigerator" and a red header with "Refrigerator Temperature Data". It contains similar input fields for reporting period, average temperature, alarm statuses, and cumulative durations. At the bottom of both screens are three navigation icons: a triangle pointing left, a circle, and a square.

Edit Temperature Data for Refrigerator

4. Click *Edit Temperature Data* to make changes to this temperature data.



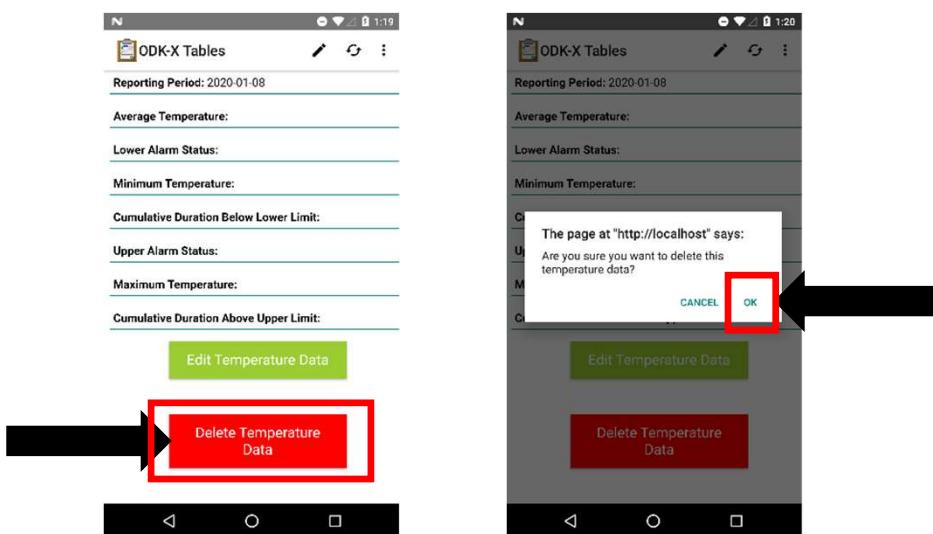
Cold Chain Application (Refrigerator)

5. ODK-X Survey will be launched with the corresponding form. Choose the appropriate values for the current use status, functional status, reason not working, and priority for maintenance if applicable. Click *Next*.



Delete Temperature Data for Refrigerator

6. If you need to delete a temperature record, click *Delete Temperature Data*. You will see a popup asking you to confirm. Click *OK*.



ODK-X application
support

Installing the ODK-X Services, Tables, and Survey

In order to use the Cold Chain application, ODK-X Services, Tables, and Survey must be installed. You must be connected to the internet in order to install the applications. You may be prompted to accept security permissions. Grant all of the Android security permissions.



ODK-X Services is a program that handles database access, file access, and data synchronization services between all the ODK-X applications. Mostly this happens behind the scenes, but you will need to install ODK-X Services as a prerequisite to using the other ODK-X tools.



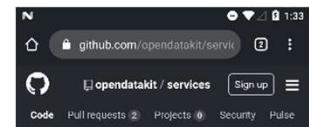
ODK-X Tables is a program that allows you to visualize and update existing data. Using Tables as your entry-point to data collection, you will be able to gather data using [ODK-X Survey](#), sync it to a server using ODK-X Services, and have other users download and edit this same data on their own devices.



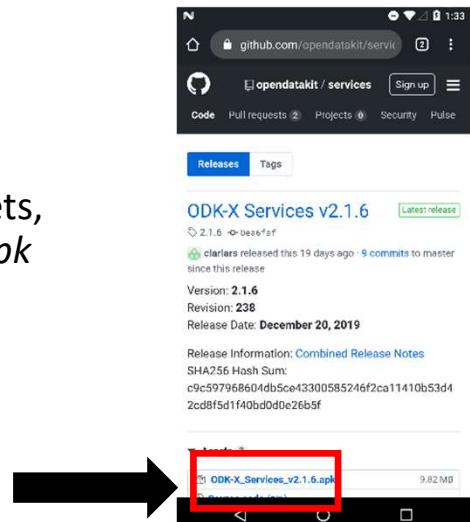
ODK-X survey is an Android application for performing data collection in the ODK-X framework.

Install ODK-X Services

1. Open a Chrome web browser on your Android device and type in <https://github.com/odk-x/services/releases/latest>

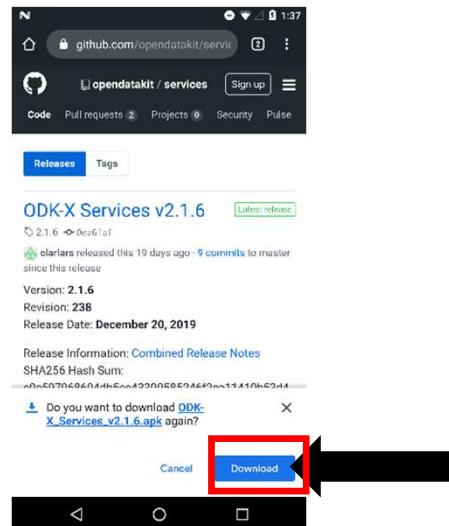


2. Click on the latest ODK-X Services Under Assets, click the *ODK-X_Services_(latest version #).apk* link.

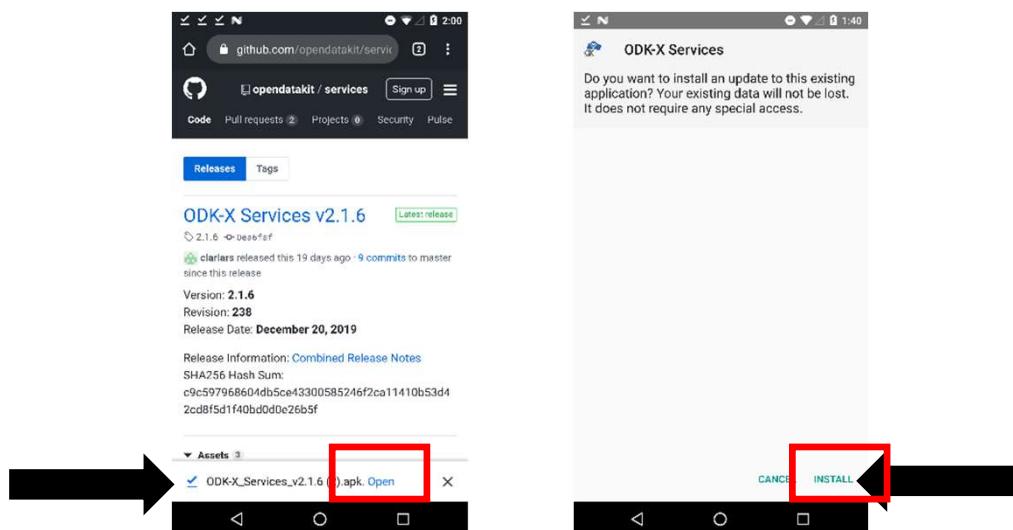


Installing the ODK-X Services, Tables, and Survey

3. You will see a message stating, “This type of file can harm your device. Do you want to keep ODK-X_Services_vX.X.X.apk? “ Click *Download*.

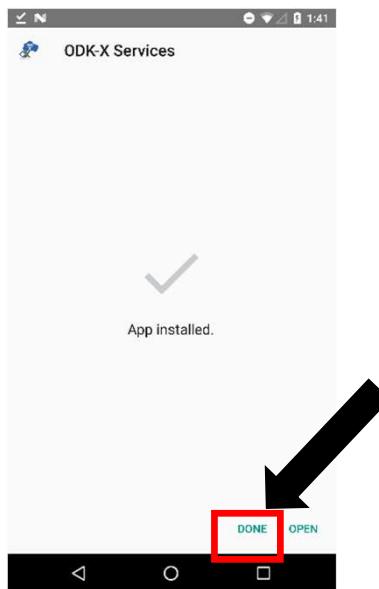


4. Click *Open*. You will see a screen that asks if you want to install this application. Click *Install*.



Installing the ODK-X Services, Tables, and Survey

5. You will see a message that says, "App installed." Click *DONE*. Congratulations, you've successfully installed ODK-X Services. You will also need to install ODK-X Survey and ODK-X Tables. The steps for those apps will be very similar to the previous steps.



Installing the ODK-X Services, Tables, and Survey

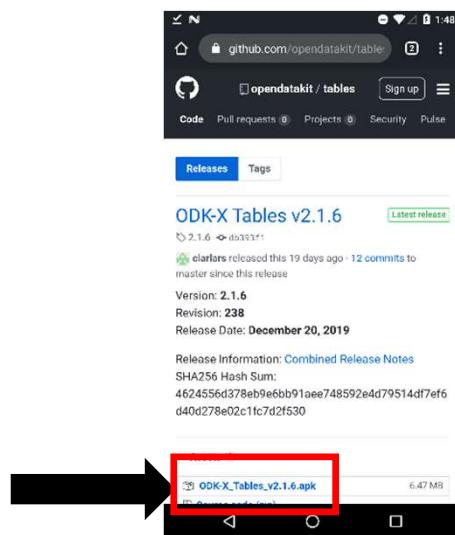
You must be connected to the internet in order to install the applications. You may be prompted to accept security permissions. Grant all of the Android security permissions.

Install ODK-X Tables

1. Open a Chrome web browser on your Android device and type in <https://github.com/odk-x/tables/releases/latest>

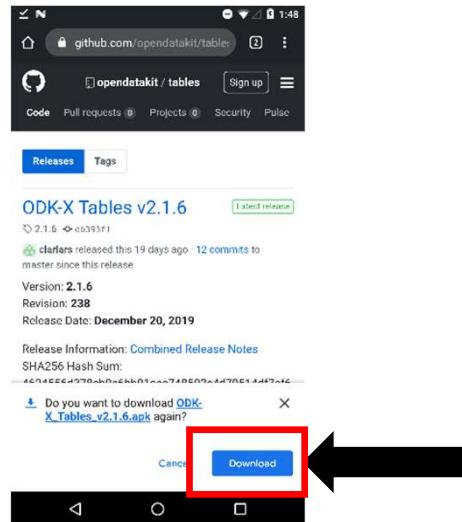


2. Click on ODK-X Tables latest version Under Assets, click the *ODK-X_Tables_(latest version #).apk* link.

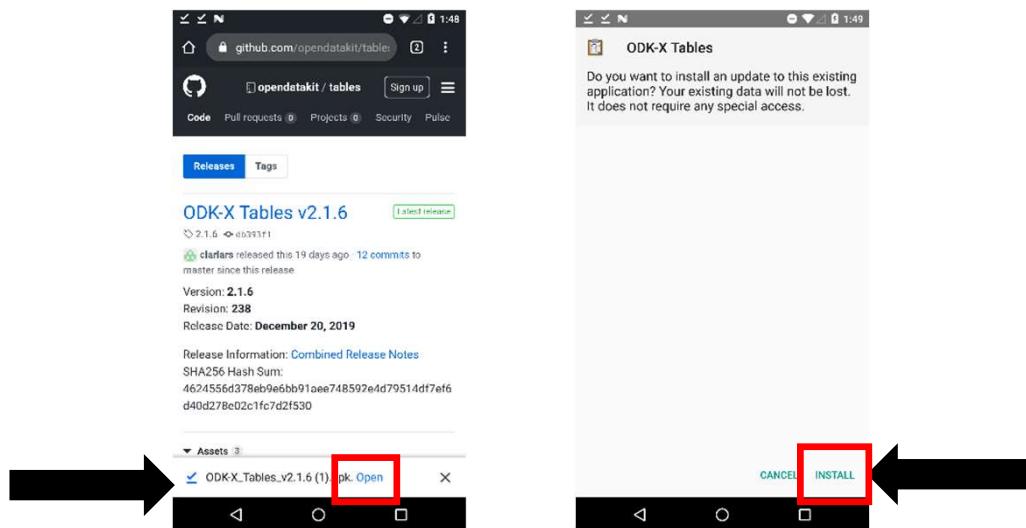


Installing the ODK-X Services, Tables, and Survey

3. You will see a message stating, “This type of file can harm your device. Do you want to keep ODK-X_Tables_vX.X.X.apk? ” Click *OK*.

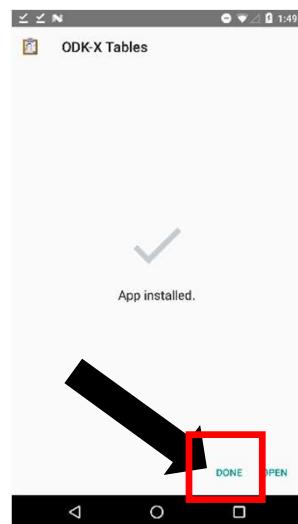


4. Click *Open*. You will see a screen that asks if you want to install this application. Click *Install*.



Installing the ODK-X Services, Tables, and Survey

5. You will see a message that says, "App installed." Click *DONE*. Congratulations, you've successfully installed ODK-X Tables.



Installing the ODK-X Services, Tables, and Survey

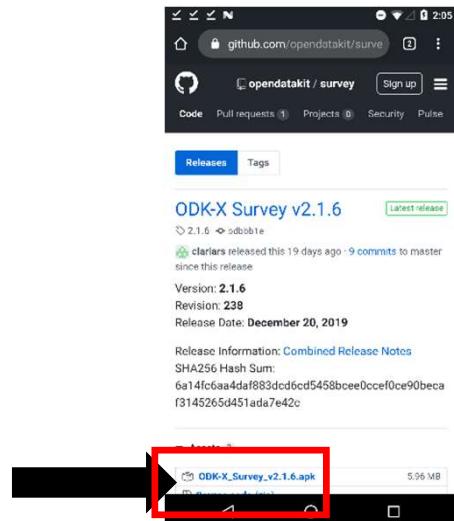
You must be connected to the internet in order to install the applications. You may be prompted to accept security permissions. Grant all of the Android security permissions.

Install ODK-X Survey

1. Open a Chrome web browser on your Android device and type in <https://github.com/odk-x/survey/releases/latest>

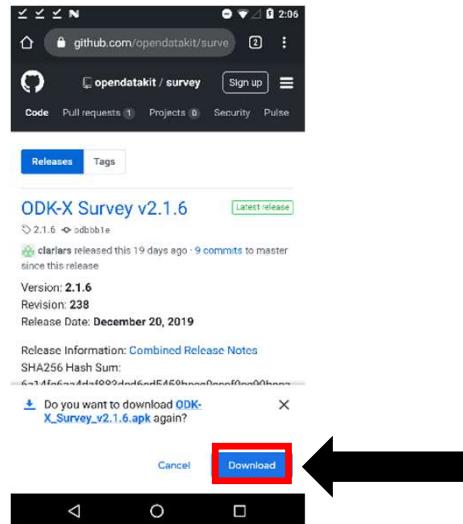


2. Click on ODK-X Survey latest versions. Under Assets, click the *ODK-X_Survey_(latest version #).apk* link.

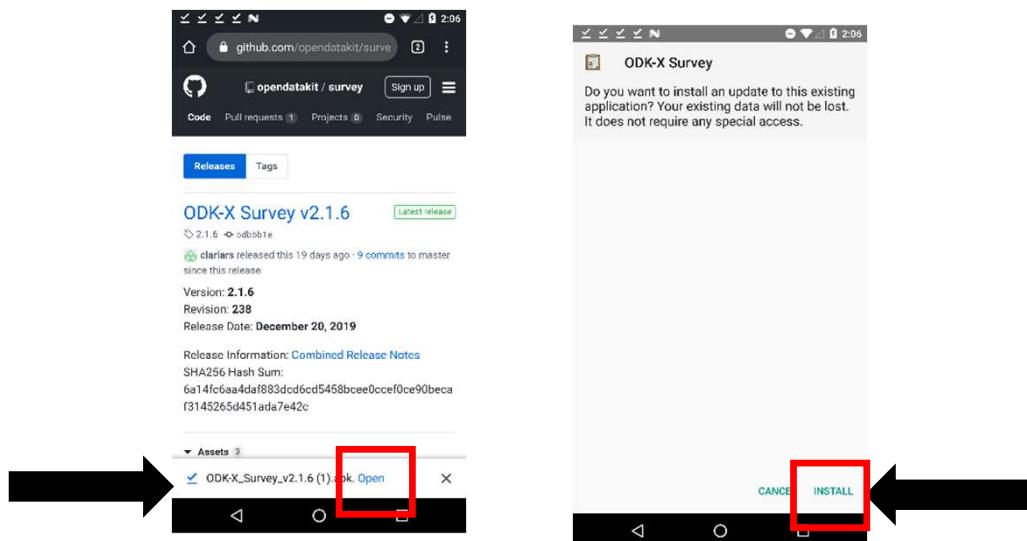


Installing the ODK-X Services, Tables, and Survey

3. You will see a message stating, “This type of file can harm your device. Do you want to keep ODK-X_Survey_vX.X.X.apk? ” Click *OK*.

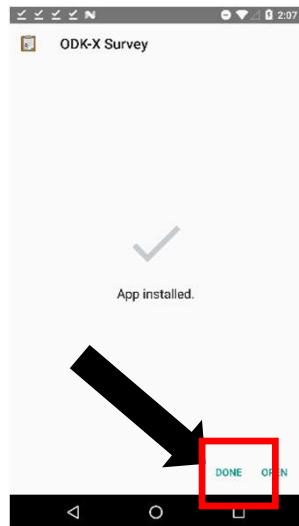


4. Click *Open*. You will see a screen that asks if you want to install this application. Click *Install*.



Installing the ODK-X Services, Tables, and Survey

5. You will see a message that says, “App installed.” Click *DONE*. Congratulations, you’ve successfully installed ODK-X Survey.



Training tip:

Where do I find the apps on my phone/tablet? You can find the three applications by swiping up on the main Android screen. By selecting and holding down on an application, a menu will come up that allows you to a) Select the app; b) add to home; c) uninstall. Consider adding ODK-X Tables to your desktop/home for easy access.

Will I ever have to download an updated version of the ODK-X apps? There are two scenarios where users will need to download updated ODK-X apps. These are:

- 1) When a critical issue is resolved that requires a system-wide refresh. This should be a rare occurrence, though it is possible an update will be issued to address application performance.
- 2) When functionality is added to the ODK-X apps to address, improve, or expand the scope of the apps. These updates may be issued more frequently as new features are added.

How will I know if I have to download an updated version of the ODK-X apps?

You should be notified by the Ministry of Health/UNEPI/NMS with instructions on how to update.

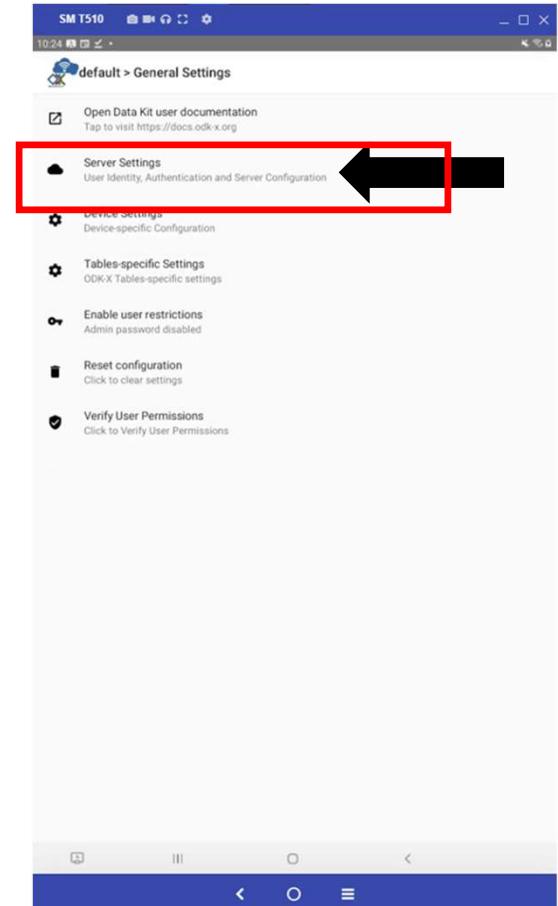
What do I do if I have a problem opening one of the apps? Try closing and restarting the apps. If that doesn't work, contact your technical point of contact for support.

Downloading/Syncing the Cold Chain Application

1. After ODK-X Services, Survey, and Tables have been installed. The Cold Chain application must be downloaded on to the Android device. You must be connected to the internet in order to download the Cold Chain application. Open ODK-X Services. When the apps are launched for the first time, you may be prompted to accept security permissions. Grant all of the Android security permissions.



2. Configure the server settings by clicking on the gear icon in the upper right-hand corner. Click *Server Settings*.



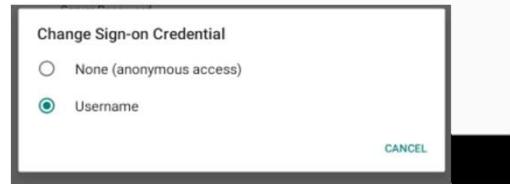
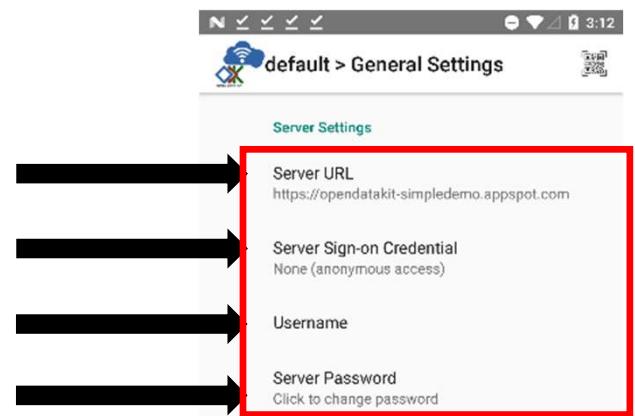
Downloading/Syncing the Cold Chain Application

3. Enter the server and user data

1. Select Server URL and in the pop-up window, type in the server address assigned to you.
2. The training server is <https://test-odkx.nms.go.ug>

Remember to specify the “https://” when entering the server address

1. Click on Server Sign-on Credential and select the option Username
2. Enter your username for Username.
3. Enter your password for Server Password.



Training tip:

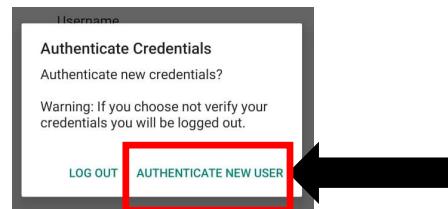
Where do I get my username & password? NMS/UNEPI will manage user ID and passwords. Ask your Central level contact for your username and password.

What do I do if I forget my username or password? Contact your Central level contact to request your username and password.

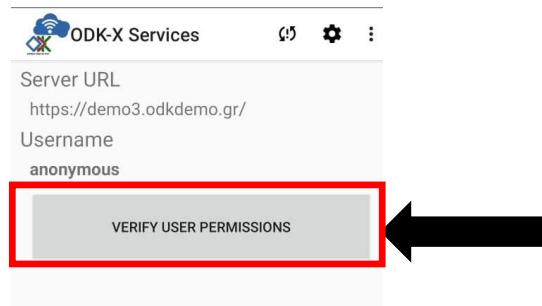
Who creates usernames and passwords? NMS information technology (IT) staff will create and manage usernames and passwords for all ODK-X users.

Downloading/Syncing the Cold Chain Application

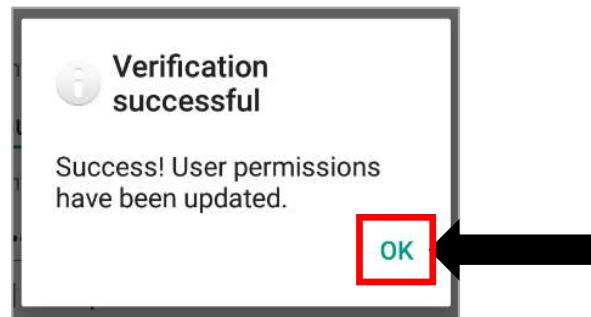
5. Click the Android back button. Click on *AUTHENTICATE NEW USER*.



6. Select *VERIFY USER PERMISSIONS*.

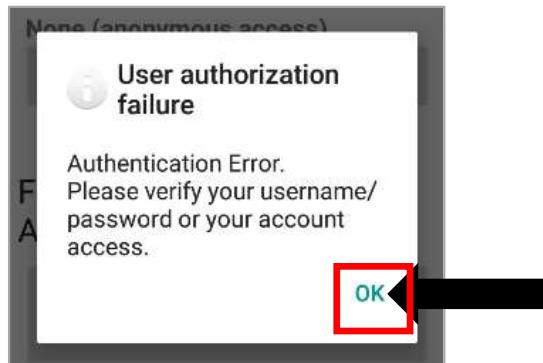


7. Once the verification succeeds you will see a popup window with the message “Verification successful”. Click on *OK*.



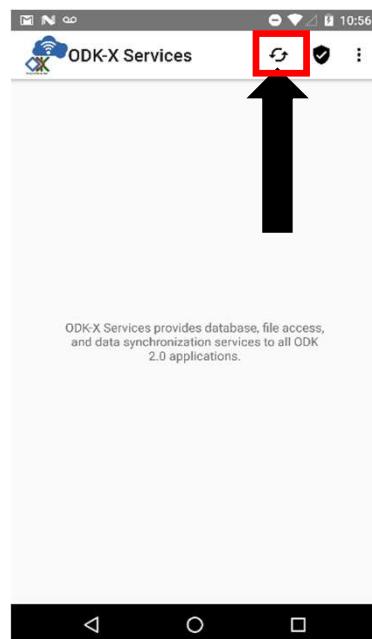
Downloading/Syncing the Cold Chain Application

Note: If in the server configuration screen, you don't specify a correct server address, username or password, you will see the following message "User authorization failure". If this happens, you should reenter the authentication information.



8. Go back to the ODK-X Services home screen by clicking the Android back button. Click on the icon with the two circular arrows

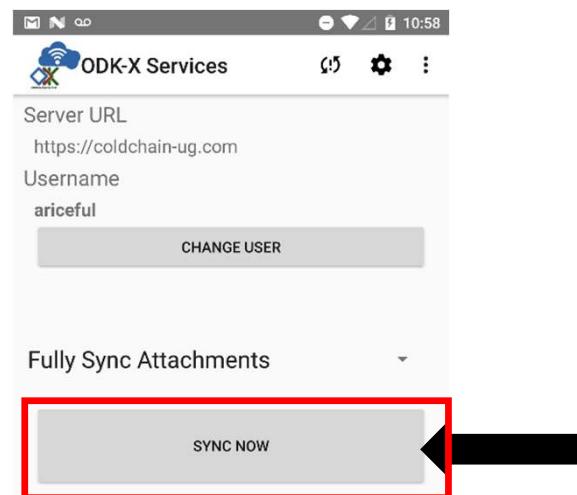
You will also see this icon within the cold chain app. You can press it anytime to sync, but it is recommended to have a wifi connection when syncing



Downloading/Syncing the Cold Chain Application

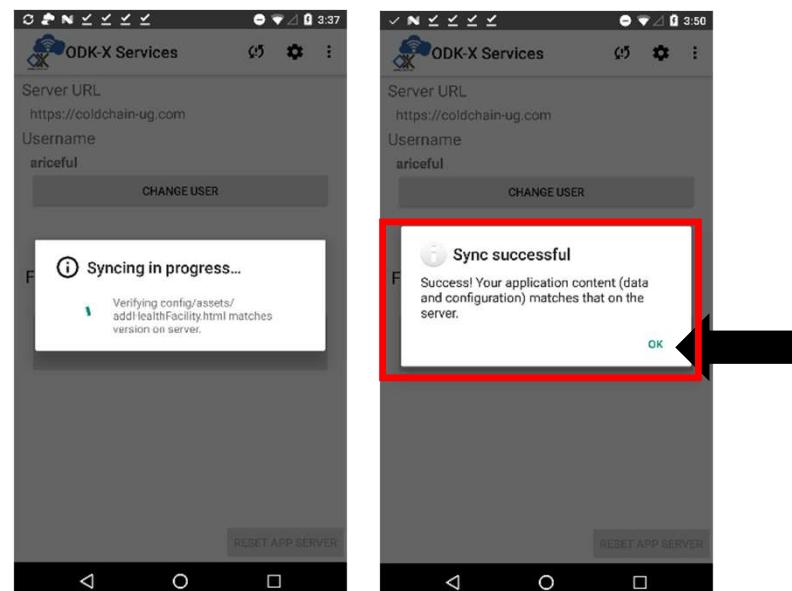
9. Click *SYNC NOW*.

This will send any updates from your device to the central server. It will also check the database and synchronize any changes made by other users to your device



10. You will see a popup dialog that indicates that the sync is in progress. Once the sync has finished, you will see a popup dialog indicating that initialization completed successfully.

NOTE: When you need to sync your data up to the server and have internet access, repeat steps 9-10.



TRAINING TIP:

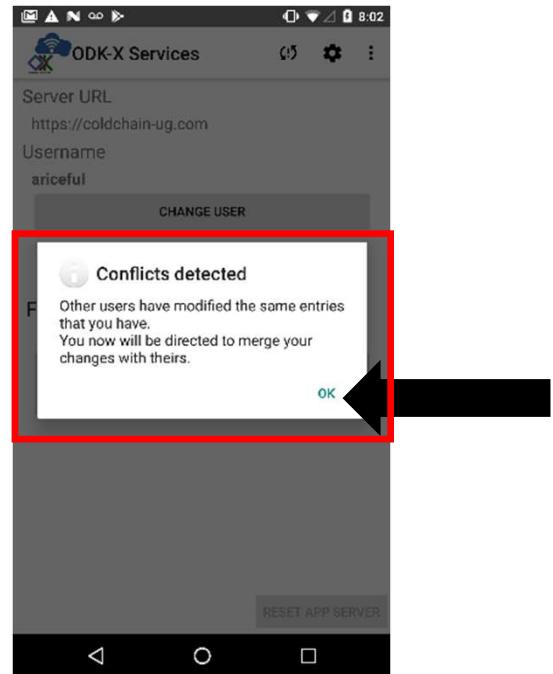
How long will it take to sync? Syncing data should take between 2-10 minutes depending on the number of changes and internet speeds. You MUST have wifi connectivity to sync.

What do I do if I get an error message saying "An internal error occurred"? Try syncing again. There is no harm in syncing multiple times. The system is designed to fix itself with multiple synchronizations. If you are sure you have good network connectivity and have synchronized multiple times and it has errored every time, then ask for help on the WhatsApp group,

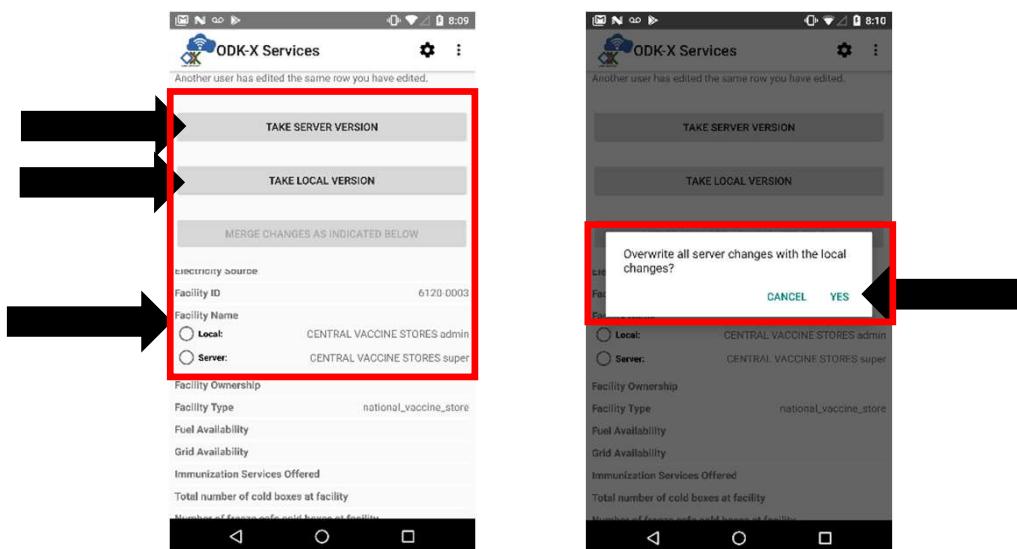
How often do I need to sync? It is best practice to sync daily if you are entering information daily or as soon as you have wifi connectivity. At a minimum, you should sync weekly if you are entering updates.

Sync Conflicts in the Cold Chain Application

1. If two or more people have edited the same data, it is possible that the sync will fail due to conflicting data. Click *OK* on the dialog message.



2. Choose *TAKE SERVER VERSION* or *TAKE LOCAL VERSION*. The screen will show the values for the row and also show the differences in a list. In this example, the Facility Name is different. On the confirmation popup, click *YES*.



Training tip:

Conflicts: Conflict errors occur when there are variations in the data sets due to multiple users changing the same data. Once one person syncs, the dataset now reflects that users' changes. When another person tries to sync using the original data set, the system will recognize the differences or conflicts in the data sets and issue the error code.