**Guide to Cold Chain Inventory Questionnaires**

Before data collection, update guide and questionnaires to reflect country information.

**Form Name:** CCEIa

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| 1—Health Facility Questionnaire |
| ***Administrative levels and facility information***Ministry may pre-populate questions 1-7.  |
| **#** | **Question** | **Explanation** |
| 1 | Facility code | **Official ID of the facility from the Master Facility List (MFL) or other unique national code if available** such as the code used as part of the national Health Management Information System (HMIS). |
| ***Health facility location, name, type, and ownership*** |
| 2 | Level 2 *(e.g., Province)* | **These fields are mandatory.**Information to identify facility within the administrative (geographic) hierarchy. |
| 3 | Level 3 *(e.g., Zone)* |
| 4 | Level 4 *(e.g., District)* |
| 5 | Health facility name | **This field is mandatory.** |
| 6 | Type of health facility  | The facility types should reflect the national classification, including both public and private structures. Mark only **ONE** box as appropriate for the type of health facility found in the country.Options include: [ ]  National vaccine store[ ]  Province vaccine store [ ]  District vaccine store[ ]  Provincial hospital [ ]  Referral hospital[ ]  Health centre A [ ]  Health post B |
| 7 | Facility ownership | The facility ownership should reflect the national classification of authorities potentially in charge of a facility. Mark only **ONE** box as appropriate for the type of ownership of the health facility.Options include: [ ]  Government[ ]  Private-for-profit[ ]  Non-governmental organizations (NGOs)[ ]  Faith-based organizations (FBOs)[ ]  Military[ ]  Other   |
| 1—Health Facility Questionnaire *(continued)* |
| ***Immunisation services***District officials may complete the following for facilities that do not offer immunisation services. |
| 8 | Average monthly children vaccinated | **This field is mandatory and very important to cold chain equipment planning.*** Ask for the most recent data and enter the average monthly number of children vaccinated.
* Otherwise, use the total catchment population currently living in the area served by this health facility and divide by 12.
* If the data is not available from the facility manager, use the population data obtained from the National Statistics Office.
* For Provincial vaccine stores, use the total population for the province.
* For District vaccine stores, use the total district population.
 |
| 9 | Vaccine storage and immunisation services  | **This is a very important question to answer correctly.** Check a box that designates vaccine storage below ONLY if the facility has a refrigerator or freezer, even if broken, or if a refrigerator or freezer is needed where none exists. Otherwise, leave blank.[ ]  Vaccine storage only; no services (depot only)*Mark this option for National, Provincial, and District vaccine stores*[ ]  Immunisation services without on-site depot*Mark this option for facilities that use cold boxes delivered from a higher facility level for monthly immunisation day(s).*[ ]  Vaccine storage and immunisation services[ ]  No vaccine storage, nor immunisation services: |
| 10 | Types of immunisation services provided | **Types of services:***Mark only ONE box*[ ]  Static services only*Mark this option when immunisations are provided at the health facility only.*[ ]  Outreach services only*Mark this option when immunisations are provided only via outreach such as mobile clinics, school-based services, or via a fixed post outreach service.*[ ]  Static and outreach services*Mark this option when immunisations are provided both at the health facility and via outreach.*[ ]  No immunisation services |
| 11 | Conditioned icepack or chilled water pack used per week for routine services | Enter the quantity of icepacks and chilled water packs used each week by size.

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| **Size (litres)** | **0.3** | **0.4** | **0.6** |
| Conditioned icepack |  |  |  |
| Chilled water pack |  |  |  |

Enter 0 if no static or outreach services provided  |
| 1—Health Facility Questionnaire *(continued)* |
| ***Supply chain information*** |
| 12 | Mode of vaccine supply | Mark ALL boxes that indicate how vaccines are supplied to this health facility:[ ]  Delivered: *Vaccines are delivered to this health facility by the vaccine store at a higher administrative level.*[ ]  Collected: Vaccines are collected by this health facility from the vaccine store at a higher administrative level.[ ]  Both delivered and collected: Vaccines are sometimes delivered to this health facility from the vaccine store at a higher administrative level and sometimes are collected by this health facility.[ ]  None: Respondent is unaware of how the vaccine is supplied. |
| 13 | Time and distance to vaccine supply point  | Please enter the number of **Hours** and kilometres (**Km**)that it takes a vehicle or person to travel to either deliver or collect vaccines for routine immunisation services. |
| 14 | Vaccine reserve stock requirement (weeks) | Indicate the number of **weeks** of vaccine working stock kept in reserve at the health facility to compensate for delays in supply or unexpected demand actually practiced by the health facility. * Do not automatically enter the national policy, but rather what the health facility actually experiences.

Write “N/A” only if this facility does not provide immunisations and does not serve a cold chain function.  |
| 15 | Maximum vaccine supply interval (weeks) | Enter the average number of **weeks** between vaccine shipments actually experienced by the health facility. * Do not automatically enter the national policy, but rather what the health facility actually experiences.
* Write “N/A” only if this facility does not provide immunisations and does not serve a cold chain function.
* Divide 52 by the number of supply visits in the last year.
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| 16  | Name of facility providing vaccine supply | If the vaccines are supplied by a facility other than the next higher level in the Administrative hierarchy, enter the main supply point here.  |
| ***Energy sources available to power cold chain equipment****Four power sources are generally considered for the cold chain: electricity, kerosene, gas, and solar. The available options for each facility are captured in the following five items.*  |
| 17 | Grid electricity availability | Mark only **ONE** box as appropriate: [ ]  More than 16 hours per day*Electricity is available for more than 16 hours each 24 hours, continuously or interrupted.*[ ]  8 to 16 hours per day*Electricity available for between 8 and 16 hours each 24 hours, continuously or interrupted.* [ ]  4 to 8 hours per day*Electricity available, but for less than 8 hours per day.* [ ]  Less than 4 hours per day*Electricity available, but for less than 4 hours per day.*[ ]  None |
| 18 | Electricity source | Mark only **ONE** box as appropriate: [ ]  Grid[ ]  Grid and generator[ ]  Generator[ ]  None |
| 1—Health Facility Questionnaire *(continued)* |
| *Depending upon supply constraints, ministry may choose to delete one or more of questions 19-21. For example, only evaluate the gas supply and solar options for facilities.* |
| 19 | Gas supply | Mark only **ONE** box as appropriate that reflects gas supply:[ ]  Available: *Reliable gas supply is available.* [ ]  Irregular: *Gas is available but the supply source is not reliable.* [ ]  Not available: *No available supply of gas cylinders*[ ]  Unknown  |
| 20  | Kerosene supply  | Mark only **ONE** box as appropriate that reflects kerosene availability in the last 6 months: [ ]  Available*Reliable kerosene supply that does not contain water or silt.* [ ]  Irregular*Reliable kerosene supply, but it contains water or needs filtering.* [ ]  Not available*No available or unreliable kerosene supply.* [ ]  Unknown |
| 21 | Solar energy | Mark **ALL** boxes that apply to the health facility’s site conditions: [ ]  Facility grounds shaded from sun more than 1 hr/day between 10 am and 4 pm*Facility is located under heavy canopy or in between tall buildings that shade the facility rooftop or grounds from direct sunlight for more than an hour any time from 10:00 to 16:00.*[ ]  Heavy clouds for longer than 2 weeks at a time*Facility is located in an area that experiences cloudy or overcast weather for 2 weeks at a time (such as a rainy season).* |
| ***Person responsible for cold chain at the facility*** |
|  | Write the name of the person responsible for the cold chain at the site, their designation, mobile number, and email address. |
| ***Cold Chain Inventory team leader’s information*** |
|  | Provide the printed name, mobile number, signature, and interview date of the cold chain inventory team leader.  |

**Form Name:** CCEIb

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| 2—Refrigerator and Freezer Questionnaire |
| **#**  | **Question**  | **Explanation** |
| 1 | Facility Code  | **Official ID of the facility from the Master Facility List (MFL) or other unique national code if available.** |
| ***Health facility location and name*** |
| 2 | Level 2 *(e.g., Province)* | **These fields are mandatory.**Information to identify facility within the administrative (geographic) hierarchy. |
| 3 | Level 3 *(e.g., Zone)* |
| 4 | Level 4 *(e.g., District)* |
| 5 | Health facility name | **This field is mandatory.** |
| 6 | EQUIPMENT RECORD\_\_\_\_\_ OF \_\_\_\_\_ | Fill in one data collection form for each piece of vaccine refrigeration equipment at the health facility. Please number each form accordingly (e.g. Equipment Record 1 of 3 or Equipment 2 of 3) and keep forms attached to facilitate data entry. |
| ***Refrigerator or freezer information*** |
| 7 | Model ID codeE\_\_\_\_\_\_\_\_\_\_ | Model ID code is available in Equipment Identification Guide. ID starts with the letter E003 for PQS prequalified equipment and E3 for PIS equipment. If model cannot be identified, complete questions #16-20.**Fill in questions #15-19 below when Model ID is not found in the Equipment Identification Guide. These questions should be answered only for equipment that is not prequalified by WHO (PIS or PQS systems).** |
| 8 | Serial number or unique identifier  | **This field is mandatory.**Find the serial number on the identification plate, usually on the back of the equipment near the base or inside the equipment. If the identification plate is missing or serial number is unavailable, assign a unique identification number, such as district identification letters and sequential number (e.g. NU001). Mark this identification number on the refrigerator with a pen. |
| 9  | Year of first installation | Enter the year that the equipment was first installed in the country, estimating the age if it was first installed at a different facility. Use the full format (i.e., 1999).If the immunisation staff does not know the year of first use, please approximate the year of supply by estimating the age of the equipment. |
| 10 | Working status  | Mark only **ONE** box. [ ]  Functioning*Equipment is able to operate and maintain correct temperatures. If refrigerator is not in operation, turn it on and check for cooling.* [ ]  Not functioning*Equipment is not operable and repairs are needed to maintain the required temperature range. Please report in box #11 the type of servicing or repair required, if appropriate.*[ ]  Unserviceable*Equipment is not operable and repairs are not feasible and equipment should be decommissioned.*[ ]  Not yet installed |
| 2—Refrigerator and Freezer Questionnaire *(continued)* |
| 11 | If “Not functioning”, select reason | If ‘Not functioning’ is marked, please register details on reasons for this working status by checking all boxes that apply.[ ]  Spare parts are not available for repair [ ]  Finance for repair is not available [ ]  Lack of electricity or fuel [ ]  Equipment is surplus[ ]  Equipment needs to be decommissioned[ ]  Other reasons (please note these in comments section) |
| 12 | How is temperature monitored? | Mark only **ONE** boxSpecify the kind of temperature monitoring device found in the refrigerator/freezer that is used register and record storage temperatures.[ ]  No monitoring device[ ]  Dial thermometer[ ]  Stem thermometer[ ]  30-day temperature recorder (e.g., FridgeTag™)*Check box if FridgeTag™ has been installed by visiting team.*[ ]  Remote temperature monitoring (RTM) |
| 13 | Power source used by equipment | As cold chain equipment can often use different power sources, please select the primary source being used by the equipment.Mark only **ONE** box[ ]  Electric[ ]  Kerosene[ ]  Unknown[ ]  Gas[ ]  Solar |
| 14 | If running on electricity, is there a voltage regulator | Lack of voltage regulators can lead to higher maintenance needs and damage to equipment.Mark only **ONE** box[ ]  Yes[ ]  No[ ]  Unknown[ ]  Not applicable (equipment non-electric) |
| **Only when the equipment is not found in the Equipment Identification Guide and therefore a model ID is not available (field #7), should data fields #15-19 be completed.** |
| 15 | Model  | **This field is mandatory.**Find the refrigerator model on the identification plate, usually on the back of the equipment near the base or inside the equipment. **If this information is not available, write “unknown.”** |
| 16 | Manufacturer  | **This field is mandatory.**Find the manufacture / make name on the identification plate, usually on the back of the equipment near the base or inside the equipment**. If this information is not available, write “unknown.”** |
| 2—Refrigerator and Freezer Questionnaire *(continued)* |
| 17 | Storage type | Some refrigerators can be used for dual purposes. Mark only **ONE** box[ ]  Refrigerator[ ]  Freezer[ ]  Combination refrigerator and freezer |
| 18 | Refrigerator/Freezer type | Refrigerator and Freezer types must take into account power source of equipment. Refrigerator/Freezer types include:[ ]  Compression - electricDomestic refrigerators, often sold for food storage are compression-electric refrigerators.Icelined refrigerators are operated by electricity but have a hidden icelining that allows for safe vaccine storage with >8 hrs of electricity per 24 hours. These are compression-electric refrigerators.[ ]  Compression - solar *Solar refrigerators can be identified by the associated solar array. They may or may not have a battery for backup power. All solar refrigerators are cooled by a compression system.*[ ]  Absorption*If equipment is powered by kerosene or gas AND electricity, it is an absorption type refrigerator.* |
| 19 | Internal storage dimensions (Measure with provided tape in cm) | Inspect refrigerator for an identification plate with a designation of gross volume data by the manufacturer, often located near the base or inside the compartment. If found, enter the Gross weight below and further measurements are not necessary.If gross volume data is not designated on the equipment, measure internal dimensions with the provided tape measure, excluding the door shelves and the vegetable drawer(s), at the base of the refrigerator and record these measurements in cm for Length (L), Width (W), and Height (H).

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|  | L | W | H | Gross |
| +4°C |  |  |  |  |
| -20°C |  |  |  |  |

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| 20 | Calculated internal storage volumes (litres) | Leave blank – for use by national team only. |
| ***Person responsible for cold chain at the facility*** |
|  | Write the name of the person responsible for the cold chain at the site, their designation, mobile number, and email address. |
| ***Cold Chain Inventory team leader’s information*** |
|  | Provide the printed name, mobile number, signature, and inventory date of the cold chain inventory team leader. |