# WASH KAP Global Tools Survey manager training

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Aims of the training

- Get an overview of a WASH KAP survey;
- Learn about the prerequisites and what needs to be taken into account;
- Learn how to use the global tools made available by UNHCR;
- Learn how to use Mobile Data Collection to run a survey.

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Agenda of the training

- **Day 1:**
  - Introducing the WASH Monitoring System;
  - Overview of the WASH KAP Toolbox;
  - Presenting the Global KAP form;
  - First overview on Mobile Data Collection;
  - Review of the WASH KAP Survey.

- **Day 2:**
  - Presenting the WASH KAP key indicators;
  - Overview of mobile settings for an optimal data collection;
  - Prerequisites for a successful KAP deployment
  - Standardisation WASH KAP scenario.

Agenda of the training

- **Day 3:**
  - Introduction to Kobo Toolbox (survey management platform);
  - Deploying your WASH KAP form to the mobile;
  - Sharing rights & SOPs;
  - Analysing WASH KAP data.
- **Day 4:**
  - Pilot site;
  - Debriefing of pilot site;
  - Analysing the data from the pilot site.
- **Day 5- *reduced group*:**
  - Adapting the form to local context (advanced technical coding session).

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What this training will *not* cover

- KAP sampling strategy;
- Budgeting your KAP;
- As :
  - You have all already done KAP surveys;
 - the documentation is very complete and ready to use on the WASH website ☺

Figure 1: Random sampling methodologies
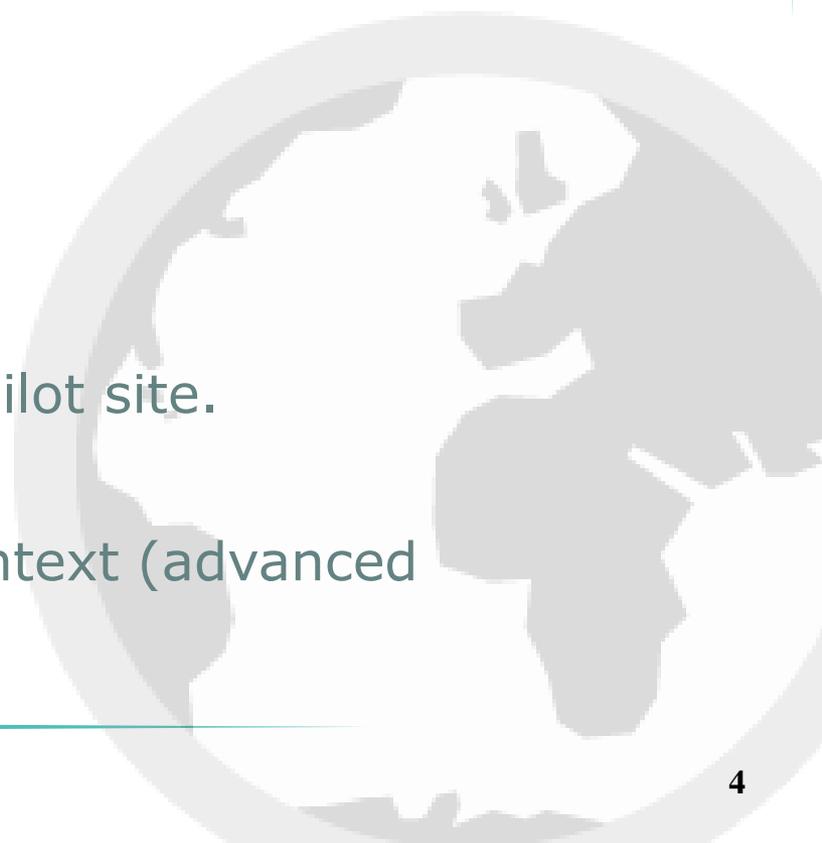
Getting to know each other

Prepare a paper where you write:

Your name *(what you would like to be called during the training)*	Your organisation, position & location
Three words defining a KAP survey (or other quantitative survey) you may have participated in in the past	Your favourite leisure activity

Training rules

the UNHCR WASH Monitoring System

What is the WASH Monitoring system?

GIS Portal
Publicly accessible website and database.
Borehole data includes information on infrastructure, hydrogeology, lithology, and water quality.
Registered users can upload data to the website.

Monthly Report Card
Online data repository.
Secondary data collated from partners.
Registered users can upload data to the website.
Eight access indicators.
Emergency and non-emergency forms available.

Annual Household Survey:
Knowledge, Attitudes and Practices (KAP)
Standardized approach to primary data collection and analysis.
Publicly accessible resources including xls forms
and analysis tools available.
Nine household indicators.
Rapid survey tools available for emergencies.

The associated UNHCR Standards

Alignment to SDG (Sustainable Development Goals):

Universal and **equitable** access to **safe** and **affordable** drinking water (6.1), and **adequate** and **equitable** sanitation and hygiene for all, ending all practices of open defecation (6.2).

Standards for **Non-emergencies**

Designed for **refugee/displacement settings**, but applicable to other settings.

Links to SPHERE

Sector	Related Standard
Water supply	People have equitable and affordable access to a sufficient quantity of safe water to meet their drinking and domestic needs.
Hygiene	People are aware of key public health risks related to water, sanitation and hygiene, and can adopt individual, household and community measures to reduce them
Menstrual Hygiene	Women and girls of menstruating age, and males and females with incontinence, have access to hygiene products and WASH facilities that support their dignity and well-being
Sanitation	All excreta is safely contained to avoid contamination of the natural, living, learning, working and communal environments.
Solid Waste Management	People can safely collect and potentially treat solid waste in their households.

Types of Indicators

Progress indicators which allow for measurement of progress towards the standard (e.g. % of households)

Target indicators- specific quantifiable targets that represent the minimum below which the standard is not being met (e.g. number of liters per person per day).

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GIS Portal (*borehole database*)

It displays the **boreholes** assessed by the WASH focal points in the different sites. The data can be displayed and edited through an online form or imported in bulk. Accessible at <u>wash.unhcr.org</u>
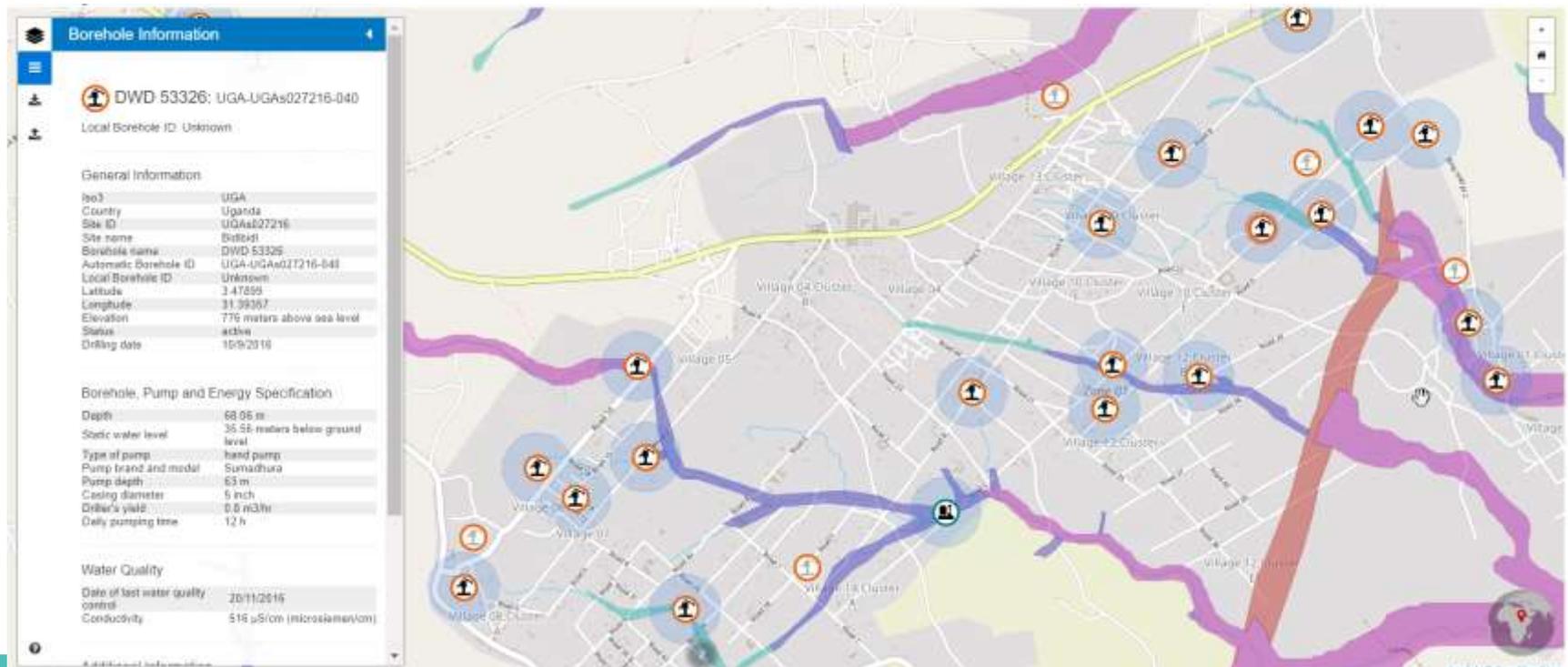
Examples of how data is used

- Infrastructure **asset management:**
  - where to convert diesel driven pumps to solar pumping;
  - what type of pumps (bulk procurement of spare parts);
  - handover to government;
  - reopening of former camps.
- **Monitoring:**
  - water quality parameters;
  - groundwater levels.
- Used for **1 WASH access indicator.**

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WASH Monthly Report Card (iRHIS)

- Used for **8 WASH access indicators ;**
- Data entered in online platform (his.unhcr.org) by WASH staff;
- Contact HQ for access (barrenbe@unhcr.org) if no WASH officer/WASH focal point in country.

The WASH access and HH indicators

WATER

- Average # of litres of potable water available per person per day
- Average # of litres per person per day of potable water collected at household level
- % of households with at least 10 litres/person potable water storage capacity
- Maximum distance in meters from household to potable water collection point
- Number of persons per usable handpump / well / spring
- Number of persons per usable water tap
- % of households collecting drinking water from protected/treated sources
- % of water quality tests at non chlorinated water collection locations with 0 CFU/100ml
- % of water quality tests at chlorinated collection locations with Free Residual Chlorine in the range 0.2-2mg/L and turbidity <5NTU

SANITATION

- Number of persons per toilet/latrine
- % of households with household toilet/latrine
- % of households reporting defecating in a toilet
- % of households with access to a solid waste disposal facility

HYGIENE

- Number of persons per bath shelter/shower
- Number of persons per hygiene promoter
- % of households with access to soap
- % of recipients who are satisfied with menstrual hygiene management materials and facilities

WASH INDICATORS

The regular monitoring and reporting of core WASH indicators is an essential activity in every refugee setting to ensure that basic human needs are met. Through the WASH Monitoring System UNHCR tracks 17 key indicators on water quantity, quality, accessibility, hygiene and sanitation services,menstrual hygiene, and solid waste management. These indicators allow UNHCR to measure progress and calculate service levels to compare against international and national targets.

DATA SOURCE

- Monthly Report Card
- KAP and Rapid Survey
- GIS Portal

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WASH KAP global tools overview

Exercise

Can you share from your own KAP experiences:

- Things you did that you would recommend others do? [yellow post-it]
- Challenges that you encountered? [pink post-it]
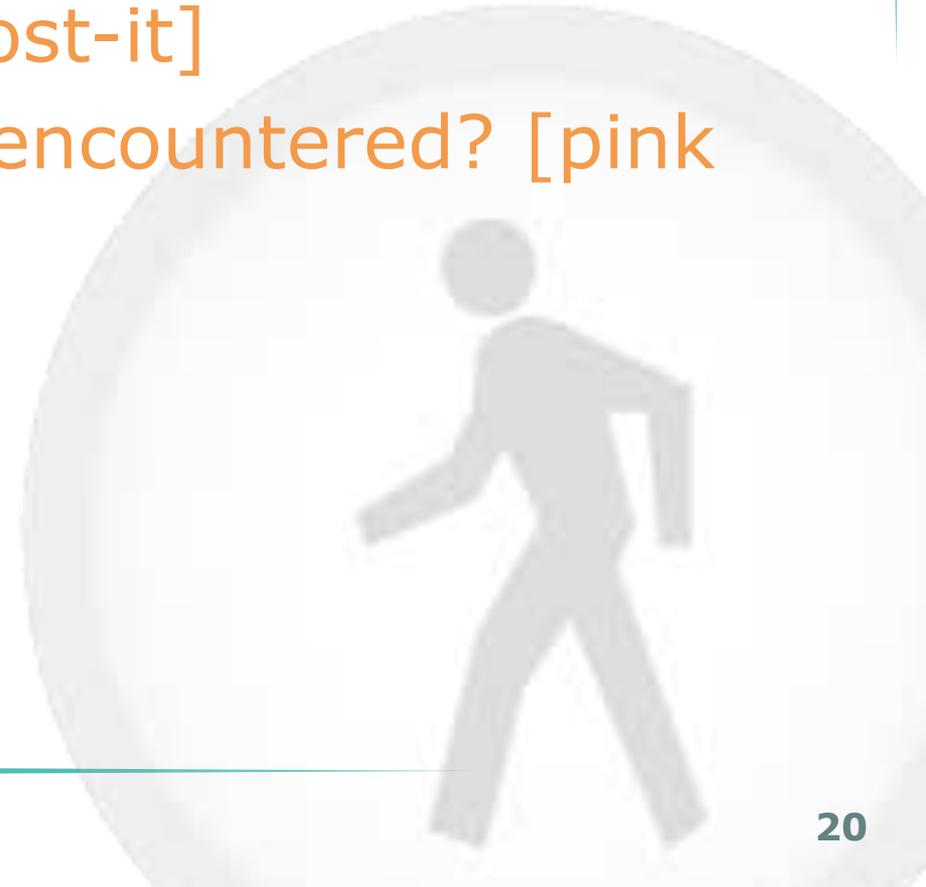
The WASH KAP in the WASH Monitoring system

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Why WASH KAP surveys?

- **Access indicators** tell us what we provide;
- **Household indicators** tell us what PoCs receive;
- KAP surveys measure household indicators;
- Example:

  if UNHCR provides 100 l of water to 4 persons, how much does each of them get?
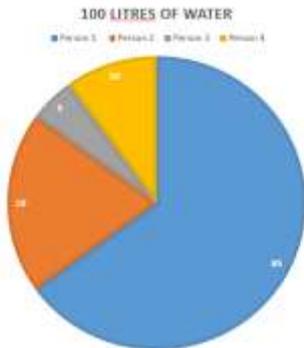
Or?
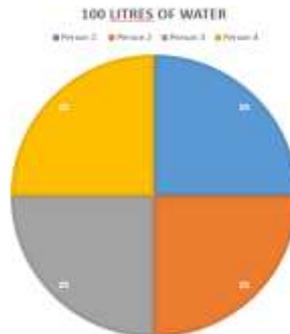
WASH KAP Survey : Definition

- **K**nowledge
- **A**ttitude
- **P**ractice

- Carried out by UNHCR and local partners in **every camp;**

- Objective is **once a year.**

STANDARD WASH KAP SURVEY:
MONITORING HOUSEHOLD INDICATORS

Click for more information

CAMP DE RÉFUGIÉS DE TABAREYB

UNHCR indicator status
- Met: >= 20l
- Borderline: 10-20l
- Not met: < 10l
- No data

200 m

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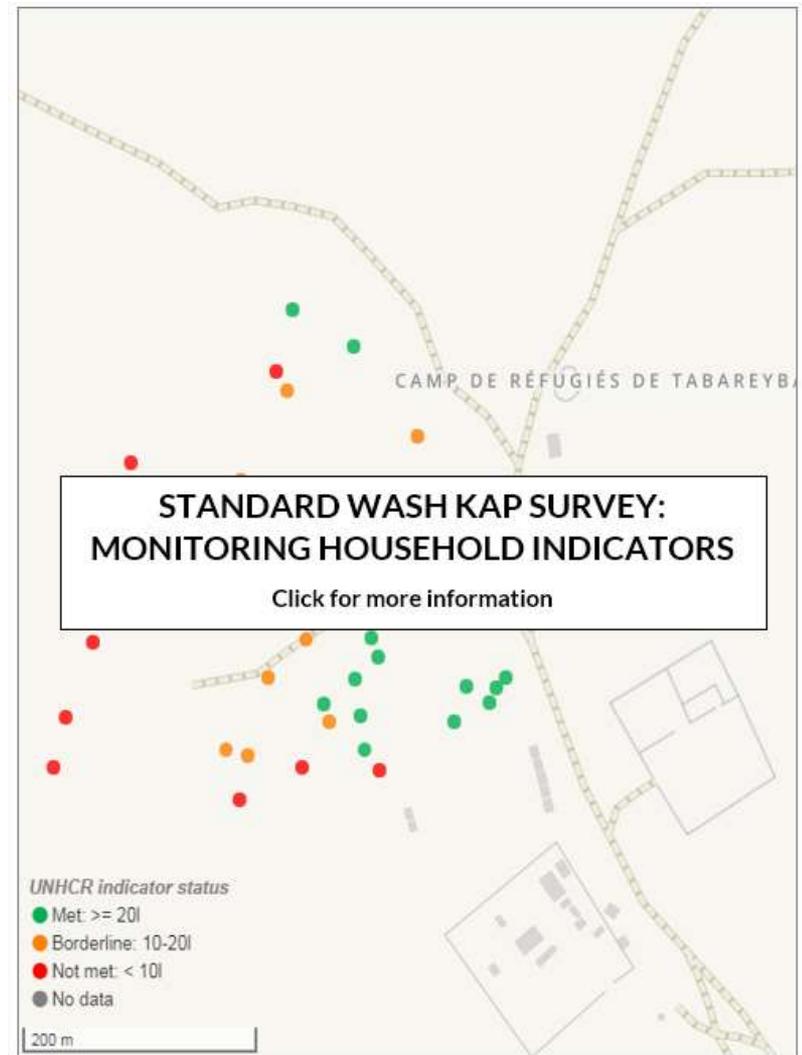
WASH KAP Survey : Objectives

- Collect the data for **planning**: prevalence of indicators/risks;

- **Prioritise** interventions;

- Evaluate the **impact** of the programmes;

- **Advocate** for an intervention.

Quotes from the Kenya KAP reports

- Quality of data from household questionnaires – this is tied to the limited time frame in recruitment of enumerators. During data entry we noted some anomalies that made us suspect some compromise in data collection among some enumerators. For example, some enumerators skipped vital questions while some questionnaires had very similar responses.

2.2.4 Data Processing and Analysis

Upon completion of the interviews in the field, the questionnaires were coded for entry into SPSS database. The initial step was cross-examining the data after fieldwork. This helped to ascertain the accuracy, completeness and uniformity of the data collected. In analysis of the quantitative data, descriptive statistics was generated including frequencies. This information was further presented in

The survey sought to establish the beneficiaries' knowledge on when and how to wash hands. This was gauged using multiple options that Focus on the critical hand washing times. The outcomes were as follows:

Table 9: Hand Washing Practices

When to wash Hands	Responses		% of Cases
	n	%	
After visiting Latrine	276	23.8	66.8
After changing baby's diaper	109	9.4	26.4
Before Food Preparation	226	19.5	54.7
Before Eating	317	27.3	76.8
Before Feeding Children	106	9.1	25.7
Before Prayers	127	10.9	30.8

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Why standardize the WASH KAP?

Improved **data quality** for partners:
- Rigorous methodology;
- Strong form design.

Streamlined data flow;
Comparable data between camps & over time with easy to use analysis tools.

The history of the standardised tools

- 2015: two first **pilot** sites (Rwanda & South Sudan)
- 2016-17:
    – First version of the **tools and documentation**;
    – **Training of survey managers** in Niger, Ethiopia, Cameroon, Chad (+ specific implementation mission in Republic of Congo);
- 2018:
    – Burkina Faso, Uganda, Sudan, Bangladesh;
    – Updated version of the documentation & tools;
- 2019:
    – Kenya (ongoing), Tanzania, Irak, Malawi.

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The tools

- 3 tools:
  - One standardised – and adaptable- **mobile template of form**
  - 2 analysis tools:
    - **WASH KAP Excel tool**
    - **WASH KAP mapper**

- A **documentation package** to help you along each step of the way, available on: http://wash.unhcr.org/wash-monitoring-system/

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What is the WASH KAP mobile template?

This tool is set up in **XLSform**, a format compatible with many mobile data collection tools, in particular Kobo /ODK;

It includes **instructions** on its use.

Adaptations to local context

This tool being first and foremost for operational needs, it is **adaptable to local context**:

– **Languages** can be added;

– A number of **optional questions** to be chosen from (or added if the relevant questions are not present);

– Question list of answers can be **adapted.**

A	B	C
list name	name	label::English
illnessprevent	1	Boil or treat your water/drink clean water
illnessprevent	3	Wash hands with soap and water
illnessprevent	4	Cook food well
illnessprevent	5	Wash fruits and vegetables
illnessprevent	6	Cleaning cooking utensils
illnessprevent	7	Clean home with bleach
illnessprevent	8	Use toilet/latrine facility to defecate
illnessprevent	9	Dispose of children's faeces in toilet/latrine
illnessprevent	10	Bury faeces
illnessprevent	11	Receive a vaccine
illnessprevent	12	Store water safely
illnessprevent	13	Breastfeeding babies
illnessprevent	14	Cover food
illnessprevent	96	Other
illnessprevent	98	Don't know
latprivreason	1	Infrastructure/door is poor or damaged
latprivreason	2	Lock missing/not working
latprivreason	3	Too close to the house
latprivreason	96	Other
latrinetype	1	Flush or pour/flush toilet
latrinetype	2	Pit latrine
latrinetype	3	VIP Toilet
latrinetype	4	Composting toilet
latrinetype	5	Bucket toilet
latrinetype	6	Hanging toilet/latrine
latrinetype	96	Other
latrinetype	0	None

The WASH KAP Excel Analysis tool

- Automated calculations of all **key indicators;**

- An easy to use / out of the box tool to **rapidly create graphs** (pie or bar charts) of all the data of the survey, with disaggregation possibilities.

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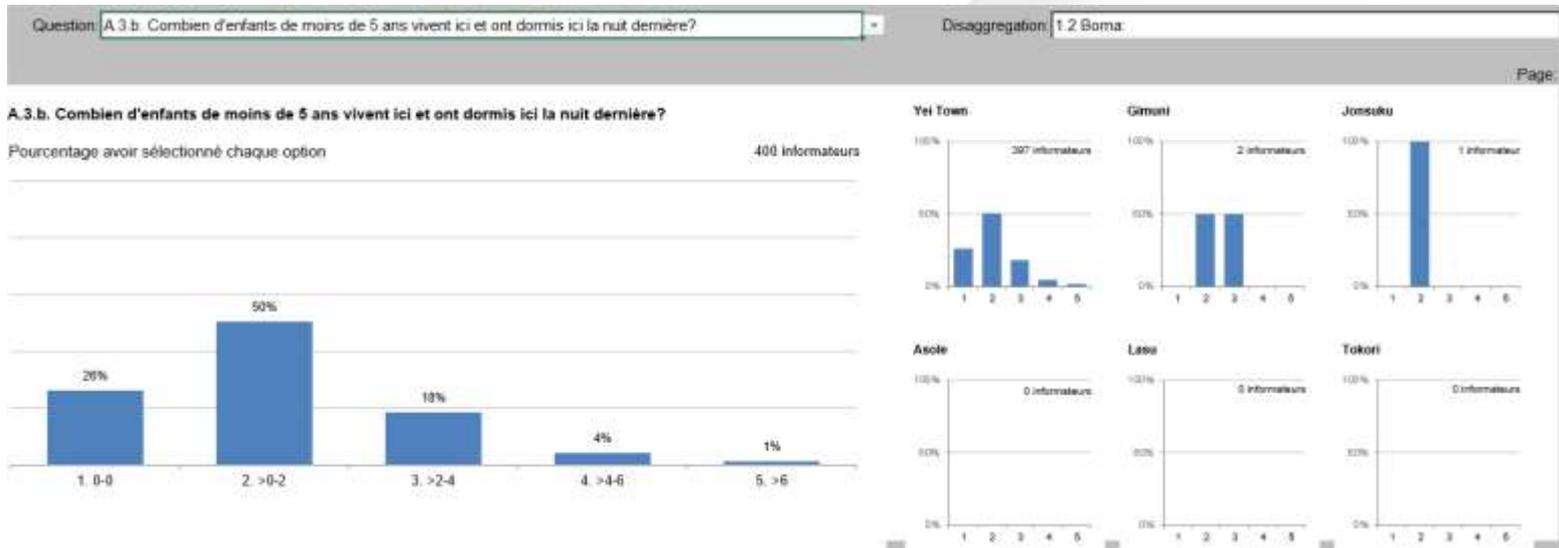
The WASH KAP Mapper

Visualise the results of certain key indicators **on a map**.

Average L/p/d of potable water collected at household level
Tabareybarey / Niger

UNHCR

UNHCR indicator status
- Met: >= 20l
- Borderline: 10-20l
- Not met: < 10l
- No data

300 m

Survey date: 14/11/2016 - 15/11/2016 | Source: UNHCR WASH KAP, OSM contributors | The boundaries and names shown and designations used on this map do not imply official endorsement or acceptance by the United Nations.

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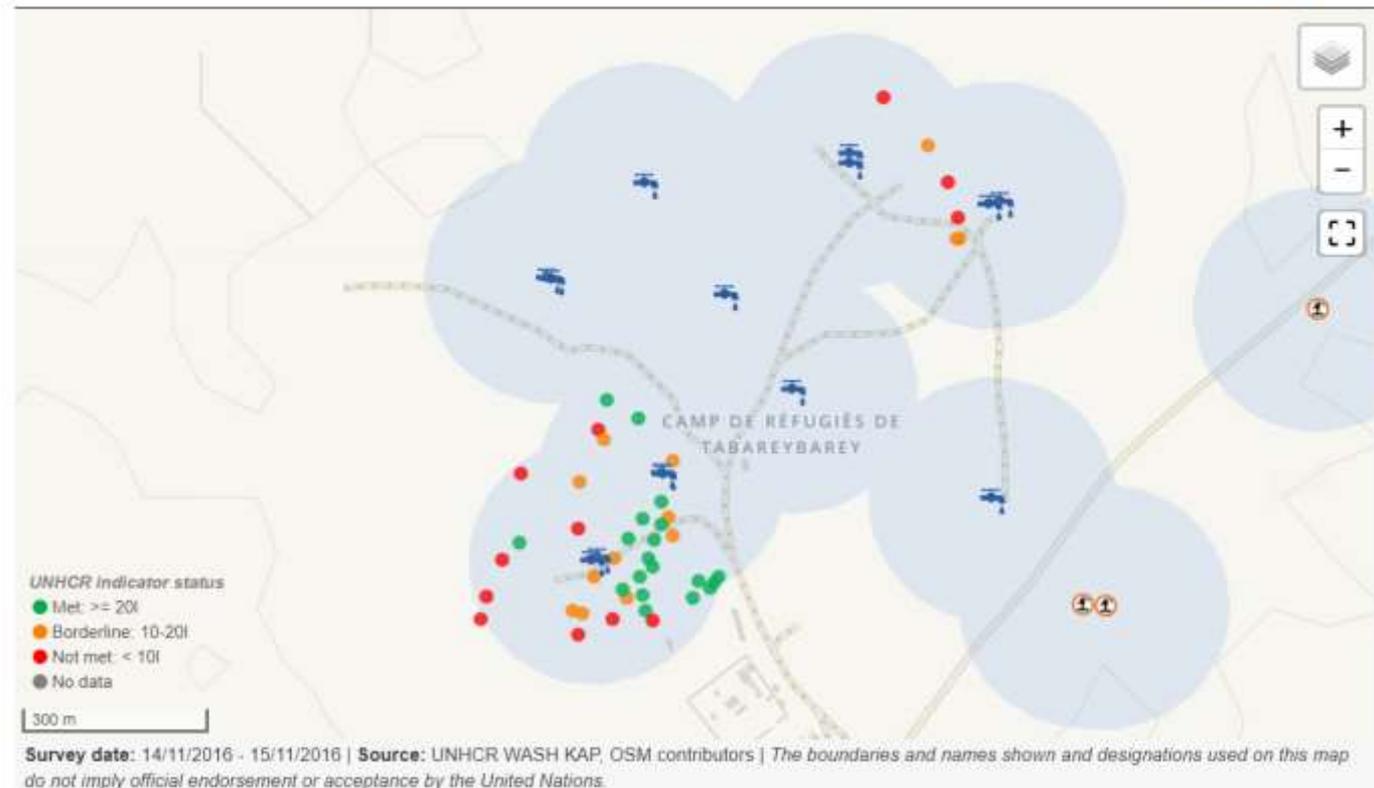
The WASH KAP paper form and first discovery of the mobile WASH KAP form

Let's go over the paper form
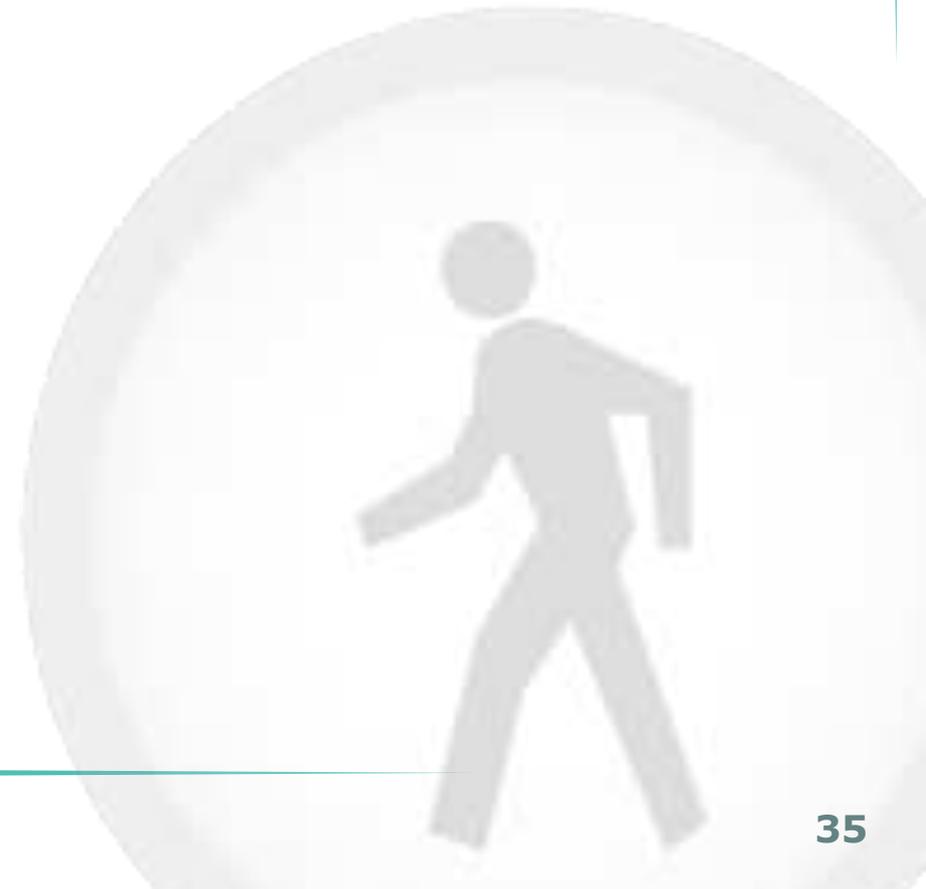
Exercise 1

- Let's go over the WASH KAP mobile form together!
- Open ODK
- Click on « fill blank form »
- Select the Global form and explore the form by swiping through the form!
- Mark down all potential comments you might have on the form.

Overview of Mobile Data Collection

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What is mobile data collection (MDC)?

- MDC: **using phones** (mostly smartphones or tablets) **for data collection** instead of paper forms.
- Wide range of solutions depending on the **operating system**, the **requirements** (SMS, export formats, online/offline, cloud storage, paying or not…).
- Tested by CartONG since 2009, used at a large scale since 2010.

Introduction to OpenDataKit (ODK)

- **Most well knows MDC solution** in the humanitarian sector.
- Open source solution for **Android**:
  - Widely used;
  - Basis for numerous systems;
  - Powerful and flexible;
  - Secure storage on your own servers possible.

- **Different deployment profiles possible** (offline with USB, offline on local network, online, etc.)
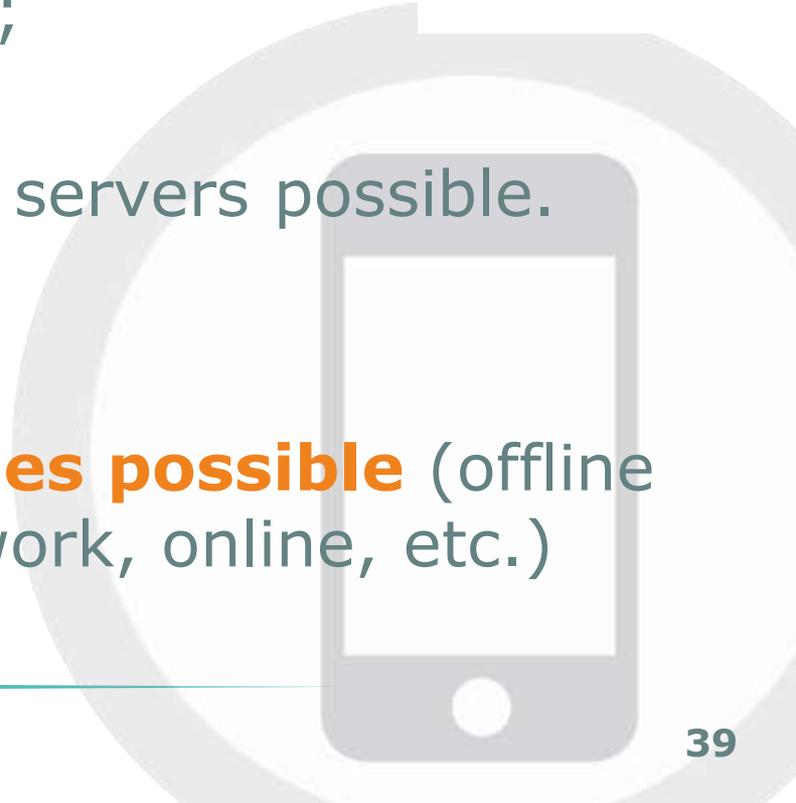
History of the technology

First integrated system PDA-GPS
Garmin iQue 3600

First **PDA** (Personal Digital Assistant) mass-produced
Palm Pilot

Smartphone
(PDA + email)
Blackberry 5810

First **tablet**
Mass-produced
Ipad

Tactile screen
Iphone

First mobile
Motorola DynaTAC 8000X

First portable
GPS
Garmin Etrex

Android
(Open source operating system)
HTC G1

First mobile mass-produced
Nokia 1011

First mobile using
WAP
(Wireless Application Protocol)
Nokia 7110

First mobile with
3G (better bandwidth)
Nokia 7110

1983 1992 1996 1998 1999 2002 2003 2007 2008 2010

MDC for Public Health (UNHCR)

First deployment

- Kenya: Mosquito Net SENS form, ODK (Open Data Kit) 2010, UNHCR
- Tool used: ODK Collect and Aggregate

Since then, tens of deployments!
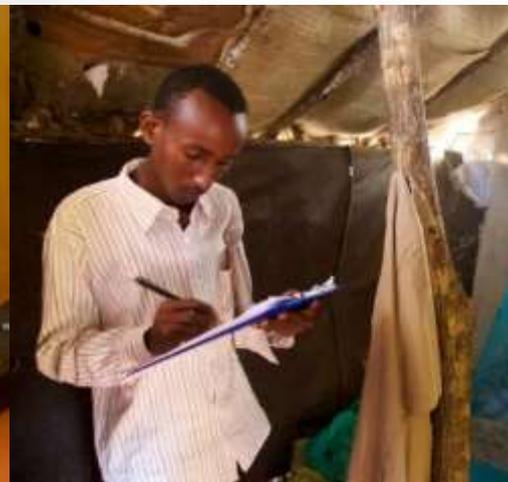
Field photos: Sara Hoibak, UNHCR consultant

Exercise 2

Take 10 minutes in groups of 7-8 to identify as many **advantages** and as many **disadvantages** of **using MDC compared to paper data collection** as possible.

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Exercise

Advantages of MDC
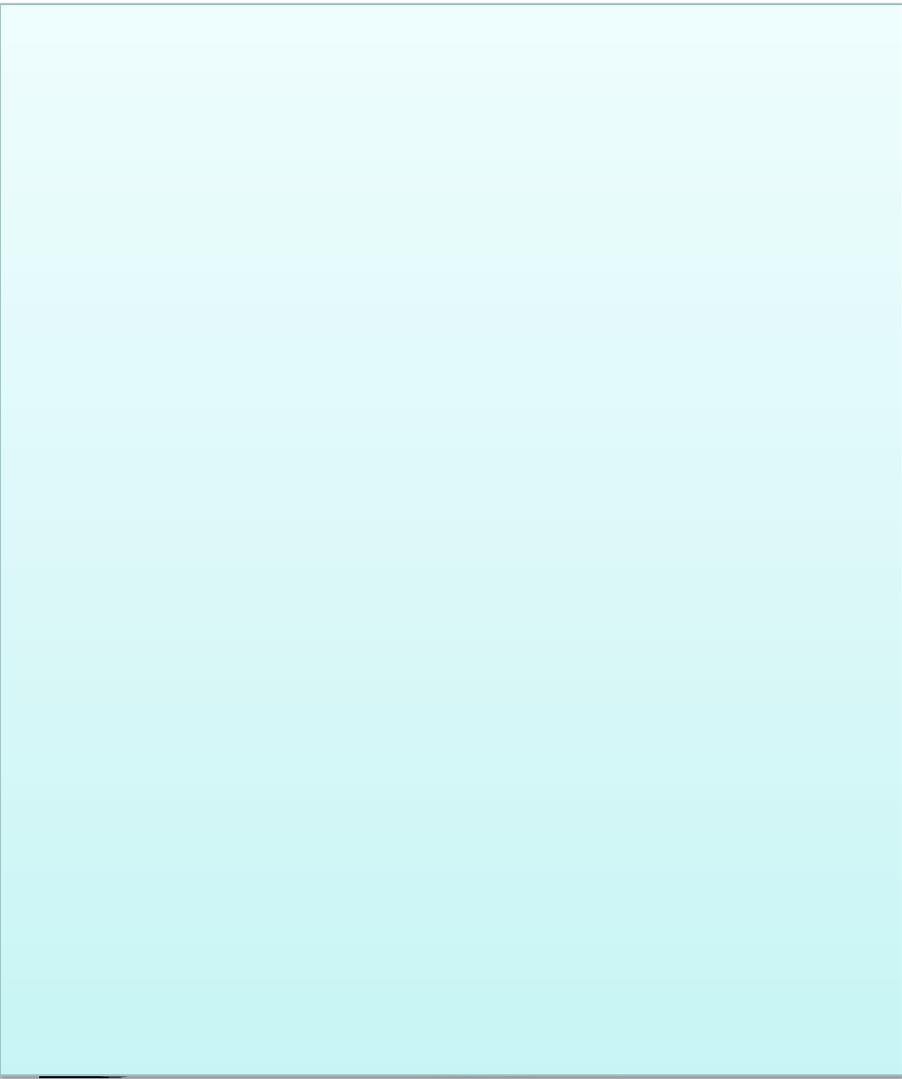
Disadvantages of MDC
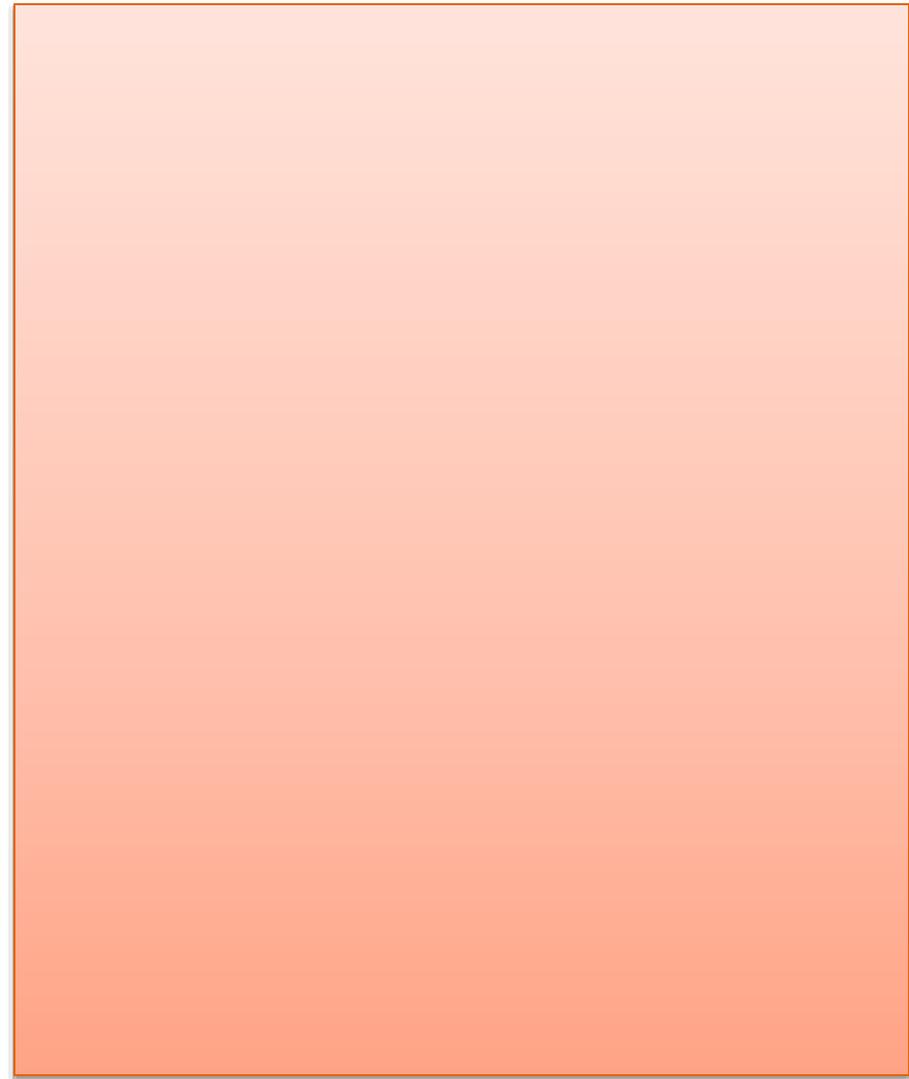
Mobile vs paper

VS

MDC Advantages

Improved data quality and analytical capacities with integrated calculation, data validation constraints, skip logic, ...

Integrated tool to collect different types of multimedia: GPS points, pictures, signatures, audio recordings, barcodes, ...

Time saving: easier and faster analysis

Better day-to-day monitoring of the data collection process and possibility of remote access to data

Cost saving in the long run: less HR resources (no need for data entry clerks)

Centralized online archiving: reduced risk of data loss if well managed

Interviewers go lighter in the field

MDC Disadvantages

Longer preparation phase for designing, coding and testing the survey

Can be intimidating and create distance with the person interviewed. Not appropriate in some contexts

Can be a safety issue for staff in some contexts (targeting, theft)

Requires more tecnical skills in the project system implementation (longer training, adapted skills)

Fragile and expensive devices at first and risk of technical issues

Dependence on electricity for use and internet connexion for data synchronization

Not adapted for qualitative surveys

Data collection workflow (time spent)

MDC versus paper-based data collection workflow
approximative time spent at each step

The phases of an MDC
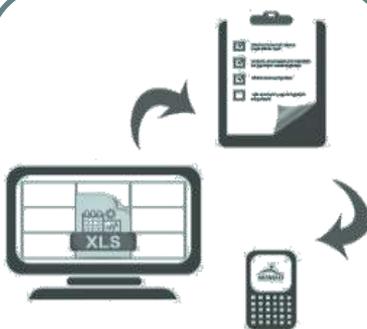
Design
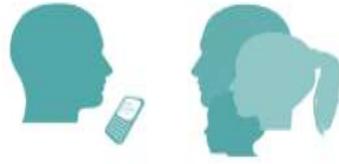
Collect
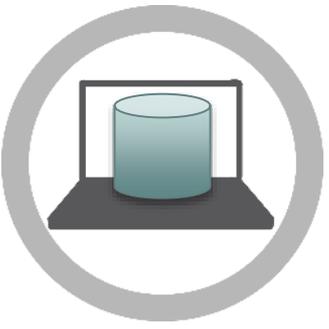
Manage

Analyze

XLSForm / Kobo Builder
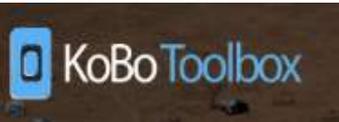
ODK Collect

UNHCR Kobo Toolbox

WASH KAP Analyser
WASH KAP Mapper

The tools

Kobo Toolbox
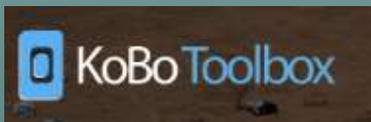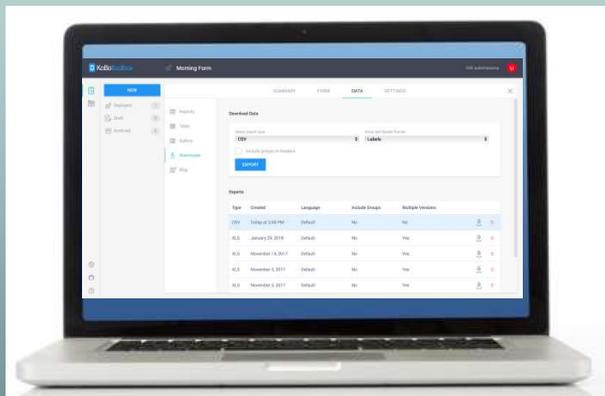
ODK Collect

Sending blank forms

Sending Results

Install ODK Collect on your phone

- NB: ODK Collect is only available on Android phones!!
- Go to the Google Playstore.
- Download « ODK Collect ».

Connect your phone to Kobo

You need to set your Kobo address on the phone to download a new form:
https://kobocat.unhcr.org/unhcr_wash_demo
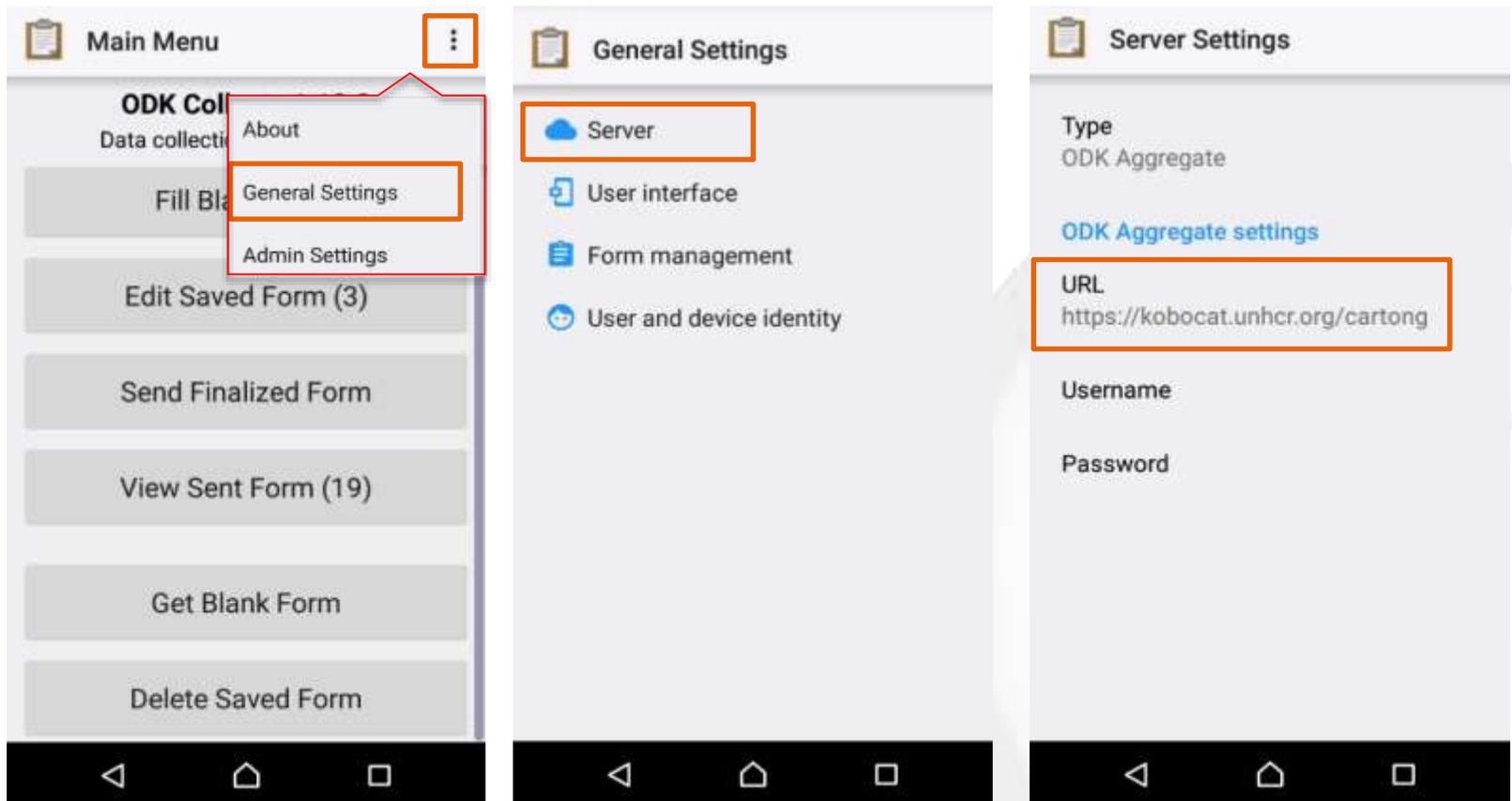
ODK: Download a new form

1. Make sure you to have the wifi ON.
2. Click on "Get blank form".
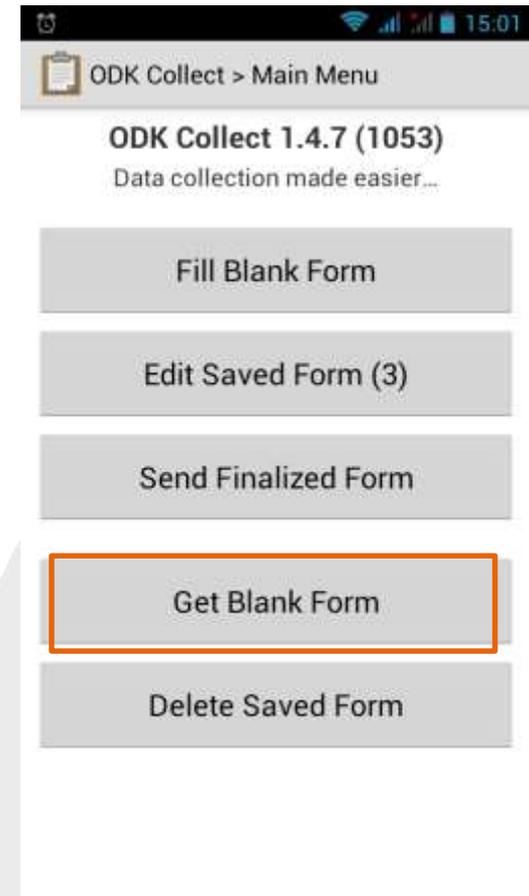
ODK: Fill a blank form

- This is the feature through which enumerators enter data.
- Only one form should be there during a deployment, the WASH KAP latest version
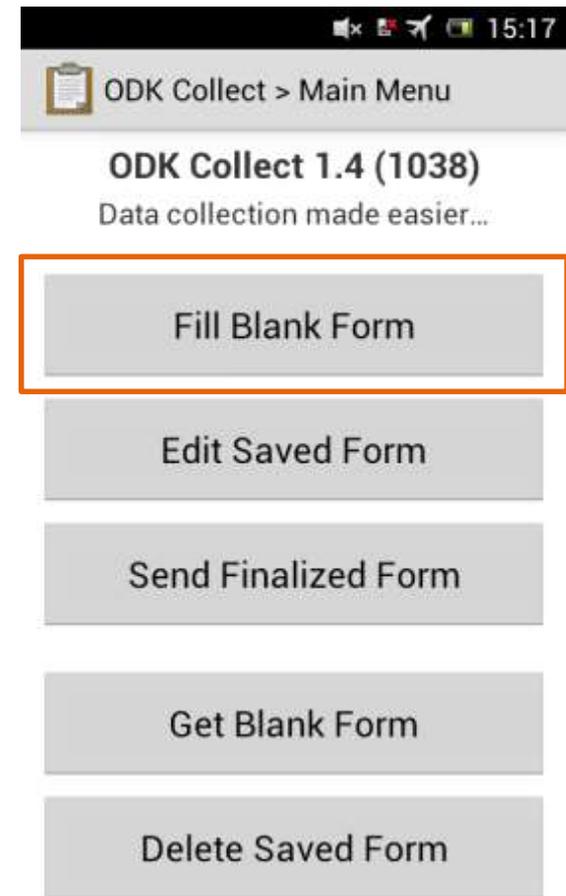
ODK: Browsing through the form

When you are in the form, to go to the next question of the form you can either "swipe" the screen with the finger, or use the button at the bottom of the screen.
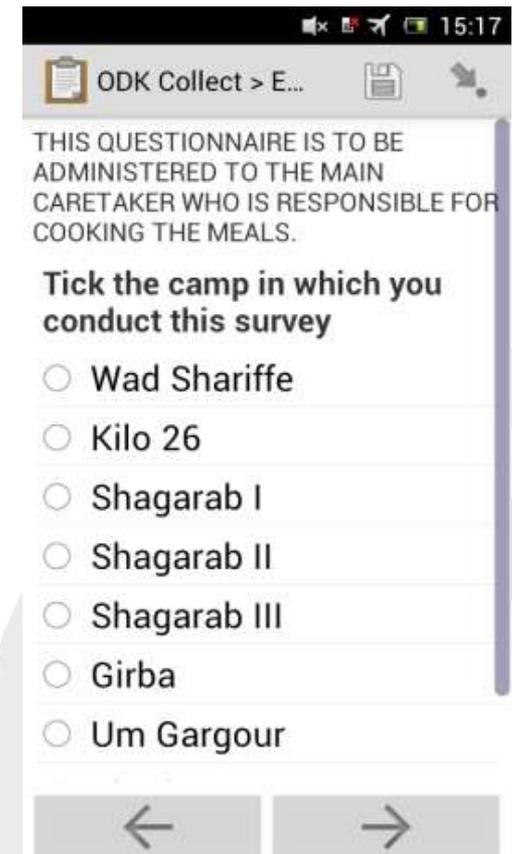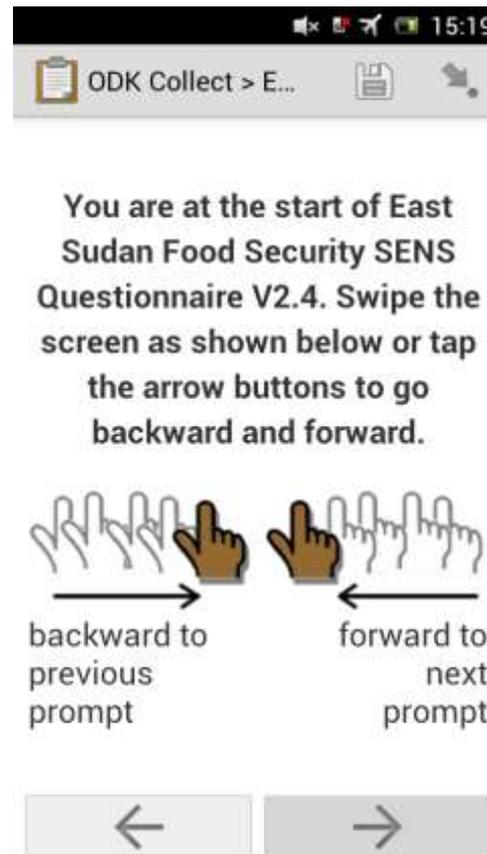
ODK: Changing the language

1. Open the form
2. Click on the Menu button
3. Choose "language"
4. Select your language
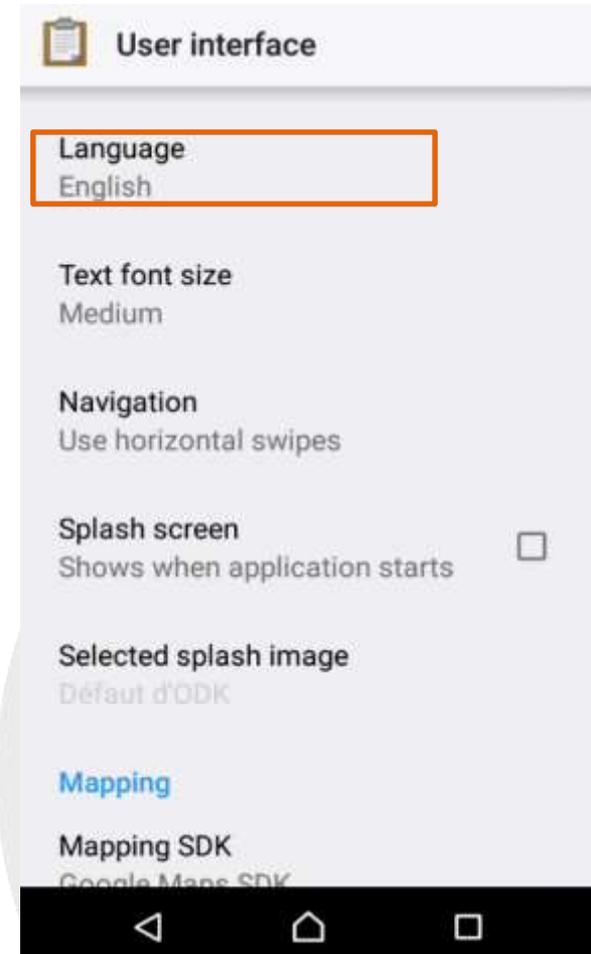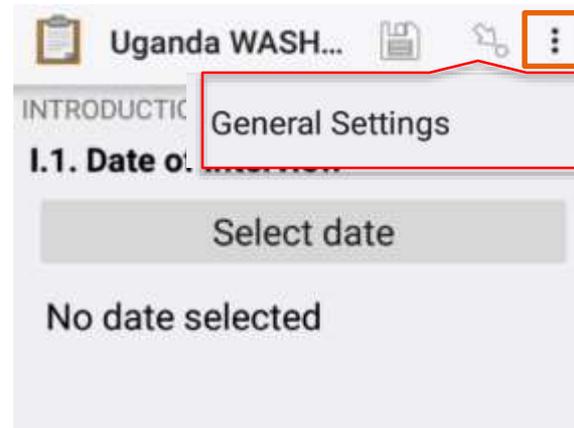
ODK: Select an option

- This is an example of selecting one of the items on the form.
- When there is a circle (radio button), only one can be checked.

ODK: Enter numbers/text

- This is an example of where an enumerator would fill out a form with text.
- The enumerator can use the key pad on the screen, or the phone key pad.
- For some fields, **only** letters can be used, and for other fields, **only** numbers can be used. Ranges can be set by managers.
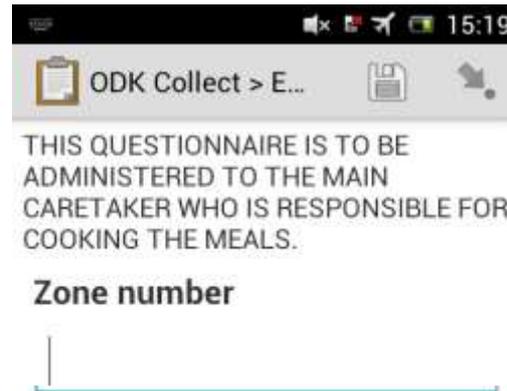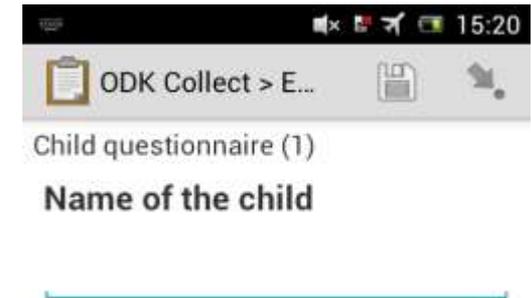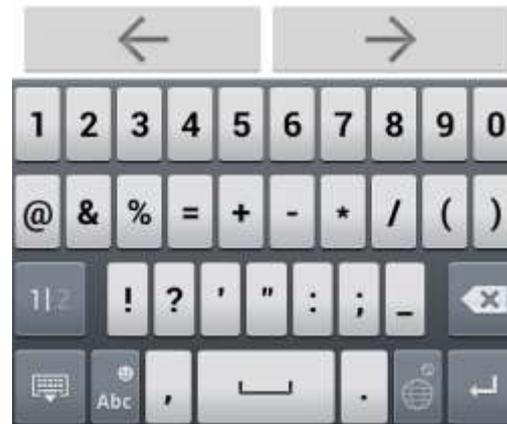
ODK: Review data

You can review saved data, by pressing the "Edit Saved Form" button in the main menu before it is sent to the server
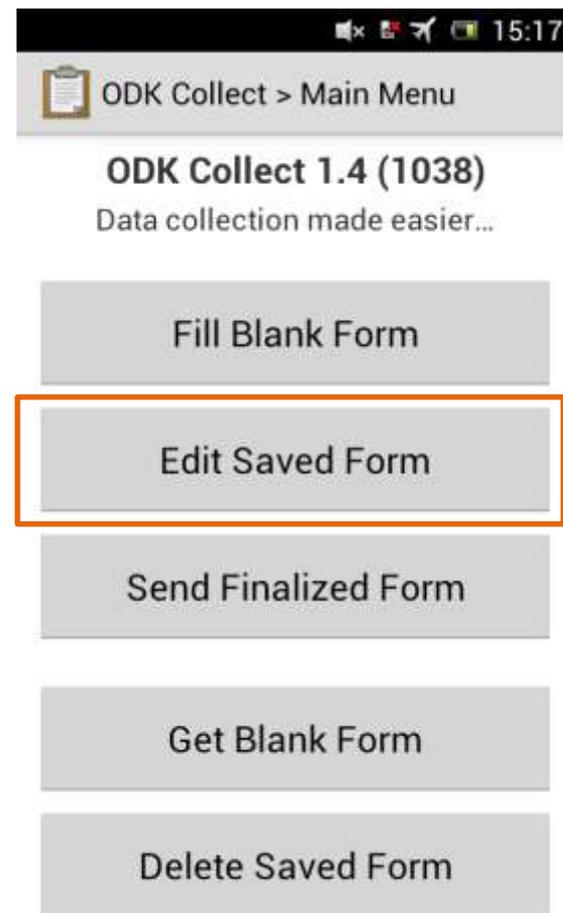
ODK: Send finalized form

Once you reviewed data you can then send the form through the "Send finalised Form"
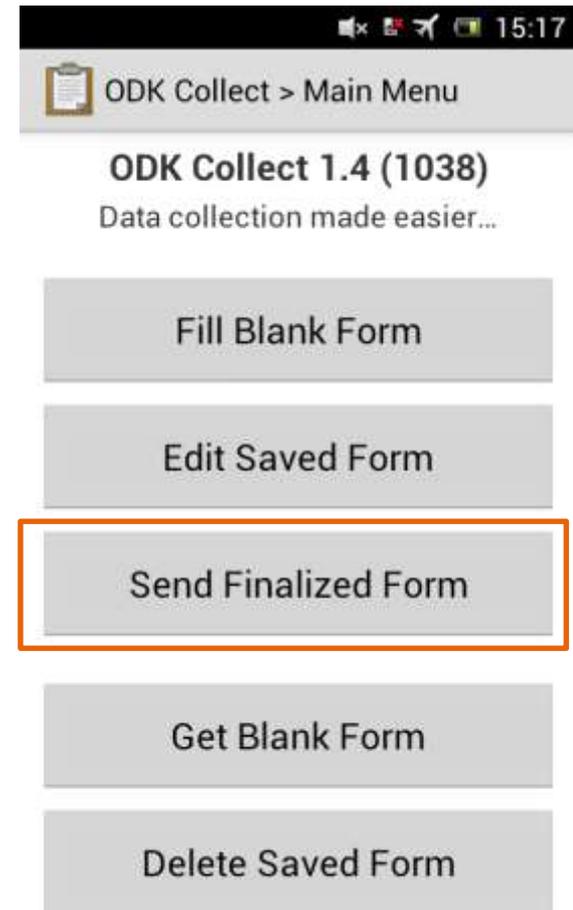
Understanding the indicators behind the WASH KAP form

Introduction

- Note that most explanations can be found:
  - In the Excel Analysis tool.
  - In the « Manual: 2b - WASH KAP - Indicators and questions » document available on http://wash.unhcr.org/download/wash-kap-survey-module-0-general/

- Here we further explain the 9 main and 4 secondary WASH KAP indicators in the WASH KAP Excel Analyser.

Indicator 4 – Quality of water (potable vs non potable water)

Calculating the % of HH collecting potable water

- **The Households are asked from which main source they collect water to drink;**
  - They can choose from the following list (only one choice): *1. Public tap/standpipe; 2. Handpumps/boreholes; 3. Water seller/kiosks; 4. Piped connection to house (or neighbour's house); 5. Protected spring; 6. Bottled water, water sachets; 7. Tanker truck from a protected source;* 12. Tanker truck from an unprotected source 8. Unprotected hand-dug well; 9. Surface water (lake, pond, dam, river); 10. Unprotected spring; 11. Rain water collection; 96. Other; 98. Don't know;
  - **Water sources 1-7 are considered as potable;**
  - Indicator 4 of the WASH KAP Excel Analyser computes the percentage of households having chosen an option from sources 1-7 at this question.

Examples of improved water sources

Public tap stand

Water kiosk

Hand pump

Tanker trucker

Examples of **un**improved water sources

Water from a river bed

Unprotected
hand-dug well

Unprotected
spring

Indicator 1 – Water Quantity

Calculating the amount of collected water

- Asking households to estimate the amount of water they have collected is too **difficult & imprecise**.

- We know how much water is **produced** at the camp level, but we do not know exactly how much water households actually receive.

- It is however one of our **most important indicators**!

The GENERAL approach

- Ask to see all containers and for each:
  - Specify its **volume**
  - Ask how many times it was used **yesterday** to fetch water;
  - Specify whether it is **protected** (=covered)

- The tool then calculates the **quantity of protected water of the HH** (according to whether the main source of water is **improved** **and** taking into consideration only the **protected** containers).

- It then divides this volume of the household by the number of people in the household to calculate the **average** (→ litre / person / day);

FAQ: why yesterday?

- The day of '**yesterday**' has been chosen so that it takes into account a complete day, recent enough to be remembered

- In case some respondents have not fetched any water the previous day because they do it only every second day, **the result should be kept anyhow**. Over a large sample, it will even out with other households having fetched water for two days.

FAQ: why only covered water storage tanks or containers?

Only **protected (=covered)** containers that are not broken are considered as they are the only ones for which we can be sure that the water is protected (thus minimal risk of contamination during storage).
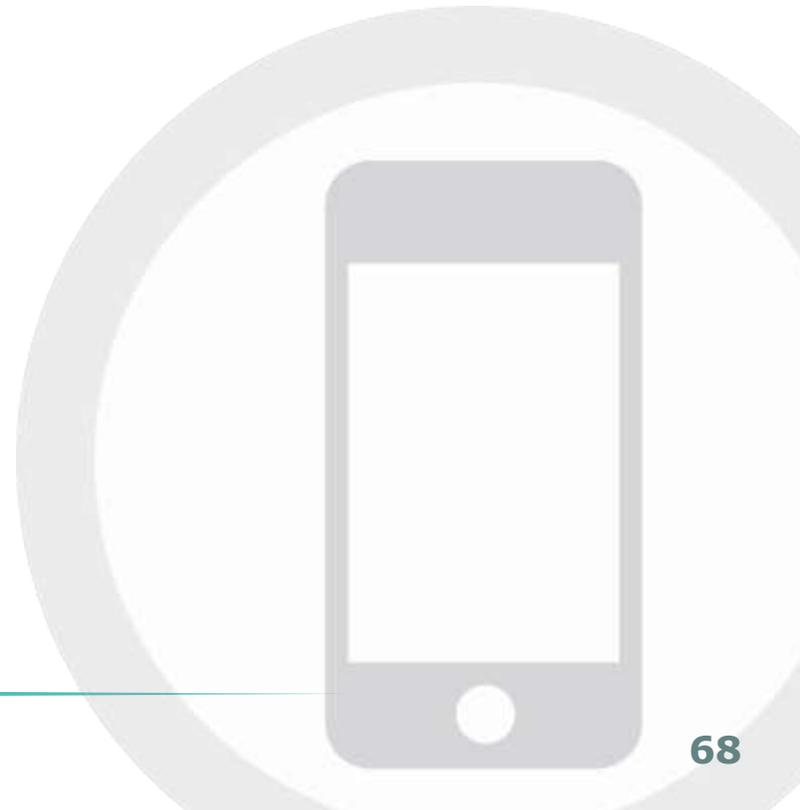
Exercise

Which containers shown here are considered protected?

Exercise

Which containers shown here are considered protected?

Protected

Uncovered

Uncovered and broken

Example of a list of water storage tanks for a HH

Quantified approach: WATER COLLECTION

Number of water storage tank	Volume of water storage tank	Number of times fully filled in during past week (past 7 days)	Water storage tank is protected?	Total quantity of potable and protected water at HH level per week	Total quantity of potable and protected water at HH level per day
N°1	300	2	Yes	600	85,71
N°2	100	2	No	0	0
TOTAL					85,71

Exercise

- Evaluate the volume of the following containers:

Exercise

- You surveyed 2 households and have obtained the following data:

HH 1: 6 people ; piped connection to house; 2 water tanks:
- 300 litres; Protected; 3 times/week = 900L/7=128,57L
- 200 litres; Unprotected; 2 times/week = 0L

Average HH1: (128,57+0) / 6 = 21,43 litres/person/day

HH2: 8 persons ; piped connection to house; 2 containers :
- 200 litres; Unprotected; 1 time/week = 0L
- 500 litres; Protected; 1 time/week = 500L

Average HH2: (0+500)/ 8 = 62,5 litres/person/day

- Average litres/person/day protected water for the sample:
$$((128,57 + 0) / 6) + ((0 + 500) / 8)$$
$$/ 2 \text{ (total for all households)}$$
→ = 41.97 litres/person/day

Indicator 2 – Water Storage Capacity

Calculating the water storage capacity

● The same data is used here, but :

- The mobile tool computes the **sum of the volumes of all protected water storage tanks and/or containers** that the HH has;

- Indicator 2 of the WASH KAP Excel Analyser computes the percentage of the HH that have **at least 10 litres of storage capacity**.

UNHCR - WASH instructional videos
GLDC

Example of a list of containers for a HH

Quantified approach: WATER STORAGE

Number of water storage tanks	Volume of water storage tanks	Water storage tank is protected?	Protected storage capacity
N°1	300	Yes	300
N°2	100	No	0
TOTAL			300

Indicator 3 – Distance to water point (in meters)

The GENERAL approach

- Methodology:
  - Generally speaking it is easier to estimate time than a distance;
  - Ask the interviewee to **provide the time in minutes that it takes him/her to collect the water from the water source** (one direction only). This time should not include the time spent socializing or doing something else on their way there;
  - The **average human speed by foot is 80 meters per minute;**
  - Thus, the result is **divided by 80** in order to obtain the distance in meters.
- In the WASH KAP Analyser, Indicator 3 calculates the average distance to water point (in meters) for the 2% of HHs with longest distance.

Indicator 5 – Family latrine/toilet

Calculating the % of HH with family/HH latrine

The Households are asked **where HH members at least 5 years old usually defecate**;

- They can choose from the following list (only one choice): *1. Household latrine;* 9. Household shared latrine; 2. Communal latrine; 3. Open defecation; 4. Plastic bag; 5. Bucket toilet; 96. Other; 98. Don't know;

- Indicator 5 of the WASH KAP Excel Analyser computes the percentage of household having chosen option 1 at this question.

Household latrine

Indicator 6 – Defecation in a latrine

Calculating the % of HH defecating in a latrine

- The Households are asked **where HH members at least 5 years old usually defecate**;
  - They can choose from the following list (only one choice): *1. Household latrine; 9. Household shared latrine; 2. Communal latrine;* 3. Open defecation; 4. Plastic bag; 5. Bucket toilet; 96. Other; 98. Don't know;
  - Indicator 6 of the WASH KAP Excel Analyser computes the percentage of household having chosen options 1 or 2 at this question.

Household latrine

Communal latrine

Indicator 7 – Access to soap

Calculating the % of HH with access to soap

- The Households are asked to **show the soap that they have in their house**;
  - If it is shown within a minute it is considered as if they have it; If it is in more that a minute it is considered as a "no" in order to avoid including responses from households having borrowed them from neighbours in order to show it to us;
  - Indicator 7 of the WASH KAP Excel Analyser computes the percentage of households having been able to show it within 1 minute.

Indicator 8 – Access to solid waste disposal facility

Calculating the % of HH with access to solid waste disposal facility

- The Households are asked **where they dispose of their domestic waste**;
  - They can choose from the following list (only one choice): *1. Household pit; 2. Communal pit;* 3. Designated open area; 4. Undesignated open area; 5. Bury it; 6. Burn it; *7. Street bin/container for garbage collection*; 96. Other;
  - Indicator 8 of the WASH KAP Excel Analyser computes the percentage of household having chosen options 1, 2 or 7 at this question.

Burn it   Communal pit   Undesignated open area

Indicator 9 – Menstrual hygiene management materials and facilities

Calculating the % of women of reproductive age satisfied with menstrual hygiene (1/2)

- One woman of reproductive age is selected as representing the household in terms of menstrual hygiene.
- If the woman consents to answer to the menstrual hygiene questions, she is asked the following questions:
  - What materials did you use during your last monthly period?
  - Would you rather have used something else?
  - During your last menstrual period were you able to wash and change in privacy while at home?
  - During your last menstrual period were you able to wash and change in privacy while at work or school?
  - Is toilet paper/cleansing water available where the women change their menstrual hygiene management products?

Calculating the % of women of reproductive age satisfied with menstrual hygiene (2/2)

- In the Analyser, the Menstrual Hygiene indicator will compute the percentage of women out of the total of those who have replied to questions, that have provided the following answers:
  - Would you rather have used something else? No.
  - During your last menstrual period were you able to wash and change in privacy while at home? Yes.
  - During your last menstrual period were you able to wash and change in privacy while at work or school? Yes or Not applicable.
  - Is toilet paper/cleansing water available where the women change their menstrual hygiene management products? Yes.

Indicator 10 – Access to a hand-washing device

Calculating the % of HH with access to a specific hand-washing device:

- The Households are if there is a **specific place/device where family members wash their hands**;
  - Indicator 10 of the WASH KAP Excel Analyser computes the percentage of household having showed it.

Example of a specific hand washing device:
A pitcher dedicated only for hand washing

Indicator 11 – Knowledge of when to wash hands

Calculating the % of HH knowing at least three critical moments when to wash hands

- The Households are asked to **name at least three critical moments when it is important to wash hands** (no prompting);

  – If they give <u>**minimum three**</u> of the following answers:*1/ Before eating, 2/ Before cooking/meal preparation, 3/After defecation, 4/Before breastfeeding, 5/Before feeding children, 6/After handling a child's stool/changing a nappy/cleaning a child's bottom*, Indicator 11 of the WASH KAP Excel Analyser considers them as knowing when to wash their hands.

  – No "false" options are listed

Indicator 12 – Practice of open defecation

Calculating the % of HH households practising open defecation

- The Households are asked through different questions whether adults OR children reported open defecation during the day or at night
- Indicator 12 of the WASH KAP Excel Analyser computes the percentage of households having answered that they practised open defecation at any of these questions

Indicator 13 – Access to a bathing facility

Calculating the % of HH with access to a bathing facility

The Households are asked **whether they have access to a functioning bathing facility in their home**;

– Indicator 13 of the WASH KAP Excel Analyser computes the percentage of household having shown it.

Example of bathing facility:
Old pit latrine that is used as a bathing facility

Exercise: standardisation scenario

Let's pretend we are in a real Household with one of you asking me the questions- please all fill the mobile form based on the answers I am giving you (no questions allowed during the process! ☺)

Debrief: what would you have done differently?

Now let's compare the results of all of you to see if you have all filled in the form in the same way!

Mobile settings for an optimal data collection

Exploring the ODK settings

Let's take a look at the different settings in ODK, in the « **general settings** » and « **admin settings** »
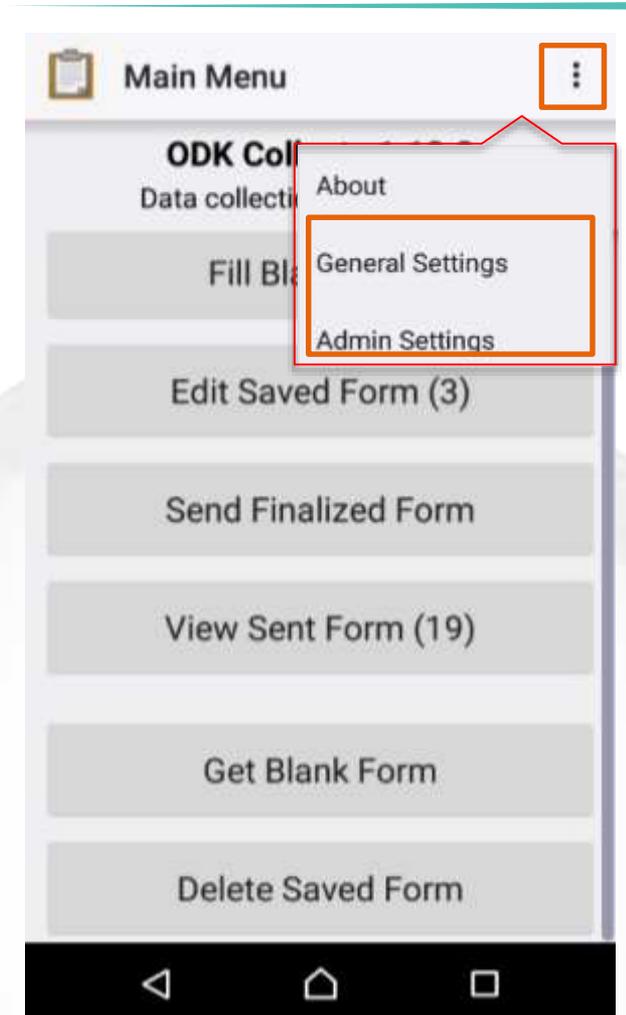
Exercise

What settings of your phone can you think of to save the battery as much as possible?
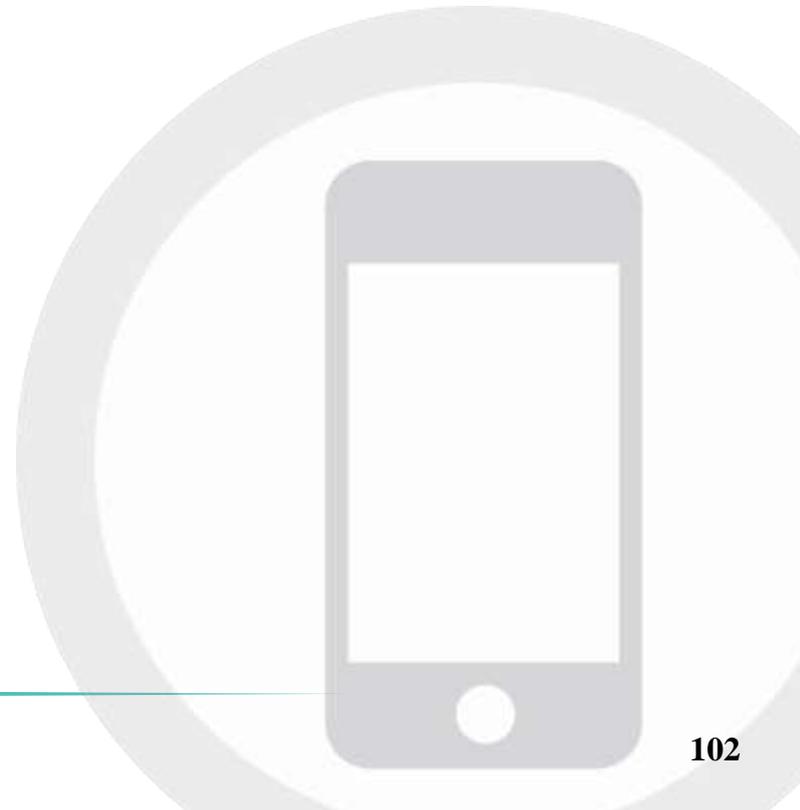
Battery management

- To keep the battery…
  - WIFI OFF
  - Airplane Mode
  - GPS off when not used
  - The phone brightness must be as low as possible
  - Adjust screen saver time
  - Make sure that no application is running in the background
- Other options in difficult contexts
  - Plan a second battery
  - Plan a battery pack to recharge it
  - Plan car chargers etc. if relevant

cartong UNHCR The UN Refugee Agency
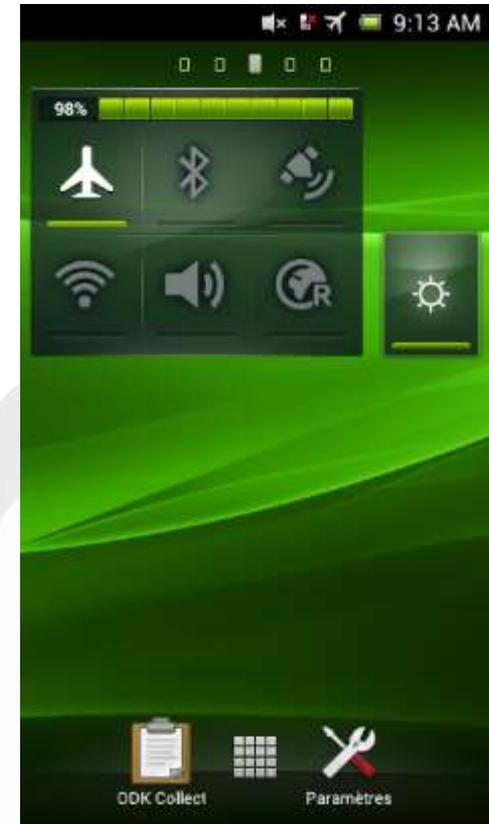
Exercise

Why do you think that ensuring the time and date settings are correct is important for the data collection?
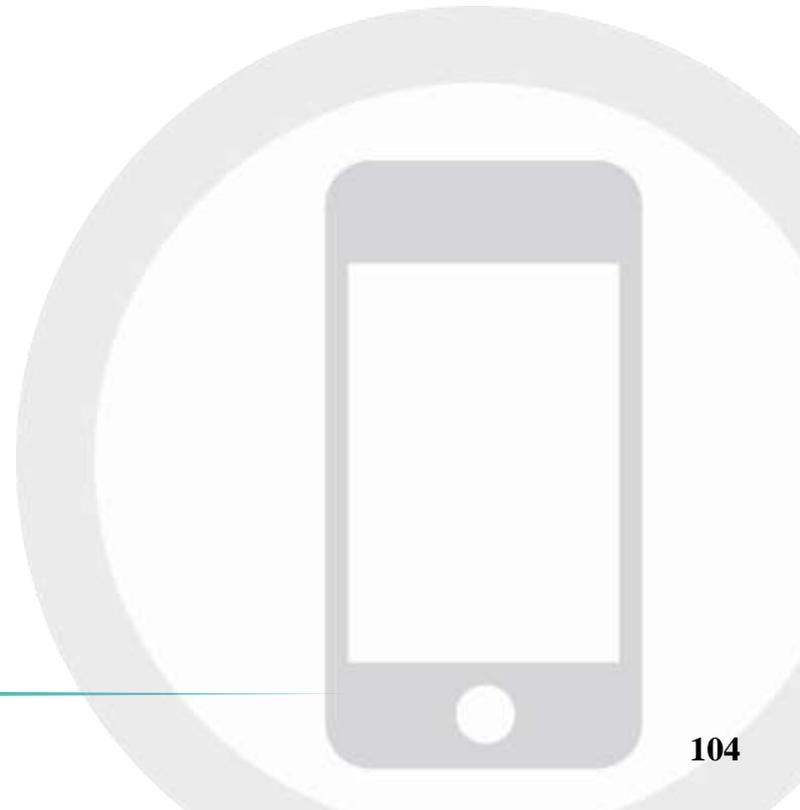
Date & time settings

- Make sure the date and time are correctly set
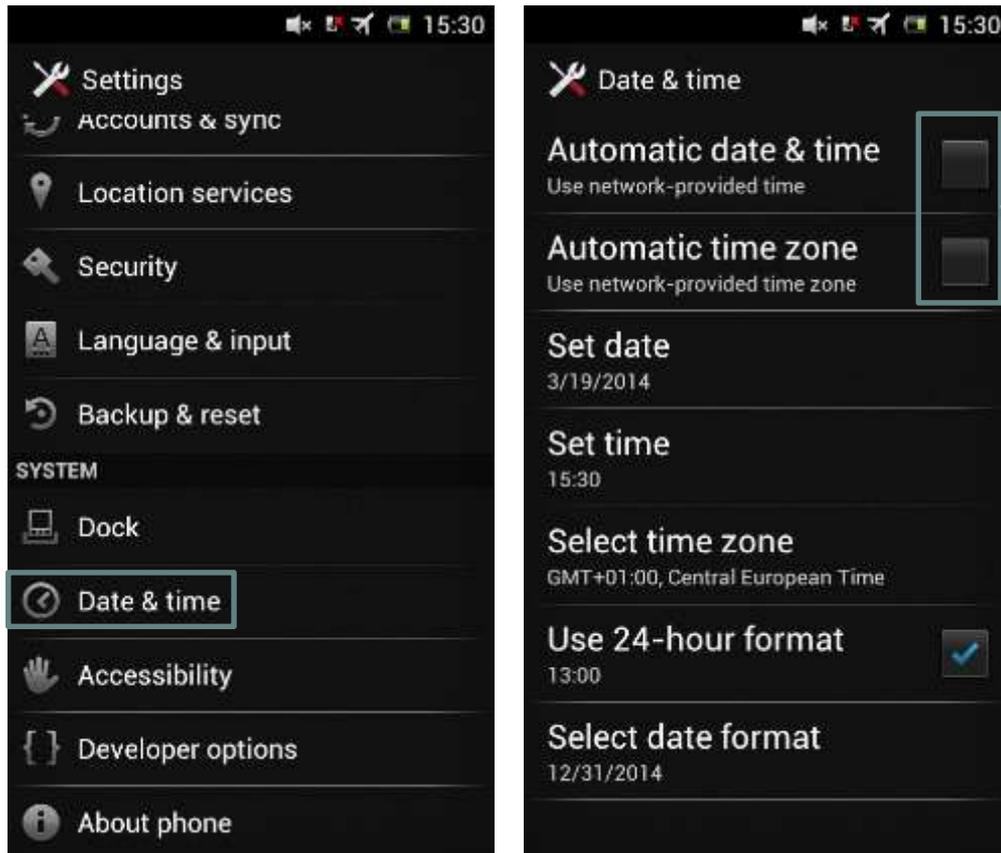
If not, unselect "Automatic" and enter the current date/hour

- Set up the time zone first, and then the date/hour.

Other interesting apps

- You can also install the following apps depending on your needs:
  - GPS test+ : if some of the phones take a long time to find the GPS position, this app, opened first thing every morning, will help ODK in finding the points faster.

    GPS Test
    Chartcross Limited
    PEGI 3
    4,4 ★ (62 833) · 10 millions ⬇

    Barcode Scanner
    Barcode Scanner
    PEGI 3

  - Barcode Scanner: if you set up a barcode scanning system.
  - Depending on the phone, if you need to connect to collect some files, you might need to install a file manager (e.g. AndExplorer).
- All these can be installed through the Play Store (they are free) or else by USB stick.
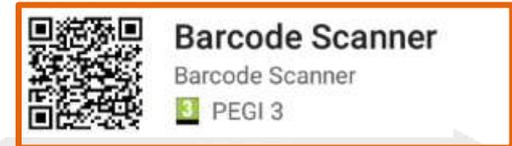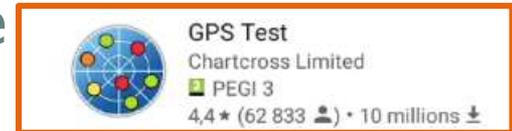
Phone ownership and responsibilities

- Ensure you share information with the enumerators such as:
    - These phones are the property of XXX. When they are in your hands, they are under your personal responsibility.
    - **Never** :
        - leave the phone unwatched;
        - leave the phone on a desk or bed, keep it in your pocket or handbag or use a neck strap made available.
    - Be careful!
- Enumerators will have to sign a waiver to acknowledge their responsibility over the phone.

Phone ownership and responsibilities

This waiver must be signed once before the beginning of the survey, by each of the enumerators who will be in charge of the phones.

A specific sheet needs to be signed every morning by the team leaders and every night by the survey supervisor. Hence the team is responsible for the phones during the data collection period, but not overnight when the phones are with the survey manager.

Ethical considerations during WASH KAP data collection

Exercise

What ethical considerations can you think of?
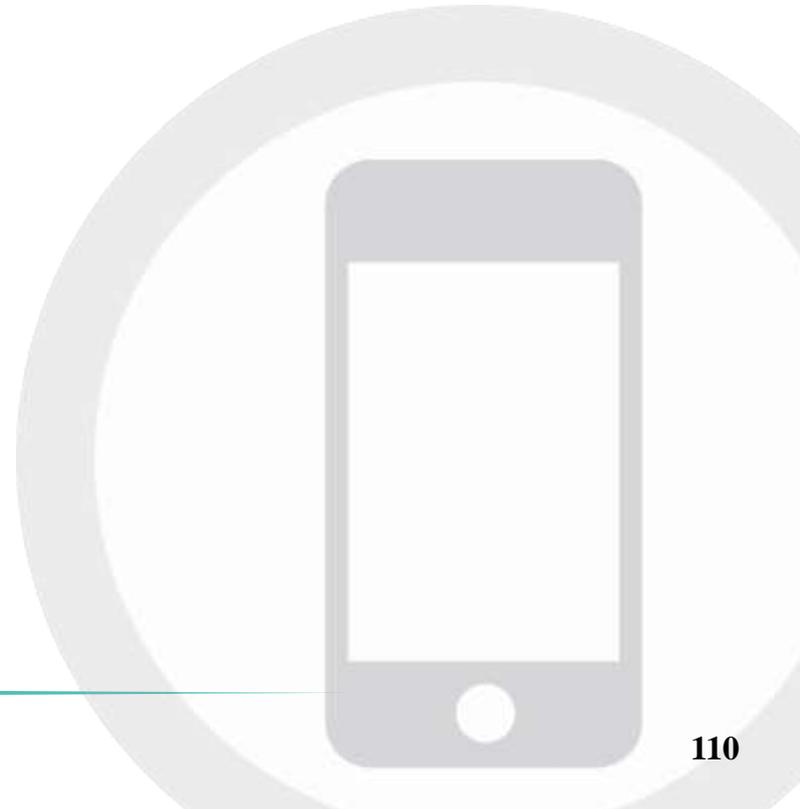
Ethical considerations means… (1/3)

- Taking into account:
  - The **context** in the camp (is a KAP at this moment **appropriate**? Seasonality, security, harvest time…);
  - **Cultural/gender** differences;
  - **Informing the communities** prior to the data collection;
  - Ensure the form is in a **language** that can be understood.
- Only collecting what you really need (data **minimisation**).
- Perhaps planning **focus group discussions** prior to the data collection **to finetune the form**, ensure that the enumerators are well prepared.

Ethical considerations means… (2/3)

- Ensuring **Informed Consent** for:
  - the KAP data collection (and that it is for general improvement of the situation of refugees);
  - the usage of smartphones in the survey (this could be refused by interviewees);
  - for the capture of the GPS location.
- They are allowed to refuse any of these with no negative consequences!
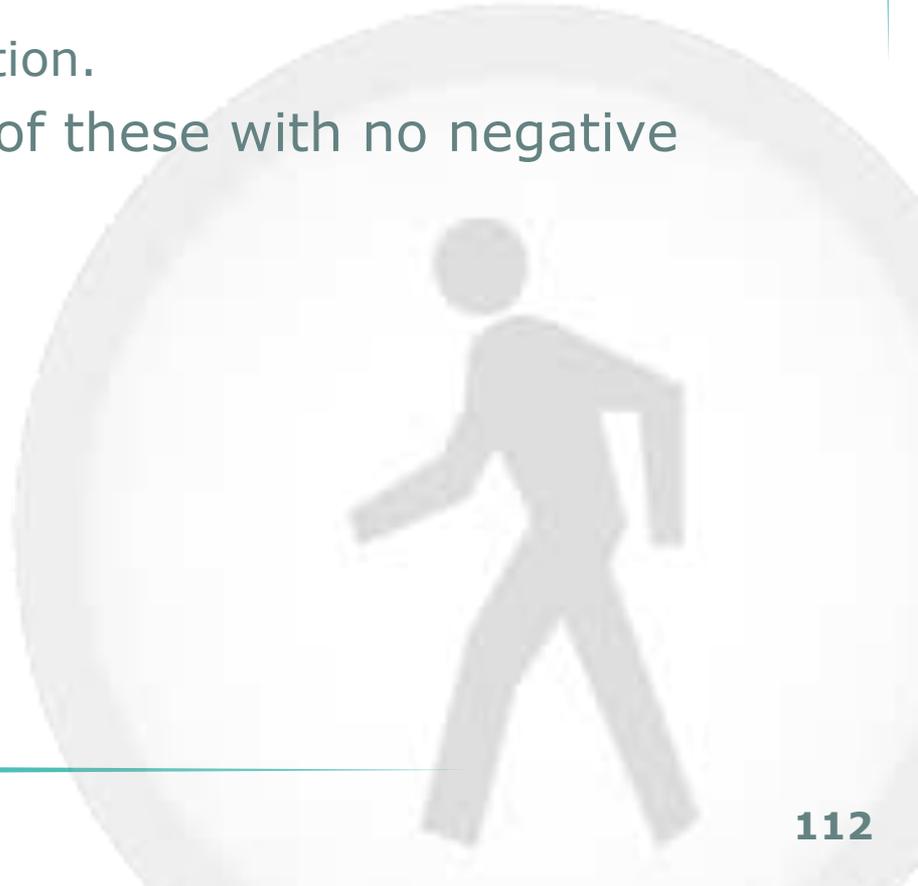
Ethical considerations means… (2/3)

- Mobile usage:
  - Train on how the mobile device should be used **respectfully** by enumerators, to ensure it does not endanger the **trust** of interviewees;
  - Explain how the **metadata** will be used by the survey managers (GPS location, but also time of start/end of filling the submission).

Exercise: prerequisites for a successful KAP

In groups of 5-6, take 20 minutes to list all the actions you think need to be undertaken before a KAP deployment.
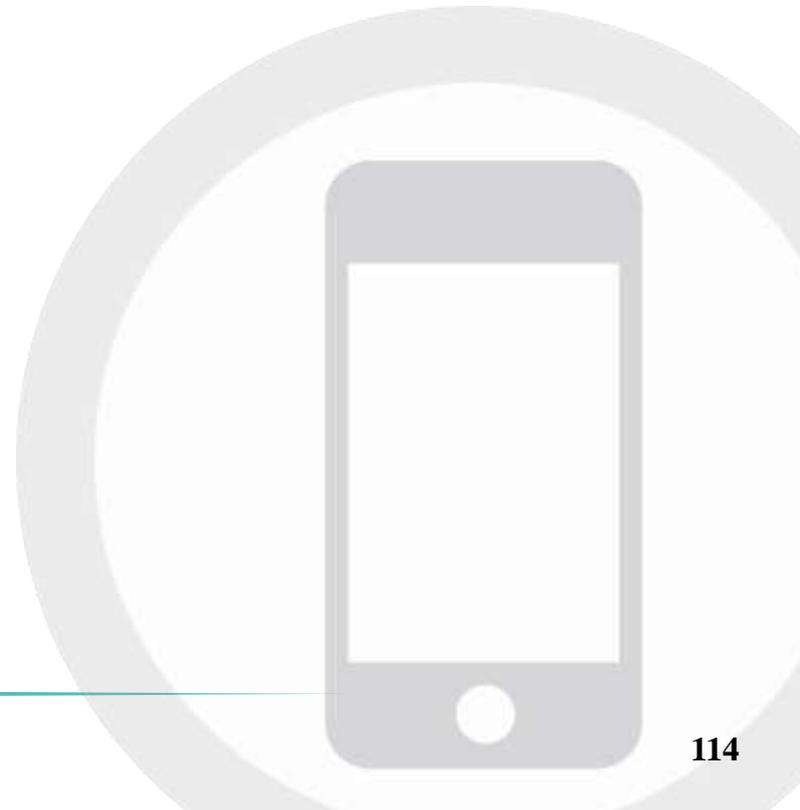
Setting up your WASH KAP survey platform with KoBoToolbox

KoBo Toolbox

KoBo: developed by Harvard Humanitarian Initiative with support from UN OCHA
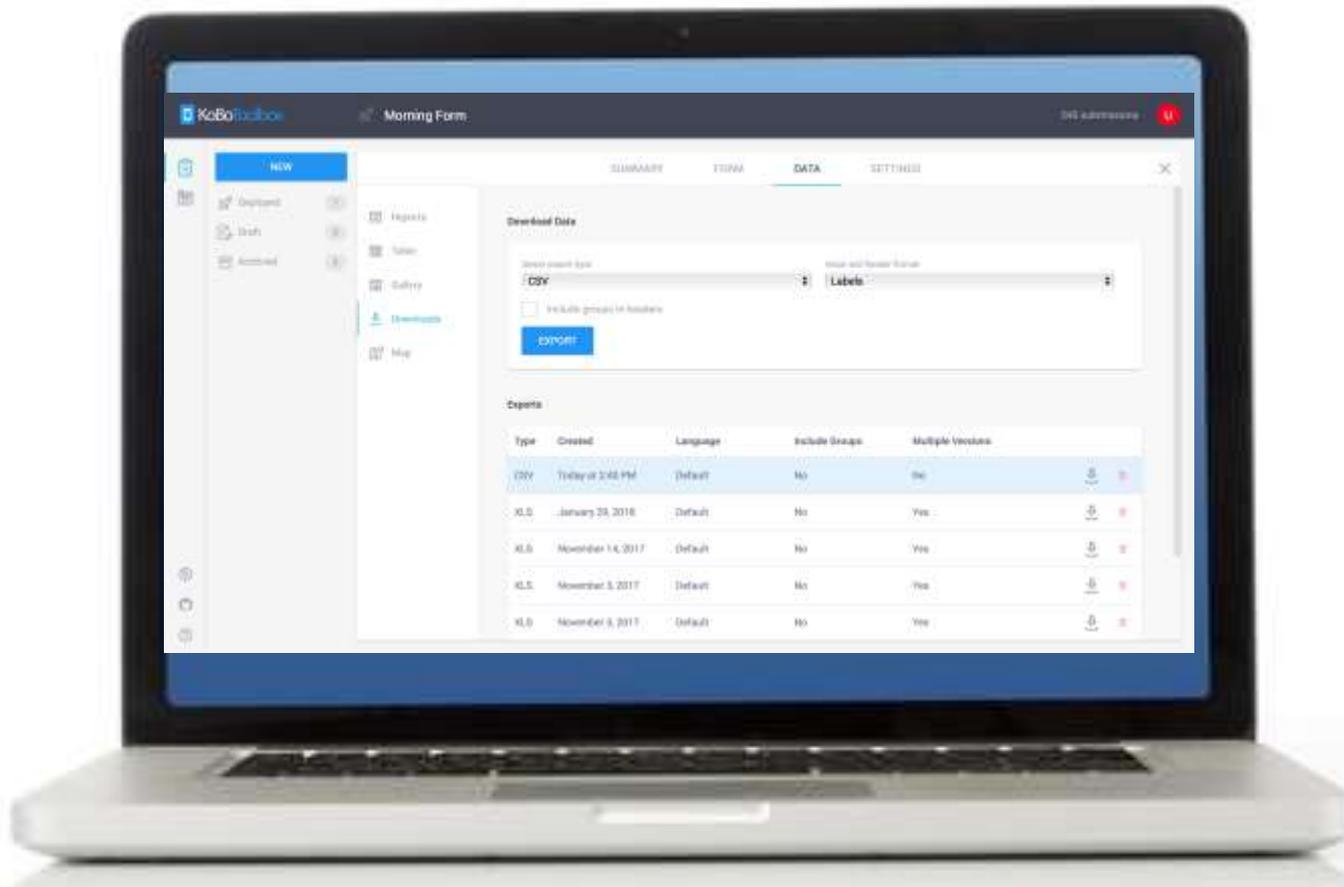
Kobo: create an account

https://kobo.unhcr.org

- Fill in the necessary information:
  - make sure the user name has no capitals, no spaces and no special characters.

- Check your emails for validation email:
  - it can take a few minutes;
  - be careful not to click on the link twice by mistake;
  - Check your spam if you cannot see the email.
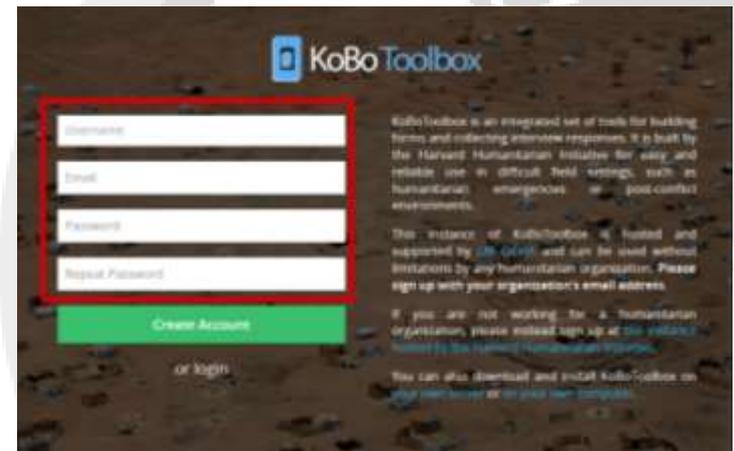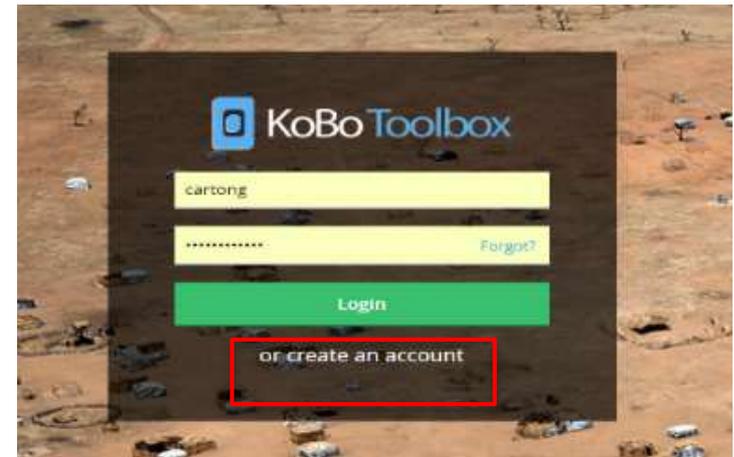
Kobo: Create a form

- Click on "**New**";
- Fill form the information;
- Click on "Create project »;
- Click on "**Design in Form Builder** ».

Kobo: Create a form

Create each questions you need:
1. Click on the « + »;
2. Type the question;
3. Click « +**Add Question** ».

Kobo: Create a form

4. Choose the question type.

Kobo: Create a form - Question settings (1)

General information:

What is the main source of drinking water for members of your household?
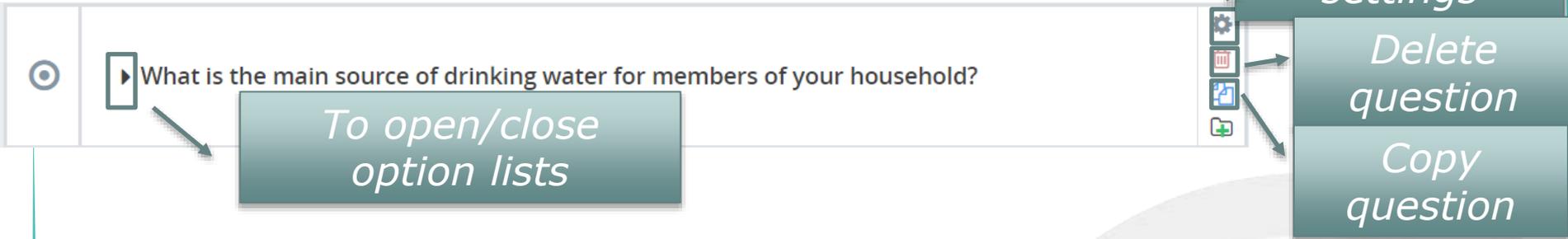
Question settings

Delete question

Copy question

To open/close option lists

List of options

▼ What is the main source of drinking water for members of your household?
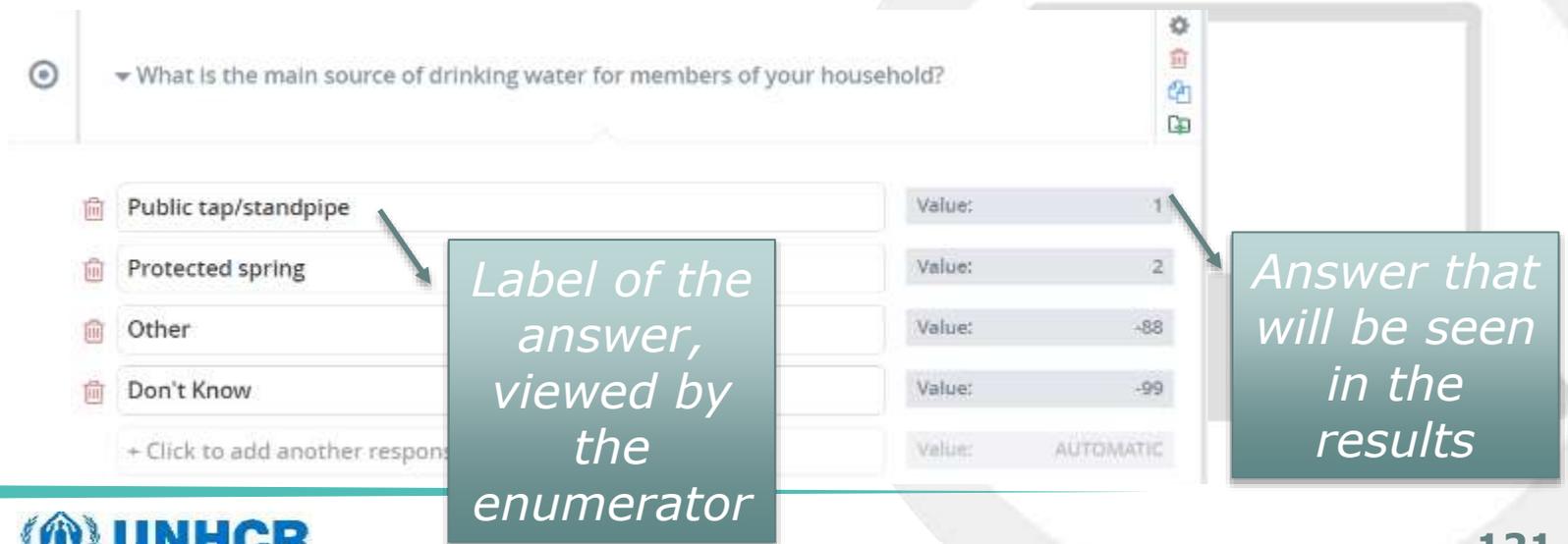
		Value:	
🗑	Public tap/standpipe	Value:	1
🗑	Protected spring	Value:	2
🗑	Other	Value:	-88
🗑	Don't Know	Value:	-99
	+ Click to add another respons	Value:	AUTOMATIC

Label of the answer, viewed by the enumerator

Answer that will be seen in the results

cartong UNHCR The UN Refugee Agency

Kobo: Create a form - Question settings (2)

Question general options:

Your column name in results

A hint in italics, below the text

Mandatory question setting

Appearance setting

cartong   UNHCR The UN Refugee Agency

Kobo: Create a form - Question settings (3)

Skip logic settings:

abc   If other, please specify

⚙ **Settings**

Question Options

Skip Logic   This question will only be displayed if the following conditions apply

Validation Criteria   What is the main source of drinking water for ...   =   Other

+ Add another condition

> *This question will only appear if the answer to the previous question is « Other »*

Validation criteria:

123   How many people live in this household and slept here last night?

⚙ **Settings**

Question Options

Skip Logic

Validation Criteria   This question will be valid only if the following conditions apply

This question's response has to be >   0

+ Add another condition

Error Message: The value cannot be null or interior to 0

> *The answer to this question will be refused (with associated error message appearing) if it is negative*

Exercise

- Create a form with the following questions:
  - « Does the Household give consent for the data collection? »;
  - « What is the HH size? »;
  - « What is the principle source of water?» with choices.
- Add all settings that seem necessary to you.
- Deploy to the mobile, fill in a submission and then analyse the associated data in Kobo.
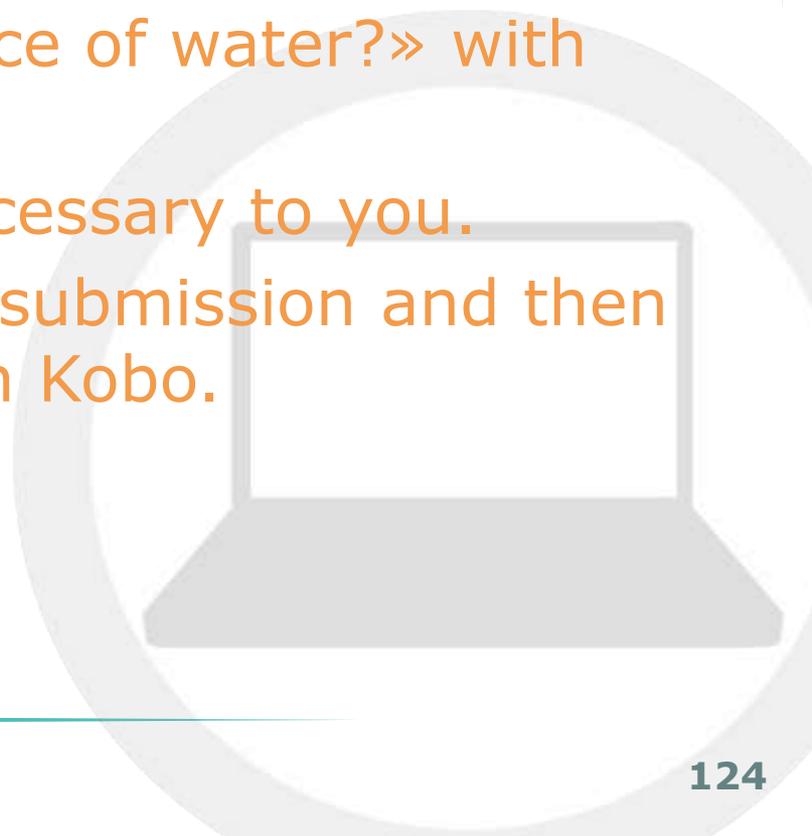
In Kobo, create a new project but for which you will import the WASH KAP mobile template

Kobo: Test and deploy

Deploy it and check on the phone that all is in order, fill in a submission, finalise it and send it back to Kobo.
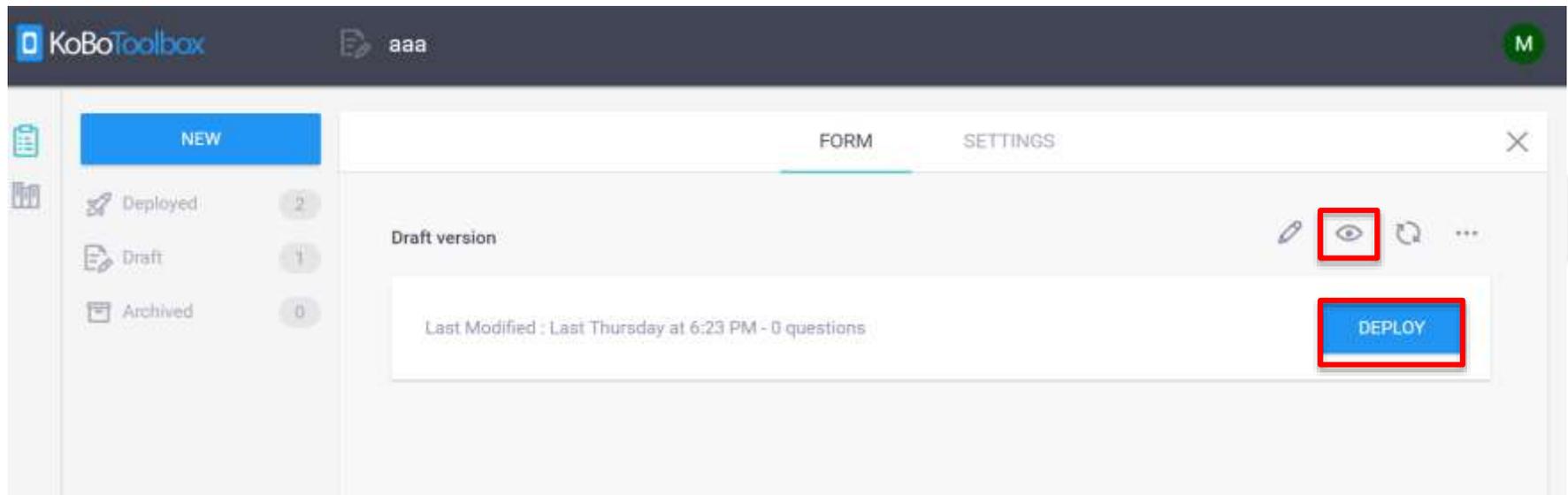
Kobo: Sharing your project

You can easily share your project with another Kobo user:

Exercise

- Set up the form so that your neighbour has view rights on your data.
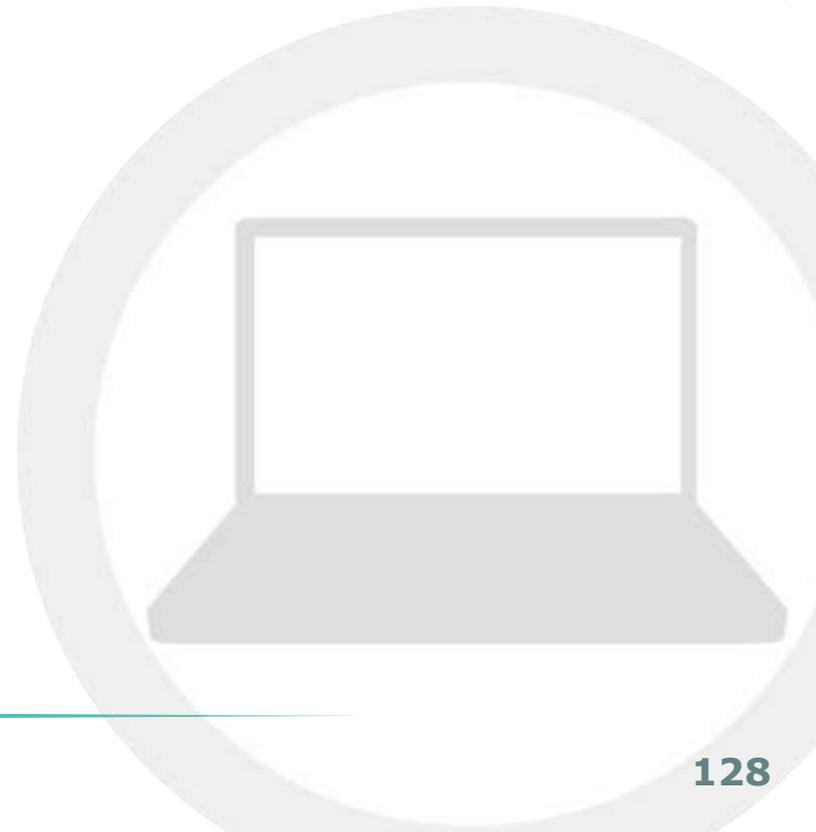
Rights for data collection

Scenarios for KAP data collection user rights

	Scenario 1: No protection	Scenario 2: Basic protection	Scenario 3: Advanced protection
Roles	One same user for data collection and data view rights; No authentication required.	One same user for data collection and data view rights; Authentication required.	Two different users for data collection and data view rights.
+	Very simple to set up – no login/password to set up on any of the phones.	Pretty simple to set up – only the « parent » login/password needs to be set up on the phones.	Advanced security: Only phones on which the « child » details are shared are able to submit; The « parent » details are not on the phones.
—	Basic security: anyone who knows the "parent" account URL can submit data.	Average security: the login/password of the "parent" account with all the data is put on all the phones.	More complex to set up.

Scenario 1: No protection

- **On the phone:**
  - Add the URL, leave login/password **empty.**
- **On the Kobo platform:**
  - Nothing to do in terms of sharing, **do not tick the box** to require authentication.

Server Settings

Type
ODK Aggregate

ODK Aggregate settings

URL
https://kobocat.unhcr.org/cartong

Username
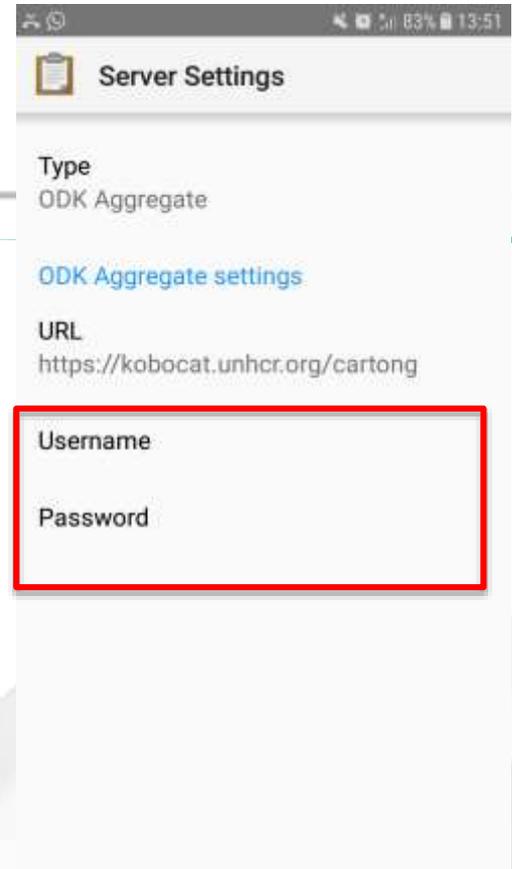
Password

C cartong

SAVE CHANGES

Privacy

☐ Require authentication to see forms and submit data

Name

Scenario 2: Basic protection

- **On the phone:**
  - Add the URL, login/password of the **"survey manager" account.**
- **On the Kobo platform:**
  - **tick the box** to require authentication;
  - No need to share the project.

Scenario 3: Advanced protection

On the phone:

– Add the URL of the **"survey manager"** account;

– Add the login/password of the **"enumerator"** account.

On the Kobo platform:

– **Tick the box** to require authentication in the "child" account;

– **Share the project** from the "survey manager" account with the "enumerator" account "add submissions" rights.

Server Settings

Type
ODK Aggregate

ODK Aggregate settings

URL
https://kobocat.unhcr.org/cartong

Username
cartong_data_collection

Password
****

cartong

SAVE CHANGES

Privacy

☑ Require authentication to see forms and submit data

Name

Updating a form during deployment

Updating a form on Kobo during deployment

- You can update the same form during the test phase without an issue.
- During the deployment, it is recommended to:
  - **Clone** and **redeploy** a new project and **create test data;**
  - Make exactly the change you wanted to this new project and redeploy;
  - **Check the data** to ensure there has been no issues;
  - If all is well, you can make the change on your "real" project;
  - If not, make sure you deploy a new project with a new ID and that the new data collected goes to this second project.

The Analysis tools

Exporting your data for the analysis tools

The two analysis tools of the WASH KAP toolbox require data in "**CSV" / "XML values and headers"** format type export.

Exercise

The data is shared with you on the Dropbox, please download the WASH KAP Excel Analyser and import the data to this and the KAP mapper.

cartong   UNHCR
The UN Refugee Agency
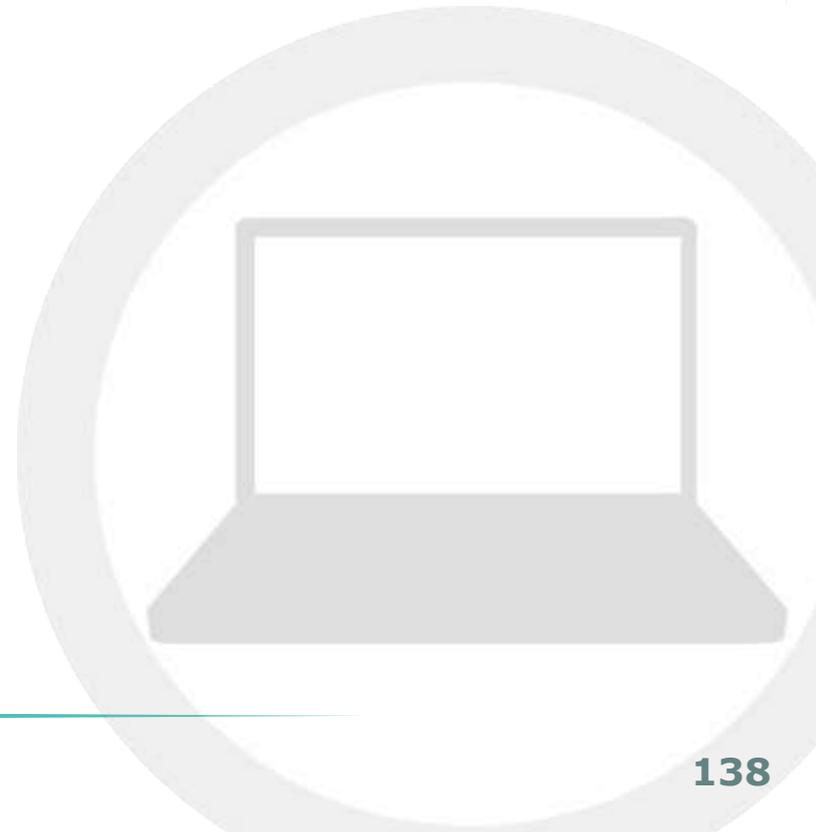
The WASH KAP mapper

- Aim: Visualise the results of certain **key indicators** on a map

Average L/p/d of potable water collected at household level
Households with at least 10 litres/person of potable water storage capacity
Maximum distance from household to potable water collection point
Households collecting drinking water from protected/treated sources
Households with household or shared-family latrine/toilet
Households reporting defecating in a toilet
Households with access to soap
Households with access to solid waste disposal facility

Average L/p/d of potable water collected at household level
Tabareybarey / Niger

- Access it here: http://wash.unhcr.org/wash-monitoring-system/wash-kap-mapper/
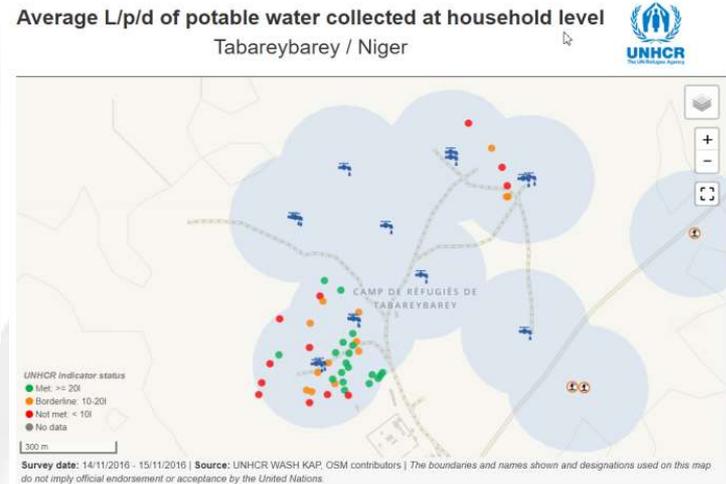
The WASH KAP Excel Analysis tool

- A tab with all the **core and secondary indicators** of the WASH KAP automatically generated
- An easy to use / out of the box tool to rapidly create graphs (pie or bar charts) of all the data of the survey
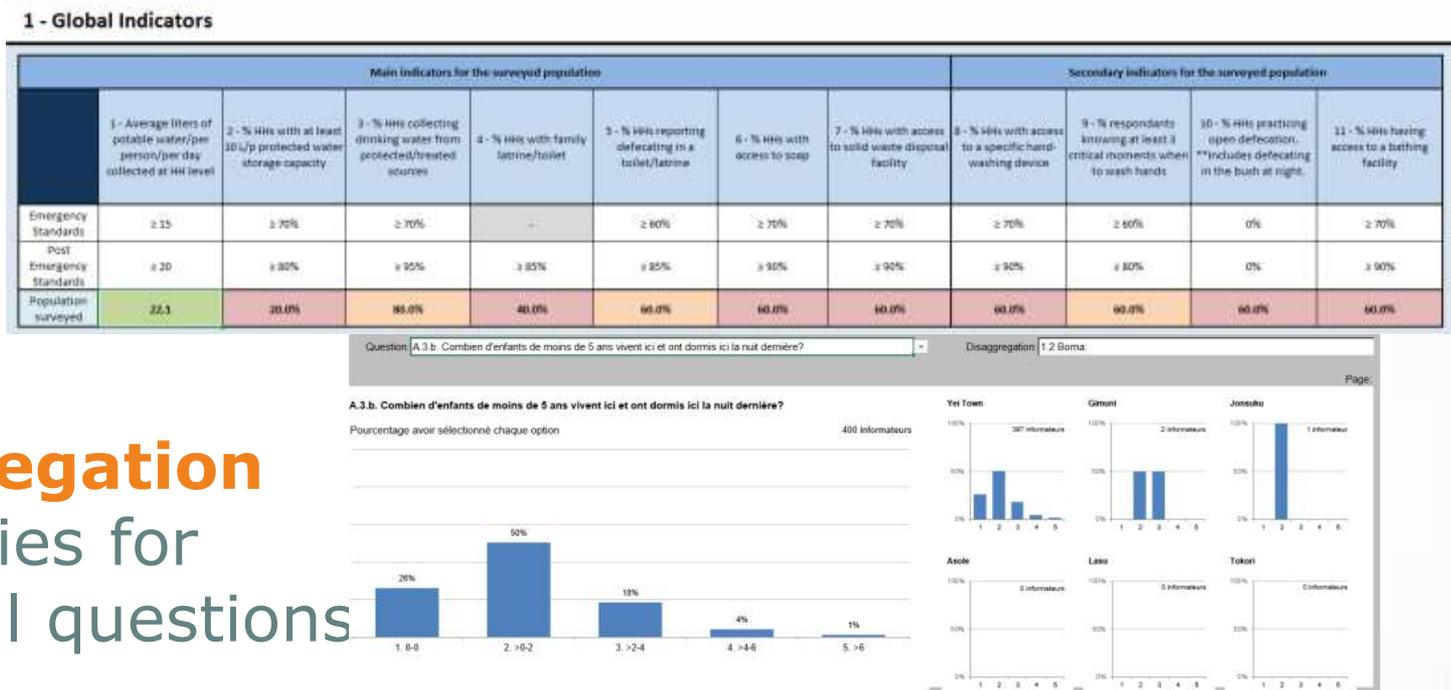
- **Disaggregation** possibilities for individual questions

Extra features of the WASH KAP Analysis tool to consider

Importing your customised XLSForm

If you download the form from Kobo…

- If you download the mobile template (XLSForm) **from Kobo** rather than adapting it directly in XLSForm, you may need to correct a frequent error it has.

- Go to the « choices » tab and ensure that in cell A1 the text is « **list name** » and not « **list_name** ».

Data cleaning

- It is sometimes necessary to make some changes to the "survey", "choices" and "uncleaned_data" sheets for the WASH KAP Analyser to work properly:
  - Question labels (e.g. for display purposes);
  - Question types (e.g. change a "calculate" type to "integer" or "decimal" for the question to appear in the drop-down menus of the KoBo Analyser);
  - Complete missing data with some meaningful values if you want them to be included in the analysis (e.g. "N/A", "do not know"). Do not forget to add an option in "choices" sheet, if needed.

cartong   UNHCR The UN Refugee Agency

Debugging

- **If you have questions that do not appear in your list:**

- **Go to the « survey » tab and delete the « hint » column for that language**

Background map for the WASH KAP Mapper

Prerequisite concerning the base map

The background data of the WASH Mapper is composed of different possible layers: **the WASH GIS portal (borehole database), Open Street Map or the UNHCR Site Mapping data depending on what is available.**

| Types of data	Sources	How you can generate the data
WASH infrastructure	Borehole database (GIS portal) and UNHCR Site Mapping	Upload your boreholes to the GIS portal and contact HQ to share data on other WASH infrastructure for import in the UNHCR Site Mapping).
General background map (shelters, roads, boundaries, points of interest…)	UNHCR Site Mapping or OpenStreetMap	Create data yourselves in OpenStreetMap and/or Contact CartONG for volunteers to capture data or if you have data to share with them.

OpenStreetMap: Definition

- The Wikipedia of maps: **a free and open map of the whole world** accessible on the web.

- A **geographical database** (roads, buildings, land use, shops, industries, water points, transmission lines, place names or administrative boundaries.

- Built mainly on the work of volunteers. Everyone can participate and reuse the data.

- **Free data** thanks to the Creative Commons Open Database Licence (ODbL).

- It can be **combined with other data sets for internal use.**

OpenStreetMap: Level of Details and Quality

- A very large number of people who work together to create information are able to produce **quality knowledge**.
- The contribution in OSM is an iterative process where new data tends to be added and errors corrected.
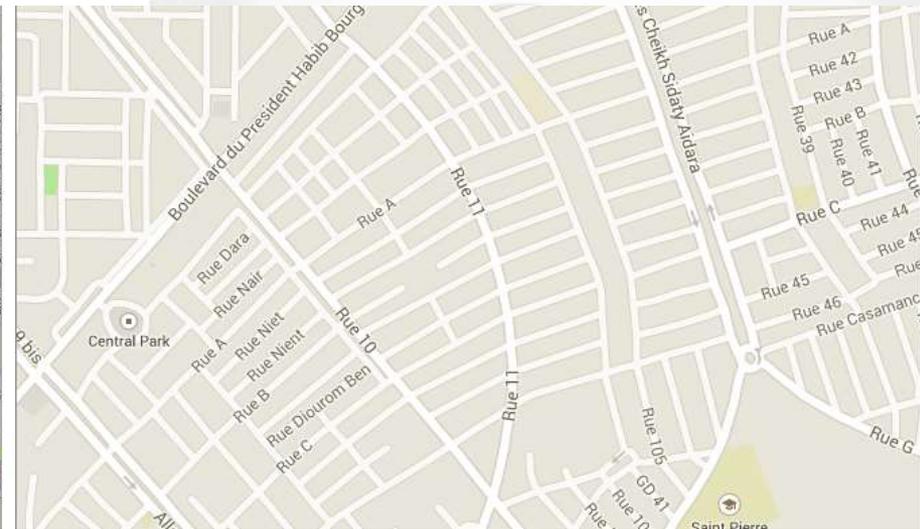
OpenStreetMap: for humanitarians

Guinée crise Ebola
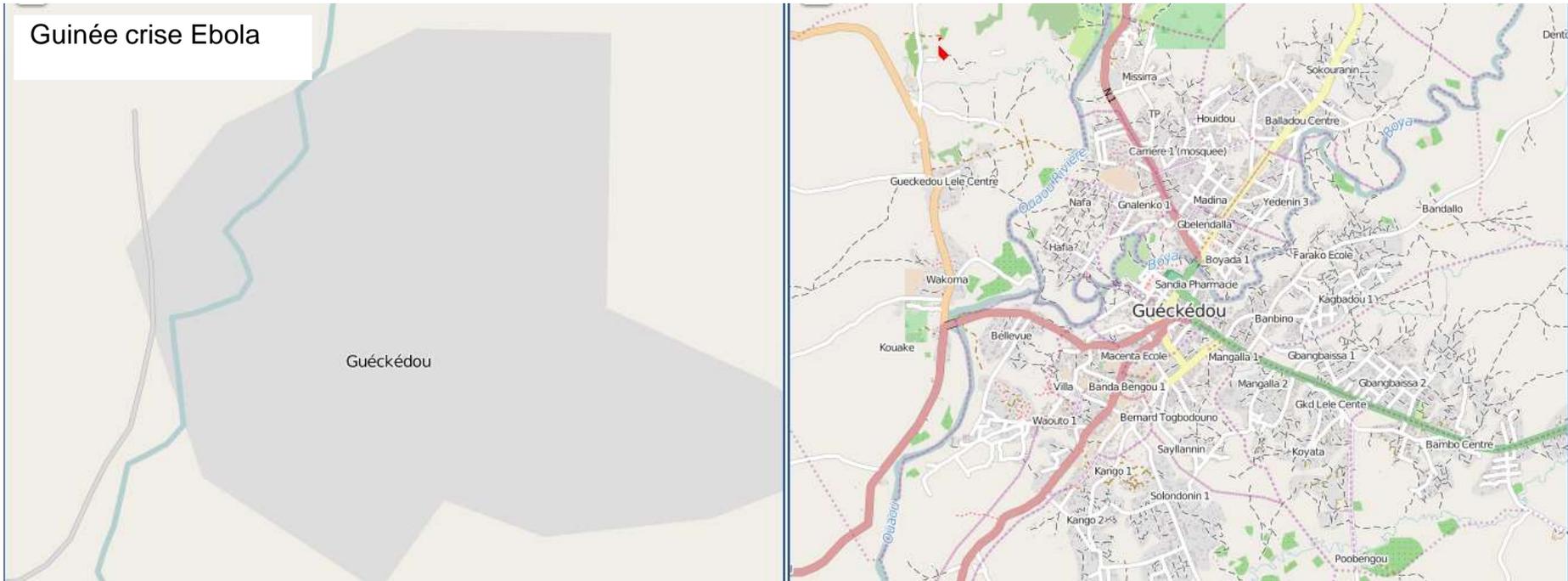
Before **After**

Work covered by **hundreds of volunteers** throughout the world from satellite imagery (and through in-country volunteers that help requalify the data)

OpenStreetMap: GIS data compatible

Open data that can be integrated into a GIS for spatial analysis and cartographic product design by humanitarian organizations.
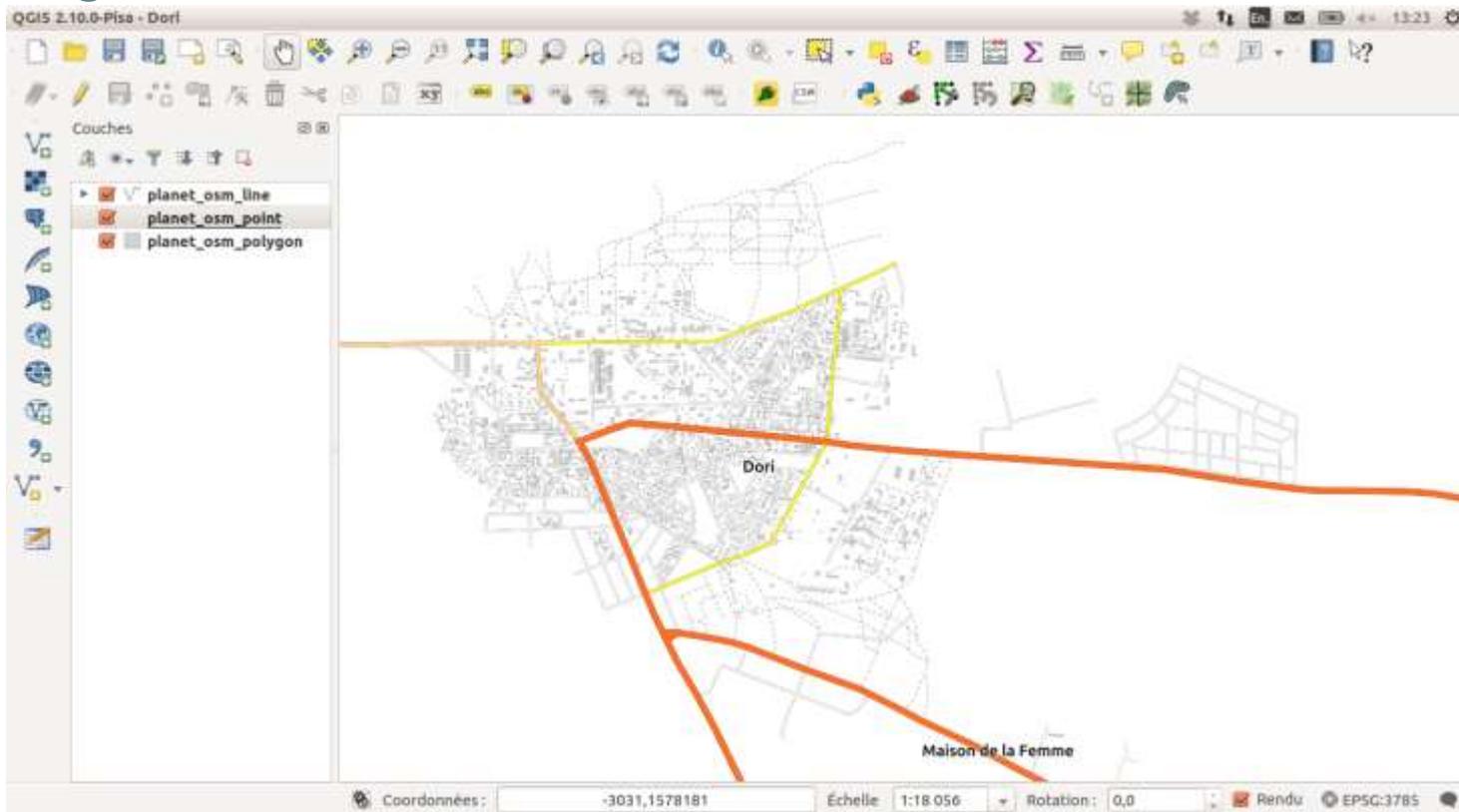
OpenStreetMap: In your smartphone

- **Maps.me** to just have a basic offline map of an area.
- **OsmAnd** to locate, search around, navigate and edit, without needing the Internet (because the map of the country is downloaded at the beginning).
- **OsmTracker** to collect data like a GPS terminal and take geo-referenced photos.

How to contribute

- Create an account on OpenStreetMap.org
- Then go to https://tasks.hotosm.org/project/6067 and login with your OpenStreetMap.org
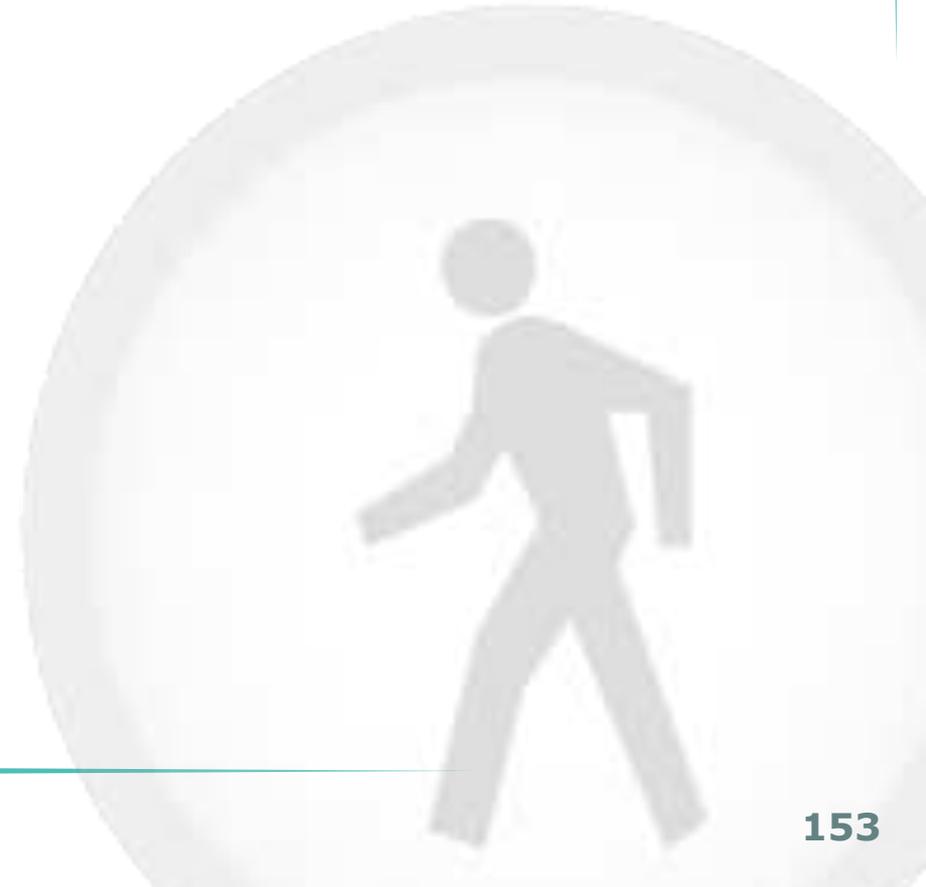
Documentation

Exercise

- What interesting material can you find on the WASH website?

Discovering Kobo for WASH KAP modification

Design techniques for forms

| Tool	Excel (XLS form)	User-friendly tools (ODK Build, KOBO)
User-friendliness	∿	✓
All The Functions	✓	✗
Compatible with	KOBO, ONA, SurveyCTO etc	KOBO, ONA, SurveyCTO etc

Functions that are hard to set up if you use only Kobo

- Easily adding long lists of options .
- Advanced settings.
- Easily copy-pasting groups of questions from other forms to save time.
- Importing external lists.
- Cascading lists.
- Having common lists of options for different questions.
- Defining a common criteria for a number of variables in one go.
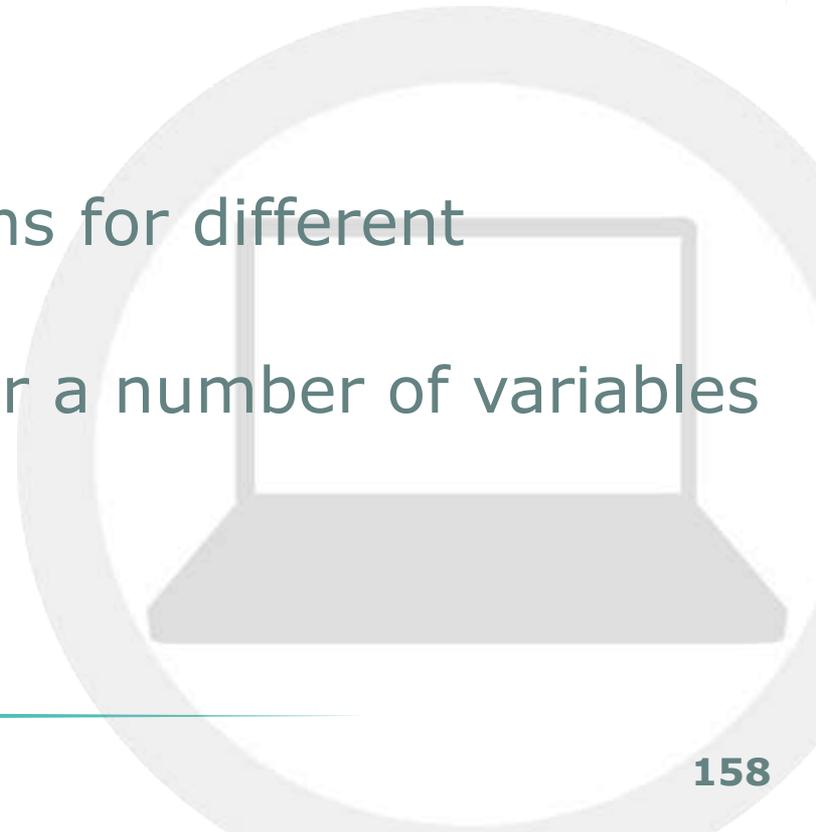
Exercise

- As a group, look at:
  – The paper form
  – The mobile form,
- And come up with five different *types* of changes you would like to make to the mobile form (you can open the form on the mobile if it helps).
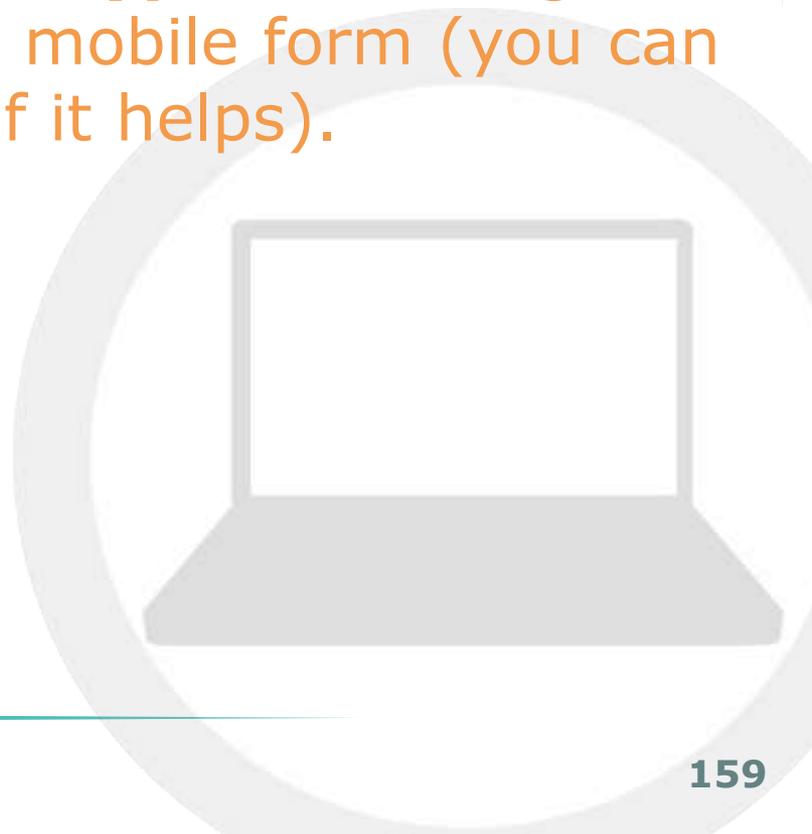
What you might want to modify

- The administrative information:
  - What are the administrative variables relevant in your context? Camps, blocks, sections, zones…
  - What types of questions are they? Numeric, text, list of options?
  - What are the constraints you want to put on the numeric ones (between 1 and 5…)?
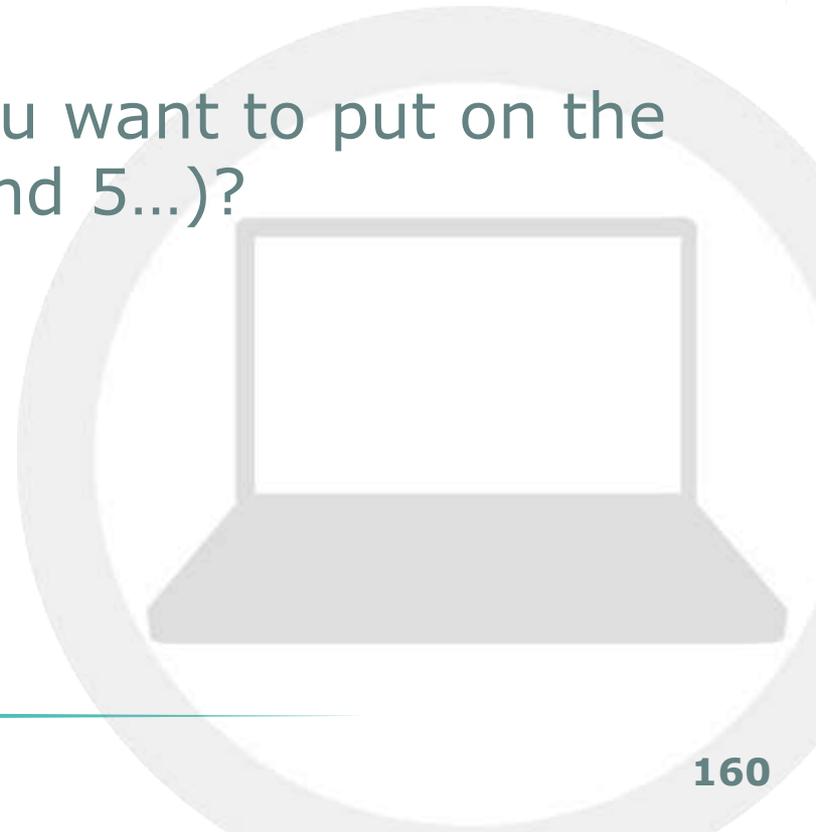
What you might want to modify

- Adding options (for questions that do NOT concern key indicators).
- Adding a language.
- Adding an optional question or module available.
- Adding a question (photos as options of answers for tricky questions?) that is not at all available in the global form (even in the optional side).
- Anything else?
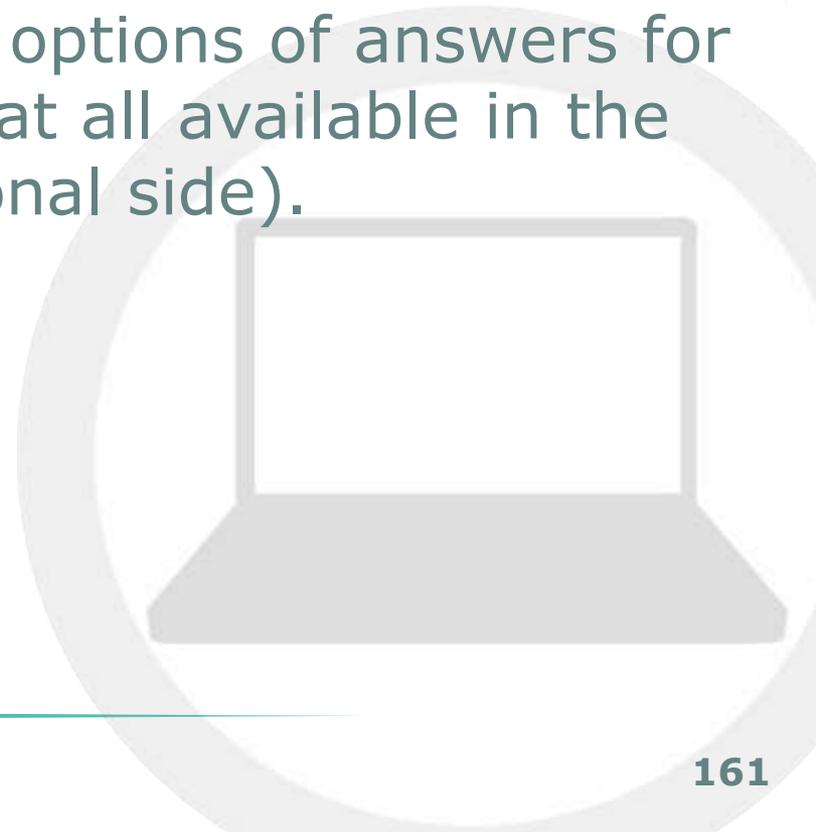
Exercise

- Modify the following aspects in your WASH KAP form:
  - Set up the introductory questions as they should be in your camp in terms of variable types and constraints (camp name, section, block, zone…);
  - Make visible an optional question;
  - Make visible an optional module and 2 or 3 questions of the module;
  - Add a question requesting to take a picture of the latrines;
  - Add a question that you want that is not in the form;
  - Add a language and start translating the form for 3 questions.
- Deploy and test it:
  - On the mobile;
  - In the analysis tools.
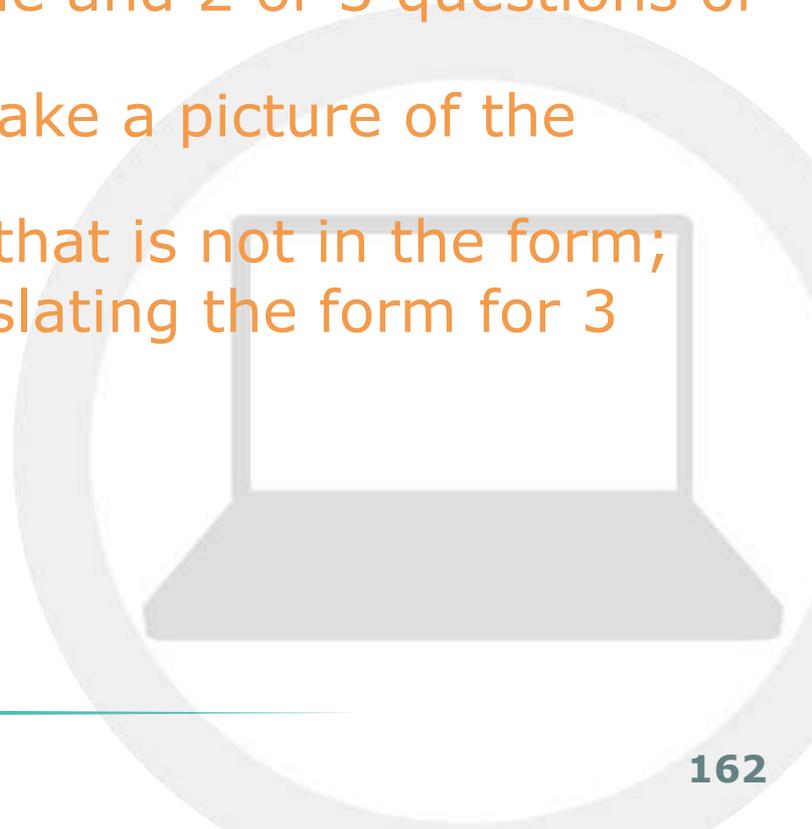
The rules

- Check the modification messages to know what you are allowed to change in a question : the type, the list of options, making it visible.

- You can add as many questions as you wish (but make sure you also include them in the analysis plan).

- Remember you should not touch the questions that correspond to the core & secondary HCR indicators, else there is a risk that the calculations will no longer work as they should!
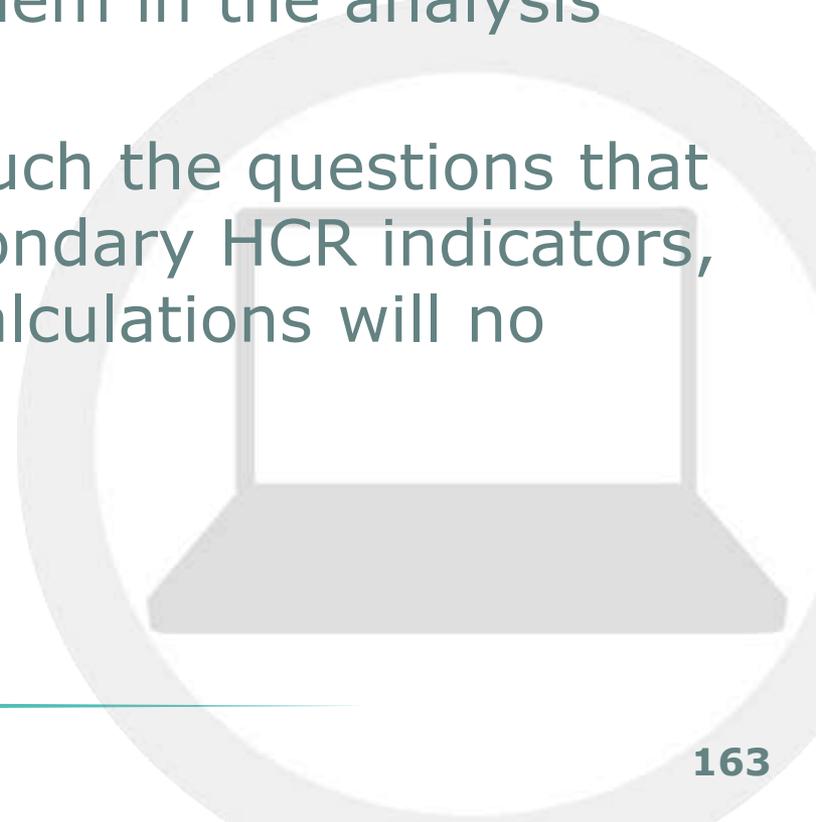
Modify your "analysis" column

- A special **"analysis" setting** has been added for each question to help ensure **that your questions are viewable in the relevant tabs of the WASH KAP Excel Analyser**.
- Enter any of the codes "C" (**bar chart**), "U" (**pie chart**), "R" (**ranking**) in the « Analysis » option in your Kobo form.
- If you want a question to appear in the "**Disaggregation**" drop-down menus of the bar chart, pie chart and ranking tabs, you can add the code "D" in the « Analysis » option.
- You can have more than one, just add a space between each letter.

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