HEALTH
GEOLAB
COLLABORATIVE

Supporting countries to use geospatial
data and technologies to achieve SDG 3

Starter kit -

Survey123 for ArcGIS

Version 1.3 (18.10.2019)

In collaboration with and with the support of:

ADB   esri

Revision History

Revision	Revision Date	Comment	By
1.0	27 November 2017	Document created	Izay Pantanilla Steeve Ebener
1.1	24 August 2018	Addition of learning resource	Izay Pantanilla
1.2	26 October 2018	Minor corrections in the steps in the Survey123 process	Izay Pantanilla
1.3	18 October 2019	Added annex on how to properly display some languages that do not use the Latin alphabet Updates/checks to links and images	Alex Campbell

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Acknowledgements

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Purpose and audience

The purpose of this document is to guide new users on how to use Survey123 for ArcGIS to create electronic surveys, collect data, and monitor the survey implementation in the field.

The audience for this document is any individual involved in the implementation of surveys which include a geographic component.

Abbreviations

ADB	Asian Development Bank
AeHIN	Asia eHealth Information Network
AGOL	ArcGIS Online
Esri	Environmental Systems Research Institute
GIS	Geographic Information System
HGLC	Health GeoLab Collaborative
WHO	World Health Organization

1. Background

The Health GeoLab Collaborative (HGLC)[1] is a collective of institutions and individuals sharing the same vision - for low- and middle-income countries in Asia and the Pacific to fully benefit from the power of geospatial data and technologies to reach the health related SDG 3 - and ready to engage their respective skills, experience, and resources to achieve it.

The HGLC has been established and builds on the work done as well as the network and documents developed through the activities of the AeHIN GIS Lab over the 2016-2017 period.

The HGLC uses the 4Ts (Training, Tooling, Testing and Teaming) approach to strengthen in-country capacity. The present starter kit has been developed as part of this approach and with the objective to be used by the largest number of users possible.

This starter kit is a living document made to evolve based on the inputs received from the users. Please therefore don't hesitate to contact us at info@healthgeolab.net if you have any suggestions for improvement.

Should you use this document as part of your activities and would like to have your organization recognized as one of this document's users, please contact us at the email address provided above.

2. Introduction

Through the partnership established with Esri, the HGLC not only has the capacity to lend licenses to eligible institutions for a period of up to 6 months[2] but can also provide access to highly discounted software bundles to Ministries of Health in countries.

While Esri provides access to a large number of GIS solutions, the present kit focuses on one of its suite of tools, Survey123 for ArcGIS.

This suite of tools allows users to create electronic surveys, collect data, and monitor the survey implementation in the field.

3. What is Survey123 for ArcGIS?

Survey123 for ArcGIS has initially been designed during the WHO response to the Ebola outbreak in Western Africa in (2014-2016).

Aiming at answering a specific need for geo-located data collection in the field, this tool has continued evolving since then and now represents an interesting option for conducting surveys containing a geographic component.

The Survey123 suite is composed of three tools:
1. Survey123 website: Portal to that allows users to create simple graphical survey and acts as a repository for created surveys and their submitted records. The website

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[1] http://healthgeolab.net
[2] https://healthgeolab.net/resources/access-to-proprietary-geospatial-technology/

allows users to set who to collaborate with on their surveys and visualise and analyse their survey data. It also gives information about Survey123.

2. <u>Survey123 Connect:</u> Desktop tool used to author sophisticated smart surveys through the use of XLSForm. It allows previewing, editing, and publishing of a survey.
3. <u>Survey123 field app:</u> Desktop and mobile tool used to complete surveys in the field.

Please note that you also need the following in order to be able to use these tools:
- An ArcGIS Online account. Please refer to the ArcGIS Online starter kit for more information on this platform[3].
- A spreadsheet software such as MS Excel, OpenOffice, LibreOffice, and Google Sheets as long as you can save your spreadsheet in an MS Excel file format.
- An internet connection to use the website, download the survey form on your mobile device, and submit these forms back once the data collected. Please nevertheless note that the collection of the data can itself be done offline and the forms can later be submitted to the central repository when an internet connection is available.

The "Survey123 product overview" YouTube video[4] gives you a good introduction on what you can do with the Survey123 suite.

4. Accessing and using the Survey123 website

The Survey123 website is accessible from https://survey123.arcgis.com. As described earlier, the Survey123 website can be used for two main purposes:
- Authoring simple surveys using the web-based form editor
- Reviewing the results of any Survey123 survey to analyze responses, share results with stakeholders, and export data for analysis

Once you have signed in using your ArcGIS Online credentials click on "My Surveys" at the top of the window to access the online capability of Survey123. A page like this one should appear:

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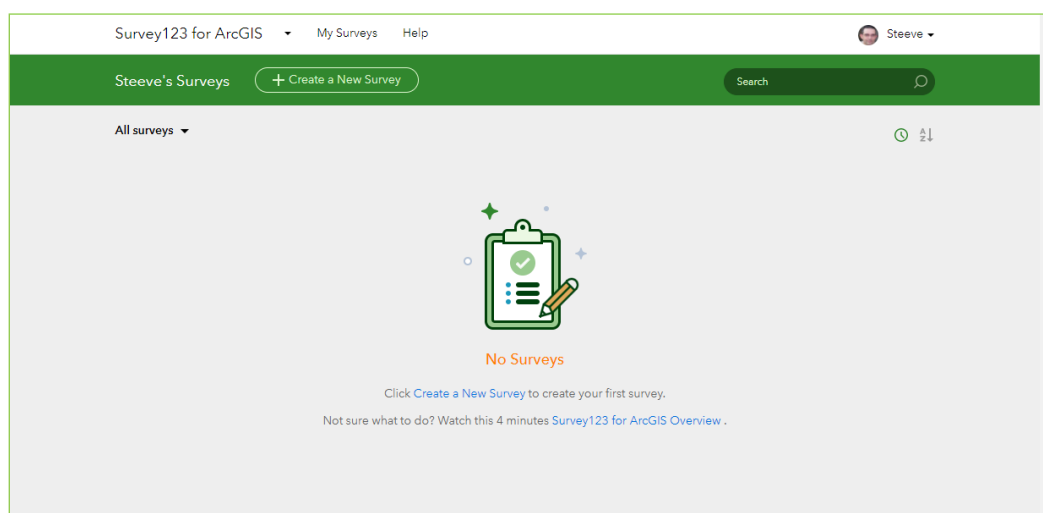
[3] https://www.healthgeolab.net/DOCUMENTS/HGLC_AGOL_starter_kit.pdf
[4] https://www.youtube.com/watch?v=jfaSlJ6BYr4

From this page you can:
- Create and manage a new survey form (see Section 7.2.1)
- Collect data (see Section 7.3.1) and monitor the implementation of a survey (see Section 7.4.1)
- Download the collected data for further analysis (see Section 7.5)

The "Exploring the Survey123 for ArcGIS website" YouTube video[5] gives a good description of what can be done from this website.

5. Downloading and installing Survey123 Connect

Survey123 Connect is a desktop application that can run on Windows, Mac or Linux desktop operating systems. It can be used to author complex surveys with additional logic, external media, and choice options when compared to the Survey123 Website.

The following steps describe how to download and install Survey123 Connect on your desktop computer:
1. On your browser, go to the Survey123 for ArcGIS download page[6]. Download the appropriate Survey123 Connect for your computer's operating system.
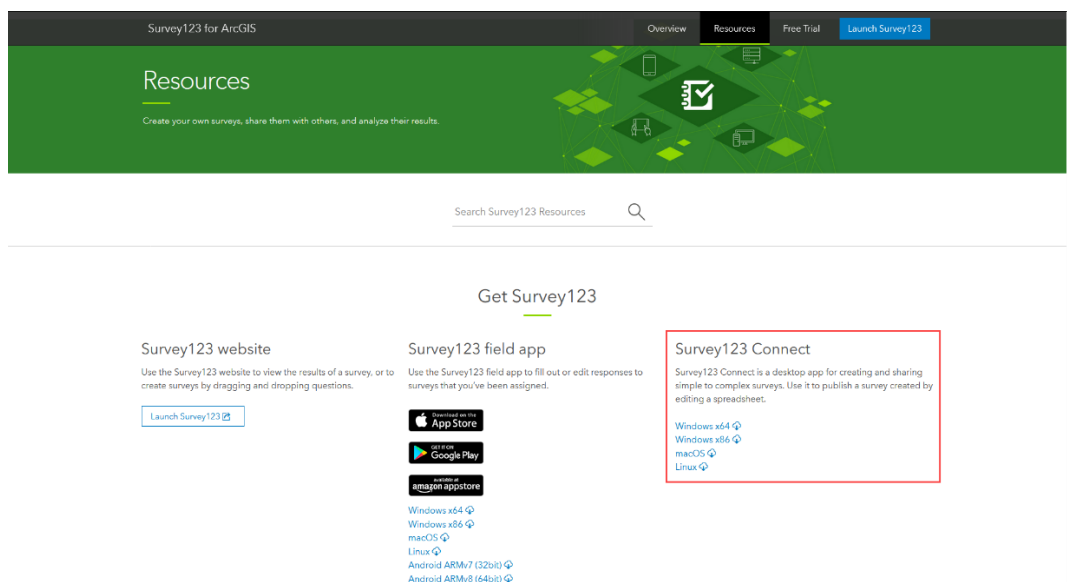

2. Go to the folder location of the downloaded installation file and double-click it. It will open the Survey123 for ArcGIS Setup Wizard. Click *Next*.

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[5] https://www.youtube.com/watch?v=oPLCT36IwkU
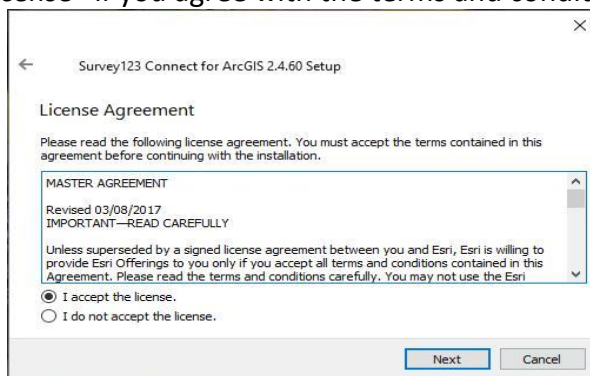[6] http://doc.arcgis.com/en/survey123/download/
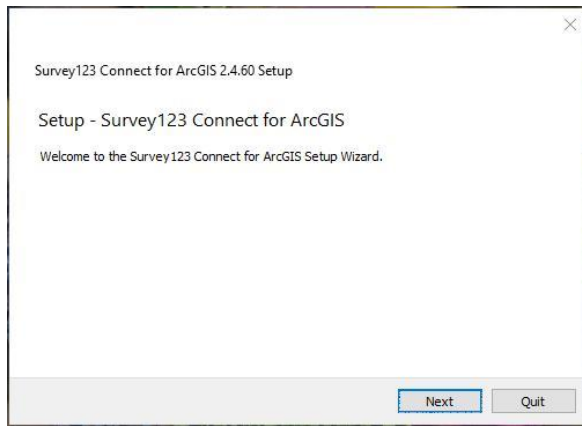
3. Specify the installation folder where Survey123 Connect will be installed (or accept the default destination which is recommended). Click *Next*.
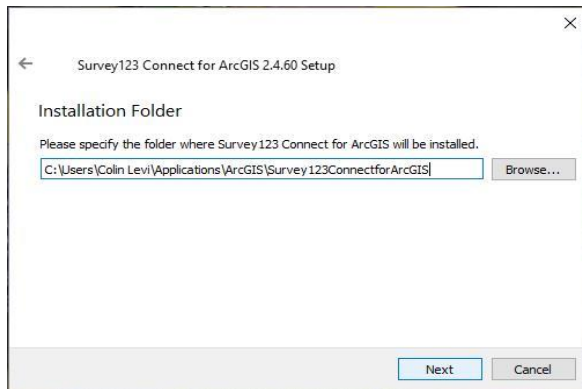

4. Read the license agreement carefully. Select the radio button for "*I accept the license*" if you agree with the terms and conditions. Click *Next*.
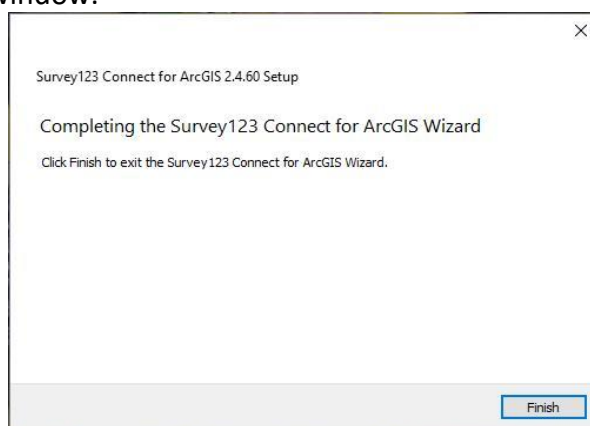

5. Select the Start Menu in which you would like to create the program's shortcut (or accept the default destination which is recommended). Click *Next*.
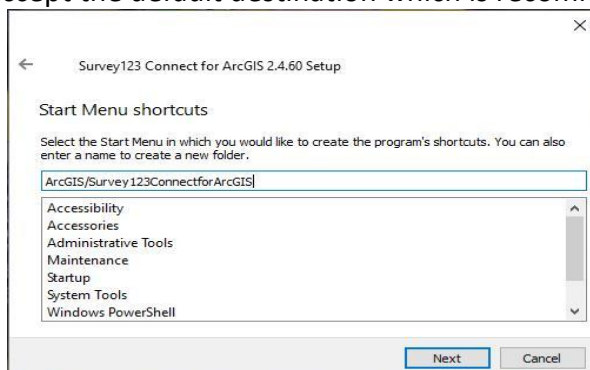
6. Survey123 Connect is now ready to be installed. Click *Install* to run the installation process.
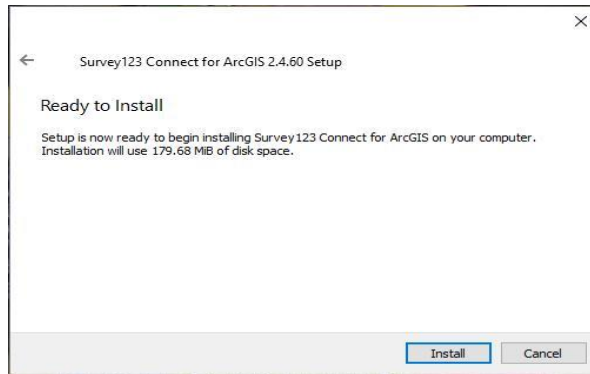
7. The installation process for Survey123 Connect is done. Click *Finish* to close the window.
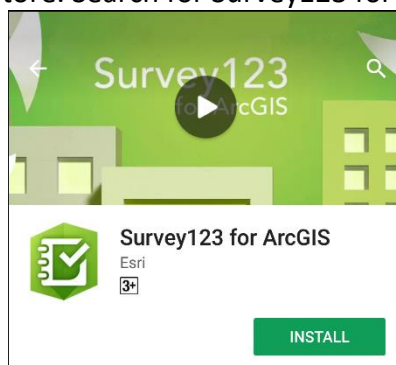

6. Downloading and installing the Survey123 field app

The Survey123 field app can be used on a personal computer or on a mobile device (smart phone/tablet).

To install it on your mobile device:

1. For Android users, go to the Google Play Store. For iPhone users, go to the App Store. Search for Survey123 for ArcGIS.
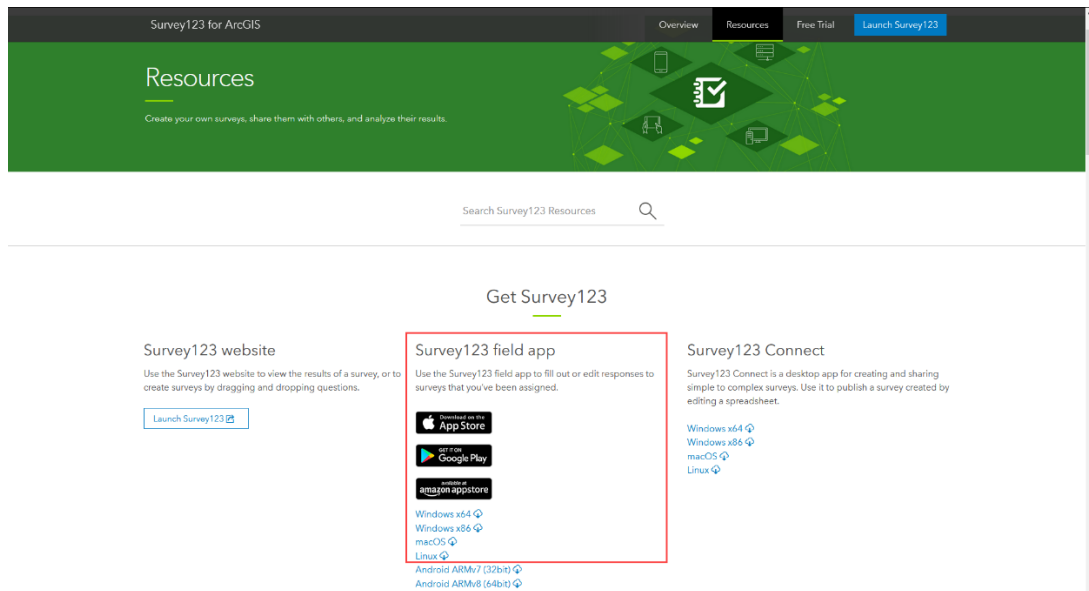

2. Click on the *Install* button.

It is advisable to set the app to auto-update to always have the newest version of the app. This can be done on the Google Play Store and the App Store.

To install it on your computer:

1. On your browser, go to the Survey123 for ArcGIS download page[7]. Download the appropriate Survey123 field app for your computer's operating system.

2. Go to the folder location of the downloaded installation file and double-click it. It will open the Survey123 for ArcGIS Setup Wizard. Click *Next*.
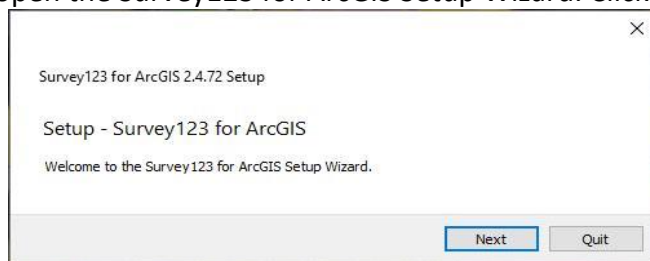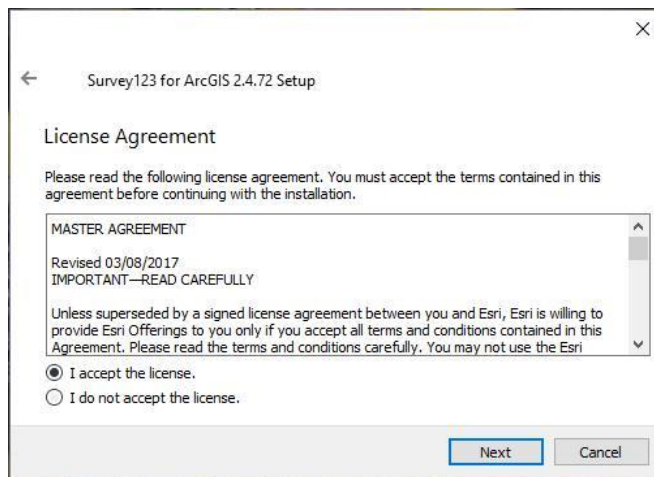

3. Specify the installation folder where Survey123 field app will be installed (or accept the default destination which is recommended). Click *Next*.
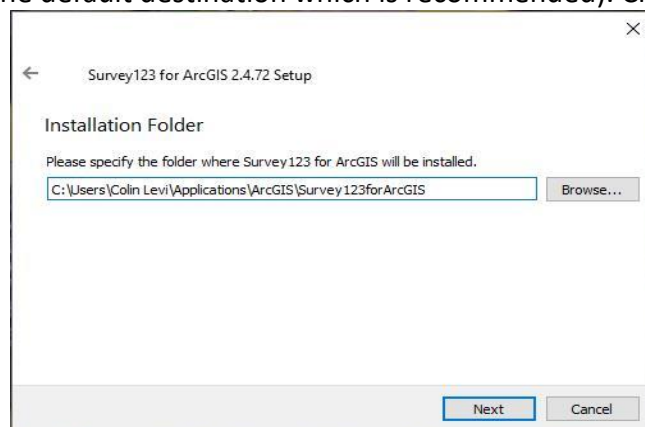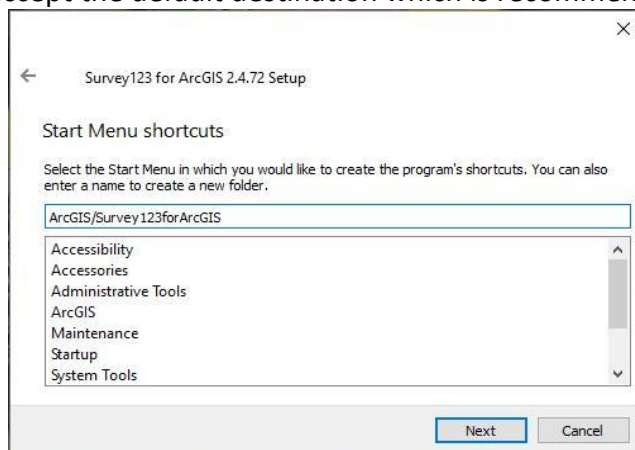

4. Read the license agreement carefully. Select the radio button for "*I accept the license*" if you agree with the terms and conditions. Click *Next*.

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[7] http://doc.arcgis.com/en/survey123/download/

5. Select the Start Menu in which you would like to create the program's shortcut (or accept the default destination which is recommended). Click *Next*.

6. The Survey123 field app is now ready to be installed. Note the needed disk space and make sure your computer can handle the needed amount. Click *Install* to run the installation process.
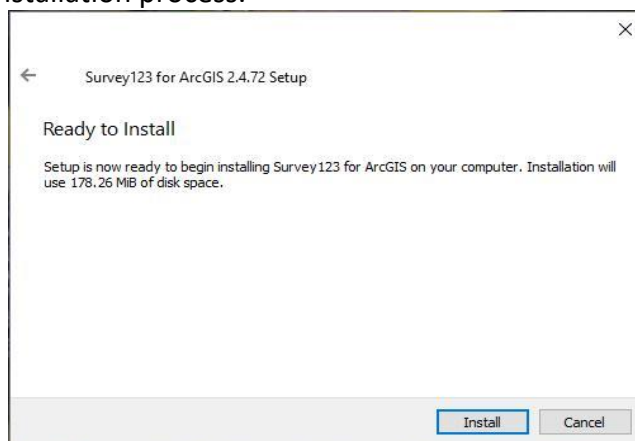
7. The installation process the Survey123 field app is done. Click *Finish* to close the window.
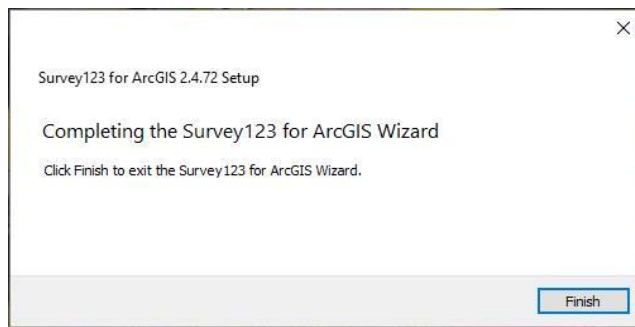
7. The Survey123 process

A four-step approach is followed to conduct a survey online or in the field using Survey123:
1. Preparing the survey questionnaire and associated data (see Section 7.1)
2. Converting the questionnaire into a Survey123 form (see Section 7.2)
3. Collecting the data (online or in the field) (see Section 7.3) and monitoring the data collection (see Section 7.4)
4. Downloading the data for analysis (see Section 7.5)

These steps are described in more details in the following sections.

7.1 Preparing the survey questionnaire and associated data

Any survey is based on a questionnaire.

The purpose of the present document is not to provide guidance on how to develop a good survey questionnaire but to explain how such questionnaire can be integrated into Survey123 to be implemented online or in the field.

People interested in learning more about guidance on how to conduct a survey can refer to the following resources:
- https://www.researchgate.net/publication/327425122_Guidelines_for_Conducting_Surveys
- http://www.uniteforsight.org/global-health-university/quality-survey

From a geographic perspective, the fields and associated material (specifications, master list, etc.) that should be at hand when developing the questionnaire are described in Volume 2.4.2 of the Health GeoLab Collaborative guidance for the collection and use of geospatial data in health[8].

7.2 Converting the questionnaire into a Survey123 form

Once the questionnaire and associated data are ready, their conversion and integration into a Survey123 form can take place using two different media:
1. The web designer tool accessible from the Survey123 website for simple surveys.
2. Survey123 Connect and a spreadsheet software that allows saving files in MS Excel format for more advanced surveys.
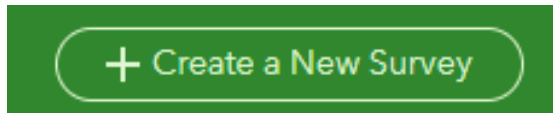
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[8] http://www.healthgeolab.net/DOCUMENTS/Guide_HGLC_Part2_4_2.pdf

The following sub sections describe how to proceed in both cases.

7.2.1 Creating and publish the Survey123 form using the web designer

The web designer is accessible from the Survey123 website (survey123.arcgis.com).
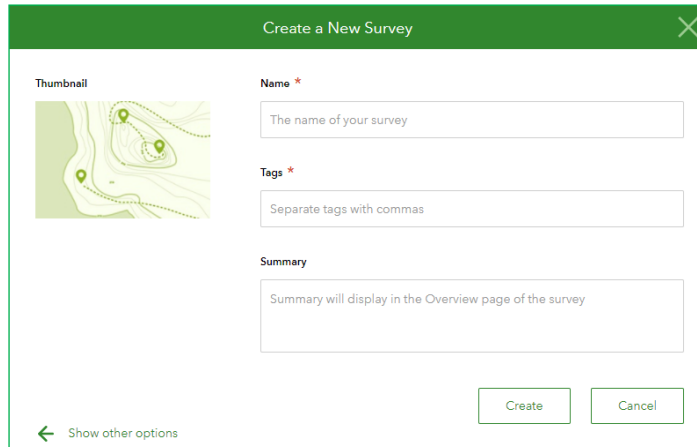
Once signed in, just click on the *+ Create a New Survey* button on top of the window...

...and then on the *Get Started* button below the "Using the web designer" option...
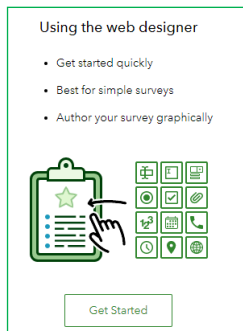
...to reach the window that will ask you provide a name and tags (mandatory) and provide you the possibility to include a short summary and choose a thumbnail for your survey.

Once done, click on the *Create* button to reach the survey form designing window:
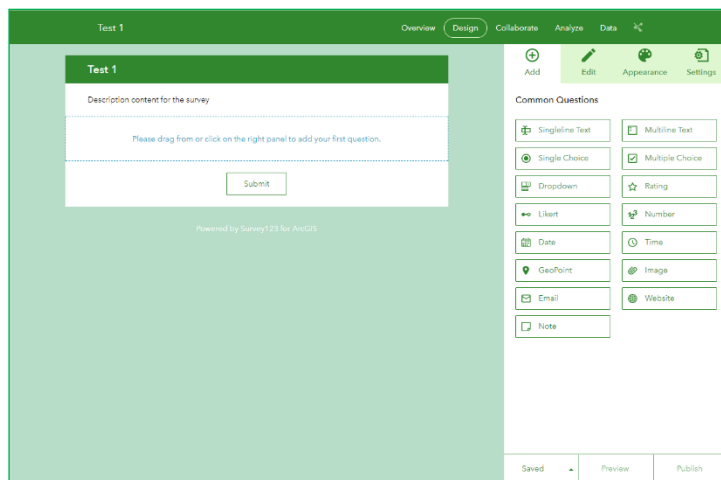
The "Creating smart forms with Survey123 web designer" YouTube video[9] describes how to use the functionalities accessible from this window to create and publish a simple survey form.

### 7.2.2 Creating and publishing the Survey123 form using Survey123 Connect and a spreadsheet

Survey123 uses an XLSForm to store the survey questionnaire electronically while authoring the survey. It is a simplified way to create human-readable form using a spreadsheet in the Microsoft Excel file format.

Survey123 Connect provides a set of templates you can start from in order to create your own XLSForm.

To access these templates, log in to Survey123 Connect using your ArcGIS Online credentials, click on the *New Survey* large icon...
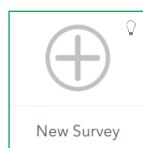

...to access the window that will allow you to give a title to your survey as well as choose a template, sample, or your own past surveys to start from.

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[9] https://www.youtube.com/watch?v=HtRv5kx5ekY&t=6s
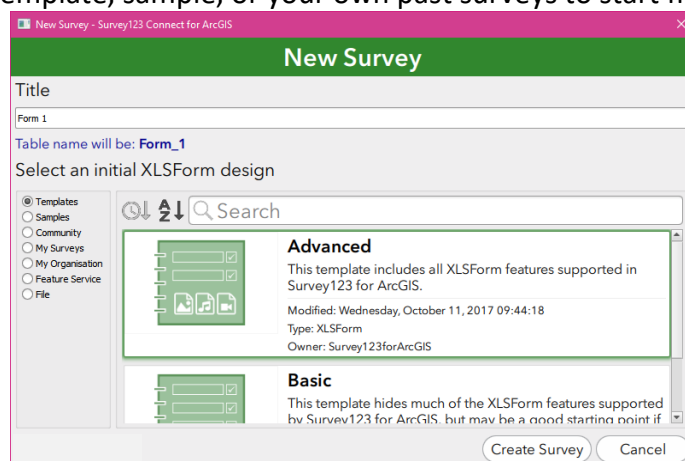
Once you have chosen the template or sample you want to use, just click the *Create Survey* button at the bottom of the window.

This will create and open the XLSForm in your spreadsheet software (MS Excel by default if it is installed on your computer).
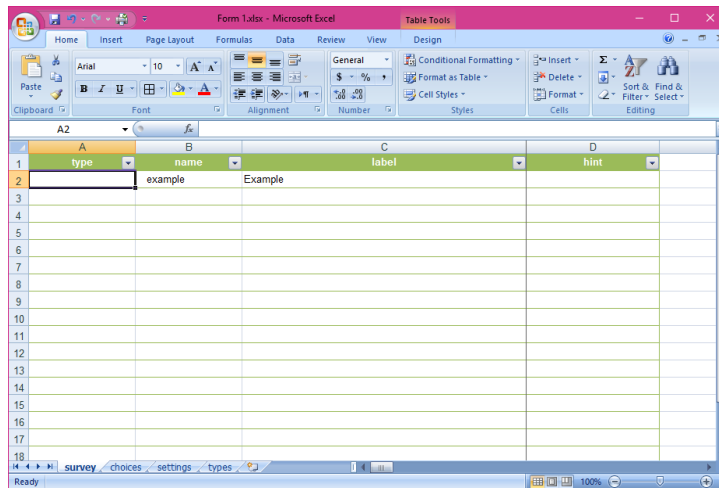
Depending on the template/sample that has been selected, the XLSForm created by Survey123 Connect can contain up to 5 worksheets:
- Survey
- Choices
- External choices
- Settings
- Types

The contents and functions of each of these worksheets are described in Annex 1.

The XLSForm Tutorial YouTube videos no 1[10], 2[11], 3[12], and 4[13] give a good description on how to integrate your questionnaire into the XLSForm.

Please note that the XLSForm is dynamically linked to Survey123 Connect, meaning that you can preview your form in Survey123 Connect each time you save the XLSForm. Saving the form will also result in Survey123 Connect to check the form for errors. If your XLSForm has errors, Survey123 Connect will inform you that it is not able to convert the survey. Correct the errors in your XLSForm and save it again until there are no more errors.

Please note that you can also upload an XLSForm that you would have created without passing through Survey123 Connect. In this case, you will have to upload your XLSForm into Survey123 Connect before being able to perform the check and do a preview. To do so:
1. Open the Survey123 Connect tool and click *Sign in*.
2. In the window that opens, sign in using your AGOL credentials.
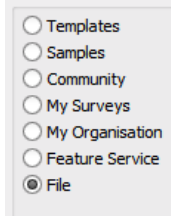3. On the My Survey Designs tab, click the *New Survey* button.

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[10] https://www.youtube.com/watch?v=utcINm0eBrU
[11] https://www.youtube.com/watch?v=OFOEIJyMeho
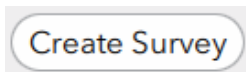[12] https://www.youtube.com/watch?v=_QWAL8dtr-c
[13] https://www.youtube.com/watch?v=ZiYFVX4WF_0

4. In the window that opens, type in the title of your survey.
5. Check the "File" option in the left-hand side menu.

6. Then browse for the location of your XLSForm.

7. Click the *Create Survey* button .

Once in Survey123 Connect you can:

- Preview your survey directly in the Survey123 Connect window
- Modify your survey by opening the XLSForm again after clicking on the spreadsheet icon

- Change the settings of your survey after clicking on the Settings button . In this tab you can change the title of your survey; the style including text color, background image, and background color; the settings of the embedded map; and the size of the images, if your survey is capturing them.

Once you are satisfied with your survey, click the *Publish* button on the left-hand side to publish your survey to your ArcGIS Online account.

7.2.3 Using existing data in your survey

You can use existing data to pre-load information into your survey. You can use this to populate your survey with information that does not change very often or to serve as the baseline data when updating your database, among other uses.

This can be done through the use of the *pulldata* function in the XLSForm. This function fetches the information from an external data file in the comma separated value (.csv) file format.

Following Section 6.1, you may have prepared an external data file as part of your survey. This may originally be an Excel file or other spreadsheet format. Save it as a .csv file format for use in Survey123.

Once you have created you survey in Survey123 Connect, click the Folder icon on the left-hand side. This will take you to the location of your survey (C:\Users\[your username]\ArcGIS\My Survey Designs\[survey name]). Open the **media** folder and place your CSV file there.

The *pulldata* function

The *pulldata* syntax is pulldata([csvfile],[returnColumn],[lookupColumn],[lookupValue]).

- csvfile is the name of the external data file without the .csv ending.
- returnColumn is the column in the CSV file where the value to be returned in the form is located.
- lookupColumn is the column in the CSV file that contains a match to the lookupValue to find the correct row
- lookupValue is the value in the form that exists in the CSV file to find the correct row

This formula should be entered into the calculation column of the XLSForm in the row that you want the data to be returned.
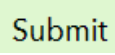
The "XLSForm: Enabling CSV Data into your Survey" YouTube video[14] demonstrates how to use the pulldata function to pre-load data into your survey.

7.3 Collecting data

Survey123 gives you the possibility collect data either online using your browser or in the field using the Survey123 field app. The following sub-sections describe how to proceed in both cases.

7.3.1 Collecting data online

Once published from the Survey123 web designer or Survey123 Connect, a survey can be shared through the form of a URL as follow:
1. Click on the survey icon you want to share from the My Surveys page on the Survey123 website.

2. Click on the *Collaborate* button placed on the top of the window

3. In the *Submit* tab :
   a. Define who can contribute to the survey (public, members of your organization, or some group(s) inside your organization)

   Choose who can submit data to this survey:
   ☐ Everyone (Public)
   ☐ Members of my organization
   ☐ Following Groups:

   b. Specify how the user access the survey in their browser (option 1 or 2)

   ⦿ Open the survey in browser directly
   ○ Ask the user how to open the survey, in browser or in the Survey123 field app
   ○ Open the survey in the Survey123 field app directly. (Learn more about this option)

   c. Click the *Save* button
   d. Copy the URL or get the QR code that you can then share with those meant to answer the survey

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[14] https://www.youtube.com/watch?v=CTq-ux2v5ds

Survey link: (Beta)

https://survey123.arcgis.com/share/df425baa3f4d48e7be8d53c8aa249598?open=native

7.3.2 Collecting data in the field using the Survey123 Field App

Once published from the Survey123 web designer or Survey123 Connect, a survey can be made accessible to Survey123 field app having an ArcGIS Online account as follow:

1. Click on the survey icon you want to share from the My Surveys page on the Survey123 website

2. Click on the *Collaborate* button placed on the top of the window

3. In the *Submit* tab Submit :
   a. Define who can contribute to the survey (public, members of your organization, or some group(s) inside your organization)

   Choose who can submit data to this survey:

   ☐ Everyone (Public)

   ☐ Members of my organization

   ☐ Following Groups:

   b. Specify for the users to access the survey through the use of Survey123 field app

   ○ Open the survey in browser directly

   ○ Ask the user how to open the survey, in browser or in the Survey123 field app

   ● Open the survey in the Survey123 field app directly. (Learn more about this option)

   c. Click the *Save* button

From there, the Survey123 app allows users to collect data in the field using the survey you created as long as they have been authorized to do so as mentioned above.

Authorized users will then launch the Survey123 field app on their mobile device or computer and follow these steps to download the survey form on the device:
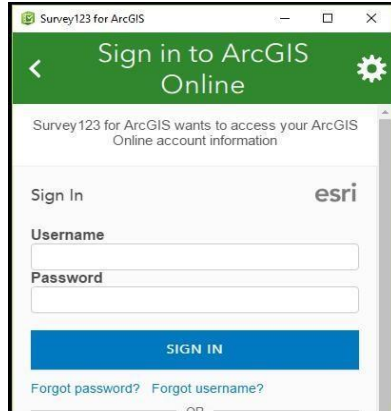
1. Click the *Menu* button on the upper right hand corner.
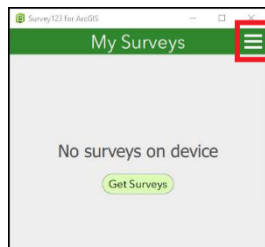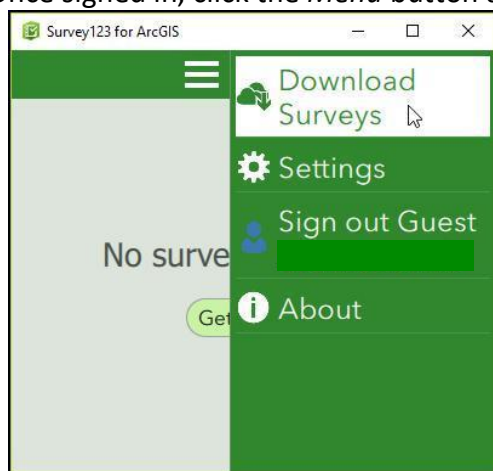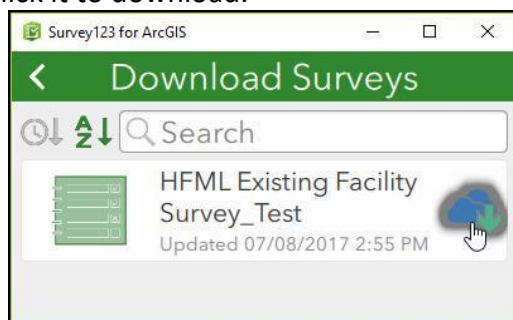
2. Click *Sign in*.
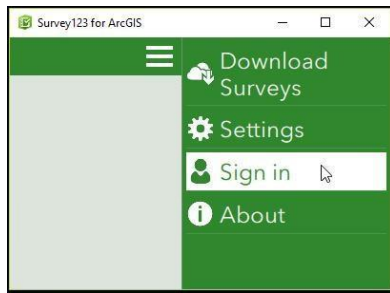
3. Sign in using your AGOL credentials.

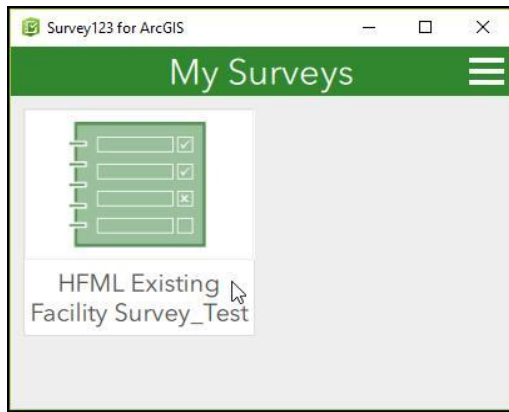4. Once signed in, click the *Menu* button again and click *Download Surveys*.

5. The available surveys for downloading are listed. Choose the survey you need and click it to download.

Once the download complete, the user can complete the survey as follow:

1. Click on the survey icon to select it.

2. Click *Collect* at the bottom of the app to open the survey and start collecting data.
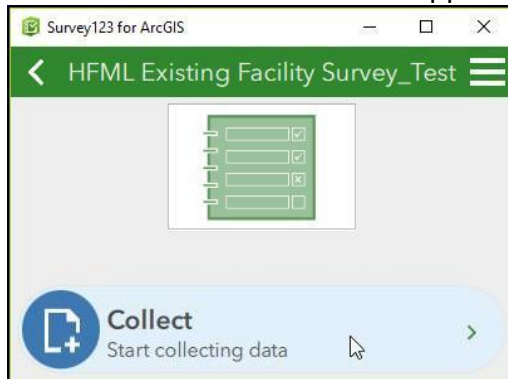
3. Once you have completed the survey, click the checkmark at the bottom right corner to save the survey. If you are online, you will be given the option to send the completed survey later (the survey will be saved in the outbox), send it now, or continue the survey.

If you are offline, your survey will be automatically saved in the outbox when you click *OK*.
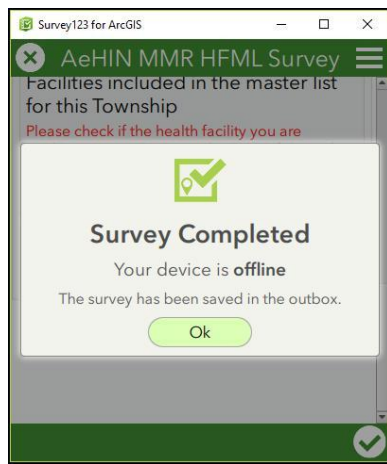
7.3.3 Editing a submitted record in the Survey123 app

If there is a need to edit a submitted record, the user can follow these steps:
1. Click on the survey icon to select it.
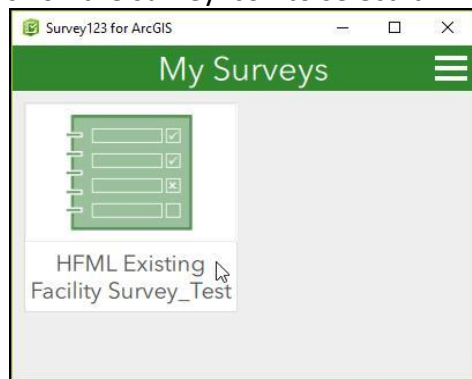
2. Click *Sent* at the bottom to review the submitted records. (The number shown on the Sent icon tells you how many records you have submitted.)

3. Click on the record you would like to edit.

4. You will be notified that the survey you have selected has already been sent and ask what you would like to do. Select *Edit and resend survey*.

5. The selected survey will be loaded. Edit the survey as needed and re-submit the survey.

7.4 Monitoring data collection

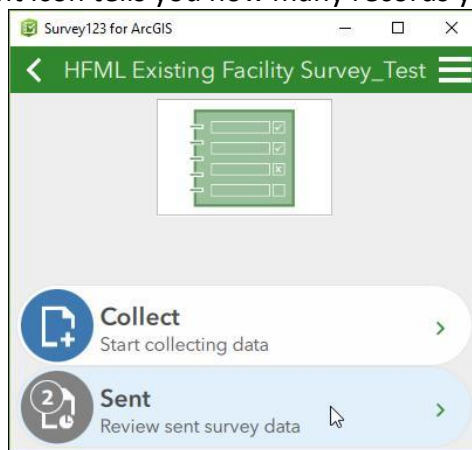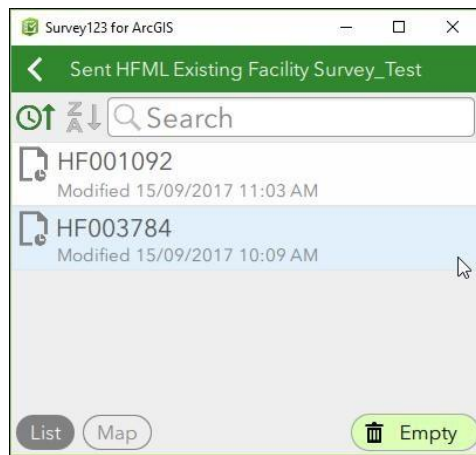All submitted records submitted are saved in ArcGIS Online. Users with the right permission can therefore instantly view records online as they are being submitted. A supervisor, for example, can readily see if there are missing or erroneous entries and can immediately alert the user to them.

The data collection can be monitored in two different ways during the survey, namely through the use of:
1. The Survey123 website
2. ArcGIS Online in case the survey collects geographic coordinates.

The following sections describe both options.

7.4.1 Monitoring data collection with the Survey123 website

During the course of the survey, users having an authorized ArcGIS Online account can log in to the Survey123 website to view the implementation progress as well as check the records

in a table and on a map when the geographic coordinates have been collected through the following functions (after having clicked on the corresponding survey icon):

1. **Overview** to get a overview of the implementation in terms of number of records submitted, number of participants, ...
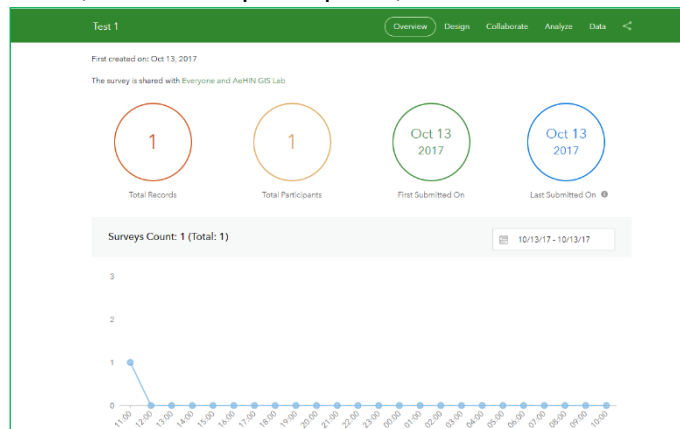
2. **Analyze** to get a summary analysis and a word cloud (when applicable) question by question
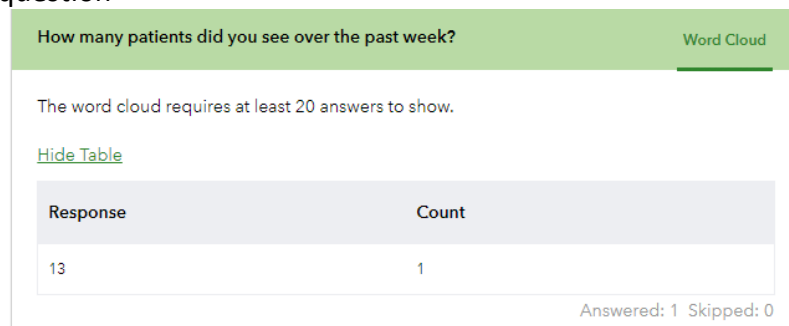
3. **Data** to access the content of each specific record and see the location of the collected geographic coordinates on a map

The summarized results by question can also be shared with the public or specific members of your organization through the following steps:

1. Click on the *Collaborate* button placed on the top of the window **Collaborate**

2. In the *Analysis* tab **Analyze** :

a. Define who can view the survey results (public, limited to the members of your organization, or some groups inside it)
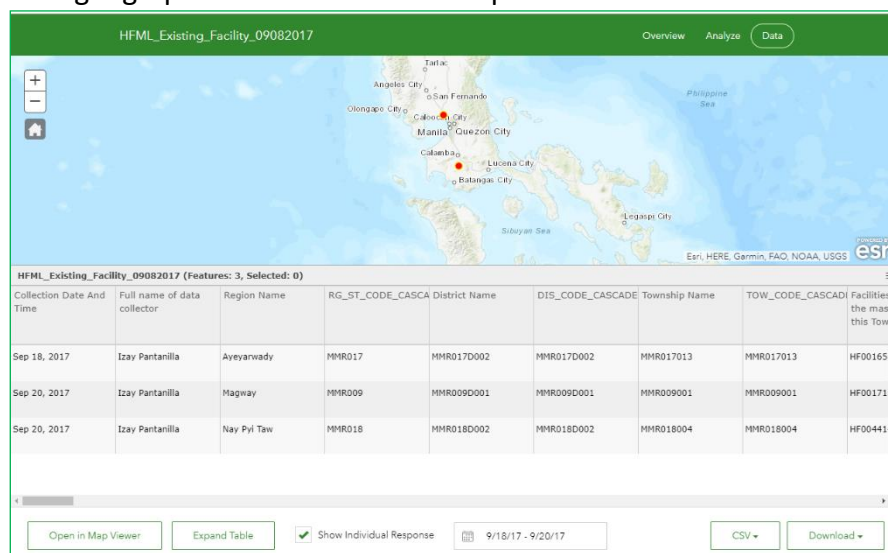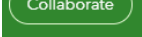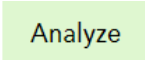
Choose who can submit data to this survey:

☐ Everyone (Public)

☐ Members of my organization

☐ Following Groups:

b. Click the *Save* button **Save**

This will result in the system to provide you with a URL that you can then share with those meant to have access to such summary.

Survey results link:

https://survey123.arcgis.com/share/df425baa3f4d48e7be8d53c8aa249598/result
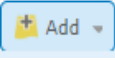
To see survey results, users who have access can also sign into the Survey123 website and then switch to **Surveys shared with me** tab in My Surveys page.

7.4.2 Monitoring data collection with ArcGIS Online

Surveys capturing geographic coordinates can also be monitored through the use of ArcGIS Online.

Once logged in to ArcGIS Online, authorized users can follow these steps to create a map view that will allow monitoring the survey:

1. Click on the *Map* tab at the top of the window **Map**

2. Click on the *Add layer* button **Add** and select *Search for Layers* **Search for Layers**

3. From the dropdown menu select the layer containing the survey data (Labeled as per the Survey123 form name)

The above will make the location of each located record appear on the map and the user will have the possibility to check the answer to each question by clicking on each point on the map.

Once saved, this map can either be shared publicly or only to the members of the organization.
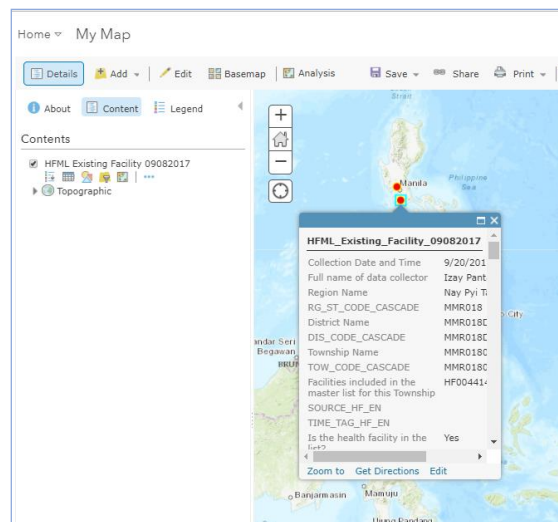
7.5 Downloading the collected data

During or at the end of the survey, the submitted records can be downloaded in different formats (Excel, CSV, shapefile, KML, or file geodatabase) from the Survey123 for ArcGIS website using the following steps:

1. Click *My Surveys* then locate and click the survey you want to download.
2. Click the *Data* tab [Data] .
3. Choose the file format you want to download the submitted records in.
4. If you want to download the submitted records only from a specific period, click the calendar and set the range or choose from the pre-set ranges.
5. Click *Download All Data* or *Download Filtered Data*.

8. Additional resources

Esri has a dedicated website for Survey123[15] wherein you can get information and do exercises on how to create surveys including the basics, the XLSForm, and other additional help. This website also has a Help section containing links to the Survey123 download page, FAQs, community support, technical support, blogs, and Twitter account.

You can also follow the Get Started with Survey123 for ArcGIS lessons on Learn ArcGIS[16]. These lessons help you create, complete and submit, analyze, and share a survey using real-world scenario.

Survey123 Connect has a Tutorials tab showcasing a number of videos on XLSForm tutorials, XLSForm advanced topics, and working with Survey123 for ArcGIS. It also provides real examples on how to use the different functionalities and formula on an XLSForm by clicking the New Survey icon and selecting Samples as the initial XLSForm design. You can then choose from the list of available examples.

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[15] http://doc.arcgis.com/en/survey123/
[16] https://learn.arcgis.com/en/projects/get-started-with-survey123/

Survey123 specific videos can be downloaded from the following web page: https://survey123.arcgis.com/videos/#collapse1

If you need more information on the XLSForm, you may visit also visit the xlsform.org[17] website.

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[17] http://xlsform.org/

Annex 1 - XLSForm worksheet description

<u>**Survey Worksheet**</u>

The survey worksheet contains all the fields and questions needed for the survey. This is where the author defines how the questions should appear on the survey.
There are three mandatory columns for the survey worksheet: type, name, and label.
- The type column specifies the type of entry being added. It can be text, integer, select one answer, select multiple answer, etc. It can also specify the grouping of questions (begin group, end group) or to add texts that will appear in the survey that take no input (notes).
- The name column contains the field names for the data to be collected. Each field should have a unique name and no spaces or special characters. This will serve as the field name in the database so no spaces and special characters are allowed.
- The label column contains the actual text that will be seen in the form.

There are additional columns needed to give a survey its structure.
- The hint column contains hints to help users complete the survey.
- The required column specifies which survey question needs to be answered before the survey can be submitted.
- The appearance column defines the appearance and functionality of your survey questions such as which questions will be grouped into pages of the survey, will the multiple choices appear as dropdown list or horizontally, etc.
- The read only column defines which fields cannot be edited.
- The relevant column which defines what questions need to be answered or skipped depending on the answer to the previous question.
- The calculation column which contains the formula that defines the answer for a particular question.
- The choice filter column which contains the formula needed for the cascade dropdown list.

<u>**Choices Worksheet**</u>

The choices worksheet contains the answer choices to the multiple answer questions in the survey. Each row entry in this worksheet represents an answer choice in the survey.

It also has three mandatory columns: list_name, name, and label.
- The list_name column lets the author group together a set of related answer choices. Choices with the same list name will be presented as the set of answers for a question.
- The name column contains the unique value for each choice. These values will be the data retained in the submitted records.
- The label column contains the answer choice that the author wants to be seen on the form.

Settings Worksheet

The settings worksheet contains options that control the presentation and behavior of the survey.

The important fields are:
- Form_title which contains the title of the survey.
- Instance_name which specifies the name to uniquely identify each saved survey in the draft, outbox, or sent folder.
- Style which defines how the survey appears such as in pages.

External Choices Worksheet

The external choices worksheet, or external selects, is useful when dealing with a large number of choices as it can slow down the loading of the survey.

Same with the Choices worksheet, it has three mandatory columns: list_name, name, and label.
- The list_name column lets the author group together a set of related answer choices. Choices with the same list name will be presented as the set of answers for a question.
- The name column contains the unique value for each choice. This value will be the retained in the submitted records.
- The label column contains the answer choice that the author wants to be seen on the form.

Types worksheet

The Types worksheet is used to define the field types and questions parameters.

The complete list of the possible types and parameters can be consulted from here:
http://doc.arcgis.com/en/survey123/desktop/create-surveys/quickreferencecreatesurveys.htm

Annex 2 – Multi-Language support description

To properly display the local language in Survey 123 Field App, users must have the most up to date version of Survey 123 Field App (as of 17 September 2019 this is version 3.5.177). The latest release will allow the survey taker to switch the display font to one suitable for the language being viewed.

Survey123 Field App (Windows)

Once the following steps have been followed, open the sample survey provided for the language of interest, and verify that the characters are being displayed correctly. Once corrected, you will find the characters being incorrectly displayed (left), should be fixed (right).

Steps to switch the display font:

1. In Survey 123 Field App, select the 'menu' in the top right corner (shown in the red box below):
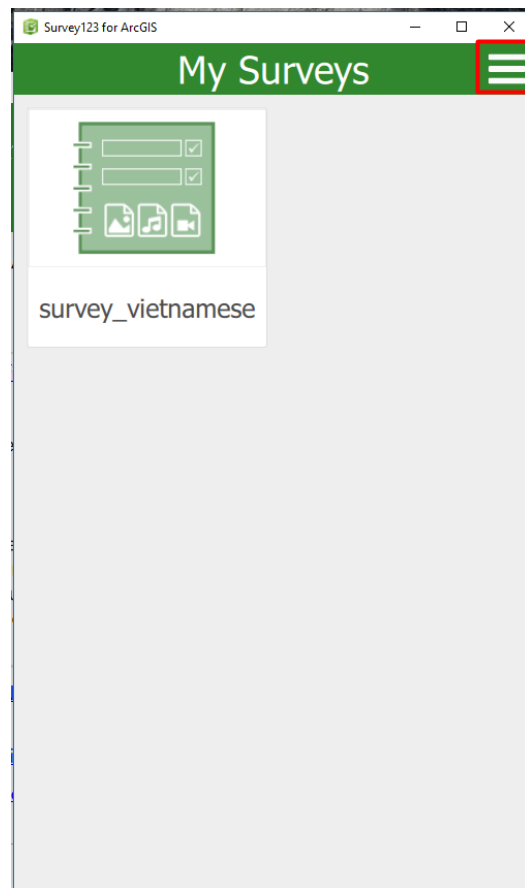
2. Select the 'Settings' option, this will be the top most option available (shown in the red box below):
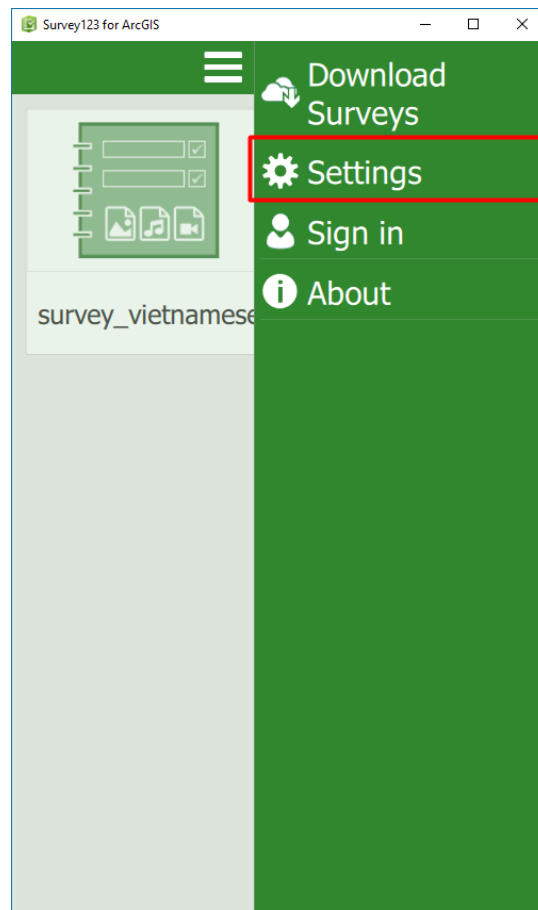
3. Select the 'Text' option, this should be the second option (shown in the red box below):
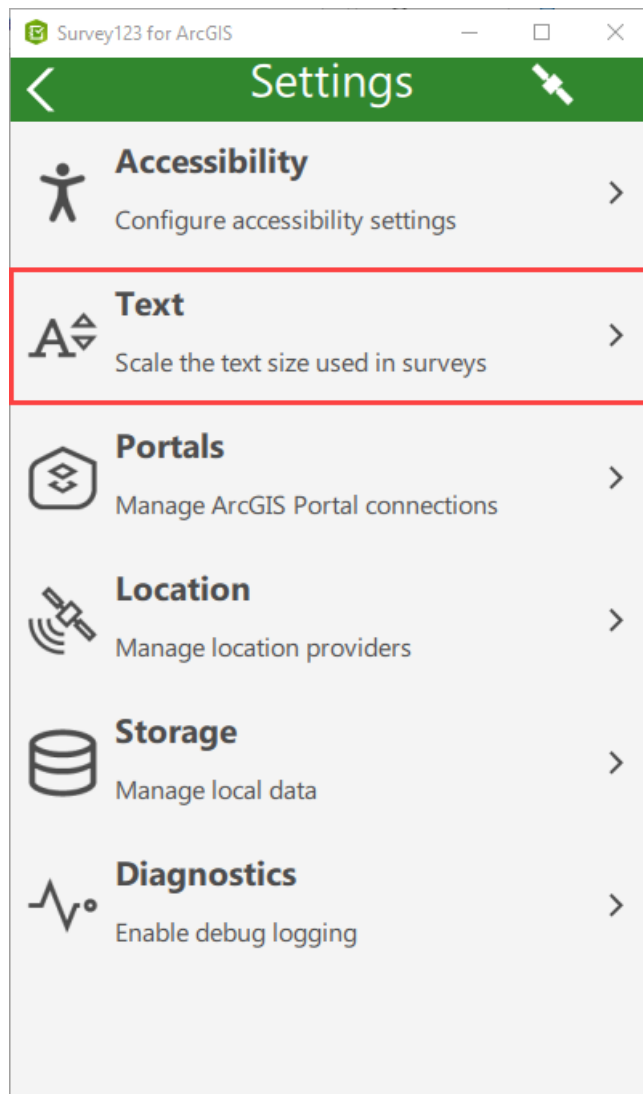
4. Select the font drop-down, found at the bottom of the screen (shown in the red box below):
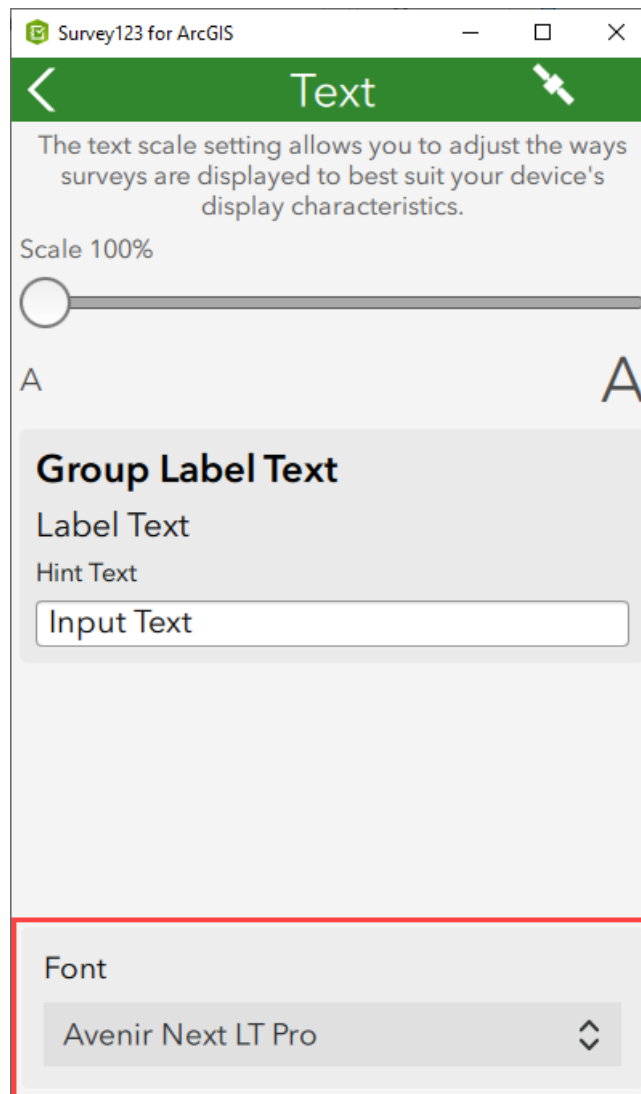
5. From the dropdown menu, scroll to and select the font in which the survey is to be displayed. Esri recommend the following fonts:
   a. Vietnamese – Arial or Times New Roman
   b. Myanmar Language – Myanmar Text
   c. Thai – Leelawadee UI
   d. Cambodian (Khmer) - Leelawadee UI
   e. Lao - Leelawadee UI
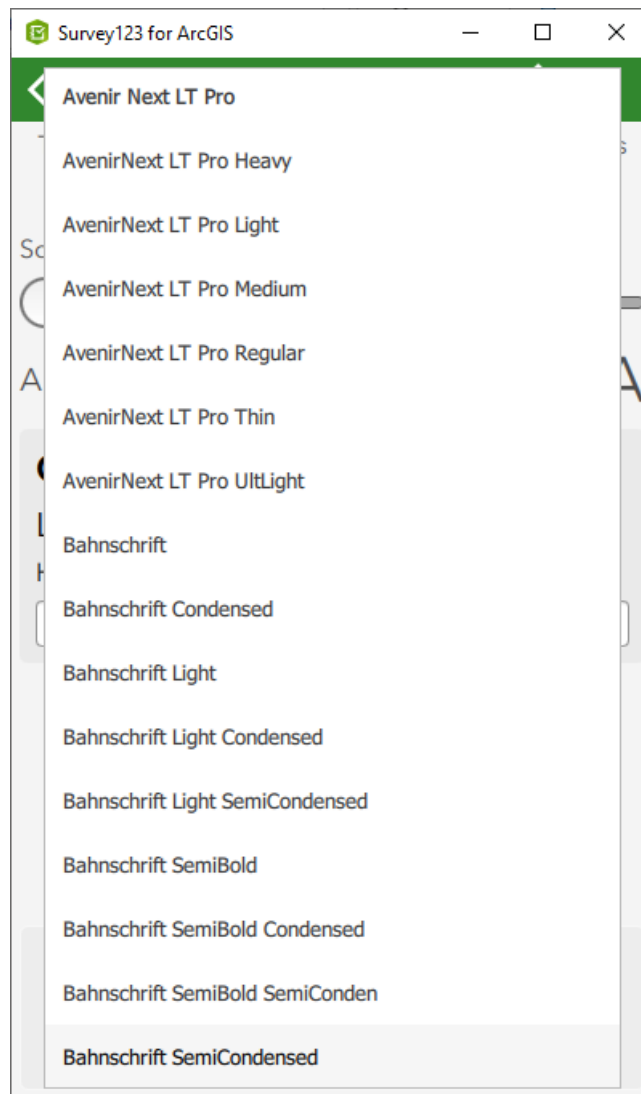
Survey123 Field App for Android

1. Open Survey123 Field App and follow steps 1 – 4 from above
2. From the dropdown menu, scroll to and select the font in which the survey is to be displayed. Esri recommend the following fonts:
   a. Vietnamese – Noto Sans Tai Viet
   b. Myanmar Language – Noto Sans Myanmar UI
   c. Thai – Noto Sans Thai UI
   d. Cambodian (Khmer) – Noto Sans Khmer UI
   e. Lao – Noto Sans Lao UI

Survey123 Field App for iOS

1. Open Survey123 Field App and follow steps 1 – 4 from above
2. From the dropdown menu, scroll to and select the font in which the survey is to be displayed. Esri recommend the following fonts:
   a. Vietnamese – Arial or Times New Roman
   b. Myanmar Language – Arial or Myanmar Sangam MN
   c. Thai – Arial
   d. Cambodian (Khmer) – Noto Sans Khmer
   e. Lao – Arial or Lao Sangam MN

Example Surveys

Below we have attached example Survey123 forms to enable testing font compatibility across platforms.

Vietnamese

type		name		label		label::Vietnamese (vi)	
text		name		Name		Tên	
select_one facility		facility_type		Facility Type		Loại	
note				Notes		Giấy nhắn	

Myanmar Language

type		name		label		label::Myanmar (my)	
text		name		Name		အမည်	
select_one facility		facility_type		Facility Type		အဆော ကအုအံစသည် အမို့ းအဆ	
note				Notes		မတ္တစ	

Thai

type		name		label		label::Thai (th)	
text		name		Name		ชื่อ	
select_one facility		facility_type		Facility Type		ศูนย์สุขภาพ รูปแบบ	
note				Notes		คำอธิบายสั้น ๆ	

Cambodian

type		name		label		label::Khmer (km)	
text		name		Name		នាម	
select_one facility		facility_type		Facility Type		ប្រភេទ	
note				Notes		ពិពណ៌នា	

Lao

type		name		label		label::Lao (lo)	
text		name		Name		ຊື່	
select_one facility		facility_type		Facility Type		ຊະນິດ	
note				Notes		ສັງເກດ	

Platform Compatibility

The following information has been collected to determine whether existing local language workflows are still compatible with the most recent version of Survey123. **Pass** indicates that the platform supports the language with the fonts suggested above, if no change was made to the font settings (**no change**) will be noted. Complete testing of each platform has not been finalized and each result should be used as a quick reference.

Language	iOS	Android	Windows	Survey123 Connect
Cambodian	pass (no change)	pass	pass	pass
Lao	pass (no change)	pass	pass	pass
Myanmar	pass (no	pass (Noto Sans	pass	pass

(Burmese)	change)	Myanmar)		
Thai	pass (no change)	pass (Noto Sans Thai)	pass	pass
Vietnamese	pass	pass	fail	fail