

## User Guide to Survey Sample Builder v2.1

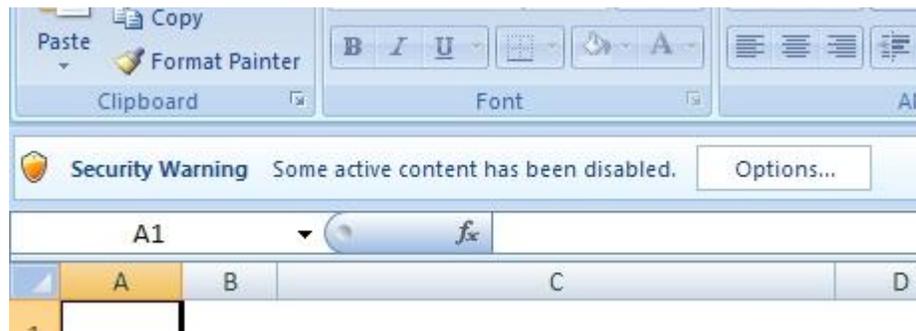
A step-by-step guide to accompany the computer application

### Step 1a) *If you are running a MS Office 2000 or 2003:*

- a. Before launching the application, open **Microsoft Office Excel**
- b. On the **Tools** menu, click **Options**.
- c. Click the **Security** tab.
- d. Under **Macro Security**, click **Macro Security**.
- e. Click the **Security Level** tab, and select the **Medium** security option.
- f. Launch the application "SurveySampleBuilder.xls"
  - i. Upon launching the program, if a message box appears choose the "enable macros" option.

### Step 1b) *If you are running MS Office 2007*

- a. Launch the application "SurveySampleBuilder.xls"
- b. You should see the following message at the top of the spreadsheet:



- c. Click the **Options** button and then in the following pop-up menu click the "Enable Macro" button

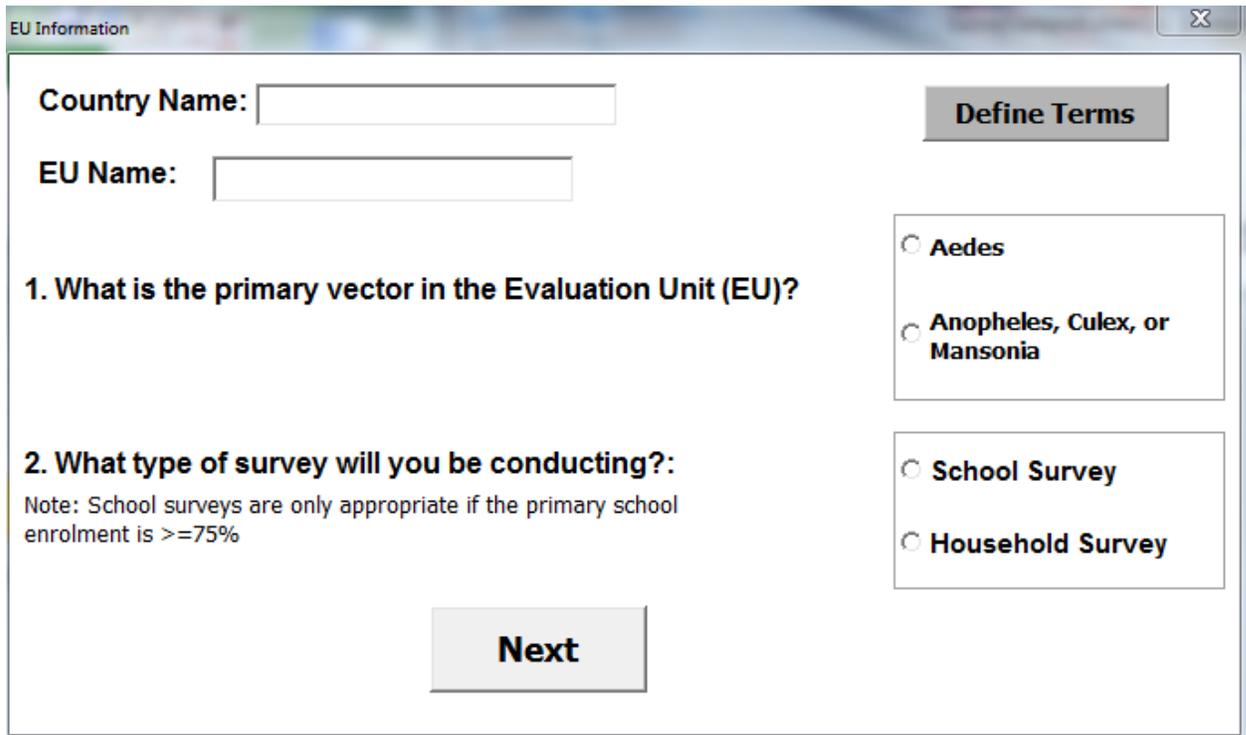
## Step 2. Welcome Screen

- a. After you have completed Step 1, you should see a pop-up menu asking if you would like to start a new file. If this is your first time using the program – OR- you would like to create a new file, click “Start New File.” Otherwise if you are opening a previously saved version of SSB in which you already entered information, click “Open Saved File.”



### Step 3. *EU Information Form*

- a. If you have selected "Start New File" the following EU Information form should pop-up:



The screenshot shows a window titled "EU Information" with a close button in the top right corner. The form contains the following elements:

- Country Name:** A text input field.
- EU Name:** A text input field.
- Define Terms:** A button located to the right of the input fields.
- 1. What is the primary vector in the Evaluation Unit (EU)?** A question with two radio button options:
  - Aedes
  - Anopheles, Culex, or Mansonia
- 2. What type of survey will you be conducting?:** A question with two radio button options:
  - School Survey
  - Household Survey
- Note:** School surveys are only appropriate if the primary school enrolment is  $\geq 75\%$ .
- Next:** A button at the bottom center of the form.

- b. Fill out this form using the information from your Evaluation Unit. *Note: it is important that each question be filled out in order for the program to proceed correctly.*
- c. If the net primary enrolment rate is  $\geq 75\%$  you have the option to conduct your TAS in either schools or households. When the enrolment rate is  $< 75\%$  you must conduct a household survey.
- d. If you are unclear about the meaning of any of the terms on this or subsequent pages click "Define Terms" to view a list of current definitions.

## Step 4. *School/Household Form*

- After clicking "Next" in the EU Information form, if you are conducting a school survey you should see a form appear entitled "School Survey" (example below). If you are conducting a household survey you should see a form entitled "Household Survey". Fill out all the questions in the order they appear.
- At any point, if you would like to go back to the previous EU Information form to edit or view the data, simply click on "Back to Previous Form".
- Once you have answered all questions on the form click "Finish and Return to Workbook."

**School Survey**

**Define Terms**

**1. Consider the grade(s) of primary school in which 6 and 7 year old children are most likely to be enrolled. What is the net enrollment in this grade(s) in the evaluation unit (EU) for the survey year?**

Note: if you only know the net primary enrollment for all years, you can multiply it by 20% to get net enrollment of 1st year students (if there are 5 levels of primary school) or by 40% to get the net enrollment of 1st and 2nd year students.

**2. How many primary schools are in the EU?**

**3. What is the expected non-response rate in the survey (i.e. the percent of eligible primary students that will not have valid results included in the survey)?**

(Includes children absent from school on survey date, lack of consent, refusal to participate, and problems with the ICT cards; if unknown 10-15% is the average rate)

**4. Is a cluster survey more feasible than a systematic sample, particularly in regards to cost?**

(If you already know that you would like to conduct a cluster survey, regardless of cost, click "yes"; for a systematic sample click "no")

Yes  No

Not sure, help me calculate

**Back to Previous Form** **Finish and Return to Workbook**

## Step 5 (OPTIONAL) *Cluster vs. Systematic Sample calculations*

- a. When you get to question 6 on the previous form, if you don't know whether or not a systematic sample or cluster survey will be better for your team, click "Not sure, help me calculate" for question 5 and the following screen will appear.
- b. After you have filled out this form, click "Compare Costs" and the program will recommend a sampling method for you.
- c. When you are finished click on "Return to Form".

Cluster vs LQAS

1 a. *If you are doing a school survey:*  
**What is the approximate cost of visiting one school?**

1 b. *If you are doing a community survey:*  
**What is the approximate cost of visiting one census enumeration area?**

Note: Be sure to include the time and communication costs required to plan for a visit to one EA/school, transportation costs, costs of driver's salary and per diem, and survey team salaries and per diems for travelling time and time for introductory meetings

2. **What is the cost of testing one child once you are at the school/EA?**

Note: Be sure to include the cost of supplies for sampling a child, as well as the survey team salaries and per diems needed to test the child and record the result

**Compare Costs**

**Return to Form**

## Step 6: Core Survey Design

- After you have clicked "Finish and Return to Workbook" you will be taken to an Excel spreadsheet called "Start Here". The first box, titled *Core Survey in 6-7 year-olds* should contain a summary of the information you just entered. Review this information for correctness and click "Edit EU Information" if you would like to correct any information on the form.
- The box entitled *Survey Design Recommendations* will contain information on the type of survey you should conduct. To view the details of your survey design click "Go To Survey Design"
- If you have an internet connection and would like to view WHO TAS Manual, click on "View TAS Manual"

**Dominican Republic**

**Core Survey in 6-7 year-olds in Foco Suroeste EU**

Number of eligible primary students in EU	10,000
Number of primary schools in the EU	135
Predicted Nonresponse rate	10%

Start Over      Edit EU Information

\*Anopheles or Culex Primary Vector

**Survey Design Recommendations**

It is recommended that you use the following survey methodology:  
**Cluster-Sample Survey of Eligible Primary Students**

Go To Survey Design

View TAS Manual (web access required)

Version 2.0

Start Here

## Step 7: Survey Design

- a. The Country and Demographic data information at the top of the page should be a summary of the information you entered. Once more, double check to make sure that the information in the upper left-hand corner and the *Demographic data* box are correct. If the data are not correct you must click on the "Back to Start Here" button and select "Edit EU Information." After you have corrected the EU Information, clicking "Go To Survey Design" should update the information on the worksheet.
- b. If you will be conducting a School Cluster survey or Household Cluster survey, you should see a worksheet similar to the one below.

A1		fx	Country:
	A	B	C
1	<b>Country:</b>	<a href="#">Dominican Republic</a>	
2	<b>Name of EU:</b>	<a href="#">Foco Suroeste</a>	<input type="button" value="Back to 'Start Here'"/>
3	<b>Primary Vector:</b>	<a href="#">Anopheles or Culex</a>	
4		<b>Demographic data on EU (provided by user)</b>	
6		Population of students in target grade(s):	<b>10,000</b>
7		Total number of schools:	<b>135</b>
9		Avg. number of students in target grade(s) per school:	<b>74</b>
10		<i>Note, if any of the above information is incorrect, click on the 'Back to 'Start Here'' button and then click 'edit EU information'</i>	
11		<b>Cluster Survey of School Entrants</b>	
11		<b>Survey Sampling Methodology (calculated by program)</b>	
12		Sample Size for Cluster Design	<b>1,540</b>
13		Number of Clusters <sup>1</sup>	<b>30</b>
14		Sampling Fraction (of children within the schools) <sup>1</sup>	<b>0.77</b>
15		Sampling Interval (of children within the schools) <sup>1</sup>	<b>1.30</b>
16		Critical Cut-off (maximum # positive ICT/Brugia Rapid results allowable for country to "Pass")	<b>18</b>
17		<sup>1</sup> Based on a 10% absentee rate	
18		<input type="button" value="1. Select schools to sample"/>	<input type="button" value="2. Generate Lists A &amp; B"/>
19		<b>Lists corresponding to the children selected for sampling out of all students in target grade(s), per</b>	
20	The random number used to generate these lists is:	<b>List A</b>	<b>List B</b>
21			
22			
23			

Start Here   **Cluster School**   Select PSUs

- c. If you are conducting an Systematic Sample school or household survey then you should see a worksheet similar to the one below.

A1		fx	Country:
	A	B	C
1	Country:	<a href="#">Dominican Republic</a>	
2	Name of EU:	<a href="#">Foco Suroeste</a>	Back to "Start Here"
3	Primary Vector:	<a href="#">Anopheles or Culex</a>	
4	<b>Demographic data on EU (provided by user)</b>		
5			
6	Population of students in target grade(s): <b>10,000</b>		
7	Total number of Schools: <b>135</b>		
8	Avg. number of students in target grade(s) per school: <b>74</b>		
9	<i>*Note, if any of the above information is incorrect, click on the "Back to "Start Here" button and then click "edit EU information"</i>		
10			
11			
12	<b>Systematic Sample of School Entrants</b>		
13	<b>Survey Sampling Methodology (calculated by program)</b>		
14	Sample Size for Systematic Sample <b>770</b>		
15	Sampling fraction (children within each school) <sup>1</sup> <b>0.09</b>		
16	Sampling interval (children within each school) <sup>1</sup> <b>11.68</b>		
17	Critical Cut-off (maximum # positive ICT/Brugia Rapid results allowable for country to "Pass") <b>9</b>		
18	<sup>1</sup> Based on a 10% absentee rate		
19	<b>Generate Lists A &amp; B</b>		
20	<b>Lists corresponding to the children selected for sampling out of all students in target grade(s), per school</b>		
21	The random number used to generate your lists was:	<b>List A</b>	<b>List B</b>
22			
Start Here		Systematic Sample School	

- d. The second box, entitled *Survey Sampling Methodology*, contains the survey design calculations that are specific to your study. Write down or print the values listed in this box.

## Step 8: for Cluster Designs only (for LQAS designs see step 9)

*Note: Step 8 assists you in the selection of schools or EAs to sample. If you are conducting a Systematic Sample survey you will need to sample from every school or EA and therefore should skip this step and proceed to Step 9.*

- a. Click "1. Select Schools to Sample" (if you are doing a community survey this button will say "1. Select EAs to Sample") and the following worksheet should be displayed:

The screenshot shows an Excel spreadsheet with the following content:

	A	B	C	D
1	<b>Directions:</b> Obtain a comprehensive list of all the primary sampling units (i.e. Schools or EAs) in the EU and number them, preferably in order of geographic proximity. Once all sampling units have been assigned a number, double check that the values listed below are correct and click the "Randomize" button. When you are finished you can click "Return to Previous Page" to go back.			
2				
3				
4	Total number of EAs:	135	<input type="button" value="Randomize"/>	
5	No. of EAs (clusters) to be sampled:	30	<input type="button" value="Return to Previous Page"/>	
6				
7				
8	The following schools/EAs have been selected for your study:			
9		4		
10		8		
11		13		
12		17		
13		22		
14		26		
15		31		
16		35		
17		40		
18		44		

The spreadsheet also shows a navigation bar at the bottom with tabs for "Start Here", "Cluster School", and "Select PSUs".

- b. Follow the directions highlighted in the orange box. Once you have all of your schools or EAs enumerated in order of geographic proximity click the "Randomize" button. You will see a pop-up box asking how many extra EAs/Schools you would like to sample. This is done so that in case you do not reach the required sample size with your selected EAs/Schools. We recommend selecting at least 5 extra EAs.

- c. You should see a list of numbers appear on the screen. Each number on this list corresponds to the school or EA with the same number that has been selected as one of the clusters in your survey. The amount of items in this list should correspond to the number of clusters needed to be sampled according to your survey design (cell "B5"). At the bottom of the list you will see a list of the extra EAs/Schools.
- d. Copy down or print this list of numbers to keep a record of the clusters you will be visiting. *Alternatively, you could type in the name of the school or EA corresponding to each selected number in column "C" and then print out this list so that you have a list of the clusters to be sampled.*
- e. Once you have completed these steps, click on the "Return to Previous" button to return to the previous screen.

## Step 9: Generate Lists (both Cluster and LQAS survey designs)

- b. Now it is time to generate the two lists that will be used to select the school children (for school surveys) or households (for community surveys) to be sampled. Click the “Generate Lists A & B” button.



- c. Two lists should be automatically generated in columns “B” and “C.” These two lists correspond to the school children (in the target grade(s)) or households that should be sampled in each selected school or EA.
- d. It is recommended that you print out or copy down these lists. Each survey team will need a copy of both lists in the field.

## **Step 10a: Field Implementation of Sampling Design (for Systematic Sample or Cluster surveys conducted at the households)**

- a. The survey team will arrive at a designated EA (for Systematic Sample surveys you will need to visit each EA in the EU, whereas cluster surveys should only visit the EAs that were selected in Step 8). A designated member of the survey team (preferably not one of the team members who will be doing the sampling) and a village leader from the EA will comprise of the mapping team. The village leader could be a chief, council member, community health worker etc.
- b. The mapping team should use a pre-existing map of the EA (or create a map) to draw out a walking route that will take them by every single household.
- c. Once the route through the EA has been decided, the team leader should flip a coin to decide if List A or List B will be used.
- d. The mapping team will then walk the chosen route and enumerate each household. Using the list selected by the coin toss (either A or B), they will mark each household that has been selected for the survey. Marking should be done in the most culturally appropriate manner (e.g. sticker, chalk, ribbon, etc.). If an adult survey is being conducted, the team should agree on a way to designate the households in which adults should also be sampled. The mapping team will continue to mark the houses corresponding with the numbers on the list until the next number on the list is higher than the total number of households in the EA. At this point the mapping exercise is done.
- e. Once the mapping team has started marking the selected households, the sampling team can follow behind along the same route and begin sampling at the marked households. At each household the sampling team should sample all 6-7 year-olds who live in the household. If there are no children of that age, the team should proceed to the next marked house.

## **Step 10b: Field Implementation of Sampling Design (for Systematic Sample or Cluster surveys conducted in the schools)**

- a. The survey team will arrive at a designated school (for Systematic Sample surveys you will need to visit each school in the EU, whereas cluster surveys should only visit the schools that were selected in Step 8). Upon arrival the team should work with school officials to get all children in the target grade(s) (those that are most likely to contain 6 and 7 year olds) in an order or sequence in which they can be counted.
- b. The team leader should flip a coin to decide if List A or List B will be used.
- c. Children are selected according to the numbers on the List. Selection of children should continue until the next number on the List is higher than the total number of children in the target grade(s) at the school.
- d. The team should proceed to collect data and specimens from the selected children.