

Summary of Steps to Use the Measles Risk Assessment Tool

Summary of Steps to Use the Measles Risk Assessment Tool

1. Collect your data
2. Initial setup
3. Input data
4. View risk assessment results
5. Generate the country report
6. Risk Assessment Tool customization (optional)

Step 1. Collect Your Data

Use this list to collect your data before beginning to use the Risk Assessment Tool.

✓	Data	Details	Additional Notes
	Administrative vaccine coverage data (for each district)	<ol style="list-style-type: none"> 1. MCV1, for years 1, 2, 3 2. MCV2 (if introduced), for years 1, 2, 3 3. DPT1 or Penta1, for year 3 	If <u>coverage survey</u> estimates are available at the district level, were conducted within the past 3 years, and include birth cohorts of the past 3 years, these can be used in place of administrative coverage for MCV1 and MCV2.
	Measles Supplementary Immunization Activity (SIA) campaign data (for each district), if any SIA was conducted in the past 3 years	<ol style="list-style-type: none"> 1. Coverage (for each district) 2. Target age group for SIA 3. Year in which SIA was conducted 	If no nationwide SIA was conducted in the past 3 years but an outbreak response immunization (ORI) campaign was performed for an entire district, you can report ORI coverage in place of SIA coverage. If post-SIA coverage survey estimates are available at the district level, these can replace administrative coverage for an SIA.
	Measles case-based surveillance data	For years 1, 2, 3	Include the surveillance data dictionary
	Total population (for each district)	For years 1, 2, 3	
	Geographic area (in km ²)	Year 3, for each district	Geographic area of districts may be included in the shape file, or may be listed in a separate file.
	Shape file of country	For year 3, at the district level	
	Completed 'Vulnerable Groups by District' spreadsheet	Complete this excel spreadsheet to determine the vulnerable groups that are present in each district in the country. We recommend including several experts who have good programmatic knowledge of the districts (e.g., EPI manager, surveillance officers, cold chain officer, others with local knowledge) in a discussion to complete this spreadsheet.	

Presence of vulnerable population groups

Data source: Local knowledge

Assign one risk point for each of the following vulnerable population groups present in a district. Presence of chronically unreached due to:

- 1) Presence of migrant population, internally displaced population, slums, or tribal communities
- 2) Resistant to vaccination (i.e., religious, cultural issues, etc.)
- 3) Security and safety concerns
- 4) Frequented by calamities/disasters
- 5) Poor access to health services due to terrain/transportation issues
- 6) Lack of local political support
- 7) Presence of high-traffic transportation hubs/major roads or bordering large urban areas (within and across countries)
- 8) Presence of areas with mass gatherings (i.e., trade/commerce, fairs, markets, sporting events, high density of tourists)

Step 2. Initial Setup

(a) Enter global reference data and country flag

1. Open the **Measles Risk Assessment Tool** excel file
2. In the “**Setup&Configuration**” sheet, fill in the “Global reference data” section by entering:
 - a) The country name
 - b) The year of risk assessment (the year for which you want to estimate risk, e.g. if you have data for 2012, 2013, and 2014, you will estimate risk for 2015)
 - c) The document language (choose English, French, or Spanish)
 - d) Has an SIA been conducted in the last 3 years in all districts? (choose Yes or No)
 - e) Is the country in post-elimination or high income? (Choose Yes or No)
 - f) MCV age eligibility (the age in months at which the first dose of measles vaccine [MCV1] is administered)
3. “Calculated fields” and “Geo-items” are calculated automatically
4. Select the “Country Flag” picture with:
 - a) Clicking the “**Load Country Flag**” button or the “**COUNTRY FLAG**” frame
 - b) Select the country flag picture from your local drive and click “**Open**” button

Global reference data	Value	Done
Country name		TODO
Year of risk assessment		TODO
Document language	English	OK
Has an SIA been conducted in the last 3 years in all districts ?		TODO
Is the country in post-elimination or high-income ?		TODO
MCV age eligibility (months)	>= 12 months	OK

Calculated fields	Value
First data year	-3
Last data year	-1
Assessment years	-3--1



Legend

X	Read only cells
X	Editable cells - Please enter the data in these cells
X	Read only cells - Calculated



Step 3. Initial Setup

(b) Import maps

1. In “**Setup&Configuration**” sheet, click “**Setup and configure Geo-Data**” link, or select “**_GeoData_Maps**” sheet
2. Click “**1 – Import Map & Init.**” button
3. Select the zip file containing the shapefile
(The meta-data fields will be updated based on the shapefile content)
4. Fill in the “**Map Import & Initialization**” form with the following information from the shape file:
 - a) Admin1_Id field* [Province level]
 - b) Admin1_Label field* [Province level]
 - c) Admin2_Id field* [District level]
 - d) Admin2_Label field* [District level]
 - e) Population field (if exists)
 - f) Area_km2 field (if exists)
5. Click “**Next**” button to import the & map and the geo-data

Geo-item	Value	Done
Shapes loaded	2	TODO
Number of Admin1	1	TODO
Number of Admin2	1	TODO
Country population in ref. year-1 (-1)	1	TODO
Click here to setup and configure Geo-Data		

1 - Import Map & Init.

Map Import & Initialization

Step 1 : Select map file

Map file to load:

ZIP file *: D:_tmp\Measles\shapefiles\Zimbabwe_shapefile.zip

Admin1_Id Field : ADM1_CODE

Admin1_Label Field : ADM1_NAME

Admin2_Id Field : ADM2_CODE

Admin2_Label Field *: ADM2_NAME

population Field :

Area_km2 Field : AREA_SQKM

Cancel << Back **Next >>**

The zip file must contain the following files: “.dbf”, “.shp” and “.shx” file

*Fields b-e are required and **must** be filled in. If the shape file does not have a separate field for Admin1_Id, you can fill this field in using the Admin1_Label. Similarly, if the shape file does not have a separate field for Admin2_Id, you can fill this field in using the Admin2_Label. Population and Area_km2 fields are optional.

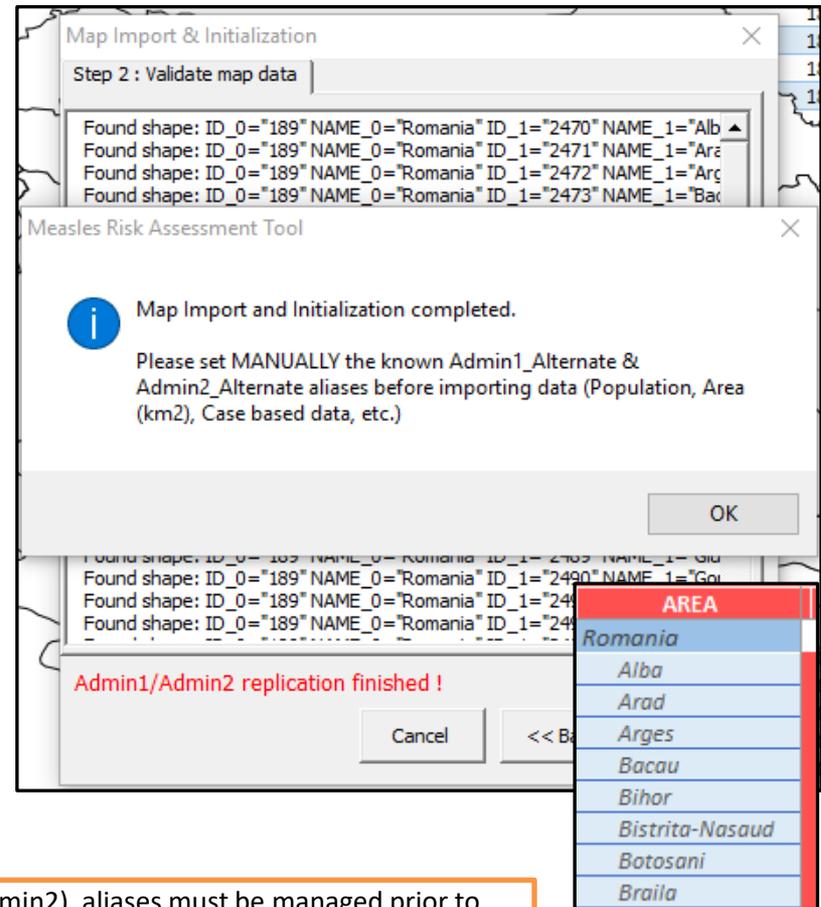
Step 3. Initial Setup

(c) Fill in the district names

1. A message is displayed to confirm the map and geo-data import.

This message box indicates that there might be aliases for district names that need to be managed prior to further data import (if yes, you will see errors when you try to import data; see pages #16-17 for instructions for managing aliases for district names)

2. Click "OK" button
3. Check that the following sheets in the Risk Assessment Tool contain the list of district and province names:
 - a) IndicatorMaps
 - b) PopulationImmunity
 - c) SurveillanceQuality
 - d) ProgramDeliveryPerformance
 - e) VulnerableGroups
 - f) ThreatAssessment



Note: If there are aliases for Province names (Admin1) or District names (Admin2), aliases must be managed prior to importing population, geographic area, case-based data, administrative coverage, and other data. See "[Manage Aliases for Province and District Names](#)" (pages #16-17) for instructions for managing aliases. If aliases are not managed before importing data, the Risk Assessment Tool will not be able to match imported data with the correct districts.

Step 3. Initial Setup

(d) Import population data

1. In “_GeoData_Maps” sheet, click “**2 - Import Population**” button to import the population data:
 1. Click on ‘...’ button, then browse to select the file that contains the population data
 2. Enter the columns for Admin level 1 (*Provinces*) and Admin level 2 (*Districts*) (Note: if there is no column in the data source for Admin 1 [Province], this cell can be left blank)
 3. Enter the data start row and the data end row
 4. Enter the column containing the population data
 5. Click “**Next**”
2. A summary is displayed. If you receive an error message after importing data, then please refer to the “Manage Aliases for Province and District Names” slides (pages #16-17) in order to account for province and/or district aliases

2 - Import Population

(if not imported yet from the shapefile)

	A	B	C	D	E
1	Province	District	2012 Population	2013 Population	2014 Population
2	Province1	District A	684,605	698,155	727,799
3	Province1	District B	276,044	277,150	316,749
4	Province1	District C	575,911	582,649	585,874
5	Province2	District D	407,388	414,725	333,030
6	Province2	District E	802,906	828,778	785,323
7	Province2	District F	247,794	243,812	184,194

Data Import...

Population

Step 1 : Select data source

Data Source File

Data source is stored in this current XLS file

Other XLS file ...

Worksheet Source: ▾

Area Data Source

Admin level 1 column: Admin level 2 column

Data Start Row *: End Row(empty=auto):

Load only visible/filtered rows Show load warnings

Indicator Source

Population column :

Cancel << Back Next >>

Note: If there are aliases for Province names (Admin1) or District names (Admin2), aliases must be managed prior to importing population, geographic area, case-based data, administrative coverage, and other data. See “[Manage Aliases for Province and District Names](#)” (pages #16-17) for instructions for managing aliases. If aliases are not managed before importing data, the Risk Assessment Tool will not be able to match imported data with the correct districts.

Step 3. Initial Setup

(e) Manage aliases for province and district names

The names of some districts and/or provinces might be different between the shape file and those stored in the other data source files (e.g., population data, geographic areas, case-based data, vulnerable groups, and administrative coverage data).

If the names of districts and/or provinces do not match exactly between ALL data sources (including exact spelling and punctuation), you must list all versions of the district/province names (district/province “aliases”) on the `_GeoData_Maps` sheet.

Aliases must be added into the “`_GeoData_Maps`” sheet prior to all data import and/or Copy-Paste of population, geographic areas, case-based data, vulnerable groups, and all other administrative data.

➔ The next slide shows how to list aliases for districts and/or provinces.

Step 3. Initial Setup

(e) Manage aliases for province and district names

When importing data, the Risk Assessment Tool detects and displays any provinces/districts with a name that does not match up with the province/district names in the map.

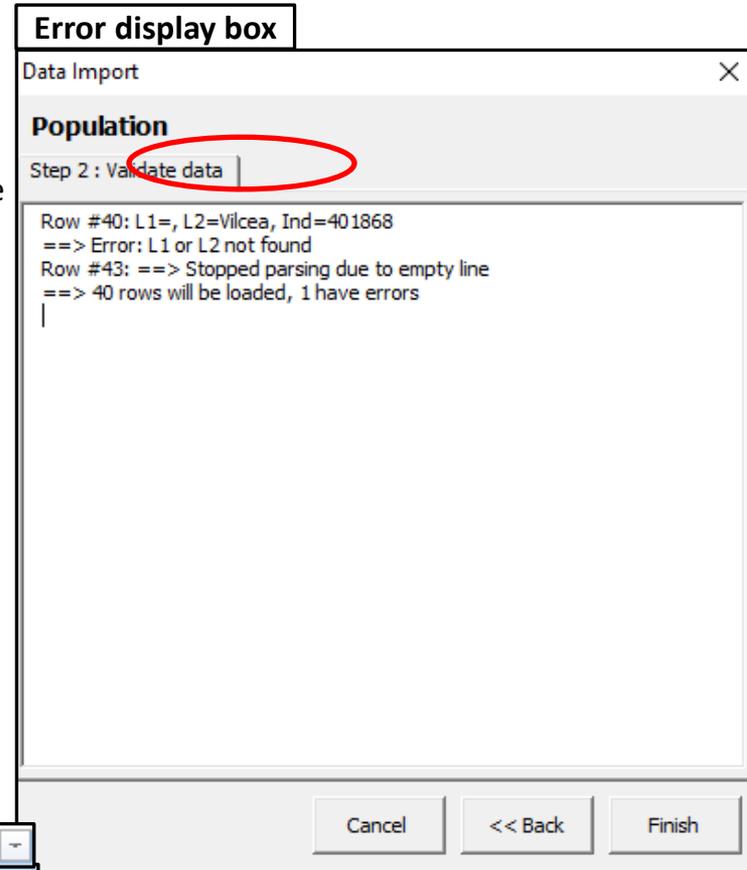
After importing data, the error display box will show any areas with unmatching names. You must then add any province or district aliases in the `_GeoData_Maps` sheet.

In the example shown to the right, the district “Vilcea” is not recognized by the Risk Assessment Tool (*error display box at right*). Indeed, the alternate version of the district name that was imported from the shape file is “Vâlcea” (see *geo-data box below*). “Vilcea” must be added as an alias for “Vâlcea” in the `Admin2_Alternate` column (*below*).

To do so:

1. Cancel the Data Import action by clicking the “**Cancel**” button
2. On the `_GeoData_Maps` sheet, in the “Vâlcea” row, enter “Vilcea” in the “`Admin2_Alternate`” column
3. If 2 or more aliases exist for a district, they can be listed with a comma separating the aliases: Vilcea, Vilsea
4. Complete the steps to import the data again. The Risk Assessment Tool will use the new alias to match the district name and import all data

Admin1_Id	Admin1_Label	Admin1_Alternate	Admin2_Id	Admin2_Label	Admin2_Alternate
189	Romania		2507	Tulcea	
189	Romania		2508	Vâlcea	Vilcea
189	Romania		2509	Vaslui	



Step 3. Initial Setup

(f) Import geographic area data

1. In “_GeoData_Maps” sheet, click “3 - Import Area (km2)” button to import the geographic area data:
 1. Click on ‘...’ button, then browse to select the file that contains the geographic area data
 2. Select the worksheet containing the geographic area data to import
 3. Enter the columns for Admin level 1 (*Provinces*) and Admin level 2 (*Districts*) (Note: if there is no column in the data source for Admin 1 [Province], this cell can be left blank)
 4. Enter the data start row and the data end row
 5. Enter the column containing the geographic area (in km²) data
 6. Click “Next”
2. A summary is displayed. If you receive an error message after importing data, then please refer to the “Manage Aliases for Province and District Names” slides (pages #16-17) in order to account for province and/or district aliases
3. Remember to **SAVE** the Risk Assessment Tool file frequently

3 - Import Area (km2)

(if not imported yet from the shapefile)

	A	B	C
1	Province	District	Area (km2)
2	Province1	District A	5,517
3	Province1	District B	41,789
4	Province1	District C	616
5	Province2	District D	1,810
6	Province2	District E	486
7	Province2	District F	328

Data Import...
Area_km2

Step 1 : Select data source

Data Source File

Data source is stored in this current XLS file

Other XLS file: C:\Users\woe1\Desktop\Country Data.xlsx

Worksheet Source: Sheet1

Area Data Source

Admin level 1 column: A

Admin level 2 column: B

Data Start Row *: 2

End Row(empty=auto): 7

Load only visible/filtered rows Show load warnings

Indicator Source

Area_km2 column: C

Cancel << Back Next >>

Note: If there are aliases for Province names (Admin1) or District names (Admin2), aliases must be managed prior to importing population, geographic area, case-based data, administrative coverage, and other data. See “[Manage Aliases for Province and District Names](#)” (pages #16-17) for instructions for managing aliases. If aliases are not managed before importing data, the Risk Assessment Tool will not be able to match imported data with the correct districts.

Step 3. Initial Setup

(g) Check setup & configuration steps are complete

Is the Risk Assessment Tool ready for use?

Initial Setup is completed when all the “Done” values are turned to “OK” (green color) in the “**Setup&Configuration**” sheet

If all values are not turned to “OK” (green), go to the “**Population Immunity**” worksheet and press the “**Recalculate all**” button on the top right of the screen, then check again for all values turned to “OK” (green)

The Risk Assessment Tool is now ready to be used for importing the case-based surveillance data, vulnerable groups, administrative coverage data, and all other necessary data

Step 1

1 - Please fill this section before starting using the tool

Global reference data	Value	Done
Country name	Namibia	OK
Year of risk assessment	2009	OK
Document language	English	OK
Has an SIA been conducted in the last 3 years in all districts ?	N	OK
#Is the country in post-elimination or high-income ?:No Ref_Text#	N	OK
MCV age eligibility (months)	>= 12 months	OK

Calculated fields	Value
First data year	2006
Last data year	2008
Assessment years	2006-2008



Geo-item	Value	Done
Shapes loaded	34	OK
Number of provinces	1	OK
Number of districts	34	OK
Country population in ref. year-1	2,133,188	OK

[Click here to setup and configure Geo-Data](#)

Legend

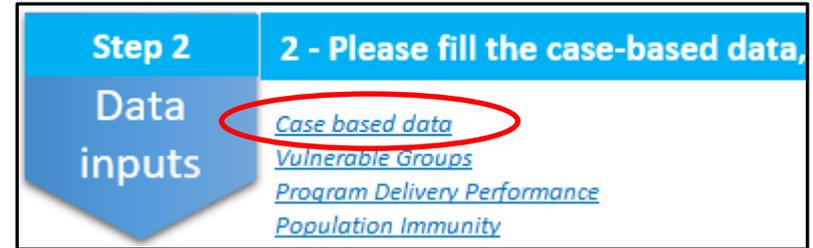
X	Read only cells
X	Editable cells - Please enter the data in these cells
X	Read only cells - Calculated

Load country flag **Lock the tool**

Step 4. Input Data

(a) Input case-based surveillance data

1. In the “**Setup&Configuration**” sheet, click the “**Case based data**” link or select the “**Case-Based-Data**” sheet
2. Prepare the case-based data within a spreadsheet outside the risk tool with the following requirements (*see next page for sample case-based data*):



a) Order the data columns in the **exact** same order as in the “**Case-Based-Data**” sheet:

- A. Year
- B. Admin 1 (*province*)
- C. Reporting District
- D. Case ID
- E. Final Classification
- F. Age in Years
- G. Age in Months
- H. Sex
- I. Place of Residence
- J. Date of Rash Onset
- K. Vaccination Status
- L. Number of Vaccine Doses
- M. Date of Notification
- N. Date of Investigation
- O. Date of Blood Sample Collection
- P. Date District Received Lab Result
- Q. Place of Infection or Travel History

Step 4. Input Data

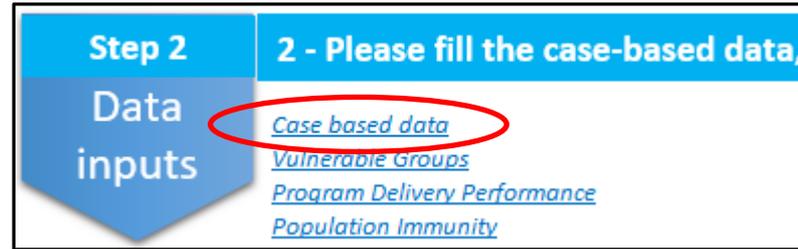
(a) Input case-based surveillance data

Prepare your case-based surveillance data in a spreadsheet so that it looks like the sample data below:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Year	Province	District	CaseID	FinalClassification	AgeYrs	AgeMths	Sex	Residence	DateOnset	VaccStat us	VaccDose s	DateNotif ication	DateInve stigation	DateBlo odSampl e	DateDistri ctRecdLab Results	PlaceInfect ion
1	2012	Province 1	District A	CO-P1-DA-1201	Discarded	27	0	M	District A	1/15/12	N	0	1/20/12	1/20/12	1/20/12	1/27/12	District A
2	2012	Province 3	District F	CO-P3-DF-1202	Confirmed Rubella	5	0	F	District F	2/3/12	Y	1	2/4/12	2/4/12	2/4/12	2/10/12	District F
3	2012	Province 3	District F	CO-P3-DF-1203	Confirmed Rubella	6	0	F	District F	4/1/12	Y	1	4/2/12	4/2/12			District G
4	2012	Province 1	District B	CO-P1-DB-1204	Pending	1	6	M	District B	10/12/12	N	0	10/12/12	10/13/12	10/13/12	10/16/12	District B
5	2012	Province 2	District E	CO-P2-DE-1205	Pending	4	0	F	District E	10/15/12	Y	2	10/18/12	10/19/12	10/19/12	10/22/12	
6	2012	Province 3	District G	CO-P3-DG-1206	Discarded	21	0	F	District G	11/5/12	Unknown	Unknown	11/8/12	11/8/12	11/8/12	11/10/2012	
7	2013	Province 4	District H	CO-P4-DH-1301	Lab-Confirmed Measles	3	0	M	District H	1/5/13	Unknown	Unknown	1/7/13	1/7/13	1/7/13	1/14/13	District H
8	2013	Province 1	District A	CO-P1-DA-1302	Discarded	0	6	F	District A	1/6/13	N	0	1/10/13	1/10/13	1/10/13	1/15/13	
9	2013	Province 4	District H	CO-P4-DH-1303	Lab-Confirmed Measles	24	0	F	District H	1/6/13	Y	3	1/8/13	1/18/13	1/18/13	1/23/13	District G
10	2013	Province 4	District H	CO-P4-DH-1304	Lab-Confirmed Measles	0	7	M	District H	1/31/13	Y	1	2/1/13	2/1/13	2/1/13	2/10/13	District G
11	2014	Province 1	District C	CO-P1-DC-1401	Lab-Confirmed Measles	12	0	F	District C	3/7/14	Y	1					District C
12	2014	Province 1	District B	CO-P1-DB-1402	Confirmed Rubella	0	7		District B	8/1/14	N	0	8/1/14	8/10/14	8/10/14	8/18/14	District B
13	2014	Province 1	District A	CO-P1-DA-1403	Lab-Confirmed Measles	10	0	M	District A	8/10/14	Y	1	8/12/14	8/12/14	8/12/14	8/17/14	District A
14	2014	Province 1	District C	CO-P1-DC-1404	Discarded	2	0	M	District C	8/31/14	Y	1	9/2/14	9/2/14	9/2/14	9/12/14	District A
15																	
16																	

Step 4. Input Data

(a) Input case-based surveillance data



3. Prepare the case-based data continued:

- a) The data format for each variable must be compliant with the formats stated in the “**Case-Based-Data**” sheet
 - i. E.g., **Year** variable must be formatted as a number, not text; **Age** variables must be formatted as numbers, not text; **Sex** variable must be formatted as M/F; **Date** variables must be formatted as dates, not text
 - ii. Any values that were not collected as part of the case investigation should be left blank
 - iii. Date variables such as Date of Notification, Date of Investigation, etc. may be in MM/DD/YYYY or DD/MM/YYYY format

Step 4. Input Data

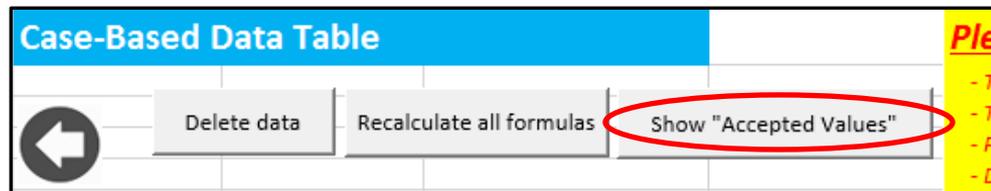
(a) Input case-based surveillance data

- b) Pay special attention to the following 4 variables. The only values that are allowed for these variables are listed below. Edit your case-based data so that these 4 variables only contain the allowed values:

Final Classification	Sex	Vaccination Status	Number of Vaccine Doses
Lab-Confirmed Measles	M	VACCIN	0
Epi-Linked Measles	F	NOTVACC	1
Clinically Compatible Measles		N	2
Confirmed Rubella		Y	3
Discarded		U	More than 3
Pending		No	Unknown
		Yes	
		Unknown	

Note: If Vaccination Status was not collected as part of the case investigation, leave this variable blank.

Note: If Vaccination Status was not collected as part of the case investigation, leave this variable blank.



Use the [Show "Accepted Values"] button to view the values for the 4 variables

Step 4. Input Data

(a) Input case-based surveillance data

3. Prepare the case-based data continued:

- c) Combine the 3 years of case-based data within a single spreadsheet
- d) Do **not** edit or modify the additional “Calculated” columns on the right of the “**Case-Based-Data**” sheet (column R through column AG of the “**Case-Based-Data**” sheet). They contain formulas and will be calculated based on your case-based data once you copy and paste it there
- e) Aliases for district and province names must be added into the “_GeoData_Maps” sheet prior to the case-based data entry (see pages #16-17 for instructions for managing aliases)
- f) When pasting data, use the “Past Values” paste option to avoid keeping references to the external spreadsheet

Step 4. Input Data

(b) Input administrative coverage data

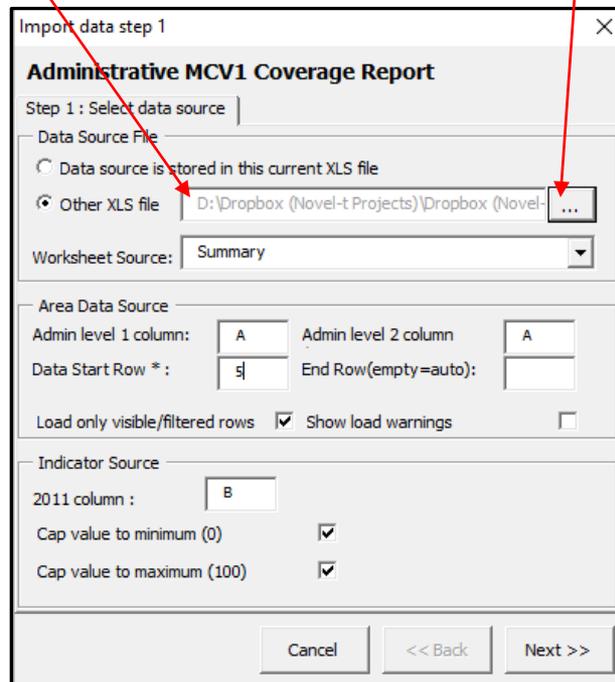
1. In the “**PopulationImmunity**” sheet, click “**Import...**” buttons at the top of the columns for **MCV1 coverage**, **MCV2 coverage** (if MCV2 has not been introduced, leave these cells blank), and **Measles SIA coverage** to import these data

NOTE: Coverage numbers must be formatted as whole numbers, not as percentages. For example, if a District has coverage of 94 percent, it must be listed as 94, not 94%, in the data spreadsheet

2. Click on the ‘...’ button, then browse to select the file that contains the MCV1 coverage data. Select the worksheet containing the MCV1 coverage data to import



AREA	2012	2013	2014
Romania	Import...	Import...	Import...
Alba	78	76	71
Arad	89	85	79
Arges	94	89	88
Bacau	93	89	87



Import data step 1

Administrative MCV1 Coverage Report

Step 1: Select data source

Data Source File

Data source is stored in this current XLS file

Other XLS file D:\Dropbox (Novel-t Projects)\Dropbox (Novel-... ..

Worksheet Source: Summary

Area Data Source

Admin level 1 column: A Admin level 2 column: A

Data Start Row *: 5 End Row (empty=auto):

Load only visible/filtered rows Show load warnings

Indicator Source

2011 column: B

Cap value to minimum (0)

Cap value to maximum (100)

Cancel << Back Next >>

Note on MCV1 and MCV2 coverage data: If coverage survey estimates are available at the district level, were conducted within the past 3 years, and include birth cohorts of the past 3 years, these can be used in place of administrative coverage for MCV1 and MCV2.

Step 4. Input Data

(b) Input administrative coverage data

3. Import the data for MCV1 coverage:
 - a) Enter the columns for Admin level 1 (*Provinces*) and Admin level 2 (*Districts*) (Note: if there is no column in the data source for Admin 1 [Province], this cell can be left blank)
 - b) Enter the data start row and the data end row
 - c) Enter the column containing the MCV1 coverage data
 - d) Check the boxes for 'Cap value to minimum (0)' and 'Cap value to maximum (100)'
4. Click **"Next"** button
5. If there are errors because of district aliases, an error display box will show any areas with unmatching names
6. If there are no errors, click **"Finish"** button
7. If you receive an error message after importing data, then please refer to the "Manage Aliases for Province and District Names" slides (pages #16-17) in order to account for province and/or district aliases

Import data step 1

Administrative MCV1 Coverage Report

Step 1: Select data source

Data Source File

Data source is stored in this current XLS file

Other XLS file: D:\Dropbox (Novel-t Projects)\Dropbox (Novel- ...

Worksheet Source: Summary

Area Data Source

Admin level 1 column: A Admin level 2 column: A

Data Start Row *: 5 End Row(empty=auto):

Load only visible/filtered rows Show load warnings

Indicator Source

2011 column: B

Cap value to minimum (0)

Cap value to maximum (100)

Cancel << Back Next >>

Error display box

Import data step 1

Administrative MCV1 Coverage Report

Step 2: Validate data

Row #55: L1=Luangprabang, L2=Phonthong, Ind=69.2599620493359
==> Error: L1 or L2 not found

Row #65: L1=Huaphan, L2=Kouan (new district in 2013, split from Xamtay), Ir
==> Error: L1 or L2 not found

Row #77: L1=Xayabuly, L2=Xaysathan, Ind=66.3120567375886
==> Error: L1 or L2 not found

Row #86: L1=Xiangkuang, L2=Thathom, Ind=52.3641463193145
==> Error: L1 or L2 not found

Row #98: L1=Vientiane Pro, L2=Hom, Ind=80.5161286883979
==> Error: L1 or L2 not found

Row #99: L1=Vientiane Pro, L2=Yaysomboun, Ind=64.7597667094563
==> Error: L1 or L2 not found

Row #100: L1=Vientiane Pro, L2=Meun, Ind=63.855724707955
==> Error: L1 or L2 not found

Row #108: L1=Bolkhamxay, L2=Yaychamphone, Ind=63.6362406408123
==> Error: L1 or L2 not found

Row #167: ==> Stopped parsing due to empty line

==> 136 rows will be loaded, 8 have errors

Cancel << Back Finish

Step 4. Input Data

(b) Input administrative coverage data

8. Repeat the steps for entering administrative coverage data (pages #26-27) to enter MCV1 coverage data and MCV2 coverage data (if applicable) for all 3 years
9. Repeat the steps for entering administrative coverage data (pages #26-27) to enter SIA coverage data for the most recent SIA (if applicable)
10. Remember to **SAVE** the Risk Assessment Tool file frequently

Note on SIA coverage data: If no nationwide SIA was conducted in the past 3 years but an outbreak response immunization (ORI) campaign was performed for an entire district, you can report ORI coverage in place of SIA coverage. If post-SIA coverage survey estimates are available at the district level, these can replace administrative coverage for an SIA.

Step 4. Input Data

(c) Input additional measles SIA data

1. In the “**PopulationImmunity**” sheet, fill in information for **Measles SIA Target Age Group** and **Years Since Last Measles SIA**, if there has been a SIA conducted in the last 3 years in all districts in your country
 - a) **Measles SIA Target Age Group** – Select “N” for Narrow Age Range if SIA target age group was ≤ 5 birth cohorts (9m-59m or less). Select “W” for Wide Age Range if SIA target age group was >5 birth cohorts (wider than 9m-59m). If there was no SIA conducted in the past 3 years, select “N”.
 - b) **Years Since Last Measles SIA** – Enter the number of years since the last measles SIA was conducted (e.g., if the year for which you are estimating risk is 2015, and the last SIA was conducted in 2011, the value for this indicator would be 4 years). If the SIA spanned 2 years, use the most recent year for this calculation.

Note on SIA coverage data: If no nationwide SIA was conducted in the past 3 years but an outbreak response immunization (ORI) campaign was performed for an entire district, you can report ORI coverage in place of SIA coverage. If post-SIA coverage survey estimates are available at the district level, these can replace administrative coverage for an SIA.

Step 4. Input Data

(d) Input surveillance quality and program delivery data

1. The % **suspected measles cases unvaccinated** column of the “**PopulationImmunity**” sheet should be calculated automatically for each district. Check that the column has been filled with data. If there are errors, click on the “**Recalculate all**” button. If errors remain, check the case based surveillance data (in the “**Case-Based-Data**” sheet) for errors.
2. All 4 columns of the “**SurveillanceQuality**” sheet should be calculated automatically for each district. Check that all 4 columns have been filled with data. If there are errors, click on the “**Recalculate all**” button. If errors remain, check the case based surveillance data (in the “**Case-Based-Data**” sheet) for errors.
3. In the “**ProgramDeliveryPerformance**” sheet, click the “**Import...**” button at the top of the column for **DPT1/Penta1 coverage** to import coverage data for this data column. Import data using the same steps you used to import MCV1 and MCV2 coverage data (see pages #26-27).
 - a) All other columns in the “**ProgramDeliveryPerformance**” sheet should be calculated automatically and filled using data that was entered in previous steps. Check that all other columns in this sheet have been filled with data. If there are errors, click on the “**Recalculate all**” button. If errors remain, check the data entered for MCV1 and MCV2 coverage (in the “**PopulationImmunity**” sheet) for errors.

Step 4. Input Data

(e) Vulnerable groups data

1. In the “**VulnerableGroups**” sheet, click the “**Import...**” buttons at the top of each column to import vulnerable groups data from your external spreadsheet
2. Click on the ‘...’ button, then browse to select the file that contains the vulnerable groups data. Select the worksheet containing the vulnerable groups data to import
 - a) Import the vulnerable groups data:
 - i. Enter the columns for Admin level 1 (*Provinces*) and Admin level 2 (*Districts*) (Note: if there is no column in the data source for Admin 1 [Province], this cell can be left blank)
 - ii. Enter the data start row and the data end row
 - iii. Enter the column containing the vulnerable groups data
 - b) Click “**Next**” button
 - c) If there are errors because of district aliases, an error display box will show any areas with unmatching names
 - d) If there are no errors, click “**Finish**” button
 - e) If you receive an error message after importing data, then please refer to the “Manage Aliases for Province and District Names” slides (pages #16-17) in order to account for province and/or district aliases
3. All columns of the “**ThreatAssessment**” sheet should be filled in automatically for each district. Check that all columns have been filled with data in the “**ThreatAssessment**” sheet. If there are errors, click on the “**Recalculate all**” button. If errors remain, check the case based surveillance data (in the “**Case-Based-Data**” sheet), and/or the population and geographic area data (in the “**_GeoData_Maps**” sheet) for errors.
4. Remember to **SAVE** the Risk Assessment Tool file frequently

Step 5. View Risk Assessment Results

1. In “IndicatorMaps” sheet, click “**Recalculate all**” button in order to refresh all the formulas
2. Select a map from the dropdown list
3. Click a district of the map to view the details

Measles Risk Assessment Tool V0.16 - Romania

English

2012-2014

Recalculate all View selected area

INDICATOR MAPS

Select an indicator: **Overall Measles Risk Profile**

View borders View district names

Legend: Low risk (Green), Medium risk (Yellow), High risk (Red)

Province: Romania
District: Salaj
Population: 238,167
Surface (km2): 3,864
Population density (Pers./Km2): 62

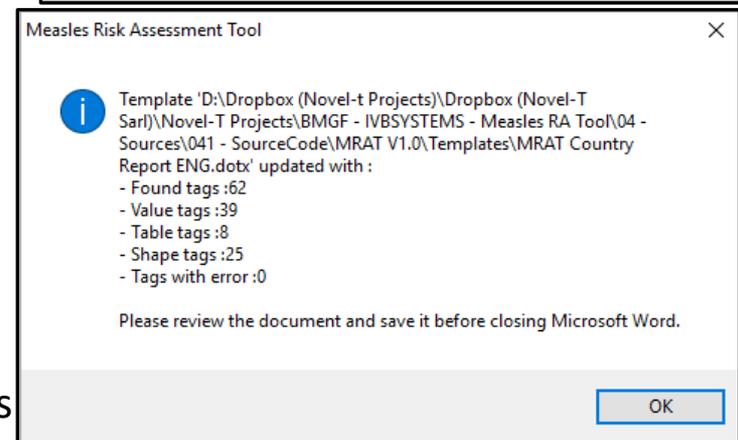
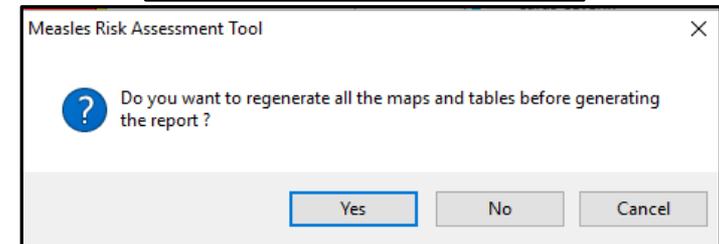
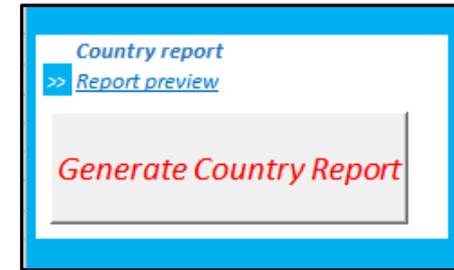
TOTAL RISK POINTS: 56
RISK STATUS: HR

POPULATION IMMUNITY: 28
SURVEILLANCE QUALITY: 20
PROGRAM DELIVERY PERFORMANCE: 4
THREAT ASSESSMENT: 4

AREA	TOTAL RISK POINTS	RISK STATUS
Romania		
Alba	66	VHR
Arad	76	VHR
Arges	54	MR
Bacau	#VALUE!	#VALUE!
Bihar	52	MR
Bistrita-Nasaud	48	MR
Botosani	54	MR
Braila	49	MR
Brasov	57	HR
Bucharest	#VALUE!	#VALUE!
Buzau	51	MR
Calarasi	#VALUE!	#VALUE!
Caras-Severin	66	VHR
Cluj	60	HR
Constanta	61	VHR
Covasna	56	HR
Dâmbovita	53	MR
Dolj	47	LR
Galati	59	HR
Giurgiu	#VALUE!	#VALUE!
Gorj	54	MR
Harghita	50	MR
Hunedoara	76	VHR
Ialomita	#VALUE!	#VALUE!
Iasi	52	MR
Maramures	52	MR
Mehedinti	54	MR
Mures	52	MR
Neamt	71	VHR
Olt	#VALUE!	#VALUE!
Prahova	62	VHR
Salaj	56	HR
Satu Mare	62	VHR

Step 6. Generate the Country Report

1. Before generating the Country Report, make sure you **SAVE** the current version of the Risk Assessment Tool
2. In “IndicatorMaps” sheet, click “**Generate Country Report**” button
3. Click “**Yes**” if you would like to regenerate the data tables and the maps before generating the country report
4. Click “**No**” to generate the country report using the current data tables and maps
5. Browse to select the country report template and click “**Open**” (The country report template is a Word document file that you downloaded with the Risk Assessment Tool files. Its file name is ‘MRAT Country Report ENG’)
6. A summary generation is displayed. Click “**OK**”.
7. The generated document will be opened within Microsoft Word and can be updated and customized
8. Add your own summary of findings and recommendations based on the risk assessment results shown in the tables and maps throughout the Country Report



Optional: Risk Assessment Tool Customization

The following parameters can be customized for the Risk Assessment Tool:

1. The color coding for each map and indicator can be customized in the “*_TechData*” sheet
 - a) After changing any of the colors, reselect the map to display on the “**IndicatorMaps**” sheet to display the map using the chosen colors

Map configuration		Workbook must be reloaded when this	
MapId	MapName	ColorName1	ColorRule1
OVERALL_RISK	Overall Measles Risk Profile	Low risk	[x]="LR"
PI	- Population Immunity	Low risk	[x]<=21
SQ	- Surveillance Quality	Low risk	[x]<=10
PDP	- Program Delivery Performance	Low risk	[x]<=8
TA	- Threat Assessment	Low risk	[x]<=12
VHR	Risk Scores for Very High Risk Districts	Very high risk	[x]="VHR"
HR	Risk Scores for High Risk Districts	High risk	[x]="HR"
MR	Risk Scores for Medium Risk Districts	Medium risk	[x]="MR"
LR	Risk Scores for Low Risk Districts	Low risk	[x]="LR"
MCV1_AVERAGE	Average MCV1 Coverage	>= 80% MCV1	[x]>=80
MCV2_AVERAGE	Average MCV2 Coverage	>= 80% MCV2	[x]>=80
MEASLES_CASES	Measles Cases In the Past Year	Any confirmed case	OR([x]>0,OR([x4
MEASLES_INCIDENCE	Annual Confirmed Measles Incidence p	0	[x]=0

Optional: Risk Assessment Tool Customization

2. In the “***_GeoData_Maps***” sheet, the following parameters can be customized:
- Default border color for the maps
 - Default border line weight for the maps
 - Default background color for the maps
 - The text style and the color of the map labels
 - The maximum distance to consider for the neighbouring detection

	Border Color
0.25	Border Weight
	Default color
<i>Text</i>	Text style & color
1	Neighbouring region overlap pixels
Select	Selected region color & font
<i>Text</i>	Selected region textbox



Optional: Risk Assessment Tool Customization

3. In the “***TechData***” sheet, you can change the set values for the following variables:

- a) Adequate investigation delay (in days)
- b) Adequate specimen collection delay (in days)
- c) Timely availability of lab results delay (in days)

You may want to change these settings if your region or country has different guidelines for these measures

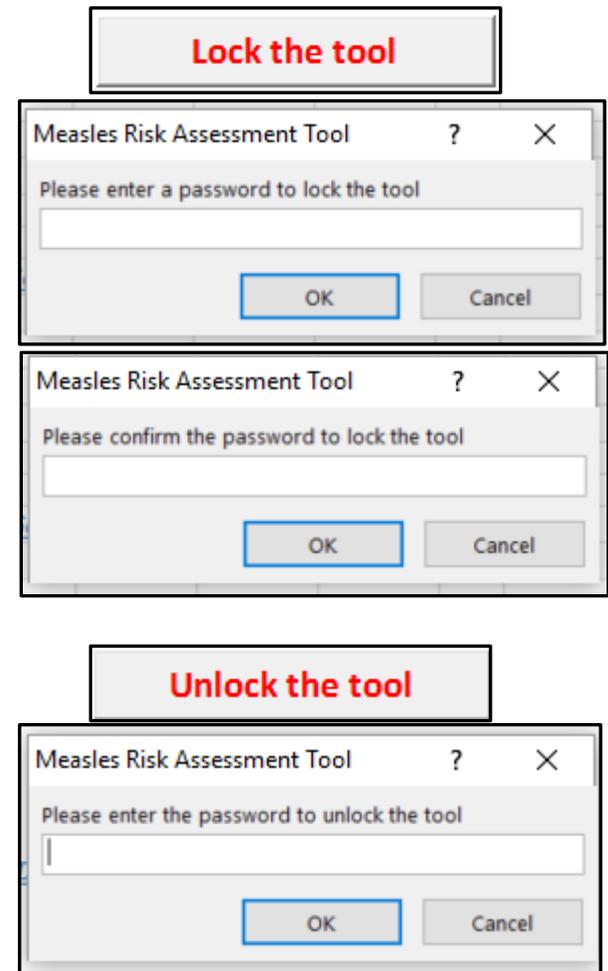
Case Based Data Variables	Value	Done
<i>Adequate investigation delay</i>	<i>2 days</i>	OK
<i>Adequate specimen collection delay</i>	<i>28 days</i>	OK
<i>Timely availability of lab results delay</i>	<i>10 days</i>	OK

Optional: Risk Assessment Tool Customization

4. Prior to starting use of the Risk Assessment Tool, a password can be set in order to make the setup & configuration steps unavailable for the end user. This might be set by the regional HQ in order to prevent other settings from being modified.
- In the “**Setup&Configuration**” sheet, click “**Lock the tool**” button
 - Enter a password and click “**OK**”
 - Confirm the password and click “**OK**”

To unlock the Risk Assessment Tool:

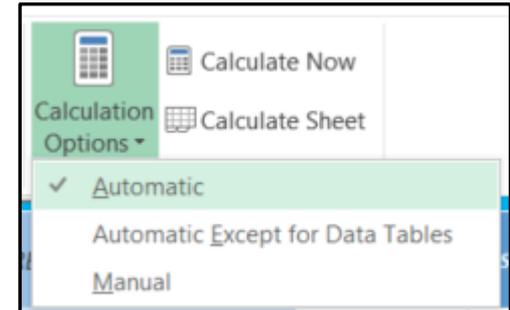
- In the “**Setup&Configuration**” sheet, click “**Unlock the tool**” button
- Enter the password and click “**OK**”



Optional: Risk Assessment Tool Customization

5. Excel Calculation Mode: The default calculation mode could be set to “**Manual**” in order to avoid automatic recalculation of all the formulas when data changes. A dedicated “**Recalculate all**” button is included in the Risk Assessment Tool to allow the user to recalculate all formulas on demand. However, the calculation mode could be changed via the following menu:

[Formulas][Calculation Options]



Optional: Risk Assessment Tool Customization

6. Additional tags can be used within the country report template. There are types of tag:

- a. Value (Example: `{#Value ref_country_name#}`)
- b. Table (Example: `{#Table table_report_risk_profile_country#}`)
- c. Shape (Examples: `{#Shape shp_Map_VHR#}`, `{#Shape shp_Legend_VHR#}`)

Potentially, all defined “Names” in the Risk Assessment Tool could be added into the country report template and their “content/values” will be inserted when generating the country report.

