GLOBAL TASK FORCE ON CHOLERA CONTROL

Identification of PAMIs for cholera control

Transcript of online course

MODULE 3

PAMI Excel tool

Slide 1

Welcome to Module 3 of the GTFCC online course on the identification of PAMIs for cholera control.

Slide 2

In this module, we will show you the GTFCC PAMI Excel tool, and how to use it.

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After completing this module, you will be able to:

- Describe the structure and the main functions of the PAMI Excel tool;
- Upload data in the PAMI Excel tool;
- Process calculations in the PAMI Excel tool;
- Interpret the outputs generated by the PAMI Excel tool.

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The GTFCC PAMI Excel tool is here to help you identify PAMIs for cholera control. It automatizes all calculations for the identification of PAMIs and it generates summary outputs for discussion at the stakeholder validation.

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We encourage you to manipulate the PAMI Excel tool while you are following this module. Get ready for this.

The PAMI Excel tool operates under Windows. Make sure you have access to an operating system that is compatible.

Then, make sure you have on hand the PAMI Excel tool, a training dataset to manipulate, and the user guide of the PAMI Excel tool.

You can download this material online at https://tinyurl.com/PAMIcontrol or by scanning these QR codes.

With this material on hand, you will be able to follow along throughout this module. Do not hesitate to pause the video as needed to explore the tool and practice using it on your own.

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To get started, we are going to quickly walk you through the different sheets of the PAMI Excel tool.

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The first sheet of the PAMI Excel tool is called “Information”. Basically, this is a ReadMe sheet where you will find links to reference documents and tips on how to use the tool.

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The next sheet of the PAMI Excel tool is called “Data input table”. This is the sheet where you are going to upload your data for analysis. For the tool to compute the calculations, your data should be formatted in accordance with the GTFCC data model template.

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The next sheet of the PAMI Excel tool is called R1 “Priority index calculation”. This is the sheet where all calculations are performed.

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The following sheets of the PAMI Excel tool are called R2 “Overview tables”, R3 “Priority index summary”, R4 “Additional factors tables” and R5 “Table PAMI export”. These four sheets display the outputs of the PAMI analysis.

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To run a PAMI analysis, you have to upload and process your data in the PAMI Excel tool. Let’s see how to do this.

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Before using the PAMI Excel tool, make sure that your dataset is formatted in accordance with the PAMI data model template. If you are unsure about what the PAMI data model template is, we encourage you to go back to Module 2 of this course before you continue exploring the PAMI Excel tool.

Save a local copy of the PAMI Excel tool and open it.

If there is a yellow banner which indicates “protected view” when opening the PAMI Excel tool, click “enable editing”.

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To upload your data in the PAMI Excel tool, first select and copy your dataset. Press Ctrl + A to select your entire dataset, then press Ctrl + C to copy it.

Next, open the PAMI Excel tool, and go to the sheet “Data input table”.

Go to the grey cell A1, and paste your data as values only.

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The third step is to include all the geographic units of your dataset in the calculations.

Check how many rows are filled with data in the sheet “data input table”, then go to Sheet R1 “Priority index calculations”.

In Sheet R1, you will see that calculations have been performed for one row. These are calculations for the first geographic unit of your dataset. To expand the calculations to all the geographic units of your dataset, select the data on the 1st row.

Then drag down the selection until the number of rows filled with data in the sheet R1 is the same as the number of rows filled with data in the sheet Data input table.

This expands the calculations to all the geographic units in your dataset.

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Once all geographic units of your dataset have been included in the calculations, the last step is to process the calculations. To do so, in the Excel Data tab, click “Refresh all”.

Now, all PAMI calculations have been performed on your dataset, and outputs have been generated.

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Let’s go through the different outputs generated by the PAMI Excel tool.

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Sheet R1 “Priority index calculation” is a calculation sheet where the following is calculated for each geographic unit of your dataset:

- the epidemiological indicators and their respective score;
- the representativeness of cholera testing in your dataset and testing indicators;
- the priority index;
- and, if optional data on the presence or absence of vulnerability factors were included in your dataset, the number of vulnerability factors present.

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As R1 is a calculation sheet, we recommend you do not manipulate the outputs displayed in sheet R1 in order not to interfere with the calculations.

Instead, sheet R5 of the PAMI Excel tool, Table PAMI export, shows similar outputs, and can be manipulated as needed.

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Sheet R2 “Overview tables” displays key parameters of the analysis performed on your dataset.

The first section, on the upper left side, is “Data overview”. This section provides descriptive information and summary statistics on your dataset.

The second section, on the upper right side, is “Epidemiological indicators”. This section displays the scoring scale of epidemiological indicators according to the distribution parameters of your dataset, namely the median and the 80th percentile of each epidemiological indicator.

The third section “Testing indicator” shows how the representativeness of cholera testing was assessed in your dataset and, as a result, how cholera testing has been addressed in the calculation of the priority index.

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Use the data overview section of sheet R2 to verify that it is consistent with your dataset. If you detect any inconsistencies this may indicate errors in the formatting of your dataset or errors at the data upload step, for example maybe you did not include all geographic units of your dataset in the calculations. Investigate the cause of error, and correct it as needed.

Use the epidemiological indicators and testing indicators sections of sheet R2 to understand how the priority index has been calculated depending on the characteristics of your dataset.

You may also extract figures from sheet R2 for discussion at the stakeholder validation and to prepare your report on PAMI identification.

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Sheet R3 provides essential figures for discussion at the stakeholder validation.

For each priority index value, the table in sheet R3 shows relative and cumulative figures.

Cumulative figures on geographic units and on population are proxy for the feasibility of the future NCP if the priority index threshold value was the selected table line.

Cumulative figures on cholera cases and deaths are proxy for the potential impact of the future NCP if the priority index threshold value was the selected table line.

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For example, using fictive data, here is how to read the table displayed in sheet R3.
If the priority index threshold was set to 9:

- 30 geographic units would be PAMIs, and 33% of the country population would live in PAMIs;
- 90% of the cholera cases and 70% of the cholera deaths reported over the PAMI analysis period would have occurred in PAMIs.

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The table in sheet R3 is essential to decide how to set the priority index threshold.

Different scenarios for setting the priority index threshold should be presented at the stakeholder validation and should be discussed in a participative manner for stakeholders to determine the best balance between the feasibility and the potential impact of the future NCP in the country-specific context.

This table should also be included in your report on PAMI identification.

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Sheet R4 “Additional factors tables” is only applicable if vulnerability factors are included in your PAMI analysis. This is optional.

If vulnerability factors are included in your PAMI analysis, in Sheet R4 you will find summary figures on the number of geographic units where each vulnerability factor is present - depending on the priority index value of the geographic units.

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To see in which geographic units a vulnerability factor is present for a given priority index value, go to the cell that you wish to explore, right click and choose show details. Clicking show details will generate a new Excel sheet where you will find detailed information about these geographic units.

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If vulnerability factors are included in your PAMI analysis, use the figures provided in sheet R4 to guide the discussions on additional PAMIs at the stakeholder validation.

In particular, use sheet R4 to explore vulnerability factors present in geographic units that have a priority index below the priority index threshold selected by country stakeholders.

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The last sheet of the PAMI Excel tool is sheet R5 “Table PAMI export”. This sheet mirrors the content of the sheet R1 “Priority index calculations”; the same variables are displayed.

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You can manipulate the content of sheet R5 as needed. Feel free to explore the outputs by filtering and sorting the values.

You can also export the content of sheet R5 to import it in a statistical software for further analysis or to import it in a GIS software to map PAMIs.

Sheet R5 can also be used to guide discussions at the stakeholder validation, in particular the column “priority index” and the column “number of vulnerability factors present”.

Lastly, you can add columns as needed in sheet R5 in order to take note at the stakeholder validation regarding the final PAMI status of each geographic unit.

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As we wrap up this module, here are the important points to remember.

The GTFCC PAMI Excel tool computes all calculations for the identification of PAMIs for cholera control, including indicators, scores, and the priority index for each geographic unit.

It also generates the following outputs:

Sheet R2 “Overview tables” summarizes all parameters of the PAMI analysis. Use this sheet to understand how the analysis was performed depending on the characteristics of your dataset and for consistency checks.

Sheet R3 “Priority index summary” provides proxy on the feasibility and the potential impact of the future NCP depending on the selected priority index threshold. This is an essential sheet to guide decision-making on the priority index threshold value.

Sheet R4 “Additional factors tables” is to be used if vulnerability factors are considered in your PAMI analysis. It provides summary information on the presence or absence of vulnerability factors. Use this sheet to guide discussions on additional PAMIs at the stakeholder validation.

Lastly, sheet R5 “Table PAMIs Export” summarizes all calculations and can be used for additional analysis.

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Beyond this module, we encourage you to watch video tutorials to see the PAMI Excel tool in action.

At https://tinyurl.com/tutoexcelPAMIcontrol or by scanning the QR code at the bottom of your screen, you will access three video tutorials: one to help you get ready to use the PAMI Excel tool, one to show you how to upload data in the PAMI Excel tool, and the last one to explore the outputs of the PAMI Excel tool.

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To practice using the PAMI Excel tool, we also encourage you to take a short exercise.

You can access this exercise at https://tinyurl.com/PAMIcontrolPractice, or by scanning the QR code.

Completing the exercise takes about 15 minutes.

Then check your answers at https://tinyurl.com/PAMIcontrolAnswers or by scanning the QR code.

Practicing using the tool is the best way to get comfortable using it like a pro!

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We have now completed this module.