



# A Malaria Elimination Guide to Reactive Case Detection (RACD) Monitoring & Evaluation Tool

## Module 4: Estimating the Costs

The Malaria Elimination Initiative

**UCSF** Institute for  
Global Health  
Sciences

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The Malaria Elimination Initiative is an initiative of  
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[shrinkingthemalariamap.org](http://shrinkingthemalariamap.org)

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## Introduction

The objectives of [Module 4](#) of the RACD Monitoring & Evaluation Tool are to:

1. Collect and review the costs of conducting case investigations and RACD activities including personnel, commodities, services and other
2. Evaluate the main cost drivers required to conduct case investigations and RACD activities

### Why is Module 4 Useful?

Provincial and national malaria surveillance officers can use the information obtained in [Module 4](#) to estimate the costs of conducting case investigations and RACD activities at district and provincial levels. National malaria programs will be able to evaluate the personnel and resources as well as the cost drivers required to conduct case investigation and RACD activities. [Module 4](#) results can be used for planning and budgeting purposes.

### Who Should Use Module 4?

[Module 4](#) is implemented by district- or provincial-level surveillance officers and personnel who have access to annual expenditure records including personnel costs, commodities, services and other costs related to case investigation and RACD activities.

### How is Module 4 Used?

[Module 4: Estimating the Costs](#) includes a series of Excel worksheets and a corresponding manual to aid district-level surveillance officers and personnel in the review of annual expenditure records including personnel costs, commodities, services and other costs related to case investigation and RACD activities. The workbook for [Module 4](#) is available on the 'Tools' section of the Malaria Elimination Initiative's website: [www.shrinkingthemalariamap.org](http://www.shrinkingthemalariamap.org).

The accompanying materials to complete [Module 4](#) include:

1. [Module 4](#) Manual
2. Estimating the Costs Excel workbook

Once you have completed [Module 4](#), send related files and data to the individual who is leading the module in your province or region.

### Where Has Module 4 Been Used?

The RACD M&E tool and its modules were piloted in several malaria-eliminating settings, including provinces in Cambodia, China, Indonesia, South Africa, and Thailand. The tool has since been implemented in Zanzibar, along the Myanmar border (Yunnan Province, China) and Thailand. As a result of implementing the tool and thereby having an improved understanding of the operational gaps, several countries conducted national- and regional level trainings on surveillance and case investigation, and indicators from the tool were integrated into the national malaria database to ensure standardized reporting.

Results from [Module 4](#) have identified that case investigation and RACD-related costs varied widely between study areas for both categories on the 1) personnel and 2) commodities, services and other. Cost totals ranged from \$3,469 to \$10,486 for personnel and \$257 and \$13,969 for commodities, services, and other, respectively for Indonesia and Thailand. This great variance in costs is likely due to the programmatic structure within each of the malaria programs particularly in regards to the level of malaria program integration into the broader health systems structure.

### Module 4 Includes:

1. [Module 4](#) Manual, a step-by-step guide to support district-level surveillance officers in the data entry process (this document)
2. Estimating the Costs Excel workbook to enter annual expenditures on personnel, consumables, services and other costs that are necessary to complete the module:
  - Instructions
  - Template Setup
  - Translations Setup
  - Personnel Costs
  - Consumables, Services and Other Costs
  - Costing Summary
  - Costing Review
  - Currency Codes

## Getting Started

The following instructions and activities correspond to the Estimating the Costs Excel workbook. Before you start updating the Estimating the Costs Excel workbook, please do the following:

1. Read this document to become familiar with [Module 4](#).
2. Open the Estimating the Costs Excel workbook and read the instructions to become familiar with the data entry steps in [Module 4](#).

### Workflow Summary

The national or provincial manager or surveillance officer will format the Estimating the Costs Excel workbook to complete [Module 4](#). Instructions for setting up the Estimating the Costs Excel workbook can be found in the *RACD Monitoring and Evaluation Tool User Guide for National Surveillance Officers and Personnel*. This is a separate manual that includes set-up instructions for all RACD M&E Tool modules and corresponding workbooks.

The steps below summarize the workflow to complete [Module 4](#). Detailed instructions for Steps 1-4 are included in the following pages of this manual.

#### Step 1

Confirm that the file name matches the district and date for which the information is representing. The suggested format is “DistrictName\_MonthYear\_EstimatingCosts.xls”. Include both the district name and date (including month) for which the data is being included in the evaluation. For example, “PongNam-Ron\_Jan2018\_EstimatingCosts.xls”.

#### Step 2

Enter the appropriate data into the Estimating the Costs Excel workbook. Save frequently as you record the costs in the different categories.

- Personnel Costs worksheet
- Commodities, Services & Other Costs worksheet

#### Step 3

Use the worksheets in the Estimating the Costs Excel workbook to review the information entered:

- Costing Summary worksheet
- Costing Review worksheet

#### Step 4

After you have entered all the information into the Estimating the Costs Excel workbook, send the completed document to the individual who is leading the module in your province or region.

- Saving and sending the completed Estimating the Costs Excel worksheet

## Step 1 Confirming Template for Estimating the Costs is Ready for Data Entry

### Summary

Use the Estimating the Costs Excel workbook and the Personnel Costs worksheet within it to review the following information prior to starting data collection:

1. Confirm the file name and date is correct
2. Confirm the province and year is correct

### Reviewing the File name of the Reviewing Key Documents Excel Workbook

Confirm that the Excel document file name matches the district and date for which the information is representing. The suggested format is "District-Name\_MonthYear\_EstimatingCosts.xls". Include both the district name and date (including month) for which the data is being included in the evaluation. For example, "PongNamRon\_Jan2018\_Estimating-Costs.xls".

In the Estimating the Costs Excel workbook you can only update cells that are shaded pink. For example, in the table below you could only change the value for 'District':

### Reviewing the Province and Year for the Estimating the Costs Excel Workbook

Before entering in data, confirm that the Province and Year information is accurate for the data about to be entered. This should be pre-populated by the individual who is leading the RACD M&E tool evaluation and sent it to you.

1. Open the Estimating the Costs Excel workbook.
2. Click the Personnel Costs worksheet and scroll-down to row 9.
3. In the 1. Location Overview section, select the appropriate district from the District drop-down list in row 11.
4. Confirm that the Province and Year are correct. If the Province and/or Year are incorrect, please contact the individual who is leading the module in your province or region.
5. If correct, save any changes you have made and proceed to Step 2.

<b>District</b>	
<b>Province</b>	
<b>Year</b>	

## Step 2 Entering Information on Estimating the Costs of Case Investigations and RACD

### Recording Personnel Costs

#### Summary

Use the Personnel Costs worksheet in the Estimating the Costs Excel workbook to record the following data:

- Location Overview
- Local Currency
- Personnel Costs

**Note:** In the Estimating the Costs Excel workbook you can only update cells that are shaded pink. For example, in the table below you could only change the value for 'District':

<b>District</b>	
<b>Province</b>	
<b>Year</b>	

#### How to Update the 'Location Overview' Section

1. Open the Estimating the Costs Excel workbook.
2. Click the Personnel Costs worksheet and scroll down to row 9.
3. In the 1. Location Overview section, select the appropriate district from the District drop-down listing row 11.
4. Save any changes you have made.

#### Reviewing the 'Local Currency' Section

1. Open the Estimating the Costs Excel workbook.
2. Click the **Personnel Costs** worksheet and scroll down to row 15.
3. In the **2. Local Currency** section, review the local currency to ensure the local currency type is correct.
4. If the local currency type is not correct, please contact the individual who is leading the module in your province or region.

#### How to Update the 'Personnel Costs' Section

1. Open the Estimating the Costs Excel workbook.
2. Click the **Personnel Costs** worksheet and scroll down to row 19.
3. In the **3. Personnel Costs** section, include the **Health Facility identification (ID)** number (if applicable) for each individual listed to identify the location where they work.
4. Select the type of health facility from the Health **Facility Type** drop-down list.
5. Select the type of **job title for person** listed for which you are adding the data.
6. For each person listed, include their **time compensation** (in local currency) to determine their total annual compensation. This includes:
  - a. Annual salary from wages
  - b. Annual value of non-salary benefits
7. For each person listed, estimate the **time allocation percentage (%)**. This includes:
  - a. % time spent on malaria
  - b. % time spent on case investigations/RACD only
8. Save frequently any changes you have made.

**Note:** Do not add extra rows. If you need to add more rows for personnel, start a new version of the Estimating the Costs Excel workbook and include additional personnel in the available rows. If you have further questions, please contact the individual who is leading the module in your province or region.

## Step 3 Reviewing the Costs

The final blue review worksheets in the Estimating the Costs Excel workbook automatically collate the information previously entered in the data entry worksheets. The formulas do the following:

- compile data entered into the worksheet
- format the results into percentages
- present the data visually as figures and tables

The figures and tables can be used to review (monitor) the costs or be included in your own reports or presentations. Bookmarks (near the top of each worksheet) are included in each of the two workbook review pages for easier navigation. By clicking on one of the bookmarks, the page will automatically navigate the user to the figure or table specific to the bookmark clicked.

**Note:** You can only review data in this worksheet. To update any of this data you must return to either the Health Facility Data or District Level Data worksheets.

- **Figure:** Average number of individuals screened per RACD event
- **Figure:** Ratio of new cases identified through RACD to number of individuals screened (per thousand)

### Costing Summary Worksheet

#### Summary

The Costing Summary worksheet in the Estimating the Costs Excel workbook is used to summarize the costs and cost drivers of case investigations and RACD activities. You will be reviewing the following data:

- Location Overview
- Data Outputs: Number and completeness of reporting by health facility

**Note:** You can only review data in this worksheet. To update any of this data you must return to the **Personnel Costs** or **Commodities, Services & Other Costs** worksheets.

### Data Outputs Section

#### Summary

The section presents the entered data visually as a table and a figure. Both can be used to copy/paste into reports or presentations.

Outputs include:

- **Table 1a:** Total costs for malaria and case investigation/RACD activities by category
- **Table 1b:** Monthly costs for commodities, services & other
- **Figure 1:** Monthly costs for commodities, services & other

### Costing Review Worksheet

#### Summary

The Costing Review worksheet in the Estimating the Costs Excel workbook is used to review the completeness of the costing data entered in the previous data entry worksheets. You will be reviewing the following data:

- Location Overview
- Data Outputs: a) personnel; b) commodities, services and other

**Note:** You can only review data in this worksheet. To update any of this data you must return to the **Personnel Costs** or **Commodities, Services & Other Costs** worksheets.

## Step 4 Saving and Sending the Completed Estimating the Costs Excel Workbook

After you have entered in all of the data in the Estimating the Costs Excel workbook, you should send it back to the individual who is leading the module in your province or region. Follow the instructions below for completing the workbook:

1. Confirm that the district name and date for the evaluation data are correct. In the **Personnel Costs** worksheet, confirm correct values for district, province, and year in the **1. Location Overview** section before saving.
2. Save the file. Ensure the file name includes the district name and date, for example: "PongNam-Ron\_Jan2018\_Estimating\_Costs.xls".
3. Send the saved file back to the person who originally sent it to you. This can be done via email or by using a USB drive for manual file transfer.