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HEALTH INITIATIVE**

CRVS RESOURCES AND TOOLS

CRVS Costing Tool: User guide

March 2019



Strengthening CRVS systems



Resources available from the University of Melbourne, Bloomberg Philanthropies Data for Health Initiative

CRVS development series

The CRVS development series, generated through the Initiative, forms a lasting archive of concise and easily accessible evidence and knowledge on strengthening CRVS systems. The content is based on a combination of technical knowledge and country experiences, as well as the scientific literature. The series is intended to stimulate debate and ideas for in-country CRVS policy, planning and capacity building, and promote the adoption of best practice to strengthen CRVS systems worldwide.

CRVS technical outcome series

This series focuses on filling a variety of scientific knowledge gaps and offering new tools, methods, findings and approaches for CRVS systems and data improvement. The series has a strong empirical focus. It reports on works in progress, particularly for large or complex technical initiatives, and on specific components of projects that may be of more immediate relevance to stakeholders.

CRVS resources and tools

Capacity-building resources and tools are designed to influence and align CRVS processes with established international or best-practice standards and to help countries improve their systems. These resources, which are used extensively in the Initiative's training courses, aim to change practice and ensure countries benefit from such changes by developing critical CRVS capacity among technical officers and ministries.

CRVS country perspectives

CRVS country perspectives describe the capacity-building experiences and successes of strengthening CRVS systems in partner countries, including fellowship reports. The series describes the state of CRVS systems improvement in partner countries and provides a baseline for comparison over time and between countries.

CRVS action guides and summaries

Many papers from the development and technical outcome series have accompanying action guides or summaries, which provide a succinct overview of key points and, in the case of action guides, a suggested way forward for countries.

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Acronyms

CDR	crude death rate
CHW	community health worker
COD	cause of death
CR	civil registration
CRO	Civil Registration Office
CRVS	civil registration and vital statistics
CRVS Costing Tool	Civil Registration and Vital Statistics Budgeting and Costing Tool
CSMR	cause-specific mortality rates
D4H	Data for Health
FTE	full-time equivalent
ICD	International Classification of Diseases
ID	identity
IT	Information and Technology
LMIC	low and middle-income country
SwissTPH	Swiss Tropical and Public Health Institute
TAG	Technical Advisory Group
VBA	Visual Basic Application
VS	vital statistics
WG	working group



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Introduction

Welcome to the **Civil Registration and Vital Statistics Budgeting and Costing Tool** ('CRVS Costing Tool') User Guide. This user guide provides program planners and managers with instructions for using the accompanying CRVS Costing Tool. The purpose of the CRVS Costing Tool is to help you to determine the costs of implementing Civil Registration and Vital Statistics (CRVS) systems.

The tool was designed for officials from institutions related to CRVS systems with an understanding of CRVS operations in the country and the different activities required to register vital events and to produce vital statistics. Bilateral and multilateral organizations working on CRVS in countries could also benefit from using this tool as it will help them identify the cost drivers, inefficiencies and bottlenecks in the system.

Costing CRVS systems allows to:

1. Estimate the costs of CRVS systems.
2. Identify key cost drivers and factors that impact the costs and efficiency of CRVS systems.
3. Estimate total budget requirements for CRVS activities across countries.
4. Compare the costs of CRVS systems within and between countries.

The tool automatically produces the following outputs:

- Total program costs for baseline year by activity and input type
- Average costs per registration of death and birth
- Key drivers of costs

The information collected will be used to:

- Strengthen budget preparations and justifications in the annual budgeting and planning process; and
- Assist in CRVS system implementation - measuring efficiency while identifying inefficiencies.

The Excel CRVS Costing Tool is formulated specifically to calculate the cost of CRVS activities at each level of the system. You can use this tool to calculate the costs or budget of the entire country or of a selected sample.

The tool assumes a systems perspective for the costing study where only costs incurred by the CRVS system are included and other costs such as household out-of-pocket expenses associated with death registration are excluded.

The CRVS Costing Tool estimates total costs of CRVS by aggregating the costs of the different inputs. Average/unit costs are then estimated by dividing the total costs by the units of outputs (i.e. number of deaths registered) produced. It can be customized to the country's context and covers all aspects of a CRVS system, including start-up costs, training costs, community-level service delivery costs, as well as governance, supervision, and management costs at all administrative levels.

Additionally, the tool has a budgeting and a modelling component. The former can be used to estimate budgets for CRVS systems, whereas the latter allows to model different CRVS implementation scenarios.



General use of the tool

The CRVS Costing Tool consists of several worksheets in a single Excel file (.xlsm). The Excel file is designed to function as a “master” blank. It is best to create copies of the CRVS Costing Tool before using it (either by creating copies on your computer desktop or by opening the Excel file and saving it under a new name before you start using it).

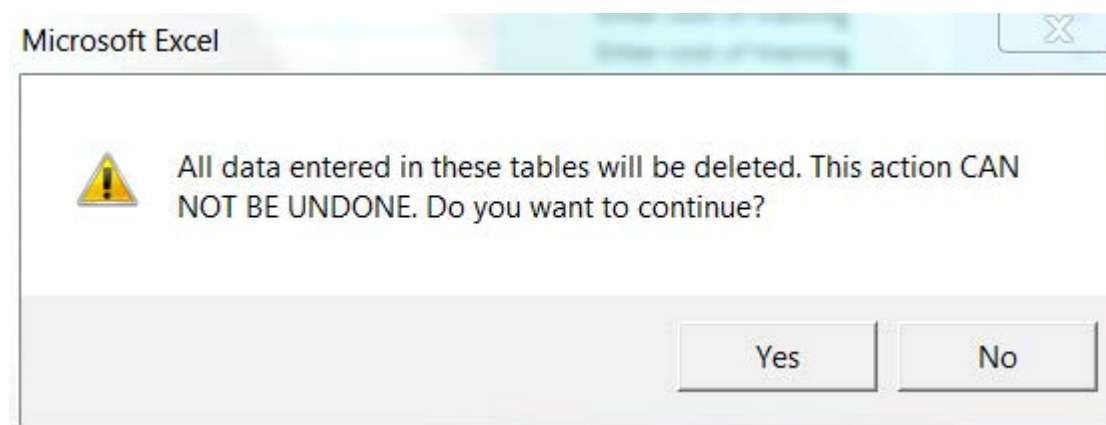
Data entry should ideally be directly done into the soft-copy Excel sheet. Data collectors should be equipped with a laptop/notebook computer during the on-site data collection visits. The data entry forms are specifically designed as templates for the compilation of data related to financial and economic costs of CRVS activities that were incurred within the months for which the cost is being assessed (month included in the costing study).

The CRVS Costing Tool has been designed to support a user-friendly experience. For this purpose, you will find some buttons repeating in all worksheets and that should improve your work with it. These are shown below and serve for different purposes.



“Back to DATA ENTRY SUMMARY”: allows you to return to the menu with the summary of data. Here you will see the total of each section and you will easily realize which sections you still need to complete.

“Clear content in all cells”: eliminates the data entered in the worksheet you are in. Be CAREFUL if you select this, it will remove all data in the current datasheet and it will be NOT possible to undo this action.

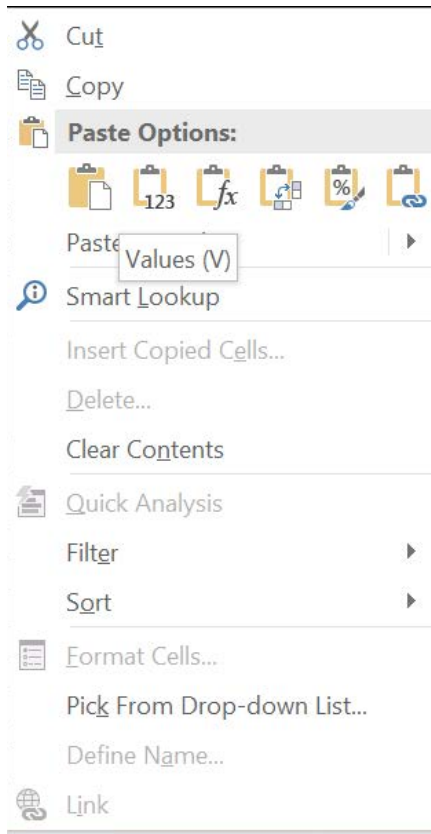


“Save work done”: allows saving the current status of the file. This will automatically create a new name for the tool. If you want to save as the same document you are working in, select this and replace it with the current version.

Note: This tool works with different excel formulas. It is for this reason important that in case you want to copy and paste your costing data from another source, that you do so and select to keep only the values (Figure 1). If you keep the format it could cause some error in the functioning of the tool.



Figure 1 How to paste values in Excel



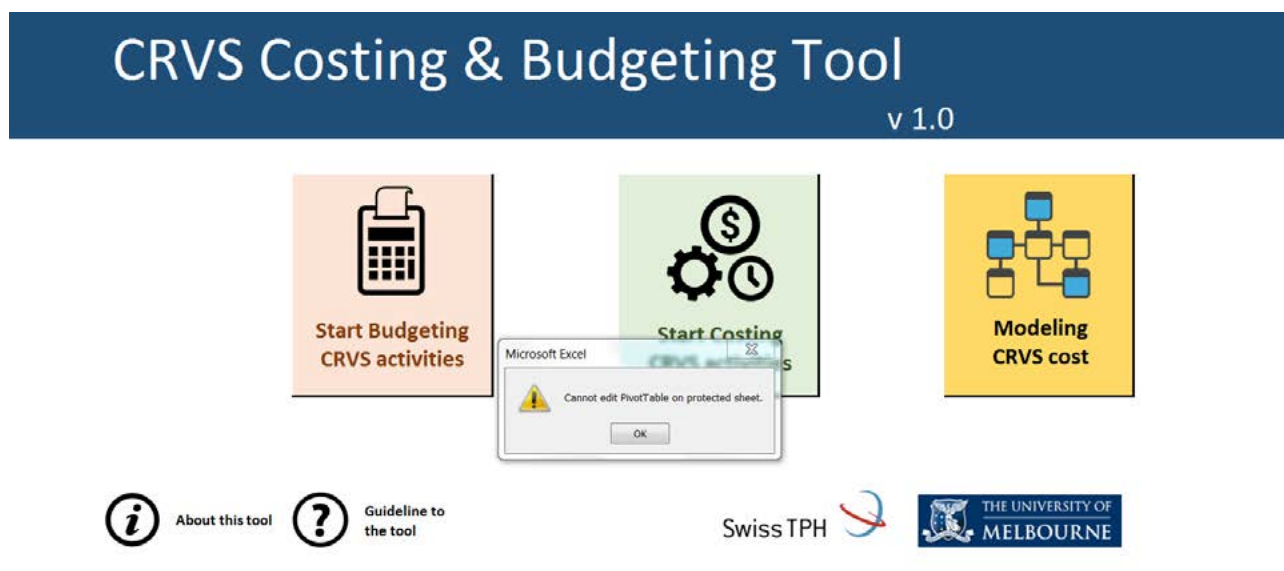
Section 1 – Getting started with the CRVS Costing Tool

This section provides instructions on how to enter some basic background data into the tool for costing CRVS activities, whereas section III then describes how to enter the cost data itself and section IV how to review the costing results. The examples in this section of the user guide have been generated using a demo version of the tool provided as part of this guide. Use the blank version of the tool to start entering data.

Note: The CRVS Costing Tool can only be used in Microsoft Excel®.

1.1 Main Menu

When opening the tool, a warning message will appear on your screen. This is supposed to be like this. Please click on the “OK” button to start working with the CRVS Costing Tool.



Before you start entering data, kindly ensure that macros are enabled so that the tool functions correctly. To enable macros, go to the Excel menu and select the following:

- File – Options – Trust Center – Trust center settings – Macro Settings – Enable all macros; or
- Select “Enable content” at the prompt.

The tool should automatically open to the main menu. Users can access the budgeting, costing and modelling components of the tool from this page.

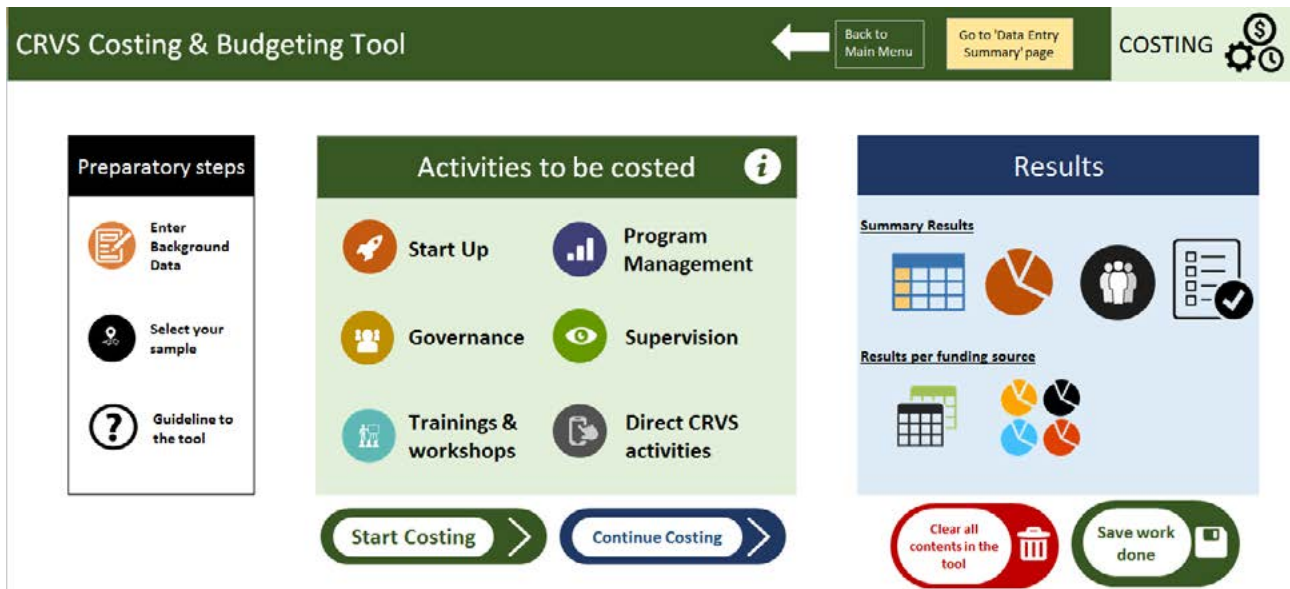
- To access the budgeting section, click on the **“Start Budgeting CRVS Activities”** button.
- To access the costing section, click on the **“Start Costing CRVS Activities”** button.
- To access the modelling
- To access the modelling section click on the **“Modelling CRVS Cost”** button.

1.2 Start Costing CRVS Activities

(Also applicable to the Budgeting Section).

New costing document

To start the costing section click on the corresponding item in the main menu ("Start Costing CRVS Activities") and the costing menu will open:



The costing (and budgeting) menu is the main navigation page for the costing section. Use this page to quickly navigate through the preparatory steps, the data entry worksheets and the results worksheets.

If you are starting a new costing data collection, click on the "Start Costing" icon. A pop-up window will appear to enter the preliminary data.

The screenshot shows a 'Preliminary data' pop-up window with the title 'Please enter the following data'. It contains several input fields: 'Country' (dropdown), 'Year of cost data' (dropdown), 'Year data collection' (dropdown), 'Currency of the country' (dropdown), 'Discount Rate' (dropdown), 'Useful life of equipment (years)' (text input), and 'Useful life of vehicles (years)' (text input). At the bottom, there is a 'Start costing' button and a note: 'The tool will create a new file to enter the cost data'.

In this window you are asked to enter: Country, Year of cost data (year for which data has been collected), Year data collection (Year in which data collection was performed), Currency of the country, Discount Rate, Useful life of equipment (indicate the number of years equipment remains functional) and Useful life of vehicles (indicate the number of years vehicles remain functional). All the information in this window is **mandatory**.

Click on “Start costing”. (In case you did not enter any of the above stated information, an error message will appear.) You will now be asked to save your file before entering the data. Ensure you save it with a different name than the original blank template.

Note: Once you have saved the file with a new name you can start entering data.

Continuation of costing document

If you want to continue entering data in a file that you already started, you will need to click on the “Continue costing” icon under “Activities to be costed”.

1.3 Background Data

As a next step, you are now asked to enter the country’s background information in the **Background Datasheet**. Please click on the “Enter Background Data” link within the “Preparatory steps” section. In here kindly fill baseline indicators, economic indicators, administrative structures and funding sources for implementing CRVS activities. The more information you can provide in this section, the more accurate the tool will be. This datasheet should be filled in at the beginning of the costing exercise, but further details can be added as you move ahead.

Base Indicators

Enter the data on the following **Base Indicators** including the year this data corresponds to and the source of the data. This information will be used for user reference in the future but is not used in the costing analysis.

Economic Indicators

Enter the data on the following **Economic Indicators** including the year the data corresponds to and the source of the data. This section can also be modified later.

- Gross domestic product (GDP) per capita
- Total health expenditures per capita, PPP
- World Bank income classification: Use the classification below in **Table 1**
- Average annual inflation rate
- Average annual salary growth rate


Table 1 World Bank income classification¹

Income Classification	GNI/Capita (current US\$)
Low-income	< 995
Lower-middle income	996 – 3,945
Upper-middle income	3,946 – 12,195
High-income	> 12,196

Administrative structures of your sampling frame

Introduce here the country’s administrative structures. Begin with the first and highest level (National/Central) and go down to the lowest: Regional, District, Ward. The 5th level should be reserved for the lowest administrative level **to be sampled within the costing study**, e.g. ward even though there would be a lower administrative level (e.g. village). For each level, input the number of units involved in the implementation of the CRVS program for the year the costing data is collected for.

¹ Data available at <http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTIC/0,,contentMDK:20420458~menuPK:64909257~pagePK:64909151~piPK:64909148~theSitePK:6950074,00.html>



Note: You need to have 5 levels indicated. Where less than 5 levels exist, enter X in one of the name columns and use the quantity (number of units) of the above level. This section must be right before starting the costing exercise, otherwise you will have to restart.

Funding Sources for CRVS Implementation

In this section kindly indicate all the funding sources for CRVS implementation that exist nationally. If you need to add a source, later on, you still can go back to this section and do so.

After having completed this section, press “Next”.

1.4 Define basic parameters and assumptions

General

Here confirm the general basic parameters entered at the very beginning:

- Country: The country under investigation
- Year of data collection: The year in which the costing assessment is done
- Year of costing data: The year the costing data is collected for
- Number of months included in the costing study

Currency of the Costing

Input the main local currency by picking from the drop-down menu and enter the US\$ to the main currency exchange rate. Use the average exchange rate for the period under investigation, meaning the months included in the costing study (e.g. www.ofx.com/en-au/forex-news/historical-exchange-rates or www.oanda.com). Add other currencies if needed.

Assumptions

Define the assumptions that will be applied to the entire costing exercise. The assumptions with the “Value” column shaded in yellow are mandatory. These five values are essential and will be used in several formulas and calculations. The tool will not allow you to move forward without these values.

Assumptions with the “Value” column shaded in white are just to keep a record of your assumptions but they will not be used by the tool.

The information recorded in “Assumptions” is required for the calculation of economic costs and is useful for making the results of the study more generalizable. This data can usually be obtained from the Central Economic Planning Office or from the Ministry of Finance. For each input category enter the following:

- Value or unit cost
- Currency (If applicable)
- Provide any comments, which may be useful for interpreting results.

The discount rate represents the rate at which investment’s revenues and costs are discounted in order to calculate its present value. If this rate is unknown, it’s usually set to 0.03 or 0.05.² The discount rate will be applied to all capital costs.

Once done entering these values, press “Next”.

Note: For “Useful life years” enter 20 if items are only purchased once or activities will not be repeated.

² Walker D, Kumaranayake L. Allowing for differential timing in cost analyses: discounting and annualization. Health Policy Plan. 2002;17(1):112-8.



Input category	Item/ detail (inputs)	Value	Currency (if apply)	Comments
General	Discount Rate			
General	Useful life years of training			
General	Useful life years of buildings			
General	Useful life years of equipment			
General	Useful life years of vehicles			
Training	Room rental per day			
Training	Facilitator/ trainer cost per day			
Travel	Domestic air fare			
Travel	International air fare			
Travel	International (long haul) air fare			
Travel	Local travel per day			
Per diems	Hotel per person per day			
Per diems	Subsistence per person per day			
Equipment	Computer			
Equipment	Printer, scanner, photocopier and fax			
Equipment	Network server			
Equipment	Local area network (LAN)			
Communication	Internet connection			
Communication	Mobile telephone			
Consulting	National consultant daily fee rate			
Consulting	International consultant daily fee rate			
Personnel	Community key informants			
Personnel	Community outreach health workers			
Personnel	VA interviewers			
Personnel	VA regional supervisors			
Personnel	VA physician coders or signers			
Personnel	VA IT logistics and Help desk			
Personnel	VA Analyst			
Personnel	VA National Coordinator			
Personnel	Driver			
Infrastructure	Average monthly rental office building			
Vehicles	Replacement value			
Vehicles	Fuel cost per litre			

1.5 Number of units in the sample

This worksheet requires to enter the names of all administrative levels indicated previously in the **Administrative Structures** tab.

Note: It is important to list only the units which will be sampled for the costing assessment and not all units involved in the implementation of the CRVS program countrywide.

In the four green columns, enter the estimated number of vital events, the total number of notifications, the total number of registrations and the total number of certifications that happened during the duration of the costing study in the lowest administrative level.

See example below.

Number of units in the sample



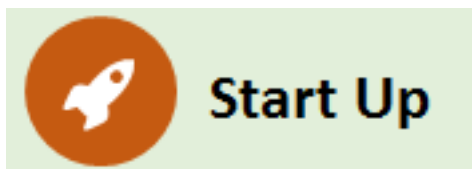
	National	x	x	Region	Township
Number of units selected	1	0	0	2	3

Myanmar	Name of x	Name of x	Name of Region	Name of Township	Estimated number of vital events per Township	Total number of NOTIFICATIONS per Township	Total number of REGISTRATIONS per Township	Total number of CERTIFICATIONS per Township
1			Region 1	Township 1	382	250	240	210
2			Region 1	Township 2	387	387	387	387
3			Region 2	Township 1	347	347	347	347
4			Region 2	Township 2	378	378	378	378
5			Region 2	Township 3	292	292	292	292
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

In the above example from country X, Township 1 of Region 1 had estimated 382 vital events (births and deaths), 250 notification, 240 registrations and 210 certifications during the 6 months of costing study.

Section 2 – Entering cost data

2.1 Start-up activities



Start-up activities are those activities or resources required for the intervention design or for preparatory steps prior to implementation of the intervention. Such start up activities like the training of master trainers or kick-off workshops are only required at the beginning of the intervention and will not be repeated for several years.

Start-up trainings

Enter all the initial CRVS training costs for the different type of staff. Start-up training costs include the initial costs of training key staff involved in CRVS activities. Also, include training provided within the last 3 years related to CRVS that is not included as part of the in-service training.

The tool assumes that all new CRVS staff added to the program (either for purposes of scaling-up or to replace CRVS staff lost due to attrition) undergo the start-up training.

Note: The total cost of the refresher training will be part of the recurrent training and workshops costs. The tool assumes that all CRVS staff currently deployed will receive the refresher training, at the frequency indicated by the user.

Make a list of all training provided to CRVS staff and supervisors in the column “Title of the training”. You can enter up to 21 pieces of training. Enter the source of funding for the training in column “Source of funding”, the administrative level in column “Administrative level”, the CRVS milestone that is targeted with this training in “CRVS Milestone” and the Number of Participants that are planned to attend this training.

Note: The administrative level represents the level for which the total cost of this specific activity applies to. E.g. if the total cost of this activity includes the 10 sessions of training conducted nationally in 10 different wards, then the administrative level is “National”. Only if we were to list the cost of each training in each ward separately, the administrative level would be “Ward”.

Click on “Enter cost of training” and the following cells will appear: **Participants:** Fees, Accommodation and subsistence, travel; **Trainers:** Fees; Accommodation and subsistence, travel; **Total office materials and other supplies, Venue** and **Other costs**. Please fill in as shown in the below example:

ID	Title of the training	Source of funding	Administrative level	CRVS Milestone	Number of participants	Enter cost of training		Total training cost (MMK)	% for CRVS activities
1	Master trainers	Bloomberg	National	1 Notification	43	Unit Cost	Currency	Total	100%
	Master trainers	Number of days	Number of people						Close
	Participants: Fees	5	43			10'000 MMK		2'50'000	
	Participants: Accomodation & subsistence	7	35			17500 MMK		4'287'500	
	Participants: Travel	1	35			50000 MMK		1'750'000	
	Trainers: Fees							-	
	Trainers: Accomodation & subsistence							-	
	Trainers: Travel							-	
	Total office materials & other supplies					150000 MMK		1'500'000	
	Venue					1215000 MMK		12'150'000	
	Other cost					1000000 MMK		10'000'000	

When you finish filling in the costs of the selected training, click on “Close” to hide these cells.

Note: Personnel cost is not captured individually in the Start-up Activity worksheet. Thus, personnel cost should be added as a fee. E.g. 43 people spend 5 days in a training and their average daily salary is 30 USD, then the fee per person and day would be 30USD.

If CRVS training is part of other training activities, enter the proportion of costs allocated to CRVS activities under “% for CRVS activities”. Enter the year in which the training was conducted in the column “Year of training”. Introduce the amount of useful

life years of each training activity (this corresponds to the frequency of training sessions: eg if the next time this type of start-up training is provided after 3 years, enter 3 as the useful life years).

Note: Often the useful life years of start-up training is the time after which managers think they would need to train a whole new batch of staff (CRVS staff lost due to attrition).

Start-up workshops and meetings

Enter information for start-up workshops and meetings using the same instructions as for start-up training explained in the above section. Costs in this category may include meetings of CRVS committees and the launch of CRVS activities in the country.

Other Start-up costs

Make a list of all other start-up costs for CRVS activities in "Description", you can enter up to 20 cost items. For each cost item introduce: the source of funding, the administrative level, the CRVS milestone that is targeted, the total annual costs and if the item or the activity is part of other activities, enter the proportion of costs allocated to CRVS activities, the year the expense and the useful life years of each item (this applies to capital such as costs of servers etc.).³

2.2 Governance Activities



Indicate all costs related to governance activities of CRVS implementation in the **Governance Worksheet**. Governance costs include costs of meetings and workshops to guide the steering of the overall CRVS implementation in the country. The costs of routine national and district level planning workshops related to CRVS implementation should also be included here. Meetings for CRVS tools development and other activities related to the development stage of CRVS implementation should NOT be included here. They must be considered as start-up activities (see above).

As done in the **Start-up activities**, click on "Enter cost of training" and the following cells will appear: **Participants:** Fees, Accommodation and subsistence, travel; **Trainers:** Fees; Accommodation and subsistence, travel; **Total office materials and other supplies, Venue** and **Other costs**. Please fill in as shown in the below example:

When you finish filling in the costs of the selected training click on "Close" to blend in these cells.

Note: Personnel costs are not captured individually in the Governance Worksheet. Thus, personnel cost (time needed to conduct governance activities) should be added to the time needed within the program management section (see Program Management Worksheet).

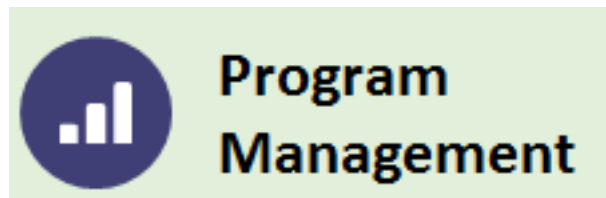
Other Governance Costs

Input other governance-related costs in this section. List all other governance costs and details of CRVS activities and that incurred within the months for which the cost is being assessed. You can enter up to 20 cost items.

³ Cobos Munoz D, Abouzahr C, de Savigny D. The "Ten CRVS Milestones" framework for understanding Civil Registration and Vital Statistics systems. *BMJ Glob Health*. 2018;3(2):e000673.



2.3 Program Management



The **Program Management Worksheet** allows you to input all costs of staff and items related to the management of the CRVS program, such as salaries, communications, supplies and equipment. Data entered on this worksheet will calculate the total costs of management associated with the CRVS program.

Personnel

List of all relevant managers who are involved in the CRVS program management. Indicate the source of funding and enter the administrative level the management is affiliated with from the drop-down menu, as well as the CRVS milestone that is being targeted. In the next columns, indicate the number of staff for each indicated position per administrative level, as well as the gross annual salary and annual allowances. Finally, enter the percentage of time that this staff spend on CRVS program management, which will include the time spent on governance activities. This information will be usually collected from human resources accounting systems or from government national pay scales.

Communication

List of all relevant man In this section, enter costs associated with communication for the CRVS program management that incurred within the months for which the cost is being assessed. Communication costs include data costs (GB internet per month), telephone, internet and postage. Indicate for each cost category the source of funding, the administrative level, the CRVS milestone being targeted, the cost incurred within the months included in the costing study, the currency of payment and the proportion of costs allocated to CRVS activities if the communication mean was shared with other activities.

Supplies, utilities and other recurrent costs

In this section, enter all costs of supplies, utilities and other recurrent costs that incurred within the months for which the cost is being assessed (included in the costing study). Indicate the details of each cost as done in the above section.

This section of the worksheet allows you to input any CRVS program costs that have not previously been addressed in the tool. Typically, these costs include transport, electricity, and administrative or overhead costs such as office rental.

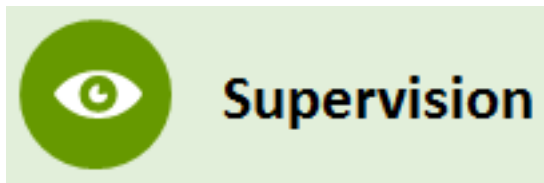
Equipment

In this section, enter the equipment provided for CRVS management activities, which was still in use during the period for which the cost is being assessed. This also includes equipment that was bought prior to the period for which the costing is done. Equipment can be defined as any material that is used recurrently in the course of CRVS activities (as opposed to supplies which are used on a one-time basis). This can include tablets, computers, bicycles, motorbikes, and vehicles. For each piece of equipment, input the source of funding, the administrative level, the quantities used per administrative level indicated, the replacement value of one piece, the currency of purchase, the year of acquisition, and the useful life years. For shared equipment, enter the proportion of time the equipment is used for CRVS activities.

Consultants

Enter the costs of short-term consultants which have ever been used for program management in this section. This also includes consultancies that have been conducted prior to the period for which the costing is done. Consultancies may involve technical assistance from a variety of organizations, both national and international. Enter all costs of consultancy packages, which may comprise salaries or fees, international and/or local travel and subsistence and miscellaneous reimbursements. For each consultancy, input the source of funding, the administrative level for which the consultancy was conducted for, the CRVS milestone that was targeted, the fees, travel expenses as well as the accommodation and subsistence allowances. Also, enter the currency of purchase, the year of the consultancy, and the useful life years. For shared consultancies, enter the proportion of time the consultancy was used for CRVS activities.

2.4 Supervision



All costs for Supervision Visits and Supervision Meetings with CRVS staff should be entered in the Supervision Worksheet.

Note: Information should only be entered here for costs relating to direct CRVS Supervisors.

Supervision visits, workshops and meetings

First, make a list of all relevant supervision visits relating to the CRVS program that were conducted within the months for which the costs are being assessed. These may typically include quarterly supervision visits to lower administrative levels. Select the source of funding through which the supervision visit is financed, enter the administrative level for which the total cost applies to (remember the note above; if you enter the cost of supervising all wards in the country the administrative level is “national” and NOT ward. Only if you were to enter the cost of each supervision visit to each ward, then the administrative level would be “ward”).

Use the cost entering section to enter the cost for all supervision meetings/visits for participants as well as supervisors through selecting “enter cost of supervision” (Participants fees, accommodation and subsistence and travel; supervisor fees; accommodation and subsistence, travel, venue costs, supplies and other related costs). Also, enter the proportion to which the supervision can be allocated to CRVS activities and enter the frequency of visits for the period for which the costing was conducted. The cost per meeting will then be multiplied by the frequency of visits per administrative level within the costing period.

Personnel

First make a list of all relevant stakeholders who are involved in the CRVS supervision. Input the source of funding and enter the administrative level the stakeholder is affiliated with from the drop-down menu (Note: remember the note from above; 20 registrar nation-wide are affiliated with the national level, whereas 2 registrar per ward are affiliated with the ward level). Next, the user must input the type of contract (paid worker or volunteer), the number of staff PER SELECTED ADMINISTRATION LEVEL, the gross annual salary and annual allowances (Note: if you cost 6 months only the allowances must be multiplied by 2). Finally, enter the percentage of allowances or salary used for CRVS supervision.

Communication

In this section, enter costs associated with communication for CRVS activity’s supervision that incurred within the months for which the costs are being assessed. Communication costs include data costs, telephone, internet and postage. Introduce for each cost category all details as done in previous sections.

Supplies, utilities and other recurrent costs

In this section, enter all costs of supplies, utilities and other recurrent costs that incurred within the months for which the costs are being assessed. Introduce for each cost category all details as done in previous sections.

This section of the worksheet allows you to indicate any CRVS supervision costs that have not previously been captured in the tool.

Equipment

As done in the equipment section within “Program management” kindly indicate the equipment costs in this case specifically dedicated for supervision.

Consultants

This section is filled following the same instructions described within the “Consultants” section within “Program Management” worksheet.



2.5 Refresher training and workshops



Unlike the training costs calculated as part of the start-up activities, refresher training occurs more frequently and therefore has a useful life of one year.

There is not a specific worksheet in the tool to record the information about refresher training and workshops. This must be recorded in the “Direct CRVS activities” worksheet.

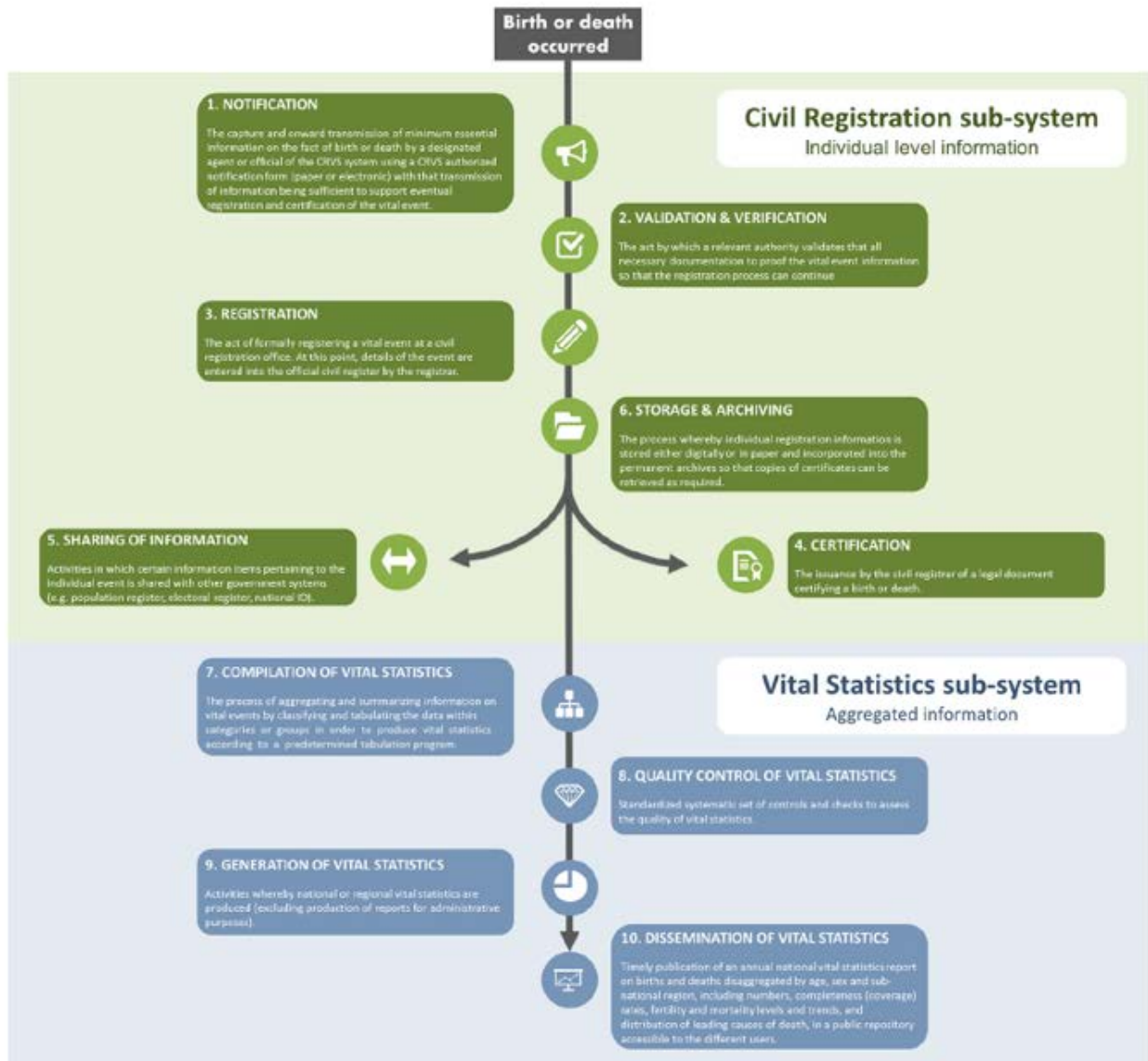
2.6 Direct CRVS activities



The **Direct CRVS activities worksheet** captures capital and recurrent costs associated with activities directly linked to the ten CRVS milestones. You should record here all resources used in the Civil Registration sub-system, to capture the individual level information (notification, validation and verification, registration, storage and archiving, sharing of information and certification of the event) and also all resources from the Vital Statistics sub-system, which manage the aggregated information (compilation of vital statistics, quality control of vital statistics, generation of vital statistics and the final step of dissemination of vital statistics).

The entire range of activities can be seen in **Figure 2**.

Figure 2 'Ten CRVS Milestones' framework with a working definition of each milestone



In addition to the direct cost related to CRVS activities, you must collect the information about refresher training and workshops held in each sampling unit.

The user should ensure that the costs are entered for each sampling unit as indicated in the **Sampling Unit** worksheet.

Recurrent trainings, workshops and meetings

Unlike the start-up training costs calculated as capital costs, refresher trainings occur more frequently and therefore have a useful life of one year. Input all refresher trainings, workshops and meetings in this worksheet.

Make a list of all trainings, workshops and meetings attended by CRVS staff and supervisors that were conducted within the months for which the cost is being assessed (month included in the costing study). You can enter up to 20 trainings. Enter the source of funding for the training, the type (e.g. training, workshop or meeting) and the training costs. If the CRVS training/workshop/meeting was part of other activities, enter the proportion of costs allocated to CRVS. Enter the number of participants for each training, meeting or workshop.



Personnel

The section collates data on personnel involved in CRVS activities. First input a description of the staff position in Column A. Select the staff profile from the drop-down menu in the next column. In the next column, select the per cent of time that is allocated to CRVS activities. The next section represents the per cent of time dedicated to CRVS activities that is dedicated to each of the following activities:

Activity	Definition
Notification	The capture and onward transmission of minimum essential information on the fact of birth or death by a designated agent of the CRVS system using a notification form (electronic or paper) with that transmission of information being sufficient for registration or certification.
Validation	The act by which a relevant authority validates that all necessary documentation proofs the vital event information so the event can be registered.
Registration and Certification	The issuance by the local registrar of a legal document certifying a death or birth.
Other CR activities	Includes all other civil registration activities (eg sharing of information and storage).
Compilation of VS	The process of aggregating and summarizing information on vital events by classifying and tabulating the data within categories or groups in order to produce vital statistics according to a predetermined tabulation program.
Generation and Dissemination of VS	Activities whereby national or regional vital statistics are produced (excluding production of reports for administrative purposes) and disseminated with the public.
Other VS activities	Including activities like quality control of vital statistics.

Identifying personnel time allocations to identify the share of the cost to be allocated to CRVS implementation is probably the most challenging part of the costing. In countries with electronic or paper time monitoring systems, these calculations will be done based on the average time spent on each activity in eg the last year. However, this is usually not available in low resource settings. If there is some evidence coming from time motion studies or similar analysis, this can be used to populate the CRVS costing tool. Otherwise, the interviewer can ask all or a sample of each staff profile to estimate their time allocation to each activity and then produce the average.

In the second table dedicated to “Personnel” the grey cells will be automatically filled with details previously entered in other sections. Enter the funding source through which the staff is financed and the number of staff in this position within this administrative level. Afterwards, select the type of contract from the drop-down menu: paid worker or volunteer. Next enter the gross annual salary excluding benefits (e.g. yearly bonus). Enter the annual allowances and benefits and the currency of payments.

Communications

Enter costs associated with communication in this section. Communications costs include data costs, telephone and postage. For each item input the source of funding, annual costs, currency of payment and proportion of costs allocated to CRVS activities in case equipment is shared across activities.

Maintenance

Enter costs associated with maintenance of equipment in this section. Similar to communication costs, input the source of funding, annual costs, currency of payment and proportion of costs allocated to CRVS activities in case costs are shared. This should be done in the same way as the proportion of time of the personnel is calculated.

Supplies, utilities and other recurrent costs

Enter all travel costs, costs of supplies, utilities and other recurrent costs in this section. Input the source of funding, annual costs, currency of payment and proportion of costs allocated to CRVS activities in case costs are shared. This section of the worksheet allows the user to input any CRVS activity costs that have not previously been addressed in the tool. Typically, these costs include administrative or overhead costs such as office rental as well as travel costs.



Equipment

Enter the equipment provided for CRVS activities in this section. Equipment can be defined as any materials that are used recurrently in the course of CRVS activities (as opposed to supplies which are used on a one-time basis). This can include tablets, computers, bicycles, motorbikes, and vehicles. For each piece of equipment, input the source of funding, quantities used at the administrative level of the selected sampling unit, replacement value, currency of purchase, year of acquisition, and useful life years. For shared equipment, enter the proportion of time the equipment is used for CRVS activities. This should be done in the same way as the proportion of time of the personnel is calculated.

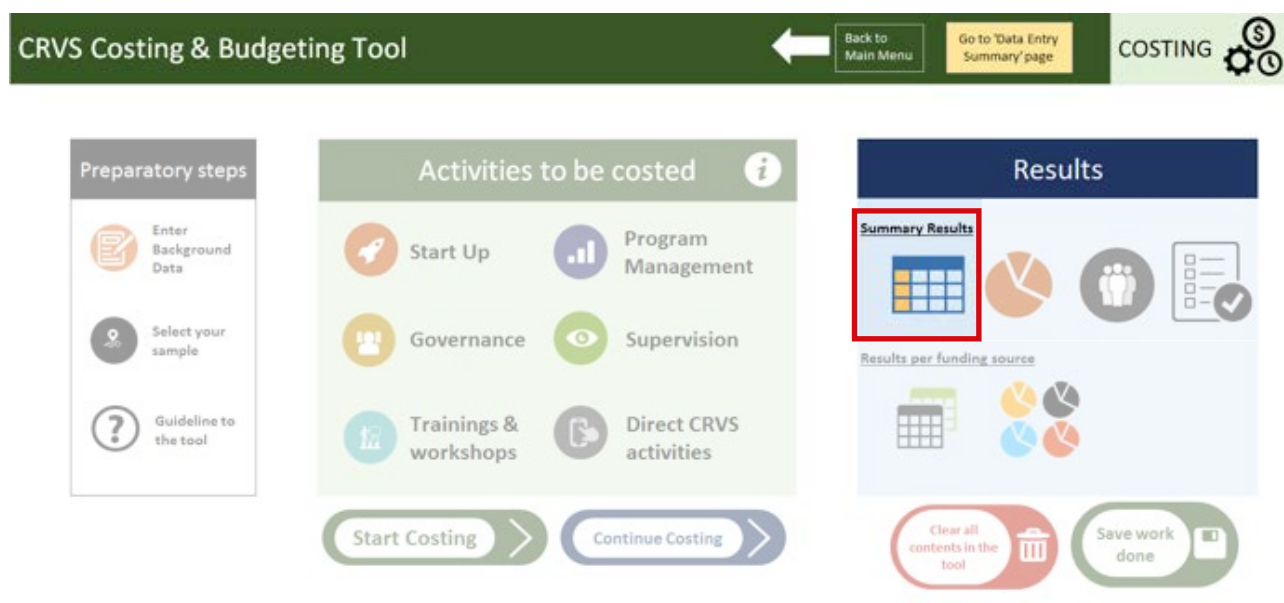
Consultants

Enter the costs of short-term consultants used at the administrative level of the selected sampling unit in this section. Consultancies may involve technical assistance from a variety of organizations, both national and international. Enter all costs of consultancy package, which may comprise salaries or fees, international and/or local travel and subsistence and miscellaneous reimbursements.

Section 3 – Understanding results of the costing

3.1 Summary results

On the main page of the costing section, select the table icon in the results box under “Summary Results”.



The **Results-Tables worksheet** will open and show the detailed, comprehensive results of the costing analysis, displayed in tables.

Results can be displayed in any currency included in the Background section of the costing section.

Select the currency in which the results ought to be shown.

Press **“Refresh results”**.

Total cost per major activity

	Total Financial Cost in months in ()	Total Economic Cost in months in ()
Start Up activities	-	-
Governance activities	-	-
Recurrent training & workshops	-	-
Program Management	-	-
Supervision	-	-
Direct CRVS activities	-	-
TOTAL		

Total number of VAs in months in	Number of included
0	0

CHOOSE THE CURRENCY OF THE RESULTS



Cost per REGISTRATION in ()

Total cost per input

Input	Total Financial Cost in months in ()	% of financial costs	Total Economic Cost in months in ()	% of economic costs
Start-up costs				
Trainings, workshops & meetings	-	0%	-	0%
Other start up	-	0%	-	0%
Total start-up costs	-	0%	-	0%
Recurrent costs				
Workshops, meetings, trainings and supervision visits	-	0%	-	0%
Personnel	-	0%	-	0%
Communications	-	0%	-	0%
Maintenance	-	0%	-	0%
Supplies & other recurrent	-	0%	-	0%
Total recurrent costs	-	0%	-	0%
Capital costs				
Buildings	-	0%	-	0%
Equipment	-	0%	-	0%
Vehicles	-	0%	-	0%
Consultants	-	0%	-	0%
Total capital costs	-	0%	-	0%
Total Annual Costs	-	0%	-	0%

Note: No data is entered directly into these tables they are populated from the data entry worksheets. DO NOT change any formulas, add or delete rows or columns, or disrupt the calculation worksheets in any way.



3.2 Total Cost per major activity

The summary of total cost by activity type provides a breakdown of Total CRVS implementation costs by activity type: start-up; governance, refreshment training/workshops, program management, supervision as well as Direct CRVS activities.

Total cost per major activity

	Total Financial Cost in months in ()	Total Economic Cost in months in ()
Start Up activities	-	-
Governance activities	-	-
Recurrent training & workshops	-	-
Program Management	-	-
Supervision	-	-
Direct CRVS activities	-	-
TOTAL		

Note: All results in the tool are automatically generated and do not require user input. Any error messages in the results worksheets may indicate incorrect or insufficient data entered into the tool.

3.3 Total Cost per Input

The summary of total cost per input type provides a breakdown of total CRVS implementation costs by input: training, workshops and meetings, equipment, consultancies, personnel, communication, maintenance, supplies and other recurrent costs.

Total cost per input

Input	Total Financial Cost in 6 months in (USD)	% of financial costs	Total Economic Cost in 6 months in (USD)	% of economic costs
Start-up costs				
Trainings, workshops & meetings	-		-	
Other start up	-		-	
Total start-up costs	-		-	
Recurrent costs				
Workshops, meetings, trainings and supervision visits	-		-	
Personnel	-		-	
Communications	-		-	
Maintenance	-		-	
Supplies & other recurrent	-		-	
Total recurrent costs	-		-	
Capital costs				
Buildings	-		-	
Equipment	-		-	
Vehicles	-		-	
Consultants	-		-	
Total capital costs	-		-	
Total Annual Costs	-		-	

3.4 Average Cost Estimates

The total financial and economic costs are shown in the sample for 6 and 12 months. These are disaggregated showing the following:

- Start-up activities
- Governance activities
- Refresher training and workshops
- Program Management
- Supervision
- Direct CRVS activities
- TOTAL.

Total cost estimated in the sample

	Total Financial Cost in months in (€)	Total Economic Cost in months in (€)
Start Up activities	-	-
Governance activities	-	-
Recurrent training & workshops	-	-
Program Management	-	-
Supervision	-	-
Direct CRVS activities	-	-
TOTAL		

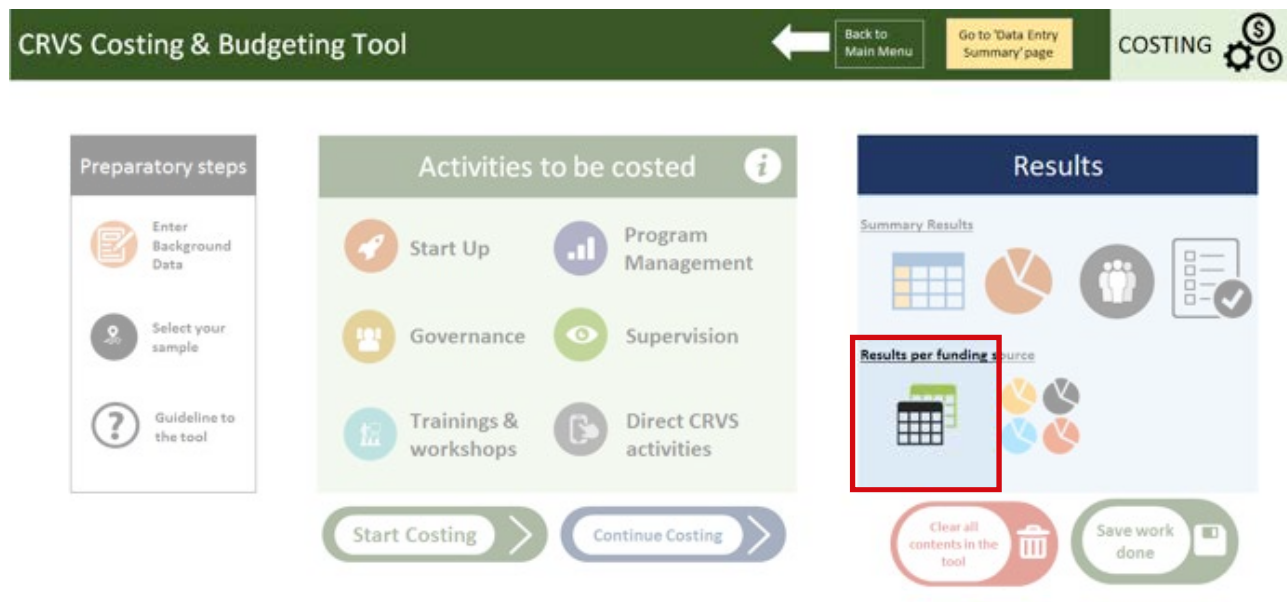
Total cost estimated in the sample for 12 months

	Total Financial Cost in months in (€)	Total Economic Cost in months in (€)
Start Up activities	-	-
Governance activities	-	-
Recurrent training & workshops	-	-
Program Management	-	-
Supervision	-	-
Direct CRVS activities	-	-
TOTAL		



3.5 Cost per funding source

The tool also disaggregates the cost of each activity group by funding source. In order to do so, select the table icon in the main menu, within the results box under “Results per funding source”.



COST PER FUNDING SOURCE

Financial Cost in (USD)

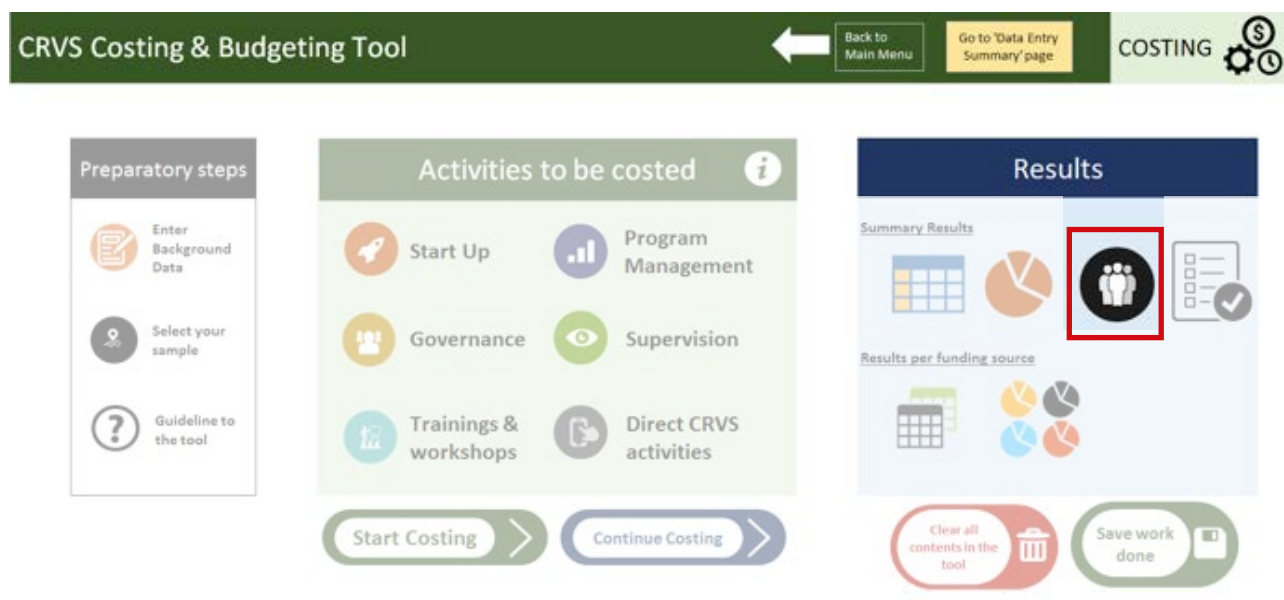
Type of cost (financial/ economic)	Financial	<input type="text" value="0"/>	
		0	Grand Total
A. Start Up		-	-
B. Governance		-	-
C. Recurrent trainings & workshops		-	-
D. Program Management		-	-
E. Supervision		-	-
F. Direct CRVS activities		-	-
Grand Total		-	-

Economic Cost in (USD)

Type of cost (financial/ economic)	Economic	<input type="text" value="0"/>	
		0	Grand Total
A. Start Up		-	-
B. Governance		-	-
C. Recurrent trainings & workshops		-	-
D. Program Management		-	-
E. Supervision		-	-
F. Direct CRVS activities		-	-
Grand Total		-	-

3.6 Staff time

In order to visualize the time each staff member dedicates for CRVS activities, select the group icon in the results box under “Results per funding source” in the main menu.



The tool calculates the number of staff involved in CRVS implementation and all other activities linked to it (eg program management) according to pre-defined staff categories.

It also provides the total number of full time equivalents (FTE) required for each staff category to conduct the number of CRVS activities included in the costing. FTE accounts not only for the number of staff involved but also for the % of their time that they spent on CRVS related activities.

Staff requirements to implement CRVS in

	Total number involved	FTEs*
Registrar	0	0.0
Registrar assistant	0	0.0
Other CR staff	0	0.0
Statistician	0	0.0
National manager & supervisor	0	0.0
Sub-national manager & supervisor	0	0.0
Health personnel	0	0.0
Consultant	0	0.0

*FTE: Full Time Equivalent

Section 4 – Modelling cost

The results of either a costing or a budgeting exercise can be modelled for different implementation scenarios and time. Choose in “Source of data” if you want to model based on the costing or budgeting activity.

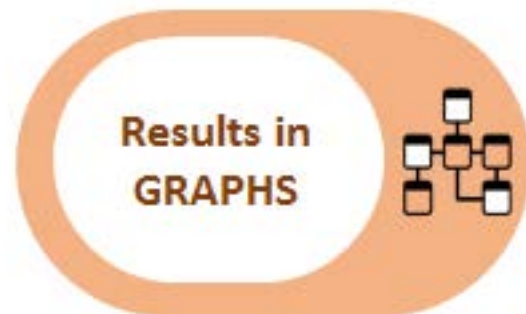
A number of factors can be modified to create different scenarios. These factors are:

- Administrative structure in the country and number of each of them;
- Population included in the budget (will determine the number of events to be registered);
- Crude birth rate (CBR);
- Crude death rate (CDR);
- Per cent of births and deaths registered; and
- Inflation rate.

Costs for each subsequent year are calculated applying a weighting factor to each cost category. The rationale for calculation each weighting factor are:

	Factor
Start-Up Start-up training and workshops Other start-up cost	Expected number of staff to be trained
Governance Governance workshops and meetings Other governance cost	Incremental number of sampling units at each administrative level
Program management Personnel Communications Supplies, utilities and other recurrent cost Equipment Consultants	National and subnational level: Incremental number of sampling units in the administrative level below compared with previous year Local level: Incremental number of sampling units in the same level compared with previous year
Supervision Supervision workshops and meetings Personnel Communications Supplies, utilities and other recurrent cost Equipment Consultants	National and subnational level: Incremental number of sampling units at each administrative level compared with previous year Local level: Incremental number of sampling units in the same level compared with previous year
Direct CRVS activities Refresher training and workshops Personnel Communications Maintenance	Expected number of FTE required to conduct the expected number of registrations (births plus deaths) in a given year
Buildings Equipment Vehicles Consultants	Incremental number of units providing registration services

The results of this modelling exercise can be viewed in the form of tables or graphs. Click on the relevant link and these will be shown.



As done in the costing exercise, results will be shown separated on financial and economic costs. You can also view the costs per activity group or per input category.

CRVS Costing & Budgeting Tool

Navigation: Back to Main Menu, Back to Costing Menu, Go to Model Assumptions, MODEL RESULTS, Refresh results

Cost per activity group

FINANCIAL COST (USD)		Current Cost (6 months)	Current cost (12 months)	Year 1	Year 2	Year 3	Year 4	Year 5
Start Up activities								
Governance activities								
Refresher training & workshops								
Program Management								
Supervision								
Direct CRVS activities								
TOTAL								
Financial Cost per VA (EUR)								

ECONOMIC COST (USD)		Current Cost (6 months)	Current cost (12 months)	Year 1	Year 2	Year 3	Year 4	Year 5
Start Up activities								
Governance activities								
Refresher training & workshops								
Program Management								
Supervision								
Direct CRVS activities								
TOTAL								
Economic Cost per VA (EUR)								

Furthermore, the model will calculate how big the number of personnel should be for each position of CRVS during the year and will also calculate the total number of FTE.

Personnel number and time

Personnel category	Total number of staff						
	Current (6 months)	Current (12 months)	Year 1	Year 2	Year 3	Year 4	Year 5
Registrar	0	0	0	0	0	0	0
Registrar assistant	0	0	0	0	0	0	0
Other CR staff	0	0	0	0	0	0	0
Statistician	0	0	0	0	0	0	0
National manager & supervisor	0	0	0	0	0	0	0
Sub-national manager & supervisor	0	0	0	0	0	0	0
Health personnel	0	0	0	0	0	0	0
Consultant	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0

Personnel category	Total number of FTEs for each category						
	Current (6 months)	Current (12 months)	Year 1	Year 2	Year 3	Year 4	Year 5
Registrar	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Registrar assistant	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other CR staff	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Statistician	0.0	0.0	0.0	0.0	0.0	0.0	0.0
National manager & supervisor	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-national manager & supervisor	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Health personnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consultant	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0

We hope this user guide has helped you navigate the Costing Tool. In case you have any questions or comments, don't hesitate to CONTACT US.



Annex 1 Glossary

Economic costs	the opportunity cost of the resources used in the intervention, whether or not a financial cost was incurred (i.e. even if they did not involve a monetary payment). Differences arise between financial and economic costs for goods or services for which there are no financial transactions, and where the price of the good does not represent its actual value. This is particularly important in programs with donated goods, working with volunteers or when valuing capital costs. The economic cost or value of donated goods and services are estimated by taking their equivalent market prices
Financial costs	the accounting cost of developing and implementing an intervention
Governance costs	the costs of meetings and workshops to guide the steering of the overall CRVS implementation in the country. The costs of routine national and district level planning workshops related to CRVS implementation are also included here
Start-up costs	the costs of those activities or resources required for the intervention design or for preparatory steps prior to implementation of the intervention (including start-up training)
Training costs	the costs of conducting refresher training. Start-up training costs are not included in this section but in start-up costs
Supervision costs	all costs for Supervision Visits and Supervision Meetings with CRVS staff
Program Management costs	the program management costs, all costs of staff and items related to the management of the CRVS program, such as salaries, communications, supplies and equipment
Top-down costing approach	in a topdown approach, the analyst takes overall expenditures for each ingredient/input (e.g. personnel cost, equipment...) at a central level and then allocates costs using formulae (based on allocation factors such as building usage, staff time and staff numbers) to estimate unit procedure or service costs
Ingredient-based costing	an ingredients (or bottom-up) approach uses detailed activity and input usage data from records (or observed usage) at the service provider level to estimate unit costs

Annex 2 Collecting data

	Indicator	Definition	Measure	Data source	Requirement
Background data	Population	Population of the country	Millions	National Statistics	Mandatory
	Population growth rate	Rate at which the number of individuals in a population increases in a year	%	National Statistics	Mandatory
	Median age	Median age of the population	Years	National Statistics	Mandatory
	Crude death rate	Total number of deaths per year per 1000 people	/1000	National Statistics	Mandatory
	Birth registration coverage	Percentage of births that are registered within one month of age in a civil registration system	%	National Statistics	Mandatory
	Death registration coverage	Percentage of deaths that are registered (with age and sex)	%	National Statistics	Mandatory
	Cause of death registration coverage	Percentage of deaths for which a cause of death is recorded	%	National Statistics	Mandatory
	Gross domestic product (GDP) per capita		USD	National Statistics	Optional
	Total health expenditures per capita, PPP		USD	National Statistics	Optional
	World Bank income classification		N/A	World Bank	Optional
	Average annual inflation rate		%	National Statistics	Optional
	Average annual salary growth		USD	National Statistics	Optional
	Administrative of your sampling frame	Administrative levels included in the costing exercise	N/A		Mandatory
	Discount rate	The rate at which investment's revenues and costs are discounted in order to calculate its present value. If this rate is unknown, should be set to 0.05.			Mandatory
	Other Assumptions	Should be filled in if available for reference of the user			Optional
	Estimated number of vital events per union	Estimated total number of vital events for the selected administrative level	Number	Census	Mandatory
	Total number of notifications per union	Total number of notifications recorded in the birth and death registration system	Number	Registration authority	Mandatory
	Total number of registrations per union	Total number of registrations recorded in the birth and death registration system	Number	Registration authority	Mandatory
	Total number of certification per union	Total number of certifications recorded in the birth and death registration system	Number	Registration authority	Mandatory

Start-up	Start-up Costs	Training, workshops, meetings and other costs related with start-up activities	Available currency	Accounting data	Optional
Governance	Governance Costs	Training, workshops and other costs related with governance activities during the project duration	Available currency	Accounting data	Optional
Program Management	Program Management Costs	Includes program management costs related with personnel, communications, supplies, utilities, transport, equipment, consultants and other recurrent costs	Available currency	Accounting data	Optional
Supervision	Supervision Costs	Includes supervision costs related with personnel, communications, supplies, utilities, transport, equipment, consultants and other recurrent costs	Available currency	Accounting data	Optional

The program partners on this initiative include: The University of Melbourne, Australia; CDC Foundation, USA; Vital Strategies, USA; Johns Hopkins Bloomberg School of Public Health, USA; World Health Organization, Switzerland.

Civil Registration and Vital Statistics partners:



The University of Melbourne recognises the Swiss Tropical and Public Health Institute for their partnership and contribution



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CRICOS Provider Code: 00116K

Version: 0319-01

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