CRVS RESOURCES AND TOOLS

CRVS performance metrics:
User guide

March 2019

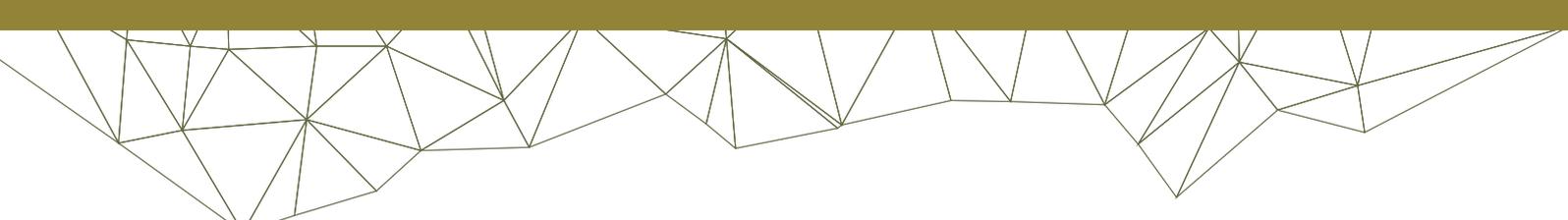## Resources available from the University of Melbourne, Bloomberg Philanthropies Data for Health Initiative

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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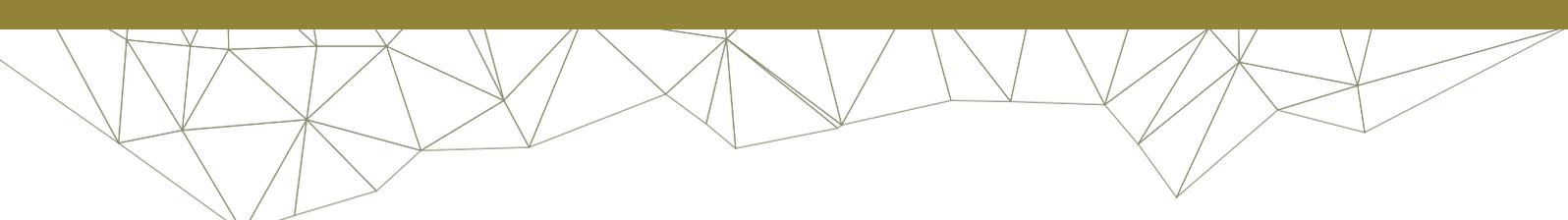
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Contents

Acronyms

COD	Cause of Death
CR	Civil Registration
CRO	Civil Registration Office
CRVS	Civil Registration and Vital Statistics
CSMR	Cause-Specific Mortality Rates
D4H	Data for Health Initiative
FTE	Full-Time Employment
HBCP	Home-Based Care Practitioner
ICD	International Classification of Diseases
ID	Identity
IT	Information Technology
LMIC	Low and Middle-Income Countries
MHD	Municipal Health Department
MOH	Ministry of Health
PPT	PowerPoint
SHD	State Health Department
SwissTPH	Swiss Tropical and Public Health Institute
TAG	Technical Advisory Group
VA	Verbal Autopsy
VBA	Visual Basic Application
VS	Vital Statistics
WG	Working Group

Strengthening CRVS systems

SECTION I: Introduction

Welcome to the CRVS performance metrics data collection tool user guide. This user guide provides program planners and managers with instructions for using the accompanying Data Collection Tool (***CRVS performance data collection tool prototype v.8.2.8.xlsm***) and the CRVS performance dashboard template (***CRVS performance dashboard v7.8 Template.pbix***).

The purpose of the Data Collection Tool is to facilitate the process of data collection in a consolidated and systematic way. This is essential, as CRVS systems are complex and adaptive and the process of data collection to measure performance metrics requires the collaboration of multiple stakeholders.

This tool can be customized to the country's context and users can decide the level of detail they want to obtain. Depending on the data available, it is possible to input performance data from a sample or from a whole national information system.

The Tool automatically produces the following outputs:

■ Performance indicators for the selected health system levels

■ Tables to generate graphics in PowerBI.

The Data Collection Tool consists of 18 worksheets in a single Excel file (.xls). The Excel file is designed to function as a "master" blank. It is best to create copies of the Data Collection 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).

The Excel Data Collection Tool is formulated specifically to calculate and visualize the performance indicators at each health system level.

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.

SECTION II: Data collection tool

This section provides instructions on how to enter basic background data into the Data Collection Tool, before section III describes how to enter the indicator's data itself and section IV how to review the performance 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: All directions in this user guide are for use on PC computers.

Main Menu

When opening the tool, 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 macros" at the prompt when opening the file.

The tool should automatically open to the Background menu worksheet.

Background Data

As a first step, you are asked to enter the country's background and assessment information in the **Background Datasheet**.

The datasheet has two sections:

Assessment Information
Indicate the country you are collecting information for, the year the data collection is taking place and the year being assessed.

Administrative structure in the country
In this section of the background data, indicate the name of the different administration levels and the number of units at each level. Fill in the columns of "Name" and "Number of units at each level in your country" according to the situation in your country. If your country has less than 5 administrative levels, please put an "x" for the empty level and use the number of units of the above level in the "Number of units". As shown in Figure 1, indicate the highest level (Country) on the first row and the lowest on the last one (Union).

Figure 1 Entering data on administrative structure into the Data Collection Tool

	Name	Number of units at each level in Ghana	
			If you leave one level empty, please put "x" for the name and for the number of units use the number form the above level.
National level	Country	1	Highest level
Sub-national level 1	Division	4	
Sub-national level 2	District	10	
Sub-national level 3	Sub-district	237	
Local level	Union	1167	Lowest level (level to be sampled)

At the end of the background section, define whether you are entering information for all administrative units in the country, or if you will capture the information independently for each sampling unit. In the former, data will be entered for all cases combined; in the latter, data will be entered in a different tab for each sampling unit.

Cost domain information

Copy and paste the relevant information from the CRVS costing and budgeting tool. The tables are structured as in the costing tool to facilitate the collection of the information.

Quality domain information

The information required to estimate the quality domain indicators must be entered directly. Cells in grey will be calculated automatically after entering the information in the relevant columns.

Indicator Selection for quantity and time domain

Select the indicators to be assessed – the tool indicates which are key indicators and which are optional. This worksheet contains a list of indicators and details as shown in Figure 2.

Figure 2 Indicator selection tab

In the "Select" column, select option "Yes" if you want to visualize a certain indicator or "No" if this is not required.

The indicators are divided into the following categories:

Quantity domain: Indicators measuring quantity give an idea about the coverage or completeness of a specific CRVS milestone. They generally require collection of data for the nominator and denominator and will be expressed as a percentage.

Time domain: Indicators measuring time assess the average time it takes to accomplish a specific CRVS milestone. They can also indicate whether a given milestone has been accomplished on-time or not, depending on the country's specific regulations. These indicators are measured in days. They consist of a numerator alone, with no denominator.

Quality domain: Indicators measuring quality assess the standard of accomplished CRVS milestones. Quality standards might be imposed from the regulating framework of the CRVS system or they are devised internally.

Cost domain: Indicators measuring cost assess the financial cost and personnel required to achieve a specific milestone.
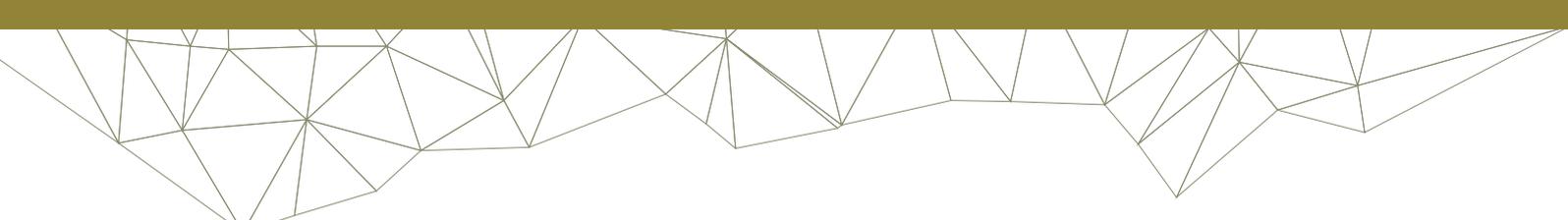
Level of data availability

For each indicator, select the level of information available for your country.

This tab will only show the indicators that you have previously chosen in "Indicator Selection". As shown in Figure 3, select "Yes" or "No" for each Indicator and each level of disaggregation. Select "Yes" if the data is available for that level and "No" if it's not available.

Figure 3 Entering data on the level of data availability

Source of data to be collected

List the source of the data required by administrative level for the indicators you previously selected.

Answer the following question to fill the information: If we were to look for the specified indicator, where should we look? Indicate where the information for each selected indicator can be found. This tab will not be used in the tool calculations, but it will help understand how the CRVS system works.

Sampling

The sampling information will be entered in two different tabs. In the first step (Sampling I), indicate the names of the units that will be sampled. For the lowest level of administration, indicate the higher administration levels (e.g if indicating Union, state the name of sub-district, district and Division this belongs to).

Grey columns will be automatically filled in and white ones should be filled in by you.

In this table you can state up to 40 different sampling units.

Once you have selected the sampling units you will have to provide further information about these in Sampling 2. As shown in Figure 4, enter background information (population size, crude birth/death rate, male/female ratio, proportion health facility/ community vital events) about the sampling units in order to estimate the key denominator (expected number of VE) and to allow for results to be disaggregated in case real data is not available.

Figure 4 Required information about selected units

Data entry hub

When the information about sampling units has been entered, you will be taken to the data entry hub tab (Sampling 3), where you can access the data entry tabs for each sampling unit.

Data entry for sampling units

Each sampling unit will have a dedicated tab to capture the information about each indicator. According to the indicator selection done earlier in the process, the tool will filter the data required at each level for each domain. Figure 5 and Figure 6 show the data to be entered for quantity and time domain indicators.

Figure 5 Data entry table for quantity indicators

Figure 6 Data entry table for time indicators

Results

The results section provides the estimates of the different indicators for each administrative level and unit sampled.

Generate the tables for Power BI

Once all the data has been entered in the data collection tool (either a sample or all administrative units), click on the following button:
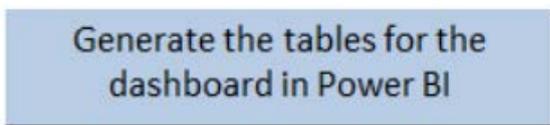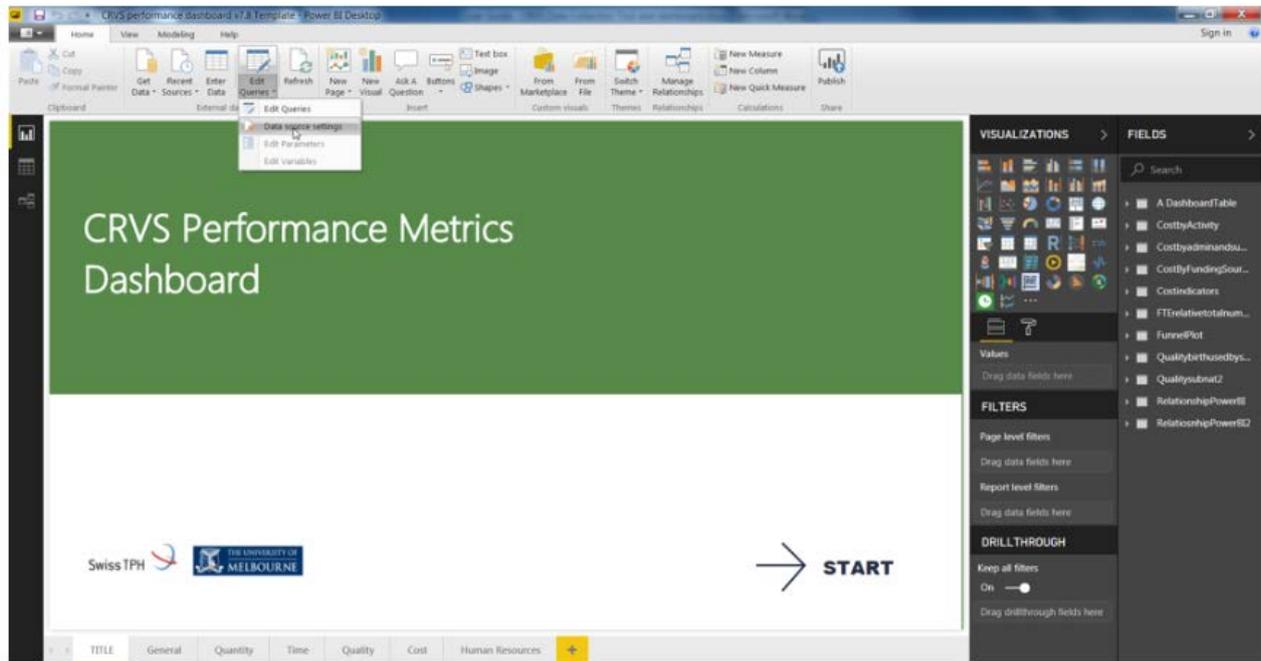
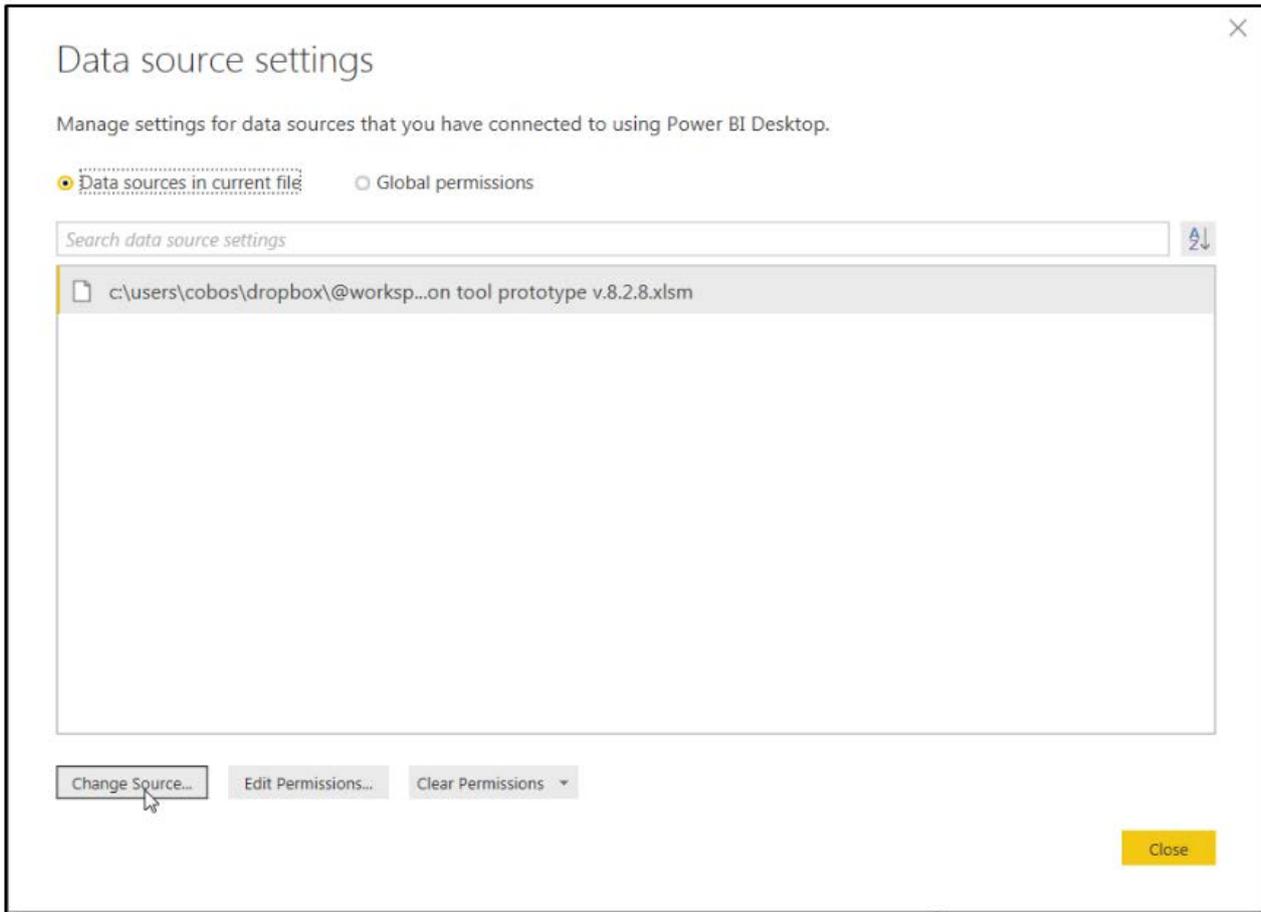

Save the file.

SECTION III: Performance dashboard

The CRVS performance dashboard has been created in Microsoft Power BI® and this software is required to open the file.

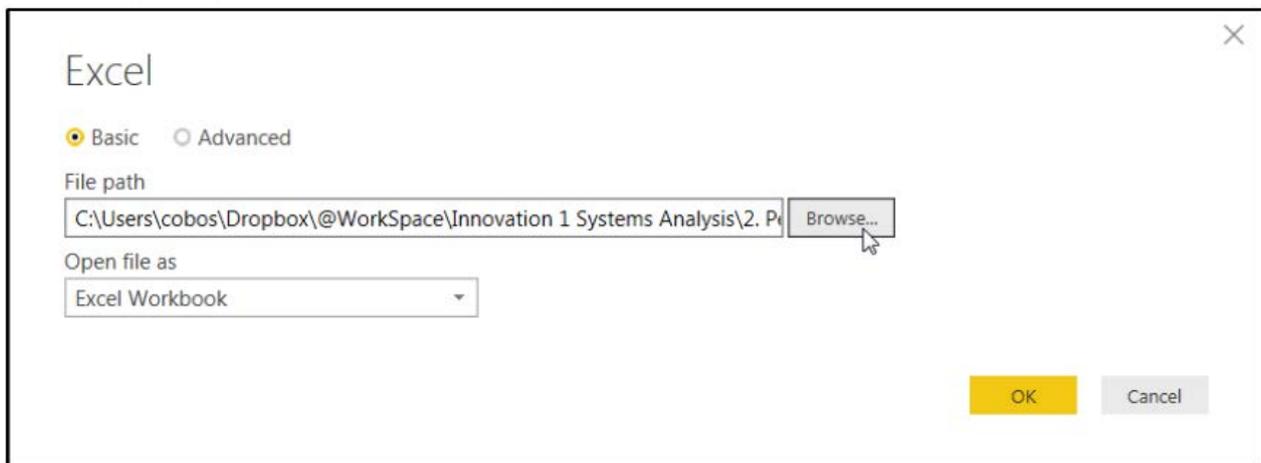The steps to upload the data into Power BI are:

1. Open the Power BI CRVS dashboard template (Data from Ghana loaded)
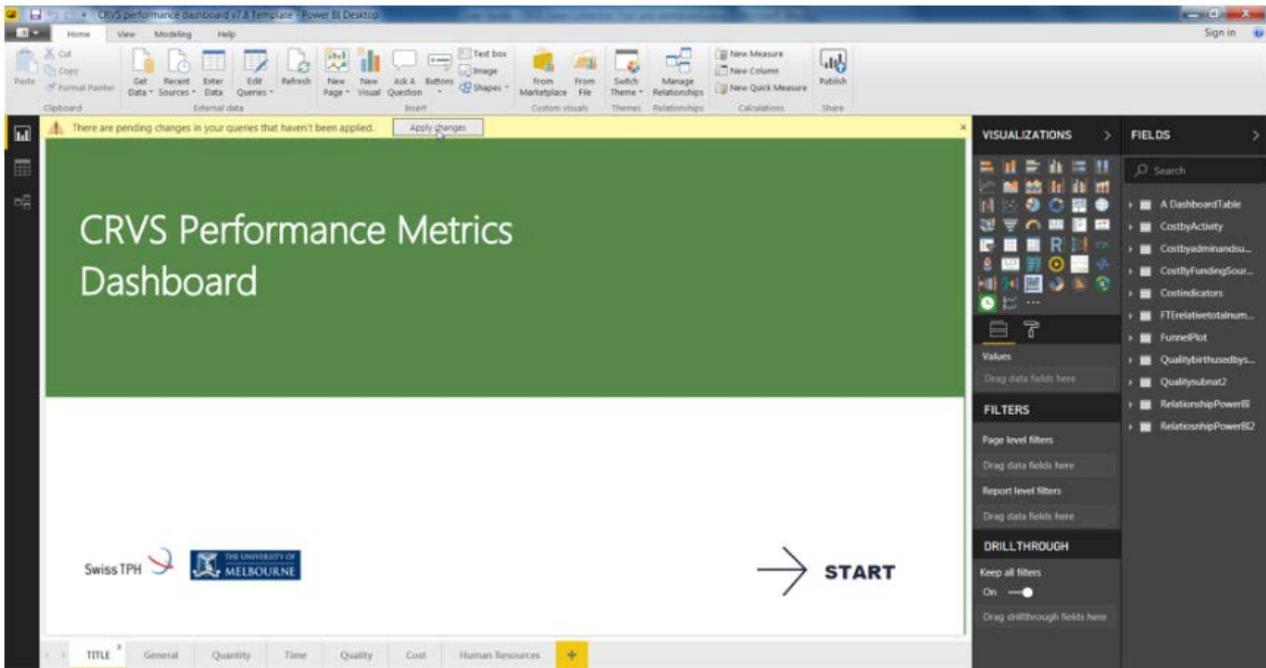2. Change the data source by clicking in the main menu

3. Once the dialog windows pops up, click on "Change Source"

4. Change the path to the file containing the new information and click "Ok"

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5. Back in the main screen, click on "Apply changes"

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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