# World Health Organization Effective Vaccine Management (EVM)

EVM Assessment Tool version 1.0.9 – User guide

# Acknowledgments

# Table of Contents

1. Introduction	
1.1 Document presentation	4
1.2 Tool structure and principles	4
1.2.1 Workbook file naming	4
1.2.2 Data collection	
1.2.3 Data analysis	6
1.2.4 The EVM website	
1.3 Installation guidelines	6
1.3.1 Prerequisites	
1.3.2 Installation steps	
2. Run the application	
3. Assessment management	
3.1 Create new assessment	
3.2 Delete assessment	
3.3 Open setup	
3.4 Open folder	
4. Location management	
4.1 Location definition	
4.2 Create location Workbook	
4.3 Add/remove/edit locations	
4.4 Location status	
4.5 Import location	
4.6 Export locations	
5. History	
6. Reporting	
6.1 Location level reports	
6.2 Assessment level reports	
7. Data Cleaning	
8. Generate dataset	
9. Print questionnaires	
10. Import EVM file	
10.1 Import for review	
10.2 Import for edit	
11. Add/Update tool version	
12. Help section	
12.1 Help documents	
12.2 Manage my settings	
12.2.1 Language	
12.2.2 Version	
12.2.3 Path for data	
12.3 About box	
12.4 Support request	
12	

## 1. Introduction

## 1.1 Document presentation

This document is a user guide. It outlines the structure and principles of the EVM Assessment Tool and describes how to use it. For any additional inquiries, you can contact the EVM team; you will find the link on the EVM Website (https://extranet.who.int/evm/).

## 1.2 Tool structure and principles

The EVM Assessment Tool uses Excel workbooks. These workbooks are created and managed by the main EVM application program. One workbook is created for every site or 'location' that is being assessed. This approach keeps the file sizes small and avoids the technical problems which often arise with very large spreadsheets.

#### 1.2.1 Workbook file naming

The application program automatically assigns a file name to each location and gives the location a code which explicitly defines its position in the supply chain. The EVM application can generate questionnaires for four different types of store and at two different levels of detail. These eight different questionnaire types are created from a single master file which is filtered as required.

The two levels of detail are defined as 'Full' and 'Review'. A 'Full' questionnaire includes the complete set of indicators that apply to the selected store type. A 'Review' questionnaire is significantly shorter and just includes the most critical indicators.

The four types of store are as follows:

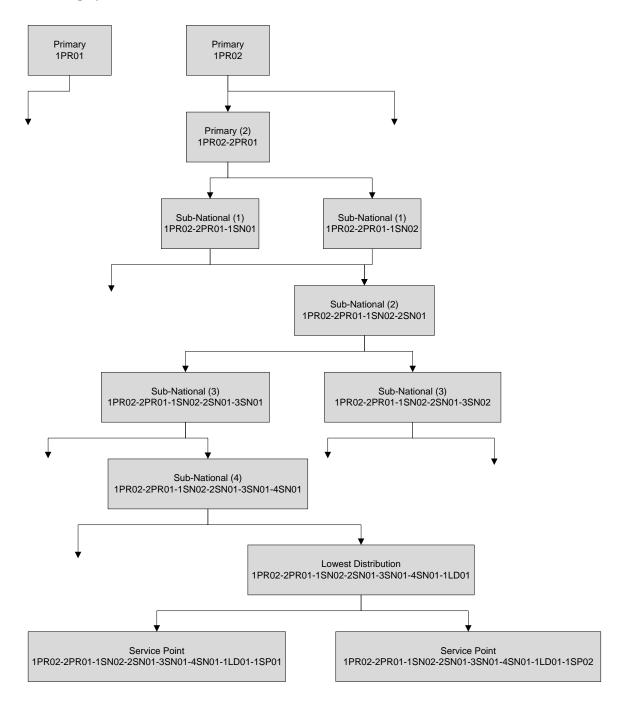
- <u>Primary (PR):</u> These are stores which receive some or all of their vaccine directly from a national or international vaccine manufacturer or supplier.
- <u>Sub-national (SN):</u> These are typically regional or provincial level stores which receive vaccine directly from a primary store or from another sub-national store and supply vaccine to a lower level sub-national store or to an LD store.
- Lowest distribution level (LD): An LD store supplies vaccine directly to a service point.
- <u>Service Point (SP):</u> An SP facility is typically a health facility or health post where immunization services are given.

A supply chain can have more than one level of primary store – for example a national vaccine store (NVS) receiving vaccine from international suppliers and regional primary stores receiving vaccine from one or more local manufacturers. There may also be more than one level of subnational stores – for example a regional store supplied exclusively from the NVS and lower level provincial stores. In contrast, LD stores can only exist at one level – they are always the lowest

link in the supply chain above the service point level. Service point facilities are always the lowest level in the supply chain.

These rules are encapsulated in the automatic coding system, which is illustrated in the diagram below:

#### EVM coding system



The number at the beginning of each code indicates the level in the supply chain. The two letters (e.g. SN) indicate the store type and the two digits (e.g. 02) that follow the store type code is the unique reference for that store type at that level. This coding system ensures that the position of page 5 of 35

every 'location' in the supply chain is uniquely defined and directly linked upwards to the chain of stores which supply it.

#### 1.2.2 Data collection

The application program also allows an assessment team leader to distribute the individual blank workbooks to team members for use in the field. Once data has been collected and entered, the team leader can then upload the completed workbooks and generate a consolidated dataset. If the team prefers to collect data on paper, it is possible to generate hardcopy questionnaires. In this case, the data will be entered into the individual workbooks after the assessment itself has been carried out.

#### 1.2.3 Data analysis

The completed dataset can be analysed in a variety of ways and the graphical and tabular results can be copied and pasted into the EVM report.

#### 1.2.4 The EVM website

The EVM system as a whole is managed by WHO via the EVM website. Users will be able to use the website to download updated versions of the tool and supporting documentation and to upload assessment results (evm files) and EVM narrative reports. The EVM tool is designed to be multi—lingual and new language versions will also be made available, via the website, as they are developed.

# 1.3 Installation guidelines

#### 1.3.1 Prerequisites

- Windows XP SP2 or later (including Windows Vista and Windows 7)
- Microsoft .Net framework 3.5
   (http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=333325fd-ae52-4e35-b531-508d977d32a6)))
- Microsoft .Net framework 3.5 Service pack 1
   (http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=ab99342f-5d1a-413d-8319-81da479ab0d7)
- Microsoft Excel 2003 or later to open questionnaire files (not necessary for file generation).

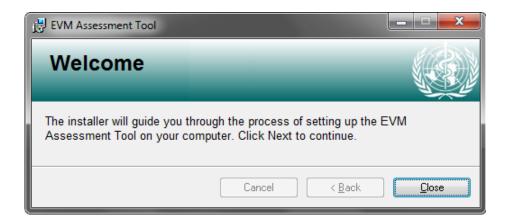
#### 1.3.2 Installation steps

The EVM Assessment Tool installer can be obtained from the EVM web site, available at (https://extranet.who.int/evm/).

- These steps assume that you have already registered with the EVM web site and have obtained valid credentials to login as an assessor. If not, follow the instructions on the EVM web site registration page.
- Click login and enter your credentials to connect
- Click on the "Get EVM Tools" left menu
- The first section, **Assessment Tool Installer**, allows you to download the Assessment Tool application. The download is an executable package ready to install.
- The second section, Download EVM Assessment Tool Working Documents, allows you
  to download the documents used by the Assessment Tool, such as the XLS template,
  printed questionnaires, help documents, translation files... There could be several versions
  available for download.
- The last section, **Download EVM Report Template Package**, contains the package which
  contains all templates used to create narrative reports, improvement plans and
  presentations.



- Download the EVM Assessment Tool Installer.zip file and save it on your local disk
- Open the ZIP and execute the installation
- A wizard guides you through the process of installing the EVM Assessment tool.

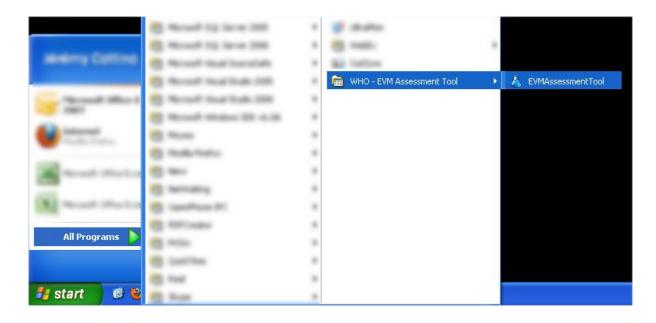


• The installer comes pre-packaged with version 1.0 of the assessment questionnaire. It is not required to download the Assessment Tool Working Documents, unless a new version of the questionnaire package is available for download.

# 2. Run the application

To run the application, go on Start menu > All programs > World Health Organisation and then click on EVM Assessment Tool.

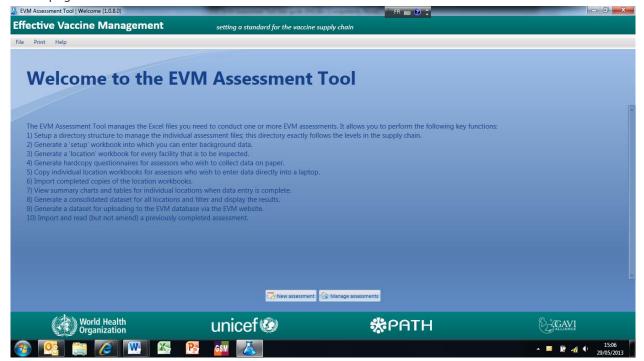
Or click on the start menu



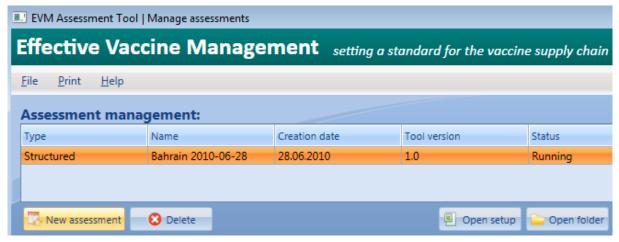
# 3. Assessment management

#### 3.1 Create new assessment

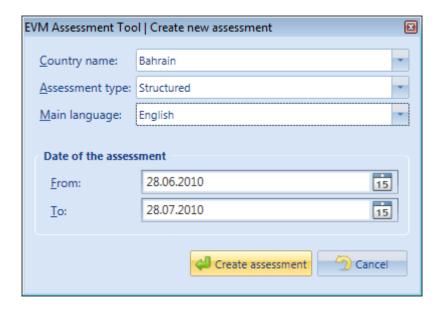
If you want to start a new assessment, click on the **New assessment** button on the application home page.



Alternatively, click on **Manage assessments**, and on the Manage Assessment page, click on **New** assessment.



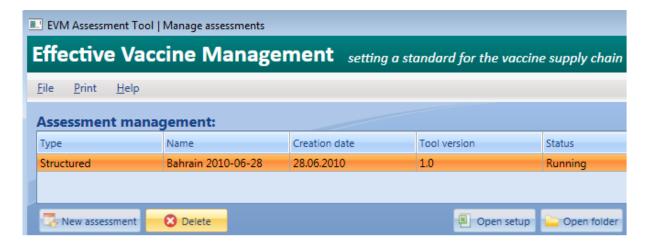
Complete the New Assessment information and click Create assessment



#### 3.2 Delete assessment

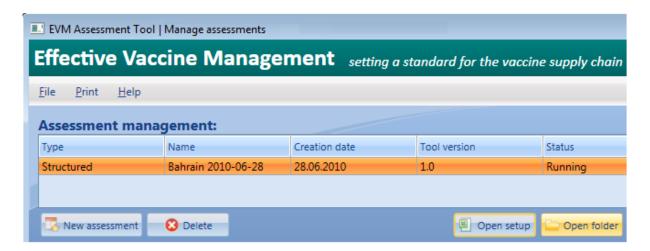
Select your assessment and click **Delete** button.

Note that this will delete your assessment and all of its linked location files.



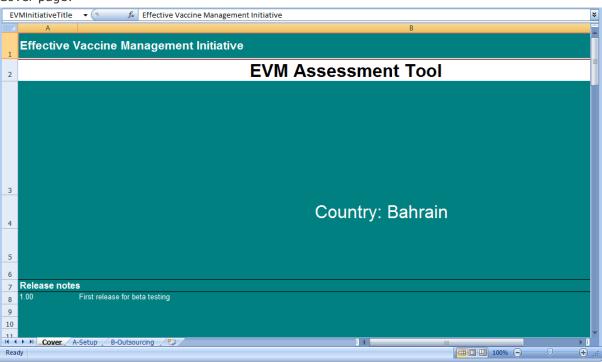
# 3.3 Open setup

To add information on the Assessment setup workbook, click on **Open setup** button.



Here is a sample of the Setup workbook:

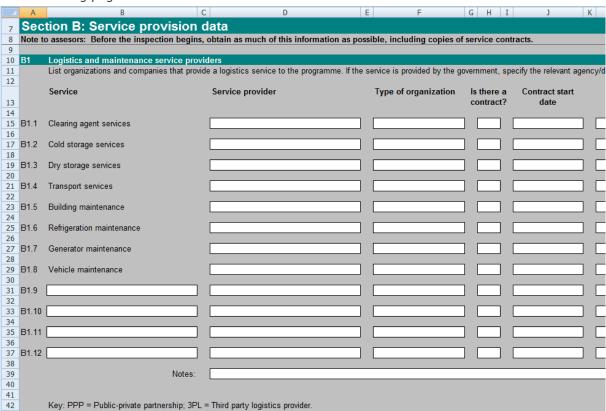
#### Cover page:



#### A-Setup page

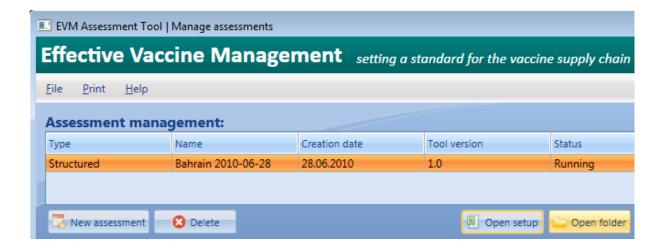
	А	1 •	f <sub>x</sub>								
4	Α	В	С	D	E F	G	Н	I	J	K	
8	Sec	tion A: Assessi	ment setup								
9				ain as much of th	nis informati	on as possible, inc	luding copies of previous	assessments.			
10											
11	A1	Setup details									
12											
13	A1.01	Select language:	EN								
14											
15	A1.02	Country name:	Bahrain		A1.03	IVB country code:	BAA			A1.04	W
16											
19	A2	National contact details	;								
20	A2 01	Department/ministry:			A2 02	Address:					_
22	A2.01	Department/ministry.			A2.02	Address.					
	A2 03	Primary contact:			A2 04	Telephone:				A2.05	Far
24											
	A2.06	Email:									
26											
27	А3	Assessment details									
28											
29	A3.01	Assessment team:									
30	A2 00	Dates of assessment:	200	.06.2010	To:			20.07.2040			
32	A3.02	Dates of assessment:		.06.2010	10:			28.07.2010			
33	A3 03	Previous assessments:	Туре		Year		Outcome				
34		Tronsac accessinence.	.,,,,,		100		Catoonio				_
35											
36											
37											
38											_
39						ı					
40 41											
42											
43											
44	Α4	Background data check	dist								
45				Requested	d Obtained			Reque	sted	Obtaine	d
46	A4.01	Immunization schedule:				A4.0	2 Vaccine supplier(s):				

#### B-Outsourcing page



# 3.4 Open folder

Clicking the **Open folder** button opens Windows Explorer to show the Assessment folder; this folder contains all the Excel workbooks for the selected assessment.



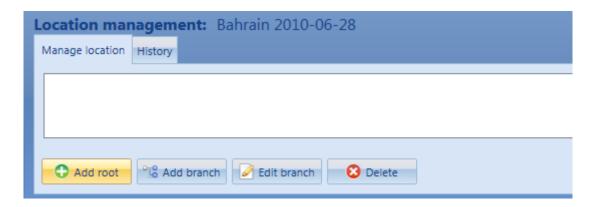
# 4. Location management

#### 4.1 Location definition

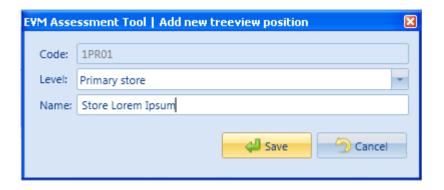
The Manage location window is used to create a tree view of all the locations within the chosen country.

Select the previously created assessment.

Click on **Add root** to create a new root position<sup>1</sup>. This will usually be a primary store unless the assessment is starting at a lower level in the supply chain.



Fill the position details and click Save



Using the **Add root** button you can add more than one position at the root level. This can be useful if, for example, you have more than one independently supplied primary store.

**Add branch** button is used to add a position under a selected 'root' or higher level 'branch'

<sup>&</sup>lt;sup>1</sup> The term 'position' is used here because we are only defining the structure of the supply chain. The term 'location' is used for the workbooks that are generated for each 'position'. page 15 of 35



**Note** that the "house" icon is greyed out. This means that no workbook has yet been attached to this position.

Business rule regarding position management (see also Section 1.2.1):

Note the following codes used below:

PR: Primary Store

SN: Sub-National store

LD: Lowest distribution level

SP: Service Point

Depending on the location type, there are restrictions when creating a new 'child' branch:

IF Parent=PR then Child=PR or SN or LD or SP

IF Parent=SN then Child=SN or LD or SP

IF Parent=LD then Child=SP only (A Lowest distribution level store cannot have any children other than Service Points)

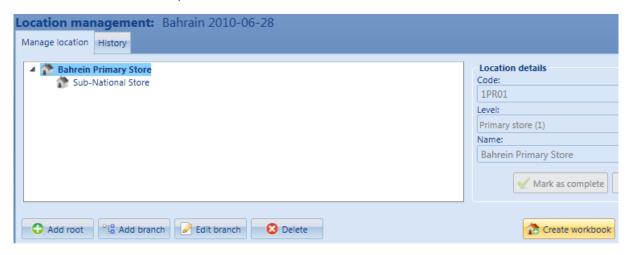
IF Child=PR then next child=PR or SN or LD or SP

IF Child=SN then next child=SN or LD or SP

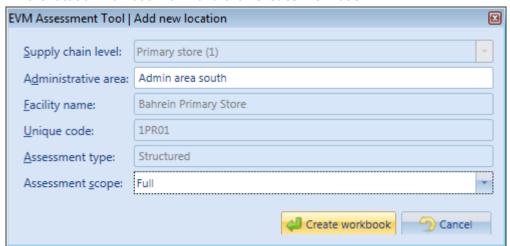
IF Child=LD then next child=SP

IF Child=SP then next child=NULL (Service Points can't have children).

A location is attached to a position when a workbook is created for that position. Select a position to add a location workbook, and click **Create workbook** 



Fill the location workbook form and click Create workbook.



<u>Note</u> that if the Assessment Type is **Structured**, you can choose to perform a **Full** or a **Review** assessment.

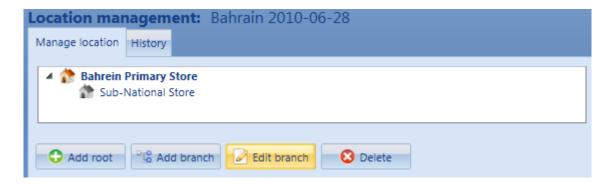
If you select a **Supervisory** assessment type, then you can only perform a **full** assessment.

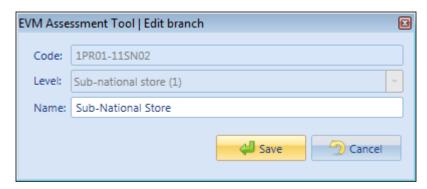
When a location has a worksheet attached, the "house" icon becomes coloured.

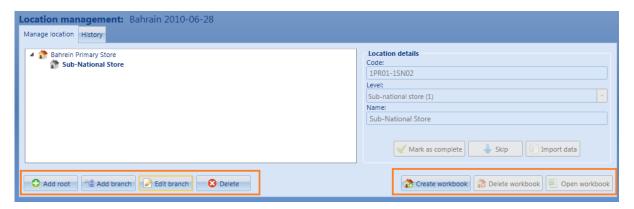


## 4.3 Add/remove/edit locations

Once the location is created, you can only modify the name. Click on **Edit branch**:







You can **Delete** a position from the tree **only** if **no** workbook is attached to it. If you want to delete a position and all its dependent locations you must first delete all the relevant workbooks. You can delete a workbook by clicking on the **Delete workbook** button.

You can open the workbook by clicking on **Open workbook** button.

#### 4.4 Location status

You can change the status of the location by clicking on the following buttons:

**Mark as complete.** This changes the location status to "Complete". Use this feature once only after you have finished collecting and entering all the location information.

**Skip** change the location status to skipped (this is not reversible). Use this feature only if you plan to visit a location and create a workbook for it but subsequently find that a visit is not possible.



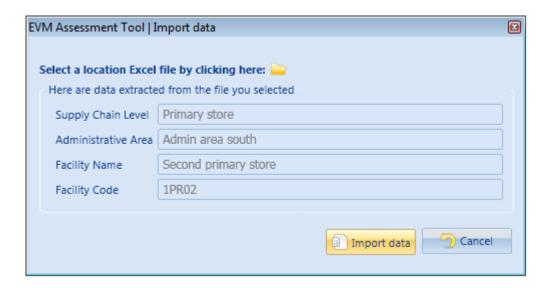
## 4.5 Import location

The "import location" feature can be used as the final step in the following sequence of activities:

- The team leader creates the location workbook using the EVM Assessment Tool.
- The team leader gives a copy of the Excel file to another team member via email or USB key so that the recipient can visit the location and enter the assessment data.
- The team member collects information and enters it in the location workbook.
- The team member gives the location file back to the team leader.
- The team leader imports the completed location workbook so that the file can be used within the EVM Assessment Tool



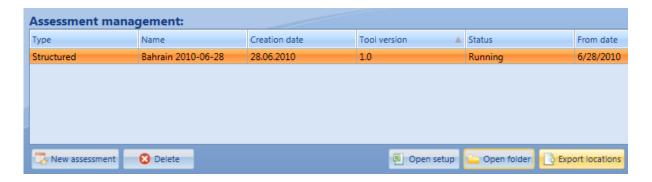
This section describes how to import a location file using the **Import data** button. Clicking the button opens the Import data dialogue box. Navigate to the chosen file using the 'file' icon. The dialogue box will then show the details of the selected file. Click on **Import data** to replace the old location file with the imported one.



## 4.6 Export locations

This feature allows you to generate a list of all the locations in an assessment as an Excel worksheet. This list can then be inserted into an external document, such as a narrative report. The second worksheet uses indentation to show the hierarchical relationship between the selected locations.

Select an assessment and click on the **Export locations** button.



# 5. History

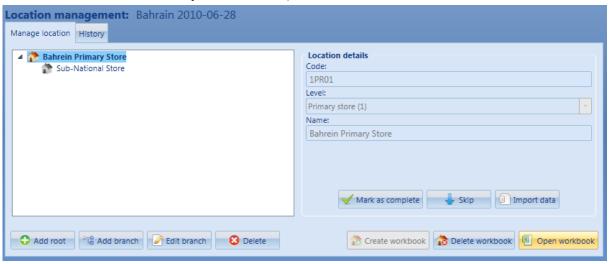
Click on the history tab to view a full list of the actions taken since assessment creation.

Date	Action
6/28/2010 4:15:53 PM	Assessment creation
6/28/2010 4:16:14 PM	Add position "1PR01"
6/28/2010 4:19:15 PM	Add position "1PR01-1SN01"
6/28/2010 4:20:53 PM	Add location "1PR01-1SN01"
6/28/2010 4:21:04 PM	Remove location "1PR01-1SN01"
6/28/2010 4:21:09 PM	Add location "1PR01"
6/28/2010 4:21:18 PM	Add position "1PR01-11SN01"
6/28/2010 4:21:18 PM	Position "1PR01-11SN01" edited
6/28/2010 4:22:19 PM	Remove location "1PR01"
6/28/2010 4:22:30 PM	Add position "1PR01-1SN02"
6/28/2010 4:22:34 PM	Remove position "1PR01-11SN01"
6/28/2010 4:24:28 PM	Add location "1PR01"

# 6. Reporting

## 6.1 Location level reports

Location level reporting is accessible within each individual location file. To see the location file, select a location and click on **Open workbook**, from the Locations tab or tree view tab.

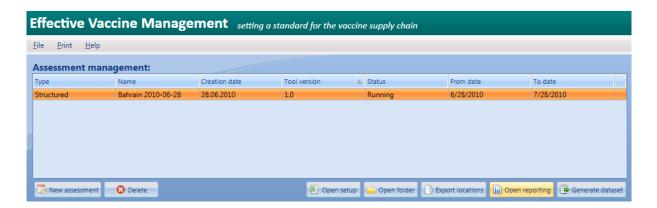


Then in the Excel file check Summary Data Location, Location Bar Charts, and Location Spider Charts



# 6.2 Assessment level reports

Assessment level reports consolidate data from multiple location files. To view the cross location reports, click on the **Open reporting** button. This will create an Assessment Report workbook which contains cross location data and charts.



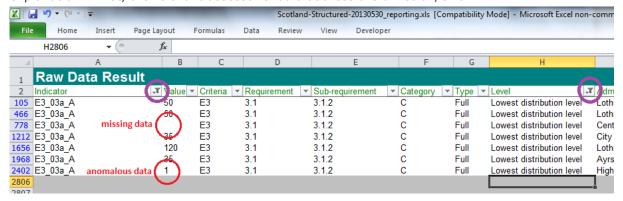
You can use the filtering function in the **Summary Data Location** worksheet to select individual facilities or all of the facilities at one level of the supply chain. The bar and spider charts display the results for the selected facilities only.

For each location, the **Raw Data Indicator** worksheet displays the scores for each of the indicators of each criterion. You can use the filter function to display selected indicator scores for a selection of facilities. The last column of this sheet includes the assessors' notes for each indicator of each facility. These notes provide additional information not captured by the indicator scores.

The **Raw Data Results** worksheet displays the raw sub-indicator results and can be used to gain further insight into the indicator and criterion scores of individual facilities or selected groups of facilities

# 7. Data Cleaning

Once all of the data has been imported, it is important that the data quality is checked to identify missing and/or anomalous data. The **Raw Data Results** worksheet in the reporting workbook can be used to facilitate this process. For example, to check the quality of the **E3:03a A** sub-indicator data for all lowest delivery (LD) level facilities, use the filter function to select the sub-indicator and the supply chain level. It should be immediately apparent if there are any missing or anomalous data. For any such data, the Notes column in the **Raw Data Indicator** worksheet may provide an explanation. If not, the relevant assessor should address the omission/error.



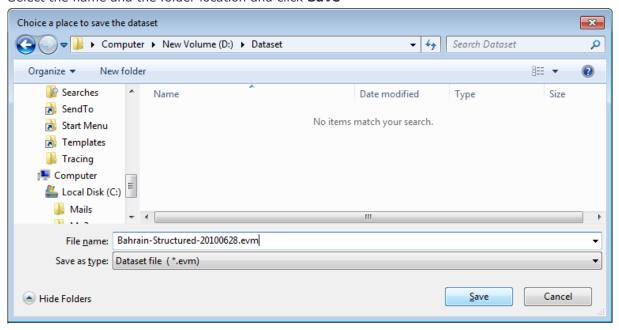
## 8. Generate dataset

Once an assessment has been completed you may wish to upload it to the EVM database at WHO HQ. This uploading process is done via the EVM website. To start this process, select an assessment and click the **Generate dataset** button.



When you click the **Generate dataset** button, you will be asked to choose a password. This password will be required by anyone wishing to import the dataset and continue editing the assessment on another computer. See section **10. Import EVM file** for further details.

Select the name and the folder location and click Save



The xxxxx.evm file is generated. The EVM website user guide provides you with all information you will need to upload the .evm file into the EVM Website.

# 9. Print questionnaires

In many settings it can be more convenient to collect EVM data on paper questionnaires rather than by direct entry into a laptop. The decision to use paper questionnaires should be taken by the assessment team before visiting the field because the questionnaires need to be formatted and printed and this is a significant task.

A3 size questionnaires may be preferred by some assessment teams because this paper size provides the assessor with plenty of space to write notes. Other teams may prefer A4 format because it is more compact.

Most offices do not have A3 printers, so if A3 is chosen, the technique is to print the questionnaires on A4 paper and then to make multiple enlarged copies in A3 format using a photocopier. The questionnaires should be stapled or bound, with one copy for each location. The photograph below shows an example.

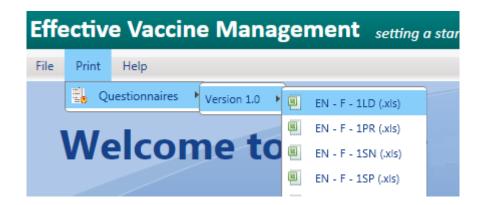


On the **Print** menu, select **Questionnaires**.

The list of available versions is displayed. For each version the list of printed questionnaires is displayed.

Naming convention of the file: EN\_F\_LD.xls

- Language (2 letters)
- \_
- Scope: F for Full, R for Review
- \_
- Distribution Level (2 letters)
- •
- File extension (Files are basically Excel files, but it could happen that you are provided with PDF files or other standard formats)



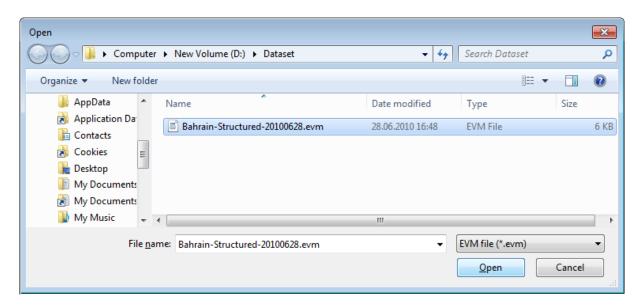
# 10. Import EVM file

## 10.1 Import for review

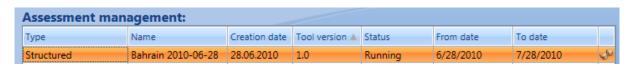
If you wish to review or just read an Assessment, click on **File** and choose **Import EVM dataset for review**.



Browse for the file you want to import (.evm file) and click Open



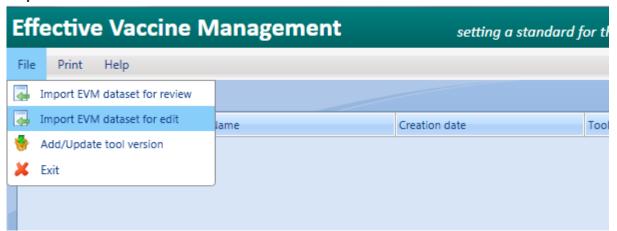
The newly imported Assessment is displayed on your list, the **imported for review** flag is displayed at the right-most end of the row:



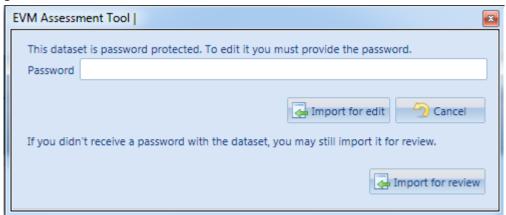
When you import for review, the imported assessments are in Read Only mode. You can open all worksheets (Assessment setup, location worksheets, reporting), but you cannot modify them nor use the Generate dataset function.

## 10.2 Import for edit

To continue working on an assessment started on another computer, click on **File** and choose **Import EVM** dataset for edit.

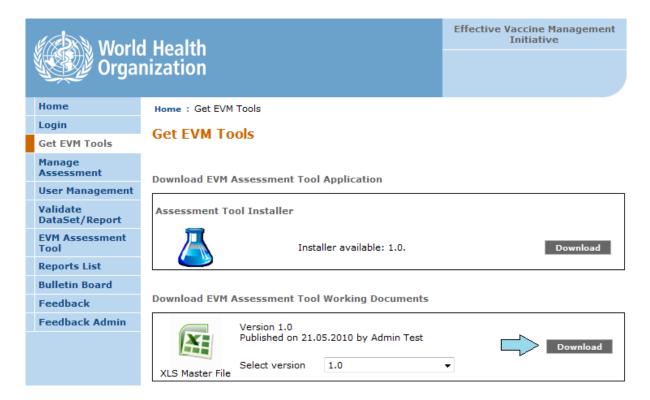


You will be asked to provide a password. The password was set when the dataset was first generated.

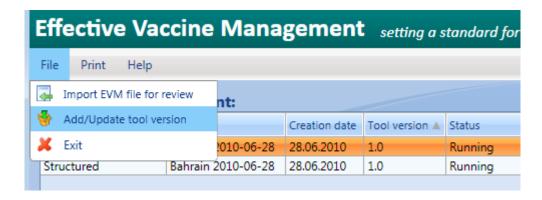


# 11. Add/Update tool version

New versions of the EVM Assessment tool questionnaire package are available for download on the EVM website. Go the to "Get EVM Tools" menu and get the \*.evmt package from the section "EVM Assessment Tool Working Documents".

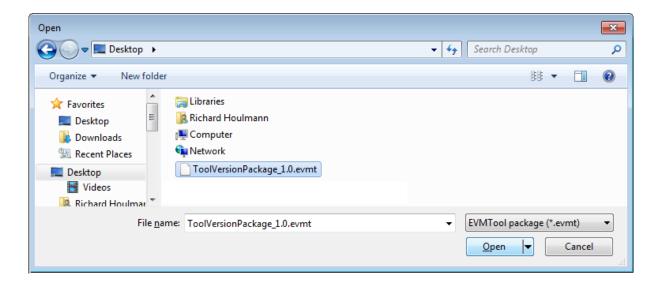


To integrate the new version, click on File menu, Add/Update tool version.

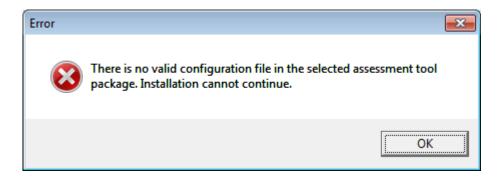


You have to select an EVM Tool package file (\*.evmt), to install it.

The application will ask if you wish this new version to become your default version. If you choose this option the new version will be used next time you create a new assessment.



If the package is not correct or is corrupted, the following message is displayed.



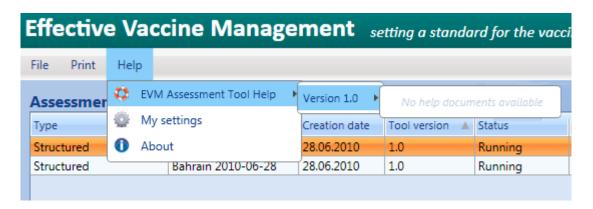
In such case contact the EVM team using the link available on the EVM Website.

# 12. Help section

## 12.1 Help documents

Help documents are available by clicking on Help, EVM Assessment Tool Help: You will see the list of versions and for each version the documents that are available.

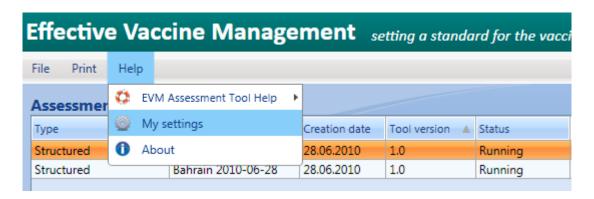
If no documents exist, the following message is displayed

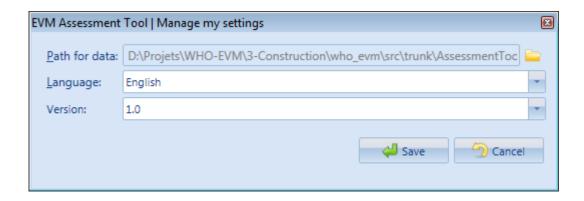


Help documents come with EVM Assessment Tool Package installation.

## 12.2 Manage my settings

On the **Help** menu, select **My settings**. The "My Settings" is used to choose your preferred language, define the default version of the questionnaire and path to your data.





#### 12.2.1 Language

This drop down list contains all the available language packs installed on your computer for the EVM Assessment Tool application. Selecting another language changes the user interface, as well as the language used for the assessment questionnaire in Excel files.

#### 12.2.2 Version

This is the default EVM Assessment Tool version. When you create a new assessment this will be the version of the Excel Master Template file that is used. This version is changed (after confirmation) when you install a new version of the EVM Assessment Tool. It is advised to always use the latest version of the questionnaire available.

#### When does version change?

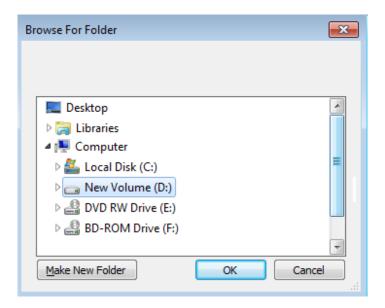
You will have new version when for example a new criteria or new indicators are added to the questionnaire. In such cases, you will be provided with a package that allows you to install this new version.

What is the situation where assessors have to change current version?

If you have your new version with new criteria, and you want to perform an assessment with the old version of the questionnaires, in such case you have to change the version.

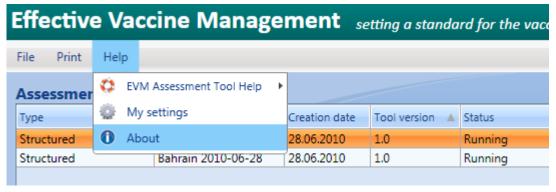
#### 12.2.3 Path for data

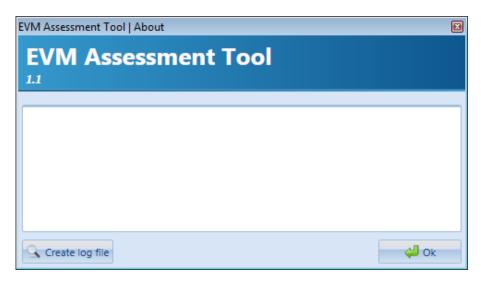
This is the path where all created assessments and location files are stored. You can easily change it by clicking on the folder icon and browse your computer to select the path



#### 12.3 About box

Displaying the **About** dialogue box will give you the EVM Assessment Tool application version.





Section 11.4 describes the use of the Create log file button.

# 12.4 Support request

If you have problems using the application - for example an application bug or crash – send the EVM support team a copy of your application log. This will help the team to identify and fix the problem.

By clicking on **Create log file** button, you will save a document. This document contains all technical information that could be useful for the support team.

