CRVS technical guide
How do I install and use SmartVA?

This *SmartVA IT action guide* describes how to install and use the SmartVA Analyze software ('Tariff') for automated analysis of verbal autopsy data.

1. Install the SmartVA Analyze software
2. Choose input file
3. Choose output folder
4. Choose geography
5. Set additional options
6. Press the Start button to begin analysis

Action guide – key steps

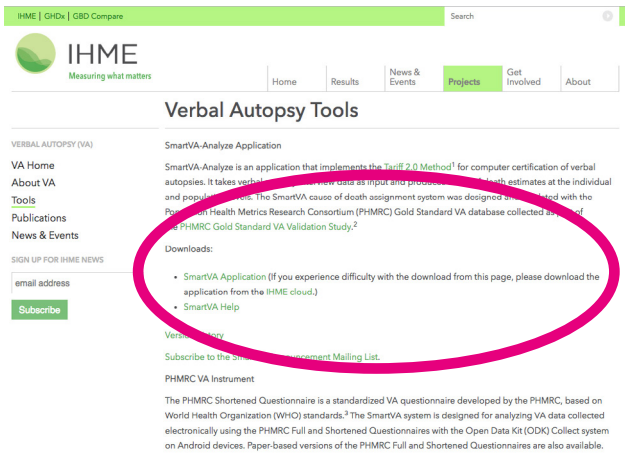
1 — 2 — 3 — 4 — 5 — 6

Step 1: Install the SmartVA Analyze ('Tariff') software onto a laptop or PC

The current version of the software can be downloaded from here: http://www.healthdata.org/verbal-autopsy/tools

Click on the download link.

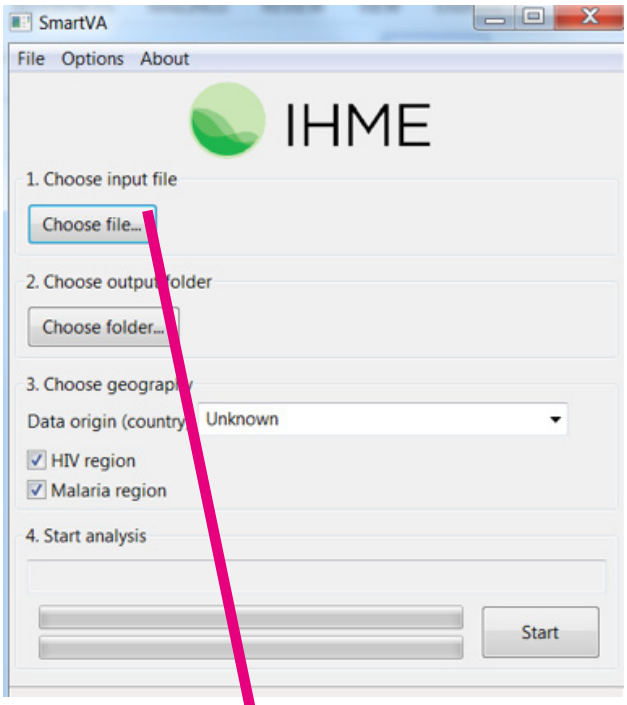
Once SmartVA Analyze has successfully downloaded, open the application.

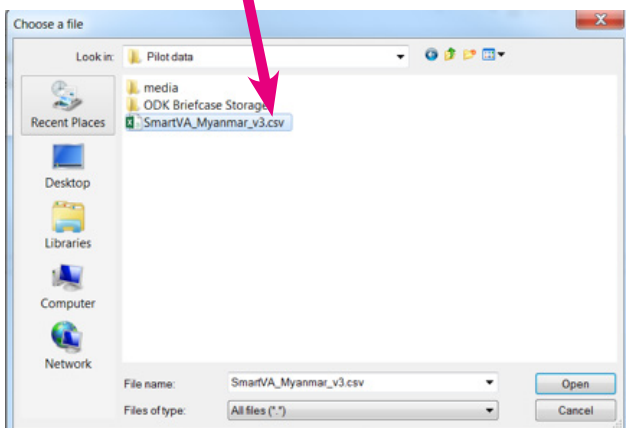


1 — 2 — 3 — 4 — 5 — 6

Step 2: Choose input file

Once your data have been processed by ODK Briefcase to generate csv data, you can open SmartVA Analyze and select the location of your input data.



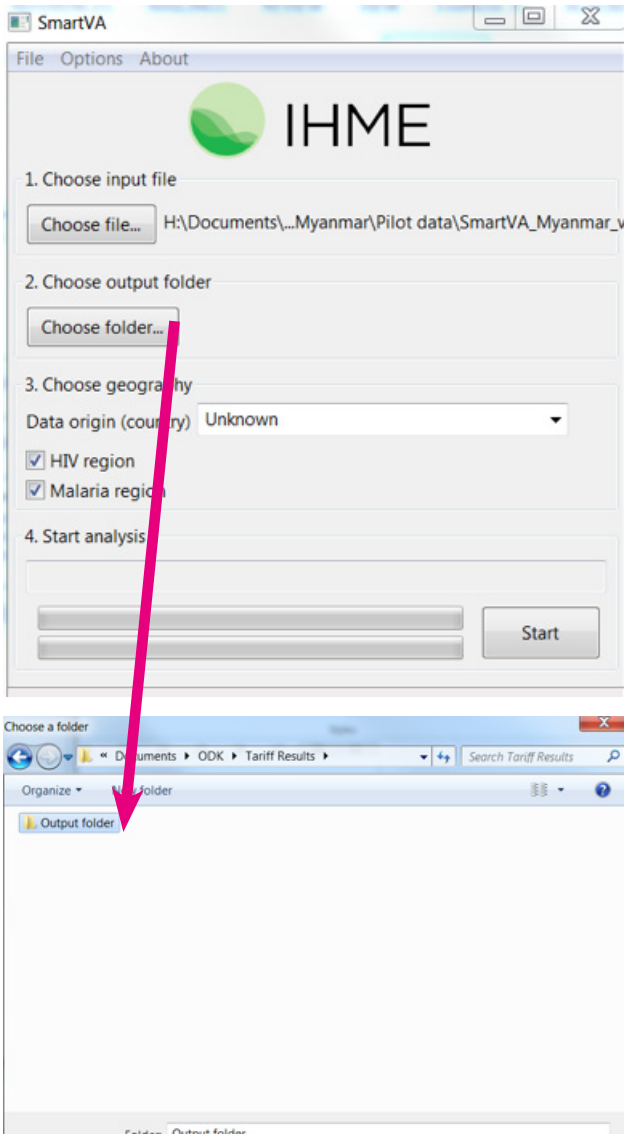


1 2 3 4 5 6

Step 3: Choose output folder

Select where you would like the output from the analysis to be saved.

The output from the analysis will be saved in different subfolders within the folder you select in this step.



1 2 3 4 5 6

Step 4: Choose geography

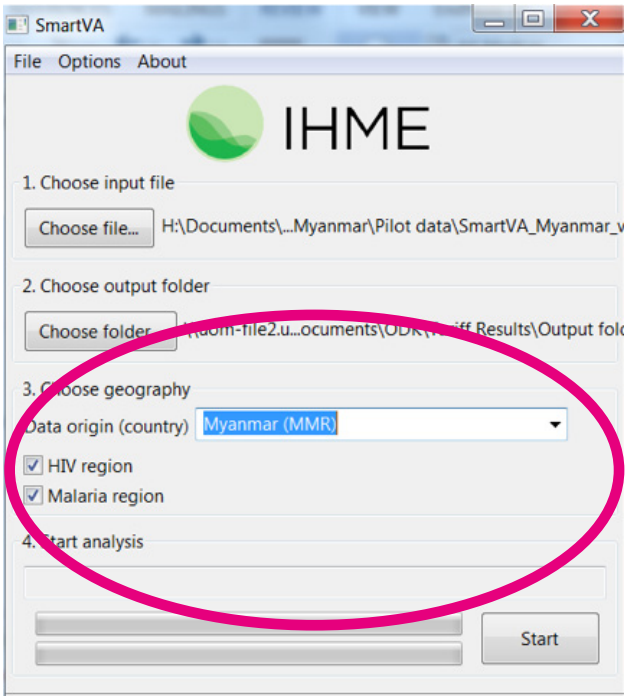
Country of origin

You may select the country where the VA data were collected. This information is used for reallocation of undetermined VAs (that is, cases in which the method was not able to diagnose a cause of death in a reliable way based on the questionnaire) to present results for the entire population of VA.

If no country of origin is specified, the indeterminate VAs will not be reallocated, and an additional category of "Undetermined" will be shown on the final CSMF graphs as well as individual level csv files.

HIV and Malaria region

You must determine whether HIV or malaria is a possible cause of death in the population from which the VAs were collected. If this box next to "**HIV region**" and "**Malaria region**" is not selected, the Tariff Method will not assign HIV or malaria as a cause of death.



1 2 3 4 5 6

Step 5: Set additional options

A number of additional options are included under an options menu.

Health care experience variables

The SmartVA Questionnaire includes questions on health care experience. If the box next to "Health Care Experience (HCE) variables" is not checked, these variables are not included in the analysis, and the software will use appropriate training data which are not enhanced with HCE variables.

Free text variables

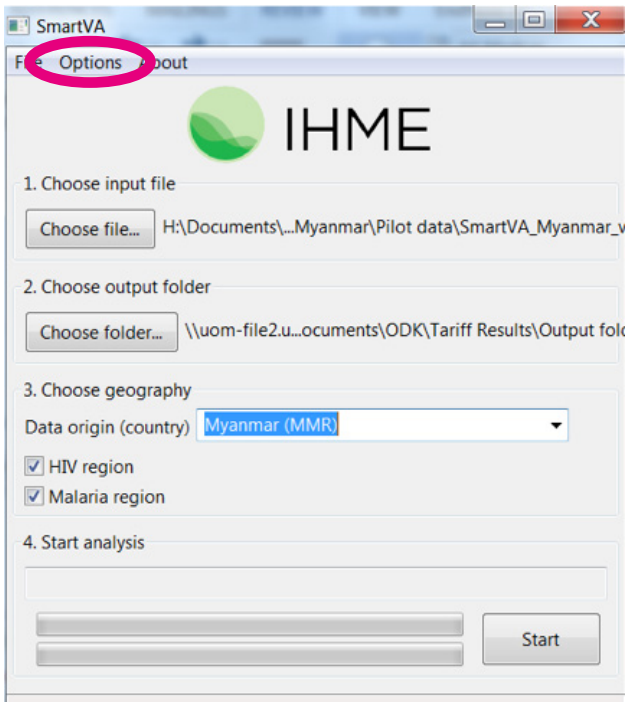
The Tariff Method has the capability of analyzing open response portions of the VA by turning them into "free text" variables.

The Tariff Method currently is capable of analyzing open response data only in English.

The SmartVA (PHMRC shortened) questionnaire considers transcribed information from some questions under health record section e.g. "Did a health professional tell you the cause of death?" and "Transcribe note" as free text variables.

Generate graphs

The Tariff analysis will by default automatically generate graphs. If only a small number of VA are being analysed for which graphs would not be useful it is possible to uncheck this option. In this instance no graphs will be generated from the current Tariff analysis.



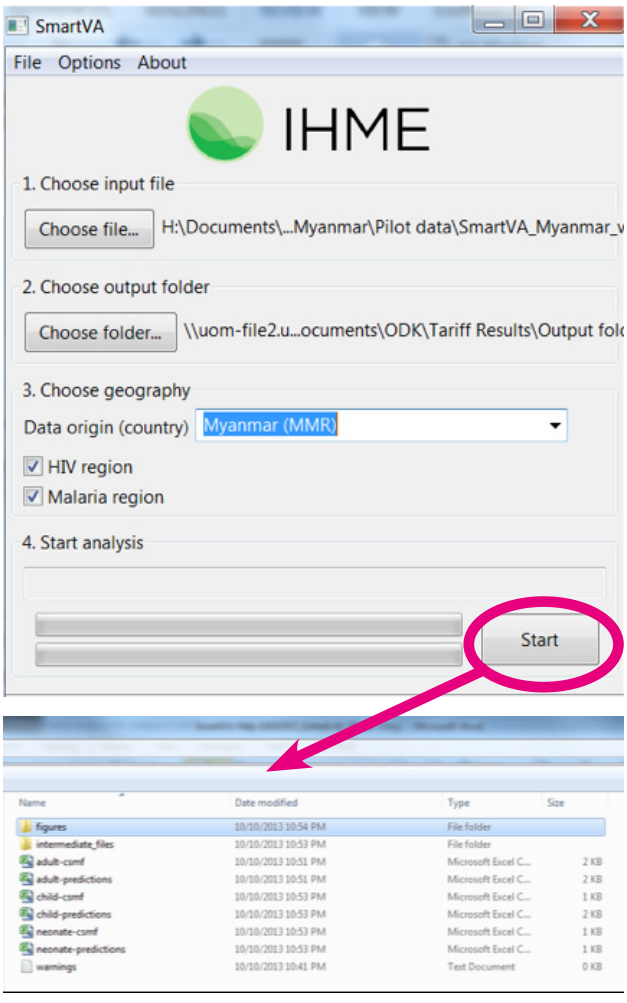
1 2 3 4 5 6

Step 6: Press the Start button to begin the analysis

SmartVA generates several output files.

The file containing the individual-level cause of death assignments for your data are the files called "adult-predictions.csv," "child-predictions.csv," and "neonate-predictions.csv".

These files can be found in the output folder you specified in **Step 3**.



Additional SmartVA IT action guides available in this series: How do I...

- translate the SmartVA instrument?
- set-up Samsung Galaxy tablets?
- download and install ODK Collect?
- install a blank VA questionnaire and media files onto ODK Collect?
- set-up tablets for ODK Aggregate?
- install ODK Aggregate on Tomcat (or a local cloud)?
- download ODK Briefcase onto a computer?
- pull data for ODK Briefcase?
- export from ODK Briefcase?
- save, submit, and edit VA interviews?
- install and use SmartVA?

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