ECDC HIV Estimates Accuracy Tool User Manual

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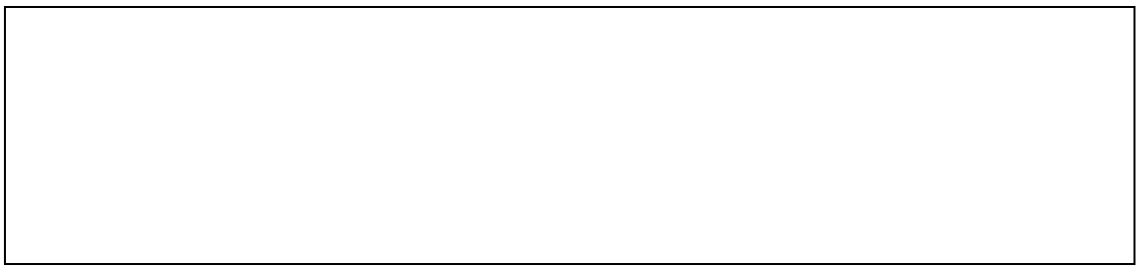
1. Introduction



1.1. Missing values

a) data missing completely at random MCAR

b) data missing at random (MAR)

c) data missing not at random (MNAR)

monotone missingness pattern

multiple imputations (MI)

Rubin's rules

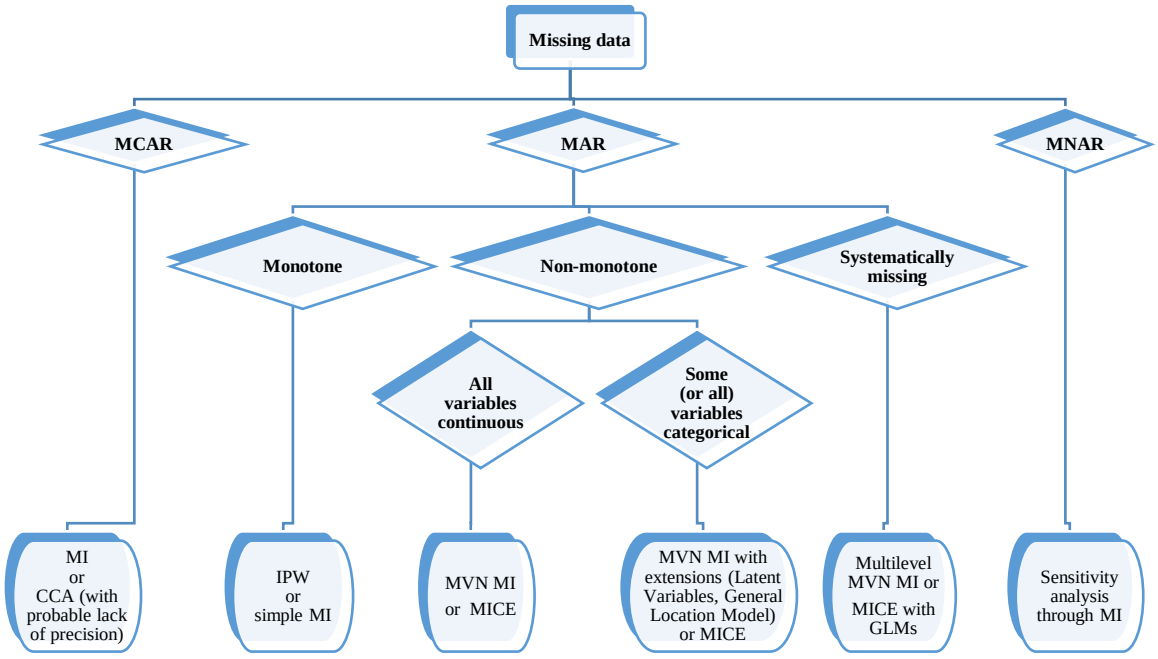
an imputation model

The multivariate normal imputation

full conditional specification method (MI by chained equations, MICE)

multilevel multiple imputation

Figure 1. Appropriate methods to deal with missing data depending on the characteristics of the missing data

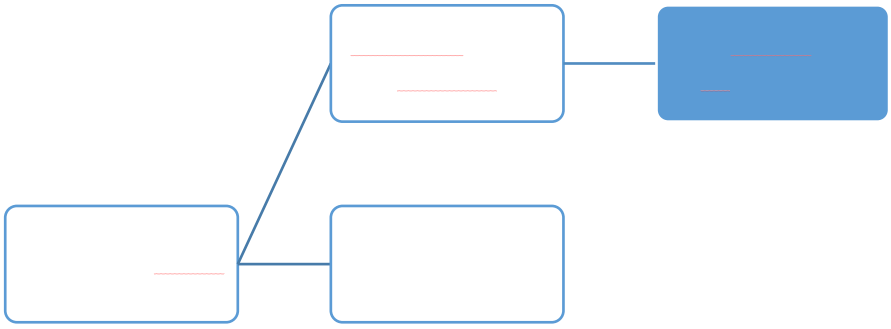


Acceptable levels of missingness

1.2.

batch reporting

Figure 2. Appropriate methods to deal with reporting delays



2. Methods used in the HIV Estimates Accuracy Tool

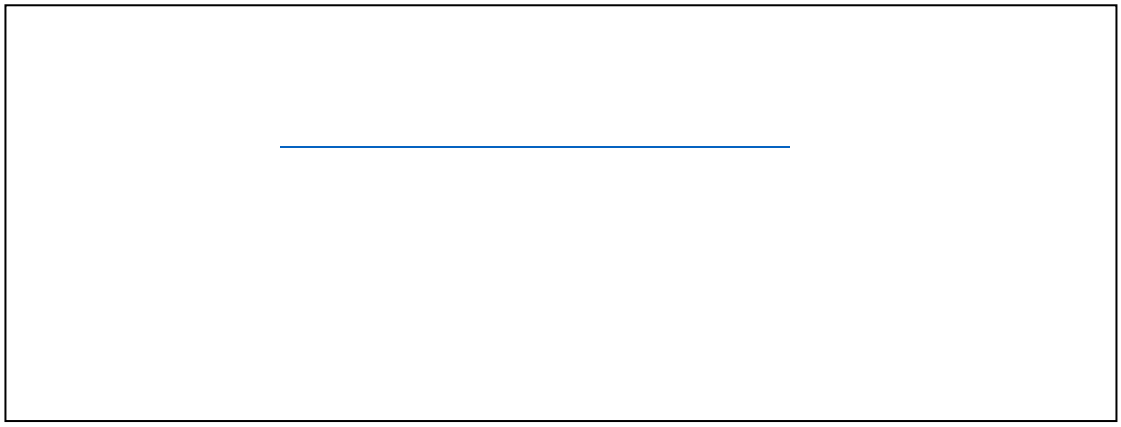
2.1. Methods used for missing data

gender (single imputation

imputation model

cubic spline

burn-in



2.2. Selecting appropriate MI method and parameter values

The number of imputed datasets

The number of burn-in iterations

The number of iteration between the subsequent imputations

2.3. Methods used for reporting delay

reverse time transform

3. Data preparation

	Attribute/variable name	Description (as in TESSY metadata set 36 HotFix5)	Required values

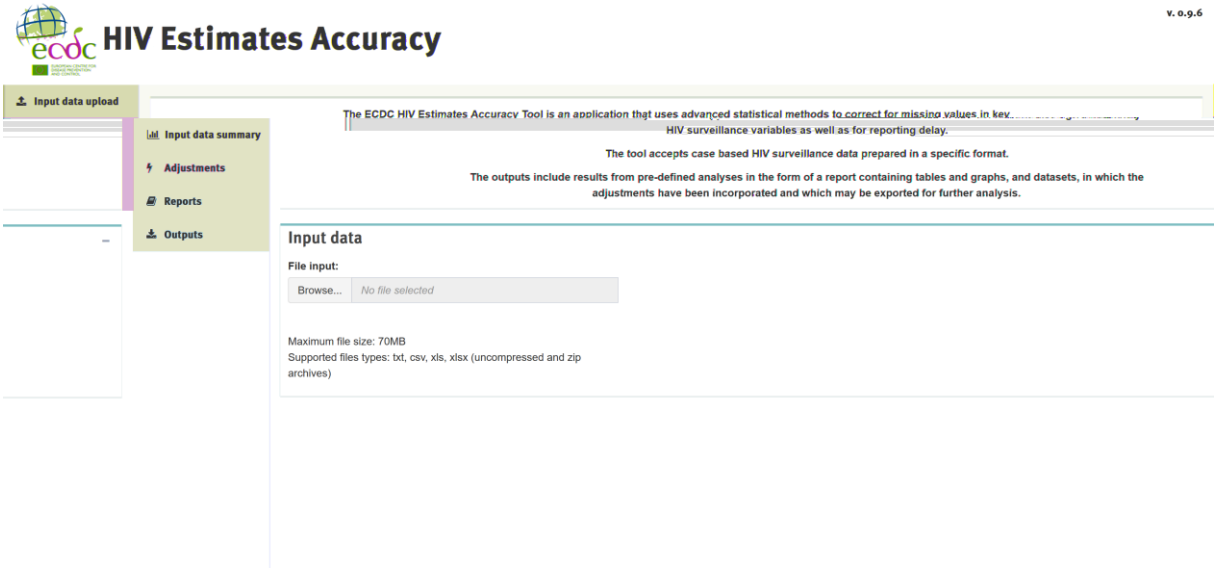
			IV
			IV
			IV

4. Installation and technical details

4.1. Prerequisites

4.2. Installations

```
deployUrl <- "http://nextpagesoft.net/hiv-estimates-accuracy/HIVEstAccur_deployment_script.R"
eval(parse(file = base::url(deployUrl)))
```



4.3. Update

4.4. Support

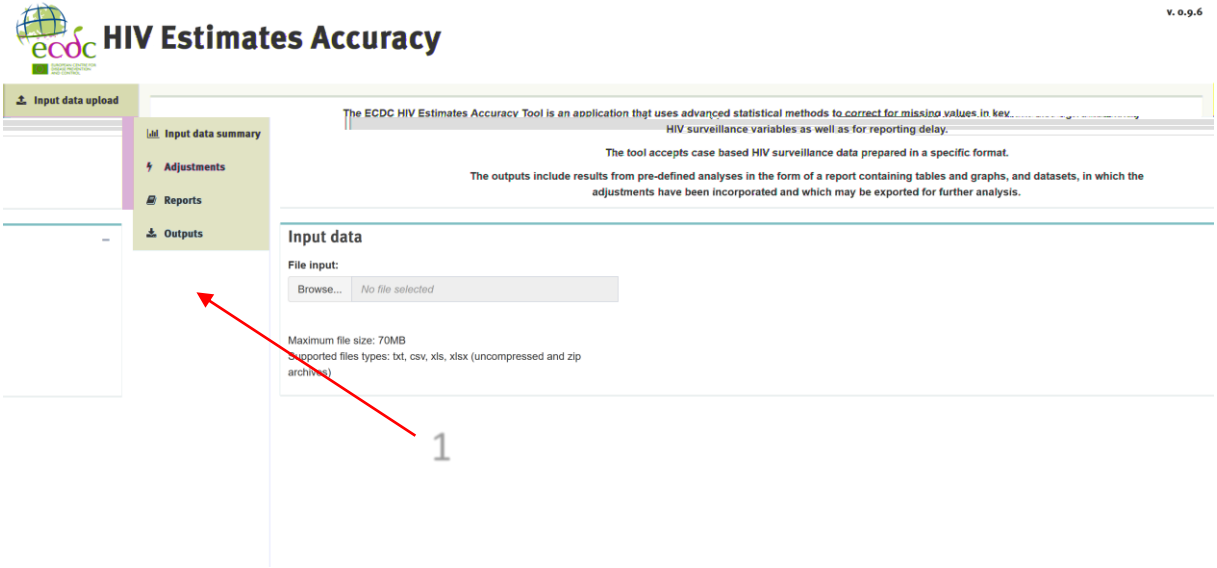
For technical support and reporting problems please contact .....

5. Using the tool

hivEstimatesAccuracy::RunApp()

-
-
-
-
-

5.1. Data upload



Attributes mapping widow

column

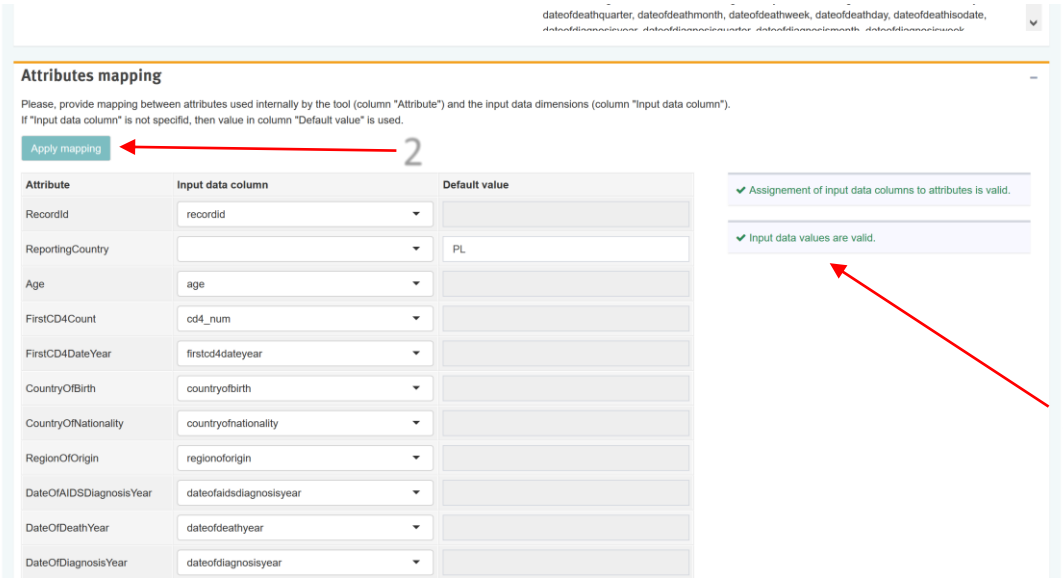
"Attribute"

column "Input Data"

"Default value"

NA

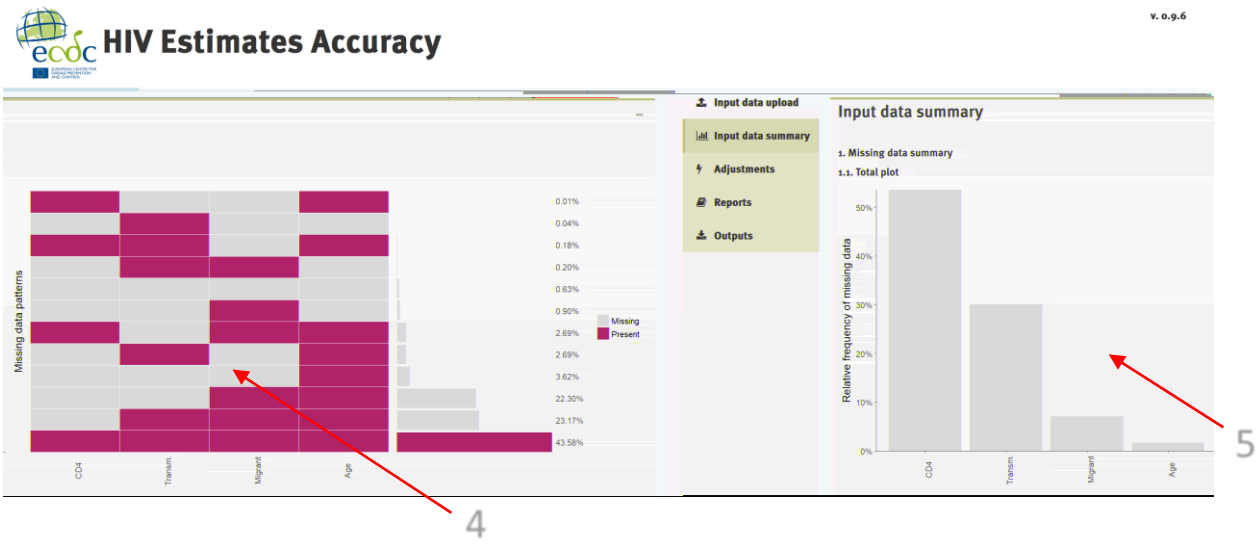
“Apply mapping”



5.2. Input data summary

Summary input data window

summary of missing values

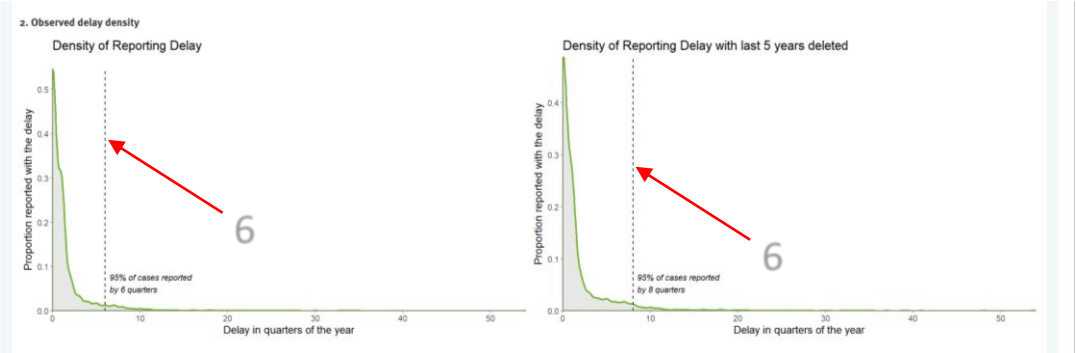


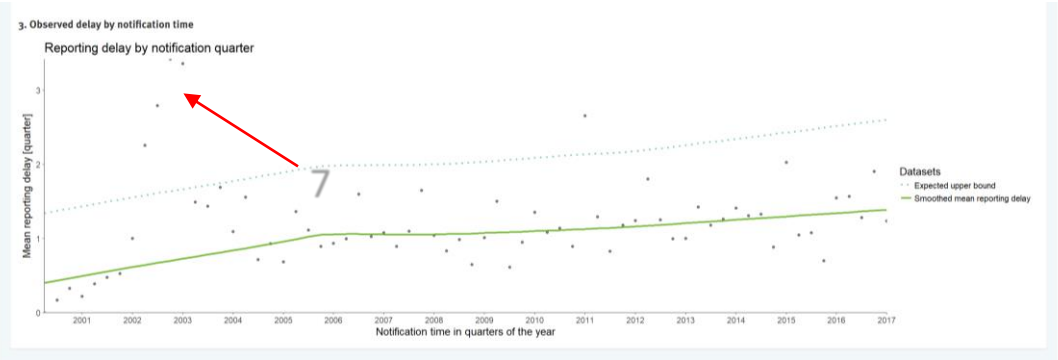
Interpretation

monotone or heterogeneous

not missing completely at random

reporting delay





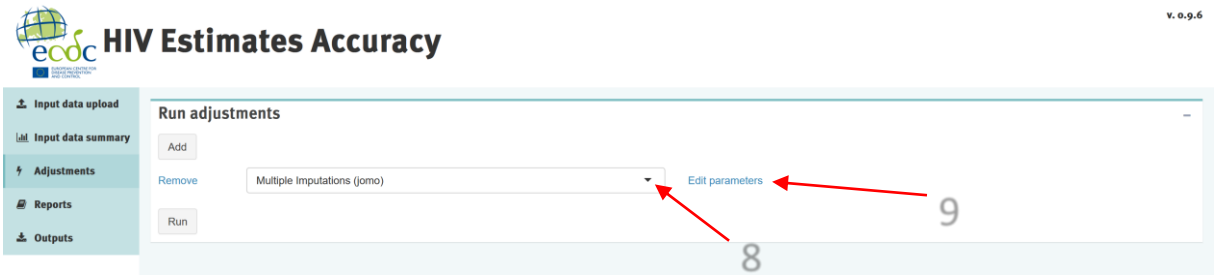
Interpretation

right truncation

cleaning event

5.3. Making adjustments

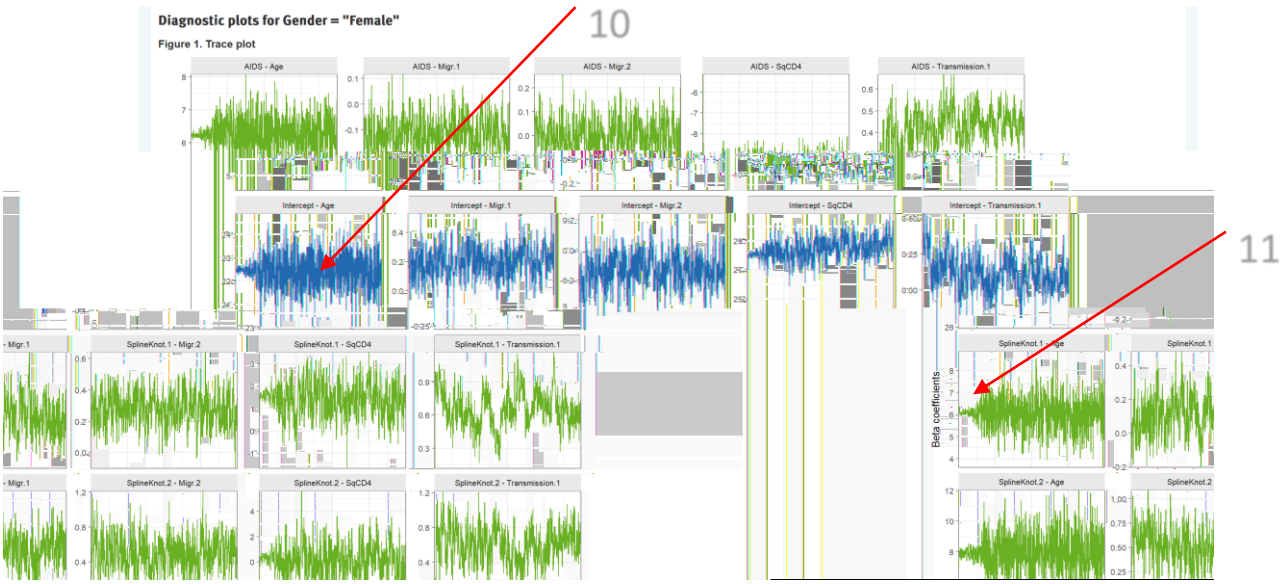
Adjustments tab

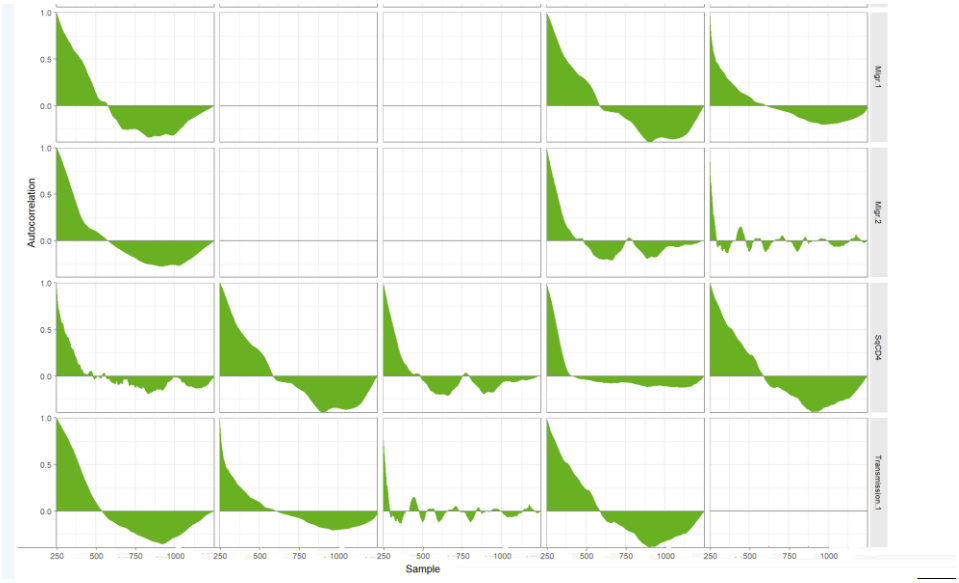

HIV Estimates Accuracy
v. 0.9.6
Input data upload
Input data summary
Adjustments
Reports
Outputs
Run adjustments
Add
Remove
Multiple Imputations (jomo)
Edit parameters
Run
8
9

time needed

diagnostic plots

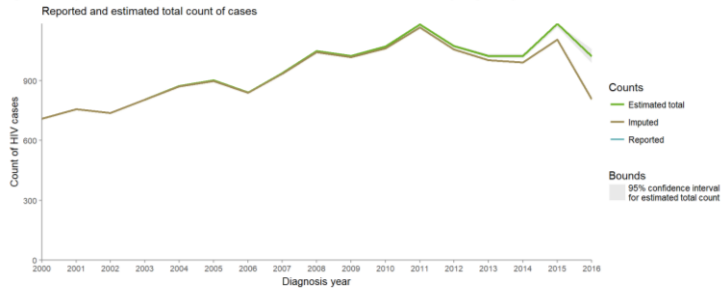
trace plots





2. Reporting Delays

Figure 1. Comparison of the reported count of HIV cases with the estimated total count by diagnosis year.



5.4. Creating reports

Reports tab

Edit parameters

html, Word or Latex

5.5. Exporting of the data

Outputs tab

6. Tool settings

Annex 1. Country codes