

VATOOL DOCUMENTATION

Introduction

VATOOL is a web based application aimed at providing visualisations of VA data and COD information obtained after successfully running/executing OpenVA pipeline. The tool also provides information that is informative on VA data quality and also CSMF based on aspects like age group and sex in a specific year.

Installation and use

Make sure you have installed openva_pipeline. [<https://openva-pipeline.readthedocs.io/en/latest/install.html>]

Copy the folder/zip file to any of your directory.

Download and Install Xampp [<https://vitux.com/how-to-install-xampp-on-your-ubuntu-18-04-lts-system/>]

Navigate to computer/opt/lamp/htdocs/ and paste the CRVS folder there.

Go to your working directory and paste all the remaining files there.

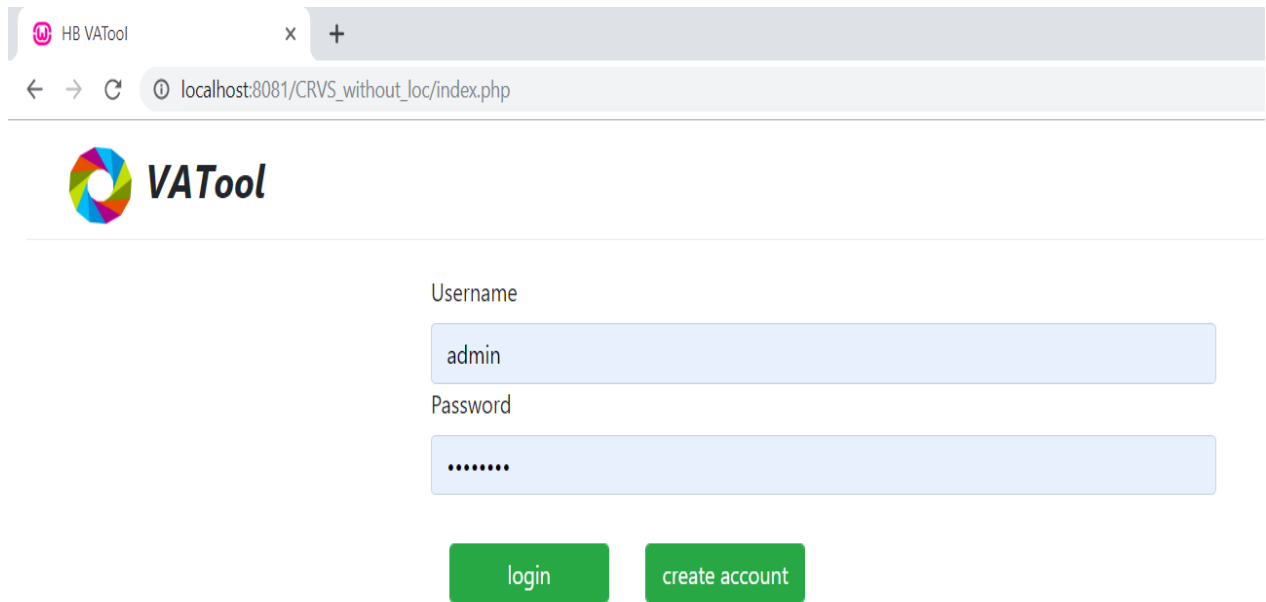
- **running_pipeline_code.py** – This is python code that will execute/run openva_pipeline to download data from ODK aggregate.
- **pipeline_cod.R** – The R code that picks csv from openva_pipeline output and processes it in ready-ness for dashboard python program. This is where data quality checks are done.
- **crvs_dash_code.py** - This is the python code that will process the data from pipeline R output, processes the data and pushed the database to the VATOOL folder.
- **lcd10.csv** – A list of InterVA/InsilcoVA COD mapped to icd10 codes and groupings

Then run the **dashboard.sh** bash file to run all the necessary dashboard code.

Once .sh file completes successfully, you can now go to your browser and enter IP address/DNS of your server. If within the server you can use **localhost, then apache port then application name**. i.e.

Type <http://dns:port/CRVS> or <http://localhost/CRVS> (If your apache runs in port 80)

You will be directed to login page as below:



The screenshot shows a web browser window with the title 'HB VATool'. The address bar displays 'localhost:8081/CRVS_without_loc/index.php'. The page features the 'VATool' logo, which consists of a colorful circular icon and the text 'VATool'. Below the logo, there is a login form with two input fields: 'Username' containing the text 'admin' and 'Password' containing seven dots. At the bottom of the form are two green buttons: 'login' and 'create account'.

The default username is **Admin**, password **admin123**.

Creating account and adding users:

Simply click **create account** button.

In the account creation page, enter details of new user and click **create account**. Please note that currently user rights are not constrained in the system. Meaning any user can interact with the system. User restriction in the system will come later as features are added to the system.



Username

Email

Phonenumber

User group

Password

Confirm password

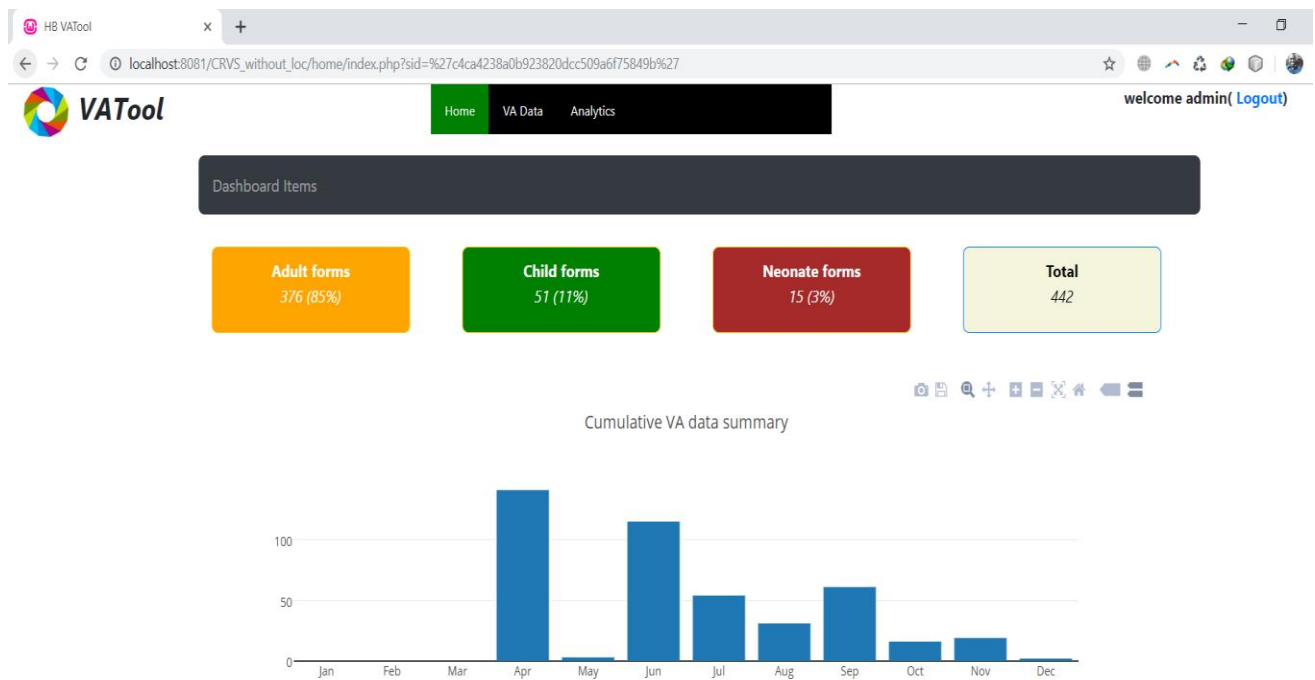
create account

login

Features and modules modules

1. Home Page

When user first logs in, the first page to be displayed is the Home page. This page provides basic information about VA summaries by age group, and a chart showing cumulative data submission across months. More content can be added as the features increases.s



2. VA Data page

Purpose of this page is to avail RAW VA data for preview. This gives a simple interface to preview individual VA data question by question as labels are indicated in the WHO 2016 VA Questionnaire. To make it easier, the tool excludes responses that were skipped during skip pattern execution on tablets and only shows the questions that has responses. As future improvement, other users will only be able to see de-identified data according to user rights.

HB VATool

localhost:8081/CRVS_without_loc/home/va.php?sid=c4ca4238a0b923820dcc509a6f75849b

VATool

Home VA Data Analytics

Dashboard Items

Show 10 entries

interviewerName	Firstname
BENARD_O_MBOYA	Ezekiel
BENARD_O_MBOYA	Peter
BENARD_O_MBOYA	Peter
BENARD_O_MBOYA	Peter
BENARD_O_MBOYA	Asly
BENARD_O_MBOYA	Wilberforce
BENARD_O_MBOYA	Alphonse
BENARD_O_MBOYA	Nashon
BENARD_O_MBOYA	Wilkista
BENARD_O_MBOYA	Baby

Showing 1 to 10 of 442 entries

Previous 1 2 3 4 5 ... 45 Next

INDIVIDUAL VA DATA

Question	Response
Enter the file number of the notification form	1233
Enter again the file number of the notification form to confirm	1233
(id10002) [Is this a region of high HIV/AIDS mortality?]	high
(id10003) [Is this a region of high malaria mortality?]	high
(id10004) [During which season did (s)he die?]	dry
(id10007) [What is the name of VA respondent?]	Angela ajwang
(id10008) What is your/the respondent's relationship to the deceased?	family_member
(id10009) Did you/the respondent live with the deceased in the period leading to her/his death?	yes
(id10010) [Name of VA interviewer]	BENARD_O_MBOYA
(id10012) Date of interview	Dec 24, 2017
(id10013) [Did the respondent give consent?]	yes
Start of interview	Dec 24, 2017 7:39:29 PM
(id10017) What was the first or given name(s) of the deceased?	Peter
(id10018) What was the surname (or family name) of the deceased?	Camillo

Age_group	Age	Action
Adult	39.0	View
Adult	88.0	View
Adult	88.0	View
Adult	88.0	View
Child	0.0	View
Child	1.0	View
Child	4.0	View
Adult	44.0	View
Adult	72.0	View
Child	0.0	View
Age_group	Age	Action

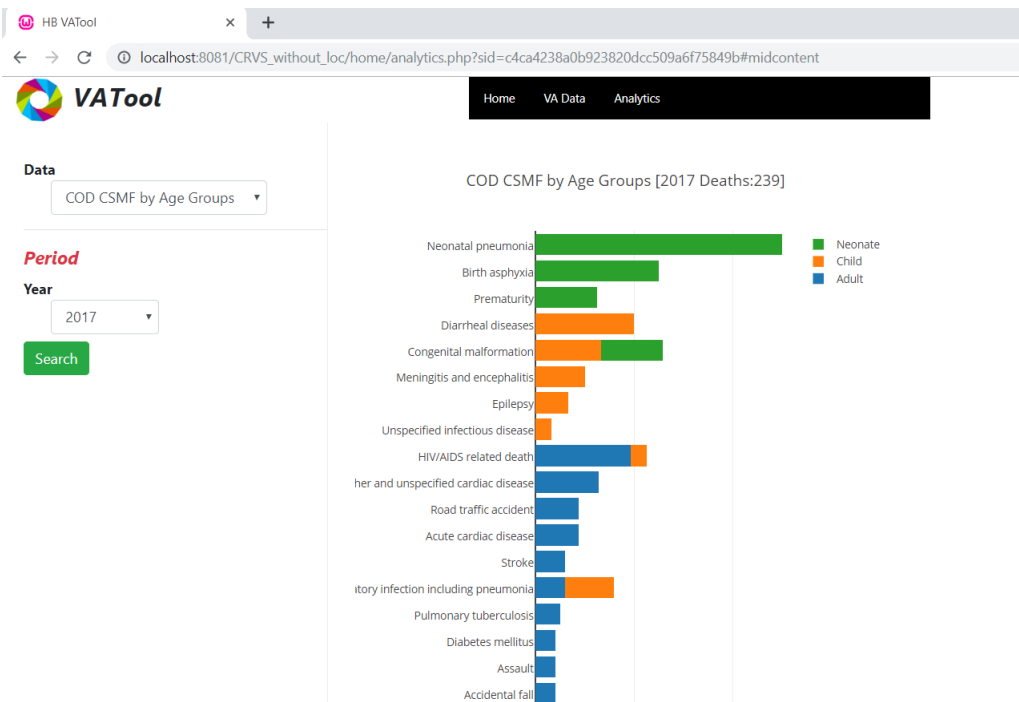
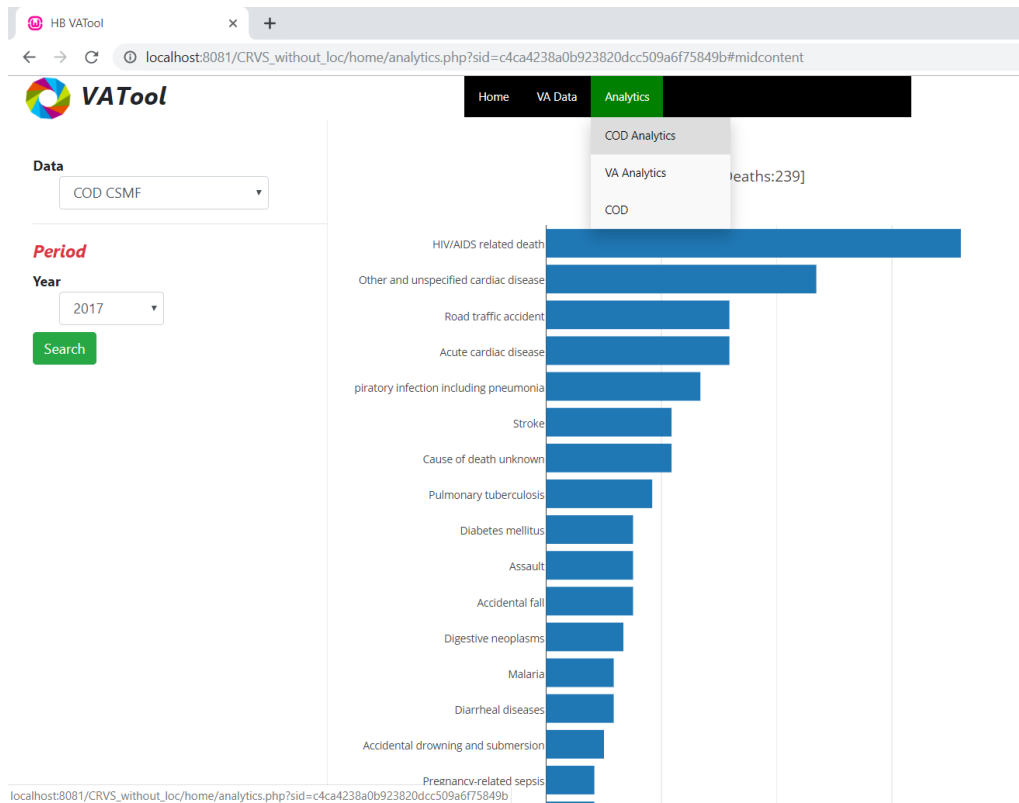
3. Analytics page

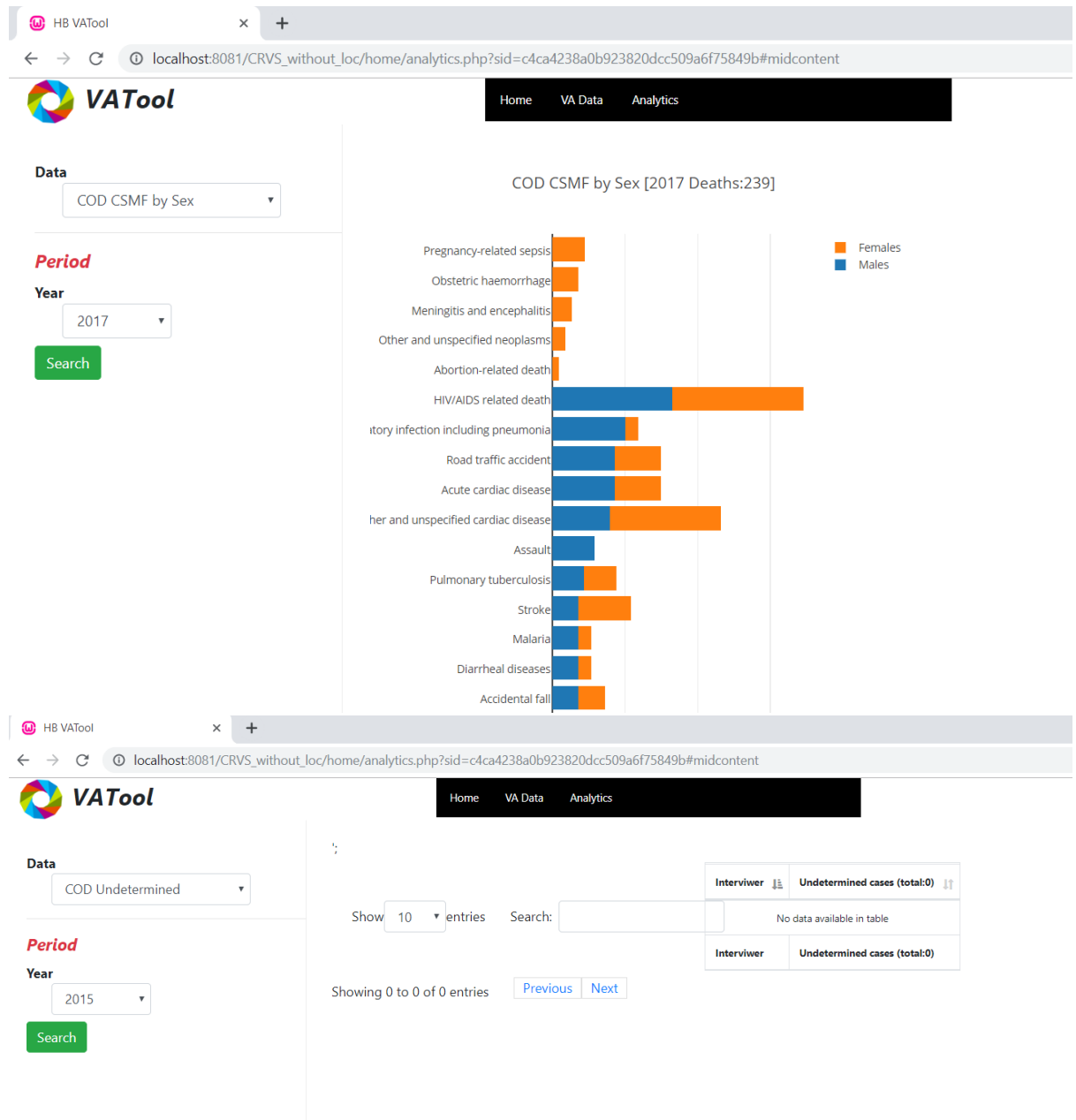
This menu provides links to pages that have in-depth analysis on VA and COD results as executed by InterVA5 and InsilicoVA.

3.1. COD Analytics

This page offers modules that help in producing various visual aspects of cause of death data. These visualisation includes;

- ✓ COD CSMF overall, CSMF by major age groups (Child, Adult, Neonate) and CSMF by sex. All these aspects are being displayed by year of death and the option **ALL** is selected if data is to be displayed regardless of the year of death.
- ✓ Another aspect being displayed here are number of undetermined cases by interviewer. This is to help keep track of undetermined cases being produced by an interviewer to indicated need for retraining and control data quality from interviewers.





3.2. VA Analytics

This page offers modules that help visualize VA data summaries. These characteristics include; VA data summary by sex, by year of death and by age groups. These summaries are produced by year of death. In addition, one can also view submission summaries by interview across the months of the selected year. This helps in monitoring VA data submission monthly from each interviewer.



Data

VA SUMMARY By Year

Period

Year of death

2017

Search

Submission Data

VA SUBMISSION

Period

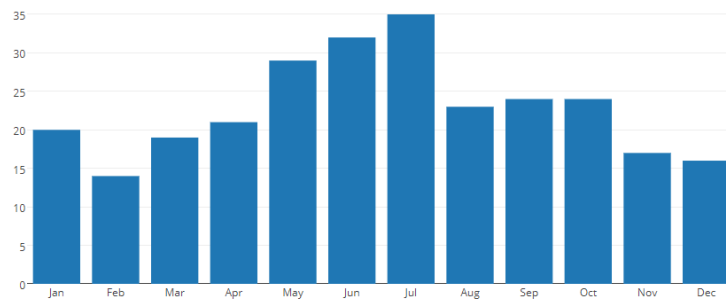
Year

2018

View



VA SUMMARY By Year- DOD:2017



Months	Count
Jan	20
Feb	14
Mar	19
Apr	21
May	29
Jun	32
Jul	35
Aug	23
Sep	24
Oct	24
Nov	17
Dec	16
Total	274

Data

VA SUMMARY BY SEX

Period

Year of death

2017

Search

Submission Data

VA SUBMISSION

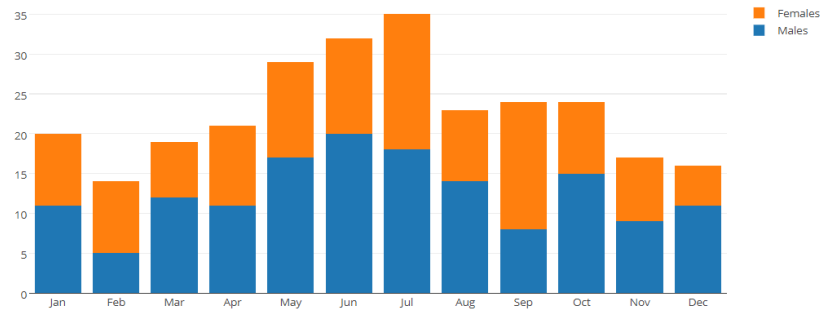
Period

Year

2018

View

2017 VA SUMMARY BY SEX



Males	Females	Total
151 (55.11%)	123 (44.89%)	274

Data

VA SUMMARY BY AGE GROUP

Period

Year of death

2017

Search

Submission Data

VA SUBMISSION

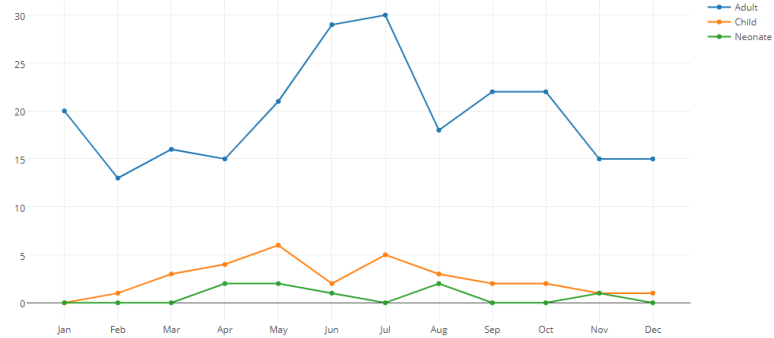
Period

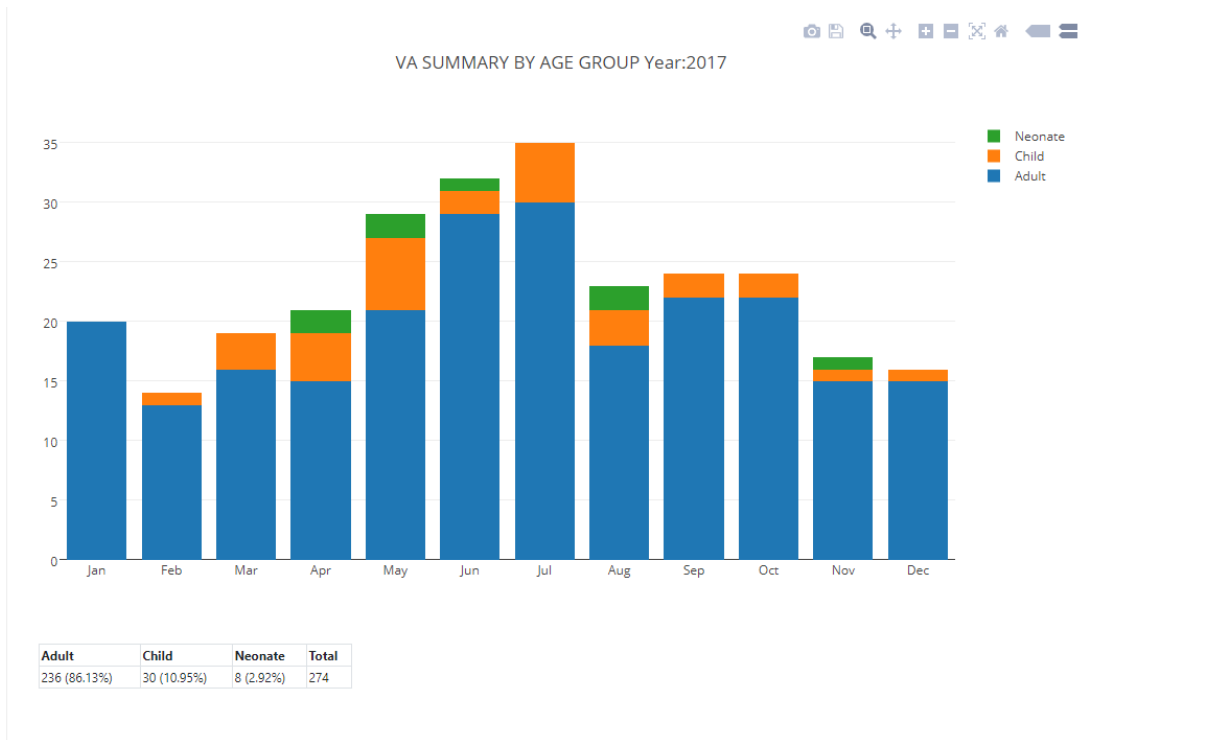
Year

2018

View

VA SUMMARY BY AGE GROUP Year:2017





VATool Home VA Data Analytics welc

Data: VA SUMMARY By Year

Period: Year of death: 2018

Submission Data: VA SUBMISSION

Period: Year: 2018

Search: []

interviewer_name	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	tot	interview_year
BENARD_O_MBOYA	0	0	0	0	0	5	2	2	2	0	0	0	11	2017
DIANA_JUDITHS_ANYANGO	0	0	0	0	0	3	8	1	2	0	0	0	14	2017
EBBY_KABASA	0	0	0	0	0	0	0	0	0	2	1	2	5	2017
ELECTOR_OKOYO	0	0	0	0	2	3	3	3	1	0	4	0	16	2017
FLORENCE_ADONGO	0	0	0	0	0	20	0	1	0	0	8	0	29	2017
GEORGE_OWUOR	0	0	0	0	0	3	0	0	6	0	0	0	9	2017
JOHANNES_O_OTHACHA	0	0	0	0	0	3	2	0	4	0	0	0	9	2017
JOYCE_ODHIAMBO	0	0	0	0	0	0	0	0	7	0	0	0	7	2017
LARRY_ODHIAMBO_OGEMBO	0	0	0	0	0	10	3	0	0	0	0	0	13	2017
MALACHI_OSOO_OTIENO	0	0	0	0	0	0	0	0	2	0	0	0	2	2017
interviewer_name	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	tot	interview_year

Showing 1 to 10 of 25 entries

Previous 1 2 3 Next

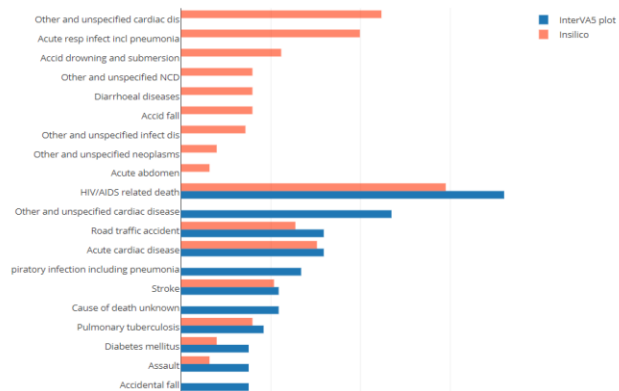
3.3. COD

This page shows a comparison between top 20 causes of death from Interva5 and InsilicoVA.

Dashboard Items

2017

CODs plot [Total: InterVAS(239), Insilico (251)] for Year:2017



Future improvements

Dynamic Pivot tables

Integration to DHIS2 depending on country needs

Acknowledgment

NB:

First of all you need to install gksu with the following command:

```
sudo apt-get install gksu
```

Then, run:

```
gksu gedit /usr/share/applications/xampp-control-panel.desktop
```

and save the following code in the file.

(You are using 64 bit system so there is no need to change anything, simply do copy paste)

```
[Desktop Entry]
Encoding=UTF-8
Name=XAMPP Control Panel
Comment=Start and Stop XAMPP
Exec=gksudo /opt/lampp/manager-linux-x64.run
Icon=/opt/lampp/htdocs/favicon.ico
Categories=Application
Type=Application
Terminal=false
```

Note: For 32 bit xampp type "manager-linux.run" at place of "manager-linux-x64.run"

Run following command in terminal:

```
sudo apt-get update
```

id10176_unit renamed to id10178_unit