

South Africa - Lenses for HIV testing and treatment programme success: linking population and clinical surveillance perspectives on the HIV care cascade in rural KwaZulu-Natal

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Overview

Identification

ID NUMBER

AHRI.Vukuzazi.HIV.2019.V1.0

Version

VERSION DESCRIPTION

V1.0

Overview

ABSTRACT

The aim of this project is to leverage the detailed clinical, population, and laboratory data from the AHRI population cohort and new Vukuzazi study data to compare and triangulate different approaches to estimating levels of HIV testing, treatment, and viral load suppression from cross-sectional population and longitudinal clinical data sources.

The ultimate objective of the project is to develop and validate approaches to assessing HIV testing and treatment programme outcomes from clinical surveillance data in typical settings that do not have detailed population data available.

Specifically, the project will use linked population and clinical surveillance data to investigate:

- Levels of HIV testing and diagnosis, and re-testing and engagement in care.
- Retention on ART among clinical cohorts compared to cross-sectional ART coverage.
- Population wide VLS amongst persons on ART compared to levels of VLS recorded via routine clinical monitoring of viral load.

KEYWORDS

HIV, HIV Care cascade, ART Retention, Mathematical modelling, Viral load suppression

Coverage

GEOGRAPHIC COVERAGE

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

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OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Vukuzazi Study participants		

Name	Affiliation	Role

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Africa Health Research Institute	AHRI		

DDI DOCUMENT ID

DDI.AHRI.Vukuzazi.HIV.2019.V1.0

Sampling

Sampling Procedure

Questionnaires

No content available

Data Collection

Data Collection Dates

Start	End	Cycle
2018-05-25	2019-11-19	N/A

Data Processing

No content available

Data Appraisal

No content available

File Description

Variable List

AHRI.Vukuzazi.HIV.2019.V1.0

Content
 Cases 37358
 Variable(s) 23
 Structure Type:
 Keys: ()
 Version
 Producer
 Missing Data

Variables

ID	Name	Label	Type	Format	Question
V316	VukulntId	Vukuzazi Individual Id	contin	numeric	
V317	PIPIIntId	PIP Individual Id	contin	numeric	
V318	DateOfBirth	Individual's Date of Birth	discrete	character	
V319	Sex	Gender	discrete	numeric	
V320	NearestClinic	Catchment area clinic	discrete	numeric	
V321	WeekBlock	WeekBlock	discrete	character	
V322	BSIntId	Bounded Structure Id	contin	numeric	
V323	VisitDate	Vukuzazi Camp Visit Date	contin	numeric	
V324	ReceivedHIVTestResult	Have you ever received a test result for HIV?	discrete	numeric	
V325	HadPosHIVResult	Have you ever had a positive HIV test result?	discrete	numeric	
V326	HIVPosResult1stDate	When was your first positive test result?	discrete	numeric	
V327	CurrentlyOnART	Are you currently receiving ART?	discrete	numeric	
V328	ARTInitiationDate	When did you first start ART?	discrete	numeric	
V329	ARTDefault	Have you ever stopped/defaulted from ART treatment? (Defaulted explained as not t	discrete	numeric	
V330	ARTDefaultTimes	HART default times	discrete	numeric	
V331	UrineRefusal	Current pregnancy status	discrete	numeric	
V332	CD4LymphPercent	CD4 Lymphocytes %	contin	numeric	
V333	CD4LymphAb	CD4 Lymphocytes Abs	contin	numeric	
V334	CD4CD8Ratio	CD4/CD8 Ratio	contin	numeric	
V335	CD8LymphPercent	CD8 Lymphocytes Percent	contin	numeric	
V336	CD8LymphAb	CD8 Lymphocytes Abs	contin	numeric	
V337	HIVElisa	HIV Elisa Result	discrete	numeric	
V338	VL	HIV Viral Load Result	discrete	numeric	

Vukuzazi Individual Id (VukuIntId)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 37358
Format: numeric	Invalid: 0
Width: 12	Minimum: 1
Decimals: 0	Maximum: 37359
Range: 1-37359	Mean: 18679.5
	Standard deviation: 10784.5

PIP Individual Id (PIPIIntId)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 37358
Format: numeric	Invalid: 0
Width: 12	Minimum: 17
Decimals: 0	Maximum: 242166
Range: 17-242166	Mean: 81126.3
	Standard deviation: 55002.5

Individual's Date of Birth (DateOfBirth)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 37358
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

Gender (Sex)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 37358
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: 1-9	

Catchment area clinic (NearestClinic)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 37358
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: 1-11	

WeekBlock (WeekBlock)

File: AHRI.Vukuzazi.HIV.2019.V1.0

WeekBlock (WeekBlock)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 37358
Format: character	Invalid: 0
Width: 5	

Bounded Structure Id (BSIntId)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 37358
Format: numeric	Invalid: 0
Width: 12	Minimum: 11
Decimals: 0	Maximum: 90943
Range: 11-90943	Mean: 10351.6
	Standard deviation: 12687

Vukuzazi Camp Visit Date (VisitDate)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 16973
Format: numeric	Invalid: 20385
Width: 11	Minimum: 1842865237000
Decimals: 0	Maximum: 1889793720000
Range: 1842865237000-1889793720000	Mean: 1870394428413.6
Invalid: 1316134913	Standard deviation: 10649253841

Have you ever received a test result for HIV? (ReceivedHIVTestResult)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 16972
Format: numeric	Invalid: 20386
Width: 12	
Decimals: 0	
Range: 1-3	

Have you ever had a positive HIV test result? (HadPosHIVResult)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 14249
Format: numeric	Invalid: 23109
Width: 12	
Decimals: 0	
Range: 1-3	

When was your first positive test result? (HIVPosResult1stDate)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete
 Format: numeric
 Width: 12
 Decimals: 0
 Range: 1-3

Valid cases: 0
 Invalid: 37358

Are you currently receiving ART? (CurrentlyOnART)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete
 Format: numeric
 Width: 12
 Decimals: 0
 Range: 1-3

Valid cases: 4797
 Invalid: 32561

When did you first start ART? (ARTInitiationDate)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete
 Format: numeric
 Width: 12
 Decimals: 0

Valid cases: 0
 Invalid: 37358

Have you ever stopped/defaulted from ART treatment? (Defaulted explained as not t (ARTDefault)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete
 Format: numeric
 Width: 12
 Decimals: 0
 Range: 1-3

Valid cases: 4797
 Invalid: 32561

HART default times (ARTDefaultTimes)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete
 Format: numeric
 Width: 12
 Decimals: 0
 Range: 1-12

Valid cases: 112
 Invalid: 37246

Current pregnancy status (UrineRefusal)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 7224
Format: numeric	Invalid: 30134
Width: 12	
Decimals: 0	
Range: 1-3	

CD4 Lymphocytes % (CD4LymphPercent)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 5628
Format: numeric	Invalid: 31730
Width: 10	Minimum: 2
Decimals: 0	Maximum: 72
Range: 2-72	Mean: 30.1
Invalid: 101	Standard deviation: 10.1

CD4 Lymphocytes Abs (CD4LymphAb)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 5637
Format: numeric	Invalid: 31721
Width: 10	Minimum: 3
Decimals: 0	Maximum: 4084
Range: 3-4084	Mean: 715.3
Invalid: 10001	Standard deviation: 341.2

CD4/CD8 Ratio (CD4CD8Ratio)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 5597
Format: numeric	Invalid: 31761
Width: 10	Minimum: 0
Decimals: 0	Maximum: 4.5
Range: 0.01-4.51	Mean: 0.8
Invalid: 11	Standard deviation: 0.5

CD8 Lymphocytes Percent (CD8LymphPercent)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 5638
Format: numeric	Invalid: 31720
Width: 10	Minimum: 11
Decimals: 0	Maximum: 90
Range: 11-90	Mean: 42.6
Invalid: 101	Standard deviation: 12.5

CD8 Lymphocytes Abs (CD8LymphAb)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Continuous	Valid cases: 5638
Format: numeric	Invalid: 31720
Width: 10	Minimum: 140
Decimals: 0	Maximum: 5205
Range: 140-5205	Mean: 1019.3
Invalid: 10001	Standard deviation: 504.4

HIV Elisa Result (HIVElisa)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 16821
Format: numeric	Invalid: 20537
Width: 10	
Decimals: 0	
Range: 1-3	
Invalid: 11	

HIV Viral Load Result (VL)

File: AHRI.Vukuzazi.HIV.2019.V1.0

Overview

Type: Discrete	Valid cases: 5718
Format: numeric	Invalid: 31640
Width: 10	
Decimals: 0	
Range: 1-10000001	
Invalid: 10000001	

Documentation

Technical documents

Documentation:AHRI Vukuzazi HIV

Title Documentation:AHRI Vukuzazi HIV
Author(s) Sweetness H Dube
Date 26/11/2019
Country South Africa
Language English
Filename E98_AHRI-care-cascade_Imperial-MSc-project-proposal.pdf

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Language English
Filename AHRI.Vukuzazi.HIV.2019.V1.0.pdf
