

# South Africa - South Africa - AHRI HDSS Community Viral Load

**Nompumelelo Mkwazi**

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## Identification

SURVEY ID NUMBER  
AHRI.HDSS.CommunityViralLoad

TITLE  
South Africa - AHRI HDSS Community Viral Load

COUNTRY

Name	Country code
South Africa	ZA

ABSTRACT

To determine the behavioural and biological pathways through which high ART coverage reduces HIV incidence at the population level. This study seeks to establish the effect of ART scale-up on population viral load and eventually HIV incidence. It will achieve this through re-analysis of dried blood spots (DBS) collected among participants participating in Africa Health Research Institute HDSS. All HIV positive DBS were tested for viral load.

KIND OF DATA  
Community viral load

UNIT OF ANALYSIS  
Each record is a viral load result from a specimen or multiple records for participants participating in individual surveillance HDSS.

## Version

VERSION DESCRIPTION

v1.0.0  
v1.0.1 - Dataset Update  
v1.0.2 - Dataset Update  
v1.0.3 - Dataset Update

## Scope

TOPICS

Topic	Vocabulary	URI
HIV-1, HIV Incidence, Epidemics, Population Surveillance, Rural Population, HIV prevalence, South Africa, HIV Community Viral load, Population-based surveys	Africa Health Research Institute	www.ahri.org

KEYWORDS

Keyword	Vocabulary	URI
HIV Viral load; Population viral load; HIV incidence	Africa Health Research Institute	www.ahri.org

## Coverage

GEOGRAPHIC COVERAGE

AHRI's HDSS Study Area, KwaZulu Natal, South Africa.

UNIVERSE

The study includes all HIV positive resident individuals aged 15 years and above from KwaZulu Natal South Africa who

consented to HIV tests as part of the AHRI population-based HIV testing.

## Producers and sponsors

### PRIMARY INVESTIGATORS

Name	Affiliation
Dickman, Garetta	Africa Health Research Institute
Siyabonga Nxumalo	Africa Health Research Institute
Gregory Ordning-Jespersen	Africa Health Research Institute
Nompumelelo Mkwanazi	Africa Health Research Institute
Sweetness H Dube	Africa Health Research Institute
Theresa Smit	Africa Health Research Institute
Thobeka Mngomezulu	Africa Health Research Institute
Till, Baernighausen	Africa Health Research Institute
Frank, Tanser	Africa Health Research Institute

### PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

### FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
National Institute of Health	NIH	Causal Pathways to population health impact of HIV antiretroviral treatment

### OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Affiliation	Role
Africa Health Research Institute	Data Documentation

## Sampling

### SAMPLING PROCEDURE

All individual dried blood spots for HIV-positive individuals from the southern part of the HDSS area.

## Data collection

### DATES OF DATA COLLECTION

Start	End
2024-06-20	2025-05-21

## Access policy

### ACCESS CONDITIONS

Access to the data requires accurate completion of the online data access application form accessible on the AHRI Data repository (<<https://data.ahri.org/>>). Data users are required to abide by the data use conditions stipulated on the

application for access to the data. Failure to do so may result in their data access privileges being revoked by the Data Custodian. In order to recognise the effort and intellectual contributions of AHRI investigators in producing and curating the data, users of AHRI data must acknowledge the source of the data and abide by the terms and conditions under which the data is accessed and must cite the dataset in publication using the citation provided as part of this documentation. All analytical datasets published on the AHRI Data Repository are assigned digital object identifier (DOIs) and the DOIs can be found on the Data Repository under Study Description tab - Access policy. AHRI data users are required to always cite the dataset using the relevant DOI.

#### CITATION REQUIREMENTS

Gareta, D., Nxumalo, S., Ording-Jespersen, G., Mkwanazi, N., Dube, S. H., Smit, T., Mngomezulu, T., Baernighausen, T., & Tanser, F. (2026). South Africa - AHRI HDSS Community Viral Load [Data set]. Africa Health Research Institute.

DOI:<https://doi.org/10.23664/AHRI.HDSS.COMMUNITYVIRALLOAD>

## Metadata production

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#### DDI DOCUMENT ID

DDI.AHRI.HDSS.Community.Viral.Load

#### PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

**Data Dictionary**

Data file	Cases	Variables
CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1	2675	12



**Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1**

Cases: 2675

Variables: 12

**Variables**

ID	Name	Label	Question
V149	IntID	Unique Internal Id of Individual	
V150	Sex	Gender	
V151	DateOfBirth	DateOfBirth	
V152	VisitDate	Date of Visit	
V153	DSRound	DSRound	
V154	ResidencyBSIntId	Location ID at time of visit	
V155	PIPSA	HDSS area	
V156	HIVSampleId	HIV Sample Id	
V157	HIVResult	HIVResult	
V158	WeekBlock	WeekBlock	
V159	VLResult	Viral Load Result	
V160	VLResultCode	VL Result Status	

Total: 12



**IINTID: Unique Internal Id of Individual****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2675 Invalid: 0 Minimum: 72 Maximum: 275950 Mean: 97033.175 Standard deviation: 72890.99  
 Type: Continuous Decimal: 0 Width: 12 Range: 72 - 275950 Format: Numeric

**SEX: Gender****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2675 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
1	Male	516	19.3%
2	Female	2159	80.7%

**DATEOFBIRTH: DateOfBirth****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2675 Minimum: 1936-06-22 Maximum: 2008-08-12  
 Type: Discrete Width: 11 Range: - Format: character

**VISITDATE: Date of Visit****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2675 Minimum: 2023-06-23 Maximum: 2025-05-21  
 Type: Discrete Width: 11 Range: - Format: character

**DSROUND: DSRound****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2675 Invalid: 0  
 Type: Discrete Decimal: 0 Width: 12 Range: 121 - 122 Format: Numeric

**RESIDENCYBSINTID: Location ID at time of visit****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2663 Invalid: 12 Minimum: 21 Maximum: 355616 Mean: 29776.104 Standard deviation: 67118.73  
 Type: Continuous Decimal: 0 Width: 12 Range: 21 - 355616 Format: Numeric

**PIPSA: HDSS area****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2672 Invalid: 3  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
1	South	2672	100%
2	North	0	0%
Sysmiss		3	

**HIVSAMPLEID: HIV Sample Id****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2675 Invalid: 0 Minimum: 1162769 Maximum: 1217164 Mean: 1186059.976 Standard deviation: 16209.793  
 Type: Continuous Decimal: 0 Width: 12 Range: 1162769 - 1217164 Format: Numeric

**HIVRESULT: HIVResult****Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1****Overview**

Valid: 2663 Invalid: 12  
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 1 Format: Numeric

**Questions and instructions**

## CATEGORIES

Value	Category	Cases	
1	Positive	2663	100%
Sysmiss		12	

### WEEKBLOCK: WeekBlock

Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1

#### Overview

Valid: 2660 Invalid: 0  
Type: Discrete Width: 5 Range: - Format: character

### VLRESULT: Viral Load Result

Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1

#### Overview

Valid: 1154 Invalid: 1521 Minimum: 1550 Maximum: 8203080 Mean: 52582.978 Standard deviation: 315524.307  
Type: Continuous Decimal: 0 Width: 12 Range: 1550 - 8203080 Format: Numeric

### VLRESULTCODE: VL Result Status

Data file: CVL 01-01 AHRI.PIP.CommunityViralLoad Analytical Dataset V2.2024.V1

#### Overview

Valid: 1521 Invalid: 1154  
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 7 Format: Numeric

### Questions and instructions

#### CATEGORIES

Value	Category	Cases	
1	Valid result	0	0%
2	Below detectable limit	1521	100%
3	Invalid result	0	0%
4	Insufficient for testing	0	0%
5	Specimen not found	0	0%
6	Excluded from testing due to insufficient funding or field error	0	0%
7	Other	0	0%
Sysmiss		1154	

## Download related resources

### Technical documents

#### DDI:AHRI.HDSS.Community Viral Load

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Title	DDI:AHRI.HDSS.Community Viral Load
Author(s)	Nompumelelo Mkwanazi
Date	2026-04-29
Country	South Africa
Language	English
Publisher(s)	Nompumelelo Mkwanazi
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