

South Africa - AHRI.HDSS.RD05-02 ACDIS HIV 2005

Nompumelelo Mkwazi

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Identification

SURVEY ID NUMBER
RD05-02.ACDIS.HIV.2005

TITLE
AHRI.HDSS.RD05-02 ACDIS HIV 2005

COUNTRY

Name	Country code
South Africa	ZA

ABSTRACT

The Africa Centre Demographic Information System (ACDIS) was established in 2000 by the Africa Health Research Institute (AHRI; formerly the Africa Centre for Health and Population Studies) covering a population of approximately 85,0000 residents and non-residents from an area 438km² in size in uMkhanyakude district, KwaZulu-Natal province, South Africa.

In 2005, the "Eligibility List" for Round 2 of the HIV Surveillance used 10 January 2005 as its reference date. The criteria for inclusion were different for Residents and non-Residents. For Residents all males aged 15-54 and all females aged 15-49 on the same date were selected. For Non-Residents, a stratified sampling procedure was adopted with the overall objective of obtaining a representative sample of 12.5% of all non-residents. The 10 strata were defined by sex and by ?? and five 'return patterns', i.e., self-stated frequencies of returning home to the household in the DSA ('annual', 'occasional', 'month end', 'frequent', and 'other'). Other criteria were also used, and full details are available separately.

The total number eligible was 31,271, and this is the number of rows in the dataset.

The field visits took place from January 2005 to February 2006. At the time of visit some people included in the Eligibility List were found to in fact be ineligible - perhaps because they were dead or had out migrated - events either not known about at the time the Eligibility List was compiled or occurring between the drawing up of the Eligibility List and the actual visit. These 'retrospective ineligibilities' are identifiable in the dataset as 'Premature Completions with reasons such as "Death or "Outmigration". There were also some individuals who could not be contacted, even after repeated visits and 'tracking' attempts for those who were reported to have moved. These are identifiable as `PrematureCompletionReason = N` (i.e., Non-Contact) Additionally a small number were contacted but refused to participate in the survey. They are identifiable by `VisitType = Refused`. Finally there are some who participated in the survey, but refused the HIV test offered. They are identifiable as `HIVRefused = 'Y'`

This dataset includes only those in the Eligibility List. It does not include the small number (x) of 'Voluntary walk-in Testers' i.e. individuals who were not part of the Eligibility List, but who visited Counselling Centres and requested a test.

Individuals were free to refuse to participate in and to withdraw from the individual surveys, without any impact on routine health care or other services to which they were entitled. If a household refused to participate in the household component, its members were not invited to participate in the individual component during that same household visit.

Note: Users of these datasets are strongly encouraged to refer to the questionnaires included in the documentation for the dataset to check carefully for any changes in question wording, ordering, options offered etc. This document does not attempt to describe every single change and variation.

For more refer:

1. Tanser F, Hosegood V, Bärnighausen T, Herbst K, Nyirenda M, Muhwava W, Newell C, Viljoen J, Mutevedzi T, Newell ML. Cohort Profile: Africa Centre Demographic Information System (ACDIS) and population-based HIV survey. *Int J Epidemiol*. 2008 Oct;37(5):956-62. doi: 10.1093/ije/dym211. Epub 2007 Nov 12. PMID: 17998242; PMCID: PMC2557060.

KIND OF DATA
Surveillance data

UNIT OF ANALYSIS
AHRI HDSS Individual surveillance eligible individuals

Version

VERSION DESCRIPTION
v2.0.0

Scope

TOPICS

Topic	Vocabulary	URI
HIV, Population, Surveillance, HIV Incidence, HIV prevalence, Epidemiology, Africa, Demography, information systems, South Africa, KwaZulu-Natal, Medical, Population Intervention	Africa Health Research Institute	www.ahri.org

KEYWORDS

Keyword	Vocabulary	URI
South Africa, Surveillance, Epidemiology, HIV, Population Cohort	Africa Health Research Institute	www.ahri.org

Coverage

GEOGRAPHIC COVERAGE

AHRI's Demographic Surveillance Area (DSA) is situated in Mtubatuba local authority, uMkhanyakude district, KwaZulu-Natal province which is approximately 200km north of Durban.

For more refer:

1. Dickman Gareta, Kathy Baisley, Thobeka Mngomezulu, Theresa Smit, Thandeka Khoza, Siyabonga Nxumalo, Jaco Dreyer, Sweetness Dube, Nomathamsanqa Majozi, Gregory Ordning-Jespersion, Eugene Ehlers, Guy Harling, Maryam Shahmanesh, Mark Siedner, Willem Hanekom, Kobus Herbst, Cohort Profile Update: Africa Centre Demographic Information System (ACDIS) and population-based HIV survey, International Journal of Epidemiology, Volume 50, Issue 1, February 2021, Pages 33-34, <<https://doi.org/10.1093/ije/dyaa264>>
2. Tanser F, Hosegood V, Bärnighausen T, Herbst K, Nyirenda M, Muhwava W, Newell C, Viljoen J, Mutevedzi T, Newell ML. Cohort Profile: Africa Centre Demographic Information System (ACDIS) and population-based HIV survey. Int J Epidemiol. 2008 Oct;37(5):956-62. doi: 10.1093/ije/dym211. Epub 2007 Nov 12. PMID: 17998242; PMCID: PMC2557060.
3. Iwuji CC, Orne-Gliemann J, Larmarange J, Balestre E, Thiebaut R, Tanser F, Okesola N, Makowa T, Dreyer J, Herbst K, McGrath N, Bärnighausen T, Boyer S, De Oliveira T, Rekacewicz C, Bazin B, Newell ML, Pillay D, Dabis F; ANRS 12249 TasP Study Group. Universal test and treat and the HIV epidemic in rural South Africa: a phase 4, open-label, community cluster randomised trial. Lancet HIV. 2018 Mar;5(3):e116-e125. doi: 10.1016/S2352-3018(17)30205-9. Epub 2017 Nov 30. PMID: 29199100.

UNIVERSE

All resident household members from AHRI's DSA who met eligibility criteria and gave informed consent for their surveillance participation.

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Dr Abraham Jacobus Herbst	Africa Health Research Institute
Prof. Willem Hanekom	Africa Health Research Institute

Prof. Janet Seeley	Africa Health Research Institute
Prof. Maryam Shahmanesh	Africa Health Research Institute
Dr. Guy Harling	Africa Health Research Institute
Dr. Mark Siedner	Africa Health Research Institute

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
Welcome Trust	WT	Funder
DSI-MRC South African Population Research Infrastructure Network	SAPRIN	Funder

OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Name	Affiliation	Role
Thobeka Mngomezulu	AHRI	Data collection
Phumzile Dlamini	AHRI	Data collection
Lindiwe Sithole	AHRI	Data collection
Bonginkosi Ntimane	AHRI	Data quality
Njabulo Myeni	AHRI	Data quality
Eugene Ehlers	AHRI	Software Development
Eugene Prenzler	AHRI	Data Analytics
Brendan Gilbert	AHRI	IT infrastructure
Sweetness Dube	AHRI	Data documentation
Siyabonga Nxumalo	AHRI	Research Data management
Dickman Gareta	AHRI	Research Data management
Kathy Baisley	AHRI	Statistics

Sampling

SAMPLING PROCEDURE

All individuals meeting the eligibility criteria described in the abstract

Data collection

DATES OF DATA COLLECTION

Start	End
2005-01-18	2006-02-08

Data Processing

DATA EDITING

Surveillance data is processed and stored on servers under the physical control of AHRI until datasets are made available on the data repository. The data is de-identified and can then be downloaded for processing on the data user's computer.

Data is stored on industry-standard relational databases with data integrity and user authentication for access control. Data is replicated on at least a daily basis to the Durban site of the Institution to provide secure offsite storage of data. Transactional logs are backed up every 30 minutes to enable recovery of data in the event of equipment failure.

All users of the system are authenticated through individual passwords with minimum complexity and regular change rules (passwords must be at least eight digits, with a mix of small and capital letters, at least one numeric or non-alphabetic digit and changed at least every 45 days). AHRI uses industry standard malware and intrusion detection with at least annual penetration tests by a reputable outside security audit company.

Both at the Institute and for the clinic-based data collection, a client-server architecture is implemented where data is not stored on laptops or local workstation, but only on a central server with restricted physical access. Specifically, at the clinics the local server is enclosed in a tamper-proof enclosure kept under lock and key. The server hard disk is encrypted.

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

Herbst, A. J., Hanekom, W., Seeley, J., Shahmanesh, M., Harling, G., & Siedner, M. (2025). AHRI.HDSS.RD05-02 ACDIS HIV 2005 [Data set]. Africa Health Research Institute. DOI:<https://doi.org/10.23664/RD05-02.ACDIS.HIV.2005>

Metadata production

DDI DOCUMENT ID

DDI.RD05-02.ACDIS.HIV.2005

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

Data Dictionary

Data file	Cases	Variables
RD05-02 ACDIS HIV 2005	31271	19

Data file: RD05-02 ACDIS HIV 2005

Cases: 31271

Variables: 19

Variables

ID	Name	Label	Question
V337	QuestionnaireId	Questionnaire Id	
V338	BMFStatusObservation	BMFStatusObservation Id	
V339	PrematureCompletionReason	Premature Completion Reason	
V340	IntId	Unique Internal Id of Individual	
V341	Sex	Sex	
V342	DateOfBirth	Date of birth	
V343	Resident	Residency status	
V344	BSIntId	Unique Internal Id of BoundedStructures	
V345	VisitDate	Visit Date	
V346	VisitType	Visit Type	
V347	Attempt1Date	First Attempt Date	
V348	Attempt2Date	Second Attempt Date	
V349	Attempt3Date	Third Attempt Date	
V350	Attempt4Date	Fourth Attempt Date	
V351	LatestAttemptDate	Latest Attempt Date	
V352	HIVRefused	HIV Refused	
V353	HIVRefusedBy	HIV Refused By	
V354	HIVSampleAvailable	HIV Sample Available	
V355	HIVResult	HIV Result	

Total: 19

QUESTIONNAIREID: Questionnaire Id**Data file: RD05-02 ACDIS HIV 2005****Overview**

Valid: 31271 Invalid: 0 Minimum: 468704 Maximum: 46263639 Mean: 529100.387 Standard deviation: 818043.979
 Type: Continuous Decimal: 0 Width: 12 Range: 468704 - 46263639 Format: Numeric

BMFSTATUSOBSERVATION: BMFStatusObservation Id**Data file: RD05-02 ACDIS HIV 2005****Overview**

Valid: 31224 Invalid: 47 Minimum: 26654 Maximum: 106790 Mean: 43471.014 Standard deviation: 9473.286
 Type: Continuous Decimal: 0 Width: 12 Range: 26654 - 106790 Format: Numeric

PREMATURECOMPLETIONREASON: Premature Completion Reason**Data file: RD05-02 ACDIS HIV 2005****Overview**

Valid: 31224 Invalid: 47
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 99 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Broken Down BS	55	0.2%
2	Mentally Disabled	187	0.6%
3	Outmigration	4259	13.6%
4	Non-contact	581	1.9%
5	Other Reasons	2243	7.2%
6	Very Sick	74	0.2%
7	Not Tracked (too far)	37	0.1%
93	Refused	421	1.3%
97	Not Applicable	23367	74.8%
99	Missing	0	0%
Sysmiss		47	

IINTID: Unique Internal Id of Individual**Data file: RD05-02 ACDIS HIV 2005**

Overview

Valid: 31271 Invalid: 0 Minimum: 17 Maximum: 264757 Mean: 55505.13 Standard deviation: 34378.234
 Type: Continuous Decimal: 0 Width: 12 Range: 17 - 264757 Format: Numeric

SEX: Sex

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31271 Invalid: 0
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 99 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Male	14218	45.5%
2	Female	17053	54.5%
99	Unknown	0	0%

DATEOFBIRTH: Date of birth

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31271 Minimum: 1926-04-13 Maximum: 2003-08-24
 Type: Discrete Width: 11 Range: - Format: character

RESIDENT: Residency status

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31271 Invalid: 0
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 99 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	28385	90.8%
2	No	2885	9.2%
90	SpecialQuery	0	0%
92	Deprecated	0	0%

93	Refused	0	0%
94	Query	0	0%
95	Default	0	0%
96	Other	0	0%
97	Not Applicable	0	0%
98	Don?t know	0	0%
99	Missing	1	0%

BSINTID: Unique Internal Id of BoundedStructures

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31271 Invalid: 0 Minimum: 12 Maximum: 13061 Mean: 6173.627 Standard deviation: 3660.941
 Type: Continuous Decimal: 0 Width: 12 Range: 12 - 13061 Format: Numeric

VISITDATE: Visit Date

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31224 Minimum: 2005-01-18 Maximum: 2006-02-08
 Type: Discrete Width: 11 Range: - Format: character

VISITTYPE: Visit Type

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31224 Invalid: 47
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 999 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Avoided Visit	4	0%
2	Unsuccessful Visit	3	0%
3	Regular Visit	25673	82.2%
4	Special Task Visit	4	0%
5	Problem Solving	0	0%
6	Quality Control	0	0%
7	Spot Check	0	0%

8	Tracking	4719	15.1%
9	Verbal Autopsy	1	0%
10	Mapping Visit	1	0%
11	COUNSELLING VISIT	0	0%
12	Illness And Death	0	0%
13	Bounded Structure Verification	0	0%
30	Community Liaison Office Visit	0	0%
92	Deprecated	1	0%
93	Refused Visit	818	2.6%
94	Query	0	0%
95	Default	0	0%
96	Other	0	0%
97	Not Applicable	0	0%
99	Missing	0	0%
999	Unknown	0	0%
Sysmiss		47	

ATTEMPT1DATE: First Attempt Date

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 12221 Minimum: 1795-01-01 Maximum: 2051-11-15
 Type: Discrete Width: 11 Range: - Format: character

ATTEMPT2DATE: Second Attempt Date

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 6395 Minimum: 2005-01-18 Maximum: 2051-11-16
 Type: Discrete Width: 11 Range: - Format: character

ATTEMPT3DATE: Third Attempt Date

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 3607 Minimum: 2005-01-20 Maximum: 2200-07-30
 Type: Discrete Width: 11 Range: - Format: character

ATTEMPT4DATE: Fourth Attempt Date**Data file: RD05-02 ACDIS HIV 2005****Overview**

Valid: 1346 Minimum: 2005-01-30 Maximum: 2006-01-25
 Type: Discrete Width: 11 Range: - Format: character

LATESTATTEMPTDATE: Latest Attempt Date**Data file: RD05-02 ACDIS HIV 2005****Overview**

Valid: 12221 Minimum: 1795-01-01 Maximum: 2200-07-30
 Type: Discrete Width: 11 Range: - Format: character

HIVREFUSED: HIV Refused**Data file: RD05-02 ACDIS HIV 2005****Overview**

Valid: 31224 Invalid: 47
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 99 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	13829	44.3%
2	No	9538	30.5%
90	SpecialQuery	0	0%
92	Deprecated	0	0%
93	Refused	0	0%
94	Query	0	0%
95	Default	0	0%
96	Other	0	0%
97	Not Applicable	7857	25.2%
98	Don?t know	0	0%
99	Missing	0	0%
Sysmiss		47	

HIVREFUSEDDBY: HIV Refused By**Data file: RD05-02 ACDIS HIV 2005**

Overview

Valid: 31224 Invalid: 47
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 99 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Self	12883	41.3%
2	Partner	184	0.6%
3	HH head	299	1%
4	BS owner	244	0.8%
5	Other	217	0.7%
97	Not applicable	17397	55.7%
99	Missing	0	0%
Sysmiss		47	

HIVSAMPLEAVAILABLE: HIV Sample Available

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31224 Invalid: 47
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	9537	30.5%
2	No, but there is a BMFStatusObs	21687	69.5%
Sysmiss		47	

HIVRESULT: HIV Result

Data file: RD05-02 ACDIS HIV 2005

Overview

Valid: 31107 Invalid: 164
 Type: Discrete Decimal: 0 Width: 12 Range: 0 - 99 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0	Negative	7560	24.3%
1	Positive	1926	6.2%
2	Indeterminate	32	0.1%
3	Insufficient sample volume	0	0%
4	Spurious (probably not this person)	11	0%
5	Spurious negative(HIV reverse seroconversion)	0	0%
6	Spurious positive(HIV reverse seroconversion)	1	0%
97	Not applicable	21577	69.4%
99	Missing (Sample lost)	0	0%
Sysmiss		164	

Download related resources

Questionnaires

Questionnaire:Individual Health Observation Form (IHO)

Title Questionnaire:Individual Health Observation Form (IHO)
Author(s) Nompumelelo Mkwanazi
Date 03-06-2025
Country South Africa
Language English
Publisher(s) Nompumelelo Mkwanazi
Filename IHO-Zv2.pdf

Technical documents

DDI:ACDIS HIV 2005

Title DDI:ACDIS HIV 2005
Author(s) Nompumelelo Mkwanazi
Date 05-06-2025
Country South Africa
Language English
Publisher(s) Nompumelelo Mkwanazi
Filename RD05-02 ACDIS HIV 2005.pdf
