

South Africa - AHRI.Surveillance Episodes Basic

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Visit our data catalog at: <https://data.ahri.org/index.php>

Identification

SURVEY ID NUMBER

AHRI.Surveillance.Episodes.Basic

TITLE

AHRI.Surveillance Episodes Basic

COUNTRY

Name	Country code
South Africa	ZA

ABSTRACT

Africa Health Research Institute (AHRI) is a multidisciplinary, independent research institute. AHRI's goal is to become a source of fundamental discoveries into the susceptibility, transmission and cure of HIV, TB and related diseases. We also seek ways to improve diagnosis, prevention and treatment. To achieve this, we bring together leading researchers from different fields, use cutting edge science to improve people's health, and help to train the next generation of African scientists.

AHRI has conducted individual and household demographic surveillance since 2000. Demographic surveillance data are processed for longitudinal analyses by organizing the demographic surveillance data into individual and household residency episodes at a geographical physical location, and individual membership episodes within a household. Start events of residency and memberships include enumeration, birth, in-migration and relocating into a household from within the study population. Exit events of residency and memberships include death (by cause), out-migration and relocating to another location in the study population. AHRI annually produces a suite of Individual Demographic surveillance datasets which contains detailed records of all individuals under surveillance since January 2000. The datasets detail individual residency and membership patterns, household mortality (including cause of death), fertility, migration, HIV status, health care utilization, and household socio-economic profile.

Each record in the dataset represents a period of observation for an individual during which all the recorded characteristics of the individual stay constant. For example, on the birthday of the individual a new episode will start, because the age of the individual has changed. An out-migration will result in a new episode, because the location or residential status has changed. Any change in one of the status values, such as education, marital status, social-economic status and HIV will likewise result in a new episode on the date of the change.

The following are the versions of the Demographic surveillance datasets:

CoresidencyEpisodes
 EducationCleaned
 EducationStatuses
 HIVStatusEpisodes
 HouseholdAssets
 HouseholdMap
 HouseholdObservations
 HouseholdSocioEconomicStatus
 HouseholdStatusEpisodes
 IndividualHSEEpisodes
 IndividualMap
 LabourEpisodes
 LabourStatuses
 LocationMap
 MaritalStatuses
 PartnerEpisodes
 SurveillanceEpisodesBasic
 SurveillanceEpisodesYTAge
 SurveillanceEpisodes YrAge_Coresidency
 SurveillanceEpisodesYrAge_HIV
 SurveillanceEpisodes VrAge_HSE
 SurveillanceEpisodes YrAge_Labour

SurveillanceEpisodesYrAge_Partners
 SurveillanceEpisodesYrAgeDel
 SurveillanceEpisodes VrAgeDel_HSE
 SurveillanceEpisodesYrAgeDeL_HSE_Labour
 SurveillanceEpisodesYrAgeDeL_HSE_Labour_Partner_Parents
 SurveillanceEpisodes VrAgeDel_HSE_Labour_Partner_Parents_HIV
 SurveillanceEpisodesYrAgeDeL_HSE_Labour_Partners

KIND OF DATA

Event History Data

UNIT OF ANALYSIS

Episodes of exposure

Version

VERSION DESCRIPTION

v2.0.0

Scope

TOPICS

Topic	Vocabulary	URI
Surveillance Episodes Basic	Africa Health Research Institute	www.ahri.org

KEYWORDS

Keyword	Vocabulary	URI
Fertility, Mortality, Migration, Social-economic status, HIV, ART	Africa Health Research Institute	www.ahri.org

Coverage

GEOGRAPHIC COVERAGE

AHRI is situated in the south-east portion of the uMkhanyakude district of KwaZulu-Natal province near the town of Mtubatuba. It is bounded on the west by the Umfolozi-Hluhluwe nature reserve, on the south by the Umfolozi river, on the east by the N2 highway (except form portions where the KwaMsane township strangles the highway) and in the north by the provincial road R22. The surveillance area is approximately 845km² in size.

UNIVERSE

Households resident in dwellings within the study area are eligible for inclusion in the household component of AHRI Demographic Surveillance. All individuals identified by the household proxy informant as members of the households are enumerated. A resident household member is an individual that intends to sleep majority of time at the dwelling occupied by the household over a four-month period. Households include resident and non-resident members. An individual is a non-resident member if they have close ties to the household, but do not physically reside with the household at the dwelling most of the time. Non-resident members can also be called temporary migrants and they are enumerated within the household list. Because household membership is not tied to physical residency, an individual may be a member of more than one household.

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Dr Kobus Herbst	AHRI, SAPRIN

Dr Guy Harling	AHRI
Dr Mark Siedner	AHRI
Prof Willem Hanekom	AHRI

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
Wellcome Trust	WT	Core funding
SAPRIN	SAPRIN	

OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Name	Affiliation	Role
AHRI Research Data Management Team	AHRI	Research Data Management
AHRI Data Collection Team	AHRI	Data Collection
AHRI Community Engagement Team	AHRI	Community Engagement

Sampling

SAMPLING PROCEDURE

This dataset is not based on a sample but contains information from the complete demographic surveillance areas.

Data collection

DATES OF DATA COLLECTION

Start	End
2000-01-01	2024-12-31

Data Processing

DATA EDITING

Data collected in this study was centrally stored on AHRI's secure database servers. Data was collected through interviews at the call centre on central server using Survey Solutions, and in the field on paper and encrypted tablet computers using REDCap, and then securely uploaded to a central server. Database rules and constraints were enforced on the master database to ensure that only valid data was stored. Personally identifiable data was restricted to separate database tables accessible only to data management staff .

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.

<https://github.com/SAPRIN-MRC/SaprinEpisodes.jl.git>

CITATION REQUIREMENTS

Herbst, K., Harling, G., Siedner, M., & Hanekom, W. (2026). AHRI.Surveillance Episodes Basic [Data set]. Africa Health Research Institute.

DOI: <https://doi.org/10.23664/AHRI.SURVEILLANCE.EPISODES.BASIC>

Metadata production

DDI DOCUMENT ID

DDI.AHRI.Surveillance.Episodes.Basic

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

Data Dictionary

Data file	Cases	Variables
SurveillanceEpisodesBasic	592430	34

Data file: SurveillanceEpisodesBasic

Cases: 592430

Variables: 34

Variables

ID	Name	Label	Question
V338	IndividualId	Unique individual identifier	
V339	Sex	Sex of individual	
V340	DoB	Date of birth	
V341	DoD	Date of death	
V342	MotherId	Mother's IndividualId	
V343	FatherId	Father's IndividualId	
V344	LocationId	Where individual was resident, household residence if non-resident	
V345	HouseholdId	Unique household identifier of the household the individual is a member of	
V346	HHRelationshipTypeId	Relationship to head of household	
V347	Resident	Whether individual is resident for duration of episode	
V348	Episode	This episode number (first=1, last=Episodes)	
V349	Episodes	Total number of episodes for individual	
V350	StartDate	Start date of episode (inclusive)	
V351	EndDate	End date of episode (inclusive)	
V352	Days	Duration in days of episode	
V353	Born	Episode starts with the birth of the individual	
V354	Enumeration	Episode starts with an enumeration	
V355	InMigration	Episode starts with an in-migration	
V356	LocationEntry	Episode starts with an internal migration	
V357	ExtResStart	Flag to indicate start of external residence	
V358	Participation	Resumed participation after refusal	
V359	Died	Episode ends with the death of the individual	
V360	OutMigration	Episode ends with the out-migration	
V361	LocationExit	Episode ends with an internal migration	
V362	ExtResEnd	Flag to indicate end of external residence	
V363	Refusal	Individual refused follow-up	
V364	LostToFollowUp	Individual was lost to follow-up at the end of the episode	
V365	Current	Individual still under surveillance	
V366	HHRelationship	Relationship to head of household changed during this episode	
V367	MembershipStart	Flag to indicate start of household membership	
V368	MembershipEnd	Flag to indicate end of household membership	
V369	GapStart	Start of a gap in individual exposure record	
V370	GapEnd	End of gap in individual exposure record	
V371	Memberships	Number of concurrent household memberships	

Total: 34

INDIVIDUALID: Unique individual identifier**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 592430 Invalid: 0 Minimum: 1 Maximum: 263153 Mean: 120551.372 Standard deviation: 77495.521

Type: Continuous Decimal: 0 Width: 9 Range: 1 - 263153 Format: Numeric

SEX: Sex of individual**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 592430 Invalid: 0

Type: Discrete Decimal: 0 Width: 9 Range: 0 - 3 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
0		9	0%
1	Male	277273	46.8%
2	Female	315148	53.2%
3	Unknown	0	0%

DOB: Date of birth**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 592429 Minimum: 1793-01-01 Maximum: 2024-12-31

Type: Discrete Width: 11 Range: - Format: character

DOD: Date of death**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 52658 Minimum: 2000-01-01 Maximum: 2025-10-03

Type: Discrete Width: 11 Range: - Format: character

MOTHERID: Mother's IndividualId**Data file: SurveillanceEpisodesBasic**

Overview

Valid: 402627 Invalid: 189803 Minimum: 8 Maximum: 263150 Mean: 155358.748 Standard deviation: 66458.835
 Type: Continuous Decimal: 0 Width: 9 Range: 8 - 263150 Format: Numeric

FATHERID: Father's IndividualId

Data file: SurveillanceEpisodesBasic

Overview

Valid: 207850 Invalid: 384580 Minimum: 49 Maximum: 263146 Mean: 163154.15 Standard deviation: 60487.701
 Type: Continuous Decimal: 0 Width: 9 Range: 49 - 263146 Format: Numeric

LOCATIONID: Where individual was resident, household residence if non-resident

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0 Minimum: 0 Maximum: 37292 Mean: 18418.826 Standard deviation: 10750.662
 Type: Continuous Decimal: 0 Width: 9 Range: 0 - 37292 Format: Numeric

HOUSEHOLDID: Unique household identifier of the household the individual is a member of

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0 Minimum: 1 Maximum: 41014 Mean: 20439.449 Standard deviation: 11795.578
 Type: Continuous Decimal: 0 Width: 9 Range: 1 - 41014 Format: Numeric

HHRELATIONSHIPTYPEID: Relationship to head of household

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 22 Range: 1 - 12 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Head	59236	10%
2	Spouse	23643	4%
3	Child	190038	32.1%
4	Son/Daughter-inlaw	2707	0.5%

5	Grandchild	133656	22.6%
6	Parent	3307	0.6%
7	Parent-inlaw	192	0%
8	Grandparent	871	0.1%
9	Sibling	107282	18.1%
10	Other relative	4112	0.7%
11	Domestic worker/tenant	40978	6.9%
12	Unrelated/Other	26408	4.5%

RESIDENT: Whether individual is resident for duration of episode

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	215949	36.5%
1	Yes	376481	63.5%

EPISODE: This episode number (first=1, last=Episodes)

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 9 Range: 1 - 21 Format: Numeric

EPISODES: Total number of episodes for individual

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 9 Range: 1 - 21 Format: Numeric

STARTDATE: Start date of episode (inclusive)**Data file:** SurveillanceEpisodesBasic**Overview**

Valid: 592430 Minimum: 2000-01-01 Maximum: 2024-12-31
 Type: Discrete Width: 11 Range: - Format: character

ENDDATE: End date of episode (inclusive)**Data file:** SurveillanceEpisodesBasic**Overview**

Valid: 592430 Minimum: 2000-01-01 Maximum: 2024-12-31
 Type: Discrete Width: 11 Range: - Format: character

DAYS: Duration in days of episode**Data file:** SurveillanceEpisodesBasic**Overview**

Valid: 592430 Invalid: 0 Minimum: 1 Maximum: 9132 Mean: 1748.351 Standard deviation: 1857.291
 Type: Continuous Decimal: 0 Width: 9 Range: 1 - 9132 Format: Numeric

BORN: Episode starts with the birth of the individual**Data file:** SurveillanceEpisodesBasic**Overview**

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	542974	91.7%
1	Yes	49456	8.3%

ENUMERATION: Episode starts with an enumeration**Data file:** SurveillanceEpisodesBasic**Overview**

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	453643	76.6%
1	Yes	138787	23.4%

INMIGRATION: Episode starts with an in-migration

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	434744	73.4%
1	Yes	157686	26.6%

LOCATIONENTRY: Episode starts with an internal migration

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	539516	91.1%
1	Yes	52914	8.9%

EXTRESSTART: Flag to indicate start of external residence**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	416346	70.3%
1	Yes	176084	29.7%

PARTICIPATION: Resumed participation after refusal**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	592430	100%
1	Yes	0	0%

DIED: Episode ends with the death of the individual**Data file: SurveillanceEpisodesBasic****Overview**

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%

0	No	564726	95.3%
1	Yes	27704	4.7%

OUTMIGRATION: Episode ends with the out-migration

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	368608	62.2%
1	Yes	223822	37.8%

LOCATIONEXIT: Episode ends with an internal migration

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	539516	91.1%
1	Yes	52914	8.9%

EXTRESEND: Flag to indicate end of external residence

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	499129	84.3%
1	Yes	93301	15.7%

REFUSAL: Individual refused follow-up

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	589714	99.5%
1	Yes	2716	0.5%

LOSTTOFOLLOWUP: Individual was lost to follow-up at the end of the episode

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: 0 - 1 Format: Numeric

CURRENT: Individual still under surveillance

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	433226	73.1%
1	Yes	159204	26.9%

HHRELATIONSHIP: Relationship to head of household changed during this episode

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	526437	88.9%
1	Yes	65993	11.1%

MEMBERSHIPSTART: Flag to indicate start of household membership

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0
 Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	247191	41.7%
1	Yes	345239	58.3%

MEMBERSHIPEND: Flag to indicate end of household membership

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0

Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	247191	41.7%
1	Yes	345239	58.3%

GAPSTART: Start of a gap in individual exposure record

Data file: SurveillanceEpisodesBasic

OverviewValid: 592430 Invalid: 0
Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric**Questions and instructions**

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	577598	97.5%
1	Yes	14832	2.5%

GAPEND: End of gap in individual exposure record

Data file: SurveillanceEpisodesBasic

OverviewValid: 592430 Invalid: 0
Type: Discrete Decimal: 0 Width: 15 Range: -1 - 1 Format: Numeric**Questions and instructions**

CATEGORIES

Value	Category	Cases	
-1	Unknown/Missing	0	0%
0	No	577598	97.5%
1	Yes	14832	2.5%

MEMBERSHIPS: Number of concurrent household memberships

Data file: SurveillanceEpisodesBasic

Overview

Valid: 592430 Invalid: 0 Minimum: 1 Maximum: 28 Mean: 1.177 Standard deviation: 0.422
Type: Continuous Decimal: 0 Width: 9 Range: 1 - 28 Format: Numeric

Download related resources

Technical documents

DDI:Surveillance Episodes Basic

Title	DDI:Surveillance Episodes Basic
Author(s)	Nompumelelo Mkwanazi
Date	2026-02-19
Country	South Africa
Language	English
Publisher(s)	Nompumelelo Mkwanazi
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