

# South Africa - SAPRIN Individual Surveillance Episodes 2020: Basic Dataset

**Prof Mark Collinson - SAPRIN**  
**Dr Kobus Herbst - SAPRIN**  
**Prof Steve Tollman - Agincourt**  
**Dr Eric Maimela - DIMAMO**  
**Prof Willem Hanekom - AHRI**

Report generated on: June 1, 2020

Visit our data catalog at: <http://saprindata.samrc.ac.za/index.php>

## Overview

### Identification

---

ID NUMBER  
SAPRIN.SISEBD2020V1

### Version

---

VERSION DESCRIPTION  
v1: Dataset for public distribution.

PRODUCTION DATE  
2020-06-01

NOTES  
v1: Dataset for public distribution.

## Overview

---

### ABSTRACT

The 'South African Population Research Infrastructure Network' (SAPRIN) is a national research infrastructure funded through the Department of Science and Innovation and hosted by the South African Medical Research Council. One of SAPRIN's initial goals has been to harmonise and share the longitudinal data from the three current Health and Demographic Surveillance System (HDSS) Nodes. These long-standing nodes are the MRC/Wits University Agincourt HDSS in Bushbuckridge District, Mpumalanga, established in 1993, with a population of 113 113 people; the University of Limpopo DIMAMO HDSS in the Capricorn District of Limpopo, established in 1996, with a current population of 38 479; and the Africa Health Research Institute (AHRI) HDSS in uMkhanyakude District, KwaZulu-Natal, established in 2000, with a current population of 139 250.

For an individual to be eligible for inclusion in the surveillance, the individual must be a member of a household resident within the geographic boundaries of a SAPRIN node. For a household to be resident, it must have at least one household member who is resident within the surveillance area. Households and household membership are self-defined by the household informant interviewed by the fieldworker at their place of residence (or during a telephonic interview with the household informant). Household members so identified could be resident, that is sleep the majority of nights at this household's place of residence, or could be resident elsewhere (usually outside the surveillance area, but potentially within the surveillance area, in which case they will be a resident household member of the household resident at that place - In this dataset, individuals are members of a single household at a time, and in this example, the non-resident member of the household who is resident elsewhere in the surveillance area, will be reflected in the dataset as a resident member of the household this individual is co-resident with and not also as a non-resident member of this household). The resident status of household members can change: they can move out of the surveillance area to be resident elsewhere, but still be considered household members (so-called 'temporary migration'), such cases are reflected in the data as episodes of external residence; or temporary migrants can return to take up residence again with the household, initiating a new episode of residence internal to the surveillance area.

In addition to these periods of internal and external residence punctuated by in- and outmigration, surveillance episodes can be started by the birth of an individual, if the child is born to a resident mother, their birth starts a period of internal residency for the child; if the child is born to a mother who is a temporary migrant (externally resident) and the child is considered to be a member of the household, a period of external residency ensues for the child. Residency episodes (whether internal or external) are of course terminated by the death of the individual, if that happens whilst the individual is under surveillance.

All SAPRIN nodes conducted a baseline household census at their beginning and all individuals enrolled at this point start their surveillance episode with enumeration. However, nodes may extend their area of surveillance at certain points after the initial household census, by doing another baseline census in these new areas, and all individuals enrolled then, also start their surveillance episodes with enumeration. For integrity in the longitudinal surveillance of individuals, the identity of newly encountered individuals is checked against the database and merged with prior records if the individual is already in

the database. In the case of newly incorporated areas into the surveillance area, it is entirely possible to find individuals that have previously out-migrated from the surveillance area to reside in this new area, in such cases an individual will have more than one surveillance episode that starts with enumeration, their enumeration in the original baseline census as well as their enumeration in the newly extended surveillance area.

This dataset represents a snapshot of the continually evolving data in the underlying longitudinal databases maintained by the SAPRIN nodes. In these databases the rightmost extent of the individual's surveillance episode is indicated by the data collection date of the last time the individual's membership of a household under surveillance has been confirmed. Each dataset has a right censor date (31 December 2017 for the current version of the dataset) and individual surveillance episodes are terminated at that point if the individual is still under surveillance beyond the cut-off date.

Each individual surveillance episode is associated with a physical location, for internal residency episodes it is the actual place of residence of the individual, for external residence episodes (periods of temporary migration) it is the place of residence of the individual's household. If an individual change their place of residency from one location within the surveillance area to another location still within the surveillance area, the episode at the original location is terminated with a location exit event, and a new episode starts with a location entry event at the destination location. It is also possible for the household the individual is a member of, to change their place of residency in the surveillance area, whilst the individual is externally resident (is a temporary migrant), in which case the individual's external resident episode will also be split with a location exit-entry pair of events.

At every household visit written consent is obtained from the household respondent for continued participation in the surveillance and such consent can be withdrawn. When this happens all household members' surveillance episodes are terminated with a refusal event. It is possible for households to again provide consent to participate in the surveillance after some time, in such cases surveillance events are restarted with a permission event.

As mentioned previously, surveillance episodes are continually extended by the last data collection event if the individual remains under surveillance. In certain cases, individuals may be lost to follow-up and surveillance episodes where the date of last data collection is more than one year prior to the right censor data are terminated as lost to follow up at that last data collection date. Individuals with data collection dates within a year of the right censor date is considered still to be under surveillance up to this last data collection date.

Each surveillance episode contains the identifier of the household the individual is a member of during that episode. Under relatively rare circumstances it is possible for an individual to change household membership whilst still resident at the same location, or to change membership whilst externally resident, in these cases the surveillance episode will be split with a pair of membership end and membership start events. More commonly membership start and end events coincide with location exit and entry events or in- and out-migration events. Memberships also obviously start at birth or enumeration and end at death, refusal to participate or lost to follow-up.

In about half of the cases, individuals have a single episode from first enumeration, birth or in-migration, to their eventual death, out-migration or currently still under surveillance. In the remaining cases, individuals transition from internal residency to external residency via out-migration, or from one location to another via internal migration with a location exit and entry event, or some other rarer form of transition involving membership change, refusal or lost to follow-up. Usually these series of surveillance episodes are continuous in time, with no gaps between episodes, but gaps can form, e.g. when an individual out-migrates and end membership with the household and so is no longer under surveillance, only to return via in-migration at some future date and take up membership with same or different household.

The SAPRIN Individual Surveillance Episodes 2020 Datasets consists of three types of the Demographic surveillance datasets:

1.SAPRIN Individual Surveillance Episodes 2020: Basic Dataset. This dataset contains only the internal and external residency episodes for an individual.

2.SAPRIN Individual Surveillance Episodes 2020: Age-Year-Delivery Dataset. This dataset splits the basic surveillance episodes at calendar year end and at the date when the age in years (birth-day) of an individual changes. In the case of women who have given births, episodes are split at the time of delivery as well.

3.SAPRIN Individual Surveillance Episodes 2020: Detailed Dataset. This dataset adds to the dataset 2 time-varying attributes such as education, employment, marital status and socio-economic status.

#### KIND OF DATA

Event history data

UNITS OF ANALYSIS  
Exposure Episodes

## Scope

### NOTES

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 or marital status, will likewise result in a new episode on the date of the change.

### TOPICS

Topic	Vocabulary	URI
Fertility, Mortality, Migration		

### KEYWORDS

Fertility, Mortality, Migration

## Coverage

### GEOGRAPHIC COVERAGE

The South African Population Research Infrastructure Network (SAPRIN) currently represents a network of three Health and Demographic Surveillance System (HDSS) nodes located in rural South Africa, namely:

- 1) MRC/Wits University Agincourt HDSS in Bushbuckridge District, Mpumalanga, which has collected data since 1993. The nodal website is: <http://www.agincourt.co.za>;
- 2) the University of Limpopo DIMAMO HDSS in the Capricorn District of Limpopo, which has collected data since 1996. The nodal website is: N/A;
- 3) and the Africa Health Research Institute (AHRI) HDSS in uMkhanyakude District, KwaZulu-Natal, which has collected data since 2000. The nodal website is: <http://www.ahri.org>.

The Agincourt HDSS covers a surveillance area of approximately 420 square kilometres and is located in the Bushbuckridge District, Mpumalanga in the rural northeast of South Africa close to the Mozambique border. At baseline in 1992, 57 600 people were recorded in 8900 households in 20 villages; by 2006, the population had increased to about 70 000 people in 11 700 households. As of December 2017, there were 113 113 people under surveillance of whom 28% were not resident within the surveillance area, with a total of about 2m person years of observation. 33% of the population is under 15 years old. The population is almost exclusively Shangaan-speaking. The Agincourt HDSS has population density of over 200 persons per square kilometre. The Agincourt HDSS extends between latitudes 24° 50' and 24° 56' S and longitudes 31°08' and 31° 25' E. The altitude is about 400-600m above sea level.

DIMAMO is located in the Capricorn district, Limpopo Province approximately 40 kilometres from Polokwane, the capital city of Limpopo Province and 15-50 kilometres from the University of Limpopo. The site covers an area of approximately 400 square kilometres. The initial total population observed was about 8 000 but the field site was expanded in 2010. As of December 2017, there were 38 479 people under surveillance, of whom 22% were not resident within the surveillance area, with about 400,000 person years of observation. 30% of the population is under 15 years old. The population is predominantly Sotho speaking. Most households have electricity. Some households have piped water either inside the house or in their yards, but most fetch water from taps situated at strategic points in the villages. Most households have a pit latrine in their yards. The area lies between latitudes and 23°65' and 23°90' S and longitudes 29°65' and 29°85' E. The HDSS is located on a high plateau area (approximately 1250 m above sea level) where communities typically consist of households clustered in villages, with access to local land for small-scale food production.

Africa Health Research Institute (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 for portions where the Kwamsane township straddles the highway) and in the north by the Inyalazi river for portions of the boundary. The surveillance area is approximately 850 square

kilometres. As of December 2017, there were 139 250 people under surveillance of whom 28% were not resident within the surveillance area, with about 1.7m person years of observation. 32% of the population is under 15 years old. The population is almost exclusively Zulu-speaking. The surveillance area is typical of many rural areas of South Africa in that while predominantly rural, it contains an urban township and informal peri-urban settlements. The area is characterized by large variations in population densities (20-3000 people per square kilometre). The area lies between latitudes -28°24' and 28°20'N and longitudes 32°10' and 31°58'E.

#### UNIVERSE

Households resident in dwellings within the study area will be eligible for inclusion in the household component of SAPRIN. All individuals identified by the household proxy informant as a member of the household will be enumerated. A resident household member is an individual that intends to sleep the majority of time at the dwelling occupied by the household over a four-month period. Households will 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 most of the time. They 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 INVESTIGATOR(S)

Name	Affiliation
Prof Mark Collinson	SAPRIN
Dr Kobus Herbst	SAPRIN
Prof Steve Tollman	Agincourt
Dr Eric Maimela	DIMAMO
Prof Willem Hanekom	AHRI

#### OTHER PRODUCER(S)

Name	Affiliation	Role
Taurayi Mudzana	SAPRIN	Technical Assistance
Tinofa Mutevedzi	SAPRIN	Technical Assistance
Chodziwadziwa Kabudula	Agincourt	Technical Assistance
Joseph Tlouyamma	DIMAMO	Technical Assistance
Dickman Gareta	AHRI	Technical Assistance

#### FUNDING

Name	Abbreviation	Role
Department of Science and Innovation	DSI	Current Funder

#### OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Agincourt Data Team	Agincourt	Providing Data
DIMAMO Data Team	DIMAMO	Providing Data
AHRI Data Team	AHRI	Providing Data
Steve Tollman	Agincourt	
Eric Maimela	DIMAMO	
Willem Hanekom	AHRI	

Name	Affiliation	Role
Centre for High Performance Computing	Centre for High Performance Computing	Providing IT Infrastructure for Data Processing

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Kobus Herbst	KH	SAPRIN	Documentation of Study and Review of the metadata
Taurayi Mudzana	TAU	SAPRIN	Documentation of Study and Review of the metadata
Tinofa Mutevedzi	TM	SAPRIN	Documentation of Study and Review of the metadata
Mark Collinson	MC	SAPRIN	Documentation of Study and Review of the metadata

### DATE OF METADATA PRODUCTION

2020-06-01

### DDI DOCUMENT VERSION

Version 1 (June 2020)

### DDI DOCUMENT ID

DDI.SAPRIN.SISEBD2020V1

# Sampling

## **Sampling Procedure**

---

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

# Questionnaires

## Overview

---

The data on this Repository is not the result of a single questionnaire but is a result of harmonised data from three different sites longitudinally collected over more than twenty years using different questionnaires that varied over time and site.

## Data Collection

### Data Collection Dates

---

Start	End	Cycle
1993-01-01	2017-12-31	Agincourt
1996-01-01	2017-12-31	DIMAMO
2000-01-01	2017-12-31	AHRI

### Time Periods

---

Start	End	Cycle
1993-01-01		Agincourt
1996-01-01		DIMAMO
2000-01-01		AHRI

### Data Collection Notes

---

In all the HDSS nodes, data are collected from a household proxy respondent, preferably the head of household or any next available senior adult resident household member, after informed consent was obtained by trained fieldworkers. Respondents are informed of the purpose and confidentiality of the interview, their right to refuse participation or withdraw from the study, and that scientists would be given access to anonymised data to analyse and publish information. Informed consent was verbal in all HDSS nodes until 2016. Written informed consent started in 2017 in AHRI, and 2018 in DIMAMO and 2019 in Agincourt. Until 2016 for Agincourt and AHRI, and 2017 for DIMAMO, data collection was field-based 'paper and pen' personal interviews (PAPI), before changing to field-based computer-assisted personal interviews (CAPI). Since 2019, all SAPRIN HDSS nodes collect data in 3 annual rounds over a 45-week data collection schedule; one field-based CAPI round, sandwiched on either side by a Call-Centre-based computer assisted telephonic interview (CATI), to create 3 data points at an interval of approximately 4 months in each calendar year. In the past HDSS nodes had different data collection frequencies. AHRI data collection was 2 PAPI rounds per year from inception to 2011, changing to 3 PAPI rounds per year between 2012 and 2016, before becoming 1 PAPI round and 2 CATI rounds from 2017. Agincourt and DIMAMO have been collecting data once annually in a census-type format, over 4-5-month period until 2018.

### Questionnaires

---

The data on this Repository is not the result of a single questionnaire but is a result of harmonised data from three different sites longitudinally collected over more than twenty years using different questionnaires that varied over time and site.

# Data Processing

## Data Editing

---

The first step in the data preparation process is quality assurance. The SAPRIN Management hub team assess the data submitted to ensure it is in the correct format and falls within expected value ranges. Other potential issues checked include: missing data, incorrect data types, unexpected duplicate or orphan records. The SAPRIN Management hub assess this conversion by running both original operational database and the SAPRIN database created from the operational database through the iSHARE data quality assessment and indicator process. The data quality checking process is conducted using Pentaho Data Integration (PDI). PDI provides the Extract, Transform, and Load (ETL) capabilities that facilitates the process of capturing, cleansing, and storing data using a uniform and consistent format that is accessible and relevant to end users. The principle of the data quality checks is that if the data conversion conducted by the nodes was complete and accurate, there should be little or no difference in the data quality and demographic indicators between the base and SAPRIN versions of the nodal data. If the data submitted by the nodes meets the criteria for inclusion into the consolidated dataset the data moves to the second step of the data production process. However, if the data fail the inclusion checks, this could then lead to another iteration of data submission and quality control checks until SAPRIN Management hub is satisfied that they have high quality data. To produce this final standard dataset, the data is processed using PDI on the Centre for High Performance Computing cluster .

## Other Processing

---

All datasets have a digital fingerprint. This allows for the verification of the integrity of the dataset files. FCIV (File Checksum Integrity Verifier) is a utility from Microsoft that allows us to compute MD5 hash for each dataset.

```
82a9ee2ea044a7a2b459f0083188d6ea sisebd2020v1.dta  
d0417eb94e520ff66a22728f473a328b sisebd2020v1.csv
```

## Data Appraisal

### Estimates of Sampling Error

Not Applicable

### Other forms of Data Appraisal

Node	Metric	Table	QMetric	Illegal	Legal	Total	Metric
Agincourt	MicroDataCleaned	Starts	-	223 515	223 515		
DIMAMO	MicroDataCleaned	Starts	-	121 572	121 572		
AHRI	MicroDataCleaned	Starts	-	199 831	199 831		
Agincourt	MicroDataCleaned	Ends	-	223 287	223 287		
DIMAMO	MicroDataCleaned	Ends	-	121 572	121 572		
AHRI	MicroDataCleaned	Ends	-	199 831	199 831		
Agincourt	MicroDataCleaned	Sex Values	78 541	827 541	905		
DIMAMO	MicroDataCleaned	Sex Values	10 251	222 251	232		

# File Description

# Variable List

**SISEBD2020V1**

Content	SAPRIN Individual Surveillance Episodes 2020: Basic Dataset
Cases	886818
Variable(s)	33
Structure	Type: Keys: ()
Version	SISEBD2020V1
Producer	South African Population Research Infrastructure Network
Missing Data	

**Variables**

ID	Name	Label	Type	Format	Question
V181	Nodeld	Nodeld	discrete	numeric	
V182	IndividualId	IndividualId	contin	numeric	
V183	Sex	Sex	discrete	numeric	
V184	DoB	DoB	discrete	character	
V185	DoD	DoD	discrete	character	
V186	MotherId	MotherId	contin	numeric	
V187	FatherId	FatherId	contin	numeric	
V188	Episode	Episode	contin	numeric	
V189	Episodes	Episodes	contin	numeric	
V190	StartDate	StartDate	discrete	character	
V191	EndDate	EndDate	discrete	character	
V192	Days	Days	contin	numeric	
V193	LocationId	LocationId	contin	numeric	
V194	HouseholdId	HouseholdId	contin	numeric	
V195	Resident	Resident	discrete	numeric	
V196	Born	Born	discrete	numeric	
V197	Enumeration	Enumeration	discrete	numeric	
V198	InMigration	InMigration	discrete	numeric	
V199	LocationEntry	LocationEntry	discrete	numeric	
V200	ExtResStart	ExtResStart	discrete	numeric	
V201	Participation	Participation	discrete	numeric	
V202	Died	Died	discrete	numeric	
V203	OutMigration	OutMigration	discrete	numeric	
V204	LocationExit	LocationExit	discrete	numeric	
V205	ExtResEnd	ExtResEnd	discrete	numeric	
V206	Refusal	Refusal	discrete	numeric	
V207	LostToFollowUp	LostToFollowUp	discrete	numeric	

<b>ID</b>	<b>Name</b>	<b>Label</b>	<b>Type</b>	<b>Format</b>	<b>Question</b>
V208	Current	Current	discrete	numeric	
V209	MembershipStart	MembershipStart	discrete	numeric	
V210	MembershipEnd	MembershipEnd	discrete	numeric	
V211	Memberships	Memberships	discrete	numeric	
V212	GapStart	GapStart	discrete	numeric	
V213	GapEnd	GapEnd	discrete	numeric	



## NodeId (NodeId)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: 1-3	

### Description

SAPRIN Node Identifier  
 1=Agincourt;  
 2=DIMAMO;  
 3=AHRI

## IndividualId (IndividualId)

File: SISEBD2020V1

### Overview

Type: Continuous	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	Minimum: 1000001
Decimals: 0	Maximum: 3217149
Range: 1000001-3217149	Mean: 2237438.9
	Standard deviation: 949901.2

### Description

Unique anonymised individual identifier. Only unique within nodal dataset

## Sex (Sex)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: 0-3	

### Description

Sex of the individual.  
 0= Missing  
 1 = Male  
 2 = Female  
 3 = Unknown

## DoB (DoB)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

### Description

Date of birth.  
 Format yyyy-MM-dd in csv file  
 Date of Birth 1800-01-01 is unknown

## DoD (DoD)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 64268
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

### Description

Date of death  
Format yyyy-MM-dd in csv file

## MotherId (MotherId)

File: SISEBD2020V1

### Overview

Type: Continuous	Valid cases: 573221
Format: numeric	Invalid: 313597
Width: 12	Minimum: 1000003
Decimals: 0	Maximum: 3217143
Range: 1000003-3217143	Mean: 2255175.3
	Standard deviation: 946915.9

### Description

Mother's IndividualId  
0 = Unknown

## FatherId (FatherId)

File: SISEBD2020V1

### Overview

Type: Continuous	Valid cases: 277673
Format: numeric	Invalid: 609145
Width: 12	Minimum: 1000012
Decimals: 0	Maximum: 3217142
Range: 1000012-3217142	Mean: 2301391.8
	Standard deviation: 979295.8

### Description

Father's IndividualId  
0 = Unknown

## Episode (Episode)

File: SISEBD2020V1

### Overview

Type: Continuous	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	Minimum: 1
Decimals: 0	Maximum: 22
Range: 1-22	Mean: 1.9
	Standard deviation: 1.4

### Description

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

## Episodes (Episodes)

### File: SISEBD2020V1

#### Overview

Type: Continuous	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	Minimum: 1
Decimals: 0	Maximum: 22
Range: 1-22	Mean: 2.8
	Standard deviation: 2.1

#### Description

Total number of episodes for individual

## StartDate (StartDate)

### File: SISEBD2020V1

#### Overview

Type: Discrete	Valid cases: 886818
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

#### Description

Start date of episode (inclusive)  
Format yyyy-MM-dd in csv file

## EndDate (EndDate)

### File: SISEBD2020V1

#### Overview

Type: Discrete	Valid cases: 886818
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

#### Description

End date of episode (inclusive)  
Format yyyy-MM-dd in csv file

## Days (Days)

### File: SISEBD2020V1

#### Overview

Type: Continuous	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	Minimum: 1
Decimals: 0	Maximum: 13135
Range: 1-13135	Mean: 1731.9
	Standard deviation: 1844.8

#### Description

Duration in days of episode  
EndDate - StartDate + 1

## LocationId (LocationId)

### File: SISEBD2020V1

## LocationId (LocationId)

File: SISEBD2020V1

### Overview

Type: Continuous	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	Minimum: 1000001
Decimals: 0	Maximum: 3023818
Range: 1000001-3023818	Mean: 2146429.2
	Standard deviation: 947303.5

### Description

Where individual was resident, household residence if non-resident. For internal residency episodes it is the actual place of residence, for external residency episodes, it is the place of residence of the individual's household.

## HouseholdId (HouseholdId)

File: SISEBD2020V1

### Overview

Type: Continuous	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	Minimum: 1000001
Decimals: 0	Maximum: 3033048
Range: 1000001-3033048	Mean: 2149764.1
	Standard deviation: 948441.6

### Description

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

## Resident (Resident)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Whether individual is resident for duration of episode  
1 = Internal residence; 0 = External residence

## Born (Born)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode starts with the birth of the individual. Can start an internal or external residency episode depending on the residency status of the mother, if the mother is an internal resident, then the child is as well, if the mother is externally resident then child is as well. If the child becomes resident shortly after birth, then the child will be in-migrated and start a residency episode at that point.

## Enumeration (Enumeration)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode starts with an enumeration. Can start an internal or external residency episode depending on the usual place of residency of the individual.

## InMigration (InMigration)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode starts with an in-migration. Either as a new first episode for the individual; or following the end of an external residency; or after a gap in residency.

## LocationEntry (LocationEntry)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode starts with an internal migration. Individual changed residency from one location to another for internal residency episodes; for external residency episodes, the household the individual is a member of, changed residency from one location to another

## ExtResStart (ExtResStart)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

External residency start. Individual out-migrated, but retained membership in the household, in other words the start of a temporary migration episode. If this is the start of the first episode for the individual then the household reported a new household member that is currently externally resident.

## Participation (Participation)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Resume participation after refusal.  
The individual (or more specifically the individual's household) re-consented to participate after a previous refusal

## Died (Died)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode ends with the death of the individual

## OutMigration (OutMigration)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode ends with the out-migration.  
If the individual retains membership in a household under surveillance this will be followed by an episode of external residence (temporary migration), otherwise this may be the start of a gap in the surveillance episodes of the individual; or it may be the end of the last surveillance episode for the individual.

## LocationExit (LocationExit)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Episode ends with an internal migration. Individual changed residency from one location to another for internal residency episodes; for external residency episodes, the household the individual is a member of, changed residency from one location to another. LocationExit and LocationEntry always occurs in pairs.

## ExtResEnd (ExtResEnd)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

External residency end.  
Individual in-migrated after a period of external residency; or the individual is no longer a member of any household under surveillance.

## Refusal (Refusal)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Individual refused follow-up.  
The household the individual is a member of refused further participation in the surveillance.

## LostToFollowUp (LostToFollowUp)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Individual was lost to follow-up at the end of the episode.  
Individual was last reported on by the household respondent more than a year before the current right censor date.

## Current (Current)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Individual still under surveillance. Either last reported on by the household respondent after the right censor date, or within a year prior to the right censor date.

## MembershipStart (MembershipStart)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Flag to indicate start of household membership. This flag can be set in conjunction with other start flags, in which case it means that a new membership started at the same time. If none of the other entry flags are set it means that the individual changed household membership without changing residency status or place of residence.

## MembershipEnd (MembershipEnd)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Flag to indicate end of household membership. This flag can be set in conjunction with other end flags, in which case it means that the membership ended at the same time. If none of the other exit flags are set it means that the individual changed household membership without changing residency status or place of residence

## Memberships (Memberships)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: 1-10	

### Description

Number of concurrent household memberships at the start of the episode.

## GapStart (GapStart)

File: SISEBD2020V1

### Overview

Type: Discrete	Valid cases: 886818
Format: numeric	Invalid: 0
Width: 12	
Decimals: 0	
Range: -1-1	

### Description

Start of gap in individual exposure.

E.g. between out-migration without retaining any household membership and a subsequent in-migration taking up household membership and residency in the surveillance area again

# GapEnd (GapEnd)

## File: SISEBD2020V1

### Overview

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

Valid cases: 886818  
Invalid: 0

### Description

End of gap in individual exposure.  
GapStart and GapEnd flags always occur in conjunction with the other entry or exit flags.

