South Africa - The international epidemiological databases to evaluate AIDS (IeDEA) in sub-Saharan Africa-2023

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

Identification

SURVEY ID NUMBER
IeDEA.2004-2023

TITLE
The international epidemiological databases to evaluate AIDS (IeDEA) in sub-Saharan Africa-2023

COUNTRY

Name	Country code
South Africa	ZA

ABSTRACT
TIER.net <http://tier.net/> is an electronic patient management system that is used for monitoring and evaluation of HIV care and treatment programmes in government health facilities throughout South Africa. The system was designed as part of a 3-tier approach to implementing a full electronic medical records (EMR) system. This approach provides a flexible solution that allows facilities to transition towards EMR in stages, as their infrastructure improves, and resources become available. TIER.net <http://tier.net/> forms the second tier, whereby patient's paper clinical records are entered into a non-networked computer at the health facility and transferred periodically to a central database.

The TIER.net <http://tier.net/> database contains information on clinic visit attendance, laboratory results and ART dispensing records for all patients on ART. The system was implemented in uMkhanyakude district in 2013; patient records from all visits before 2013 were back captured into the system. AHRI has a memorandum of agreement with the Department of Health to receive the TIER.net <http://tier.net/> data for the 17 clinics in the Hlabisa health sub-district and Hlabisa hospital. A dedicated data entry clerk based in each clinic enters information from patients' paper clinical records into the TIER.net <http://tier.net/> system after each patient visit. Laboratory results are manually entered into TIER.net <http://tier.net/> after they have been received by the clinic (i.e. are not imported electronically from the National Health Laboratory Service (NHLS) system).
Currently, pre-ART visits are not recorded in TIER.net <http://tier.net/>, although modules to capture HIV testing and pre-ART care may be implemented in the future.

KIND OF DATA
Clinical Data

UNIT OF ANALYSIS
Individuals on ART at one of the 17 clinics from Hlabisa sub-district, uMkhanyakude district

Version

VERSION DESCRIPTION
v2.0.0

Scope

TOPICS

Topic	Vocabulary	URI
HIV, Epidemiology, KwaZulu-Natal, Antiretroviral therapy, Hlabisa, Population Cohort	Africa Health Research Institute	www.ahri.org

KEYWORDS

Keyword	Vocabulary	URI
HIV, Epidemiology, KwaZulu-Natal, Antiretroviral therapy, Hlabisa, Population Cohort	Africa Health Research Institute	www.ahri.org

Coverage

GEOGRAPHIC COVERAGE
Hlabisa sub-district, KwaZulu-Natal, South Africa

UNIVERSE
Individuals from Hlabisa sub-district, KwaZulu-Natal, South Africa

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
Africa Health Research Institute

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
Welcome Trust	WT	Funder
DSI-MRC South African Population Research Infrastructure Network	SAPRIN	Funder
South Africa Department of Health	DoH	Data Custodian

OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Name	Affiliation	Role
Dickman Gareta	AHRI	Research Data Management
Kathy Baisley	AHRI	Statistics
Eugene Prenzler	AHRI	IT infrastructure
Brendan Gilbert	AHRI	IT infrastructure

Sampling

SAMPLING PROCEDURE
All individuals accessing ART treatment and care in the 17 clinics in Hlabisa sub-district, KwaZulu-Natal, South Africa

Data Collection

DATES OF DATA COLLECTION

Start	End
2004-01-01	2023-02-27

Data Processing

DATA EDITING

Tier.Net 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.

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. (2023). The international epidemiological databases to evaluate AIDS (IeDEA) in sub-Saharan Africa-2023 [Data set]. Africa Health Research Institute. DOI:https://doi.org/10.23664/IEDEA.2004-2023

Metadata production

DDI DOCUMENT ID

DDI.IeDEA.2004-2023

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

Data Dictionary

Data file	Cases	Variables
tblART	3010492	7
tblBAS	211852	15
tblLAB_CD4	247439	5
tblLAB_RNA	353953	6
tblLTFU	211852	10
tblVIS	3011934	12

tblART	3010492	7
tblBAS	211852	15

Data file: tblART

Cases:	3010492
Variables:	7

Variables

ID	Name	Label	Question
V227	PATIENT		
V228	ART_SD_DMY		
V229	RegimenDuration		
V230	RegimenCode		
V231	ART_FORM		
V232	ART_COMB		
V233	ARTSTART_RS		

Total: 7

Data file: tblBAS

Cases:	211852
Variables:	15

Variables

ID	Name	Label	Question
V234	IsActive		
V235	PATIENT		
V236	PROGRAM		
V237	BIRTH_D		
V238	ENROL_D		
V239	SEX		
V240	MODE		
V241	Name		
V242	NAIVE_Y		
V243	PROPH_Y		
V244	RECART_Y		
V245	RECART_D		
V246	AIDS_Y		
V247	AIDS_D		
V248	HIV_POS_D		

Total: 15

Data file: tblLAB_CD4

Cases:	247439
Variables:	5

Variables

ID	Name	Label	Question
V249	PATIENT		
V250	CD4_D		
V251	CD4_D_A		
V252	CD4_V		
V253	CD4_U		

Total: 5

Data file: tblLAB_RNA

Cases:	353953
Variables:	6

Variables

ID	Name	Label	Question
V254	PATIENT		
V255	RNA_D		
V256	RNA_D_A		
V257	RNA_V		
V258	RNA_L		
V259	RNA_T		

Total: 6

Data file: tblLTFU

Cases:	211852
Variables:	10

Variables

ID	Name	Label	Question
V260	PATIENT		
V261	DROP_Y		
V262	DROP_D		
V263	DROP_D_A		
V264	DROP_RS		
V265	DEATH_Y		
V266	DEATH_D		
V267	DEATH_D_A		
V268	L_ALIVE_D		
V269	L_ALIVE_D_A		

Total: 10

Data file: tblVIS

Cases:	3011934
Variables:	12

Variables

ID	Name	Label	Question
V270	PATIENT		
V271	CENTER		
V272	VIS_D		
V273	VIS_D_A		
V274	WEIGH		
V275	HEIGH		
V276	CDC_STAGE		
V277	WHO_STAGE		
V278	SMOKING_Y		
V279	PREG_Y		
V280	NEXT_VISIT_D		
V281	NEXT_VISIT_D_A		

Total: 12

PATIENT:

Data file: tblART

Overview

Valid: 3010492   Invalid: 0
Type: Discrete   Width: 36   Range: -   Format: character

ART_SD_DMY:

Data file: tblART

Overview

Valid: 3010492   Minimum: 1959-12-29   Maximum: 2023-10-20
Type: Discrete   Width: 11   Range: -   Format: character

REGIMENDURATION:

Data file: tblART

Overview

Valid: 3010492   Invalid: 0   Minimum: -1403   Maximum: 12   Mean: 1.457   Standard deviation: 7.071
Type: Continuous   Decimal: 0   Width: 10   Range: -1403 - 12   Format: Numeric

REGIMENCODE:

Data file: tblART

Overview

Valid: 3010492   Invalid: 0
Type: Discrete   Width: 50   Range: -   Format: character

ART_FORM:

Data file: tblART

Overview

Valid: 3010492   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 1 - 1   Format: Numeric

ART_COMB:

Data file: tblART

Overview

Valid: 3010492   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 9 - 9   Format: Numeric

ARTSTART_RS:

Data file: tblART

Overview

Valid: 3010492   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 99 - 99   Format: Numeric

ISACTIVE:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 2   Range: 0 - 1   Format: Numeric

PATIENT:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Width: 36   Range: -   Format: character

PROGRAM:

Data file: tblBAS

Overview

Valid: 0   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

BIRTH_D:

Data file: tblBAS

Overview

Valid: 211852   Minimum: 1900-09-18   Maximum: 2023-09-04
Type: Discrete   Width: 11   Range: -   Format: character

ENROL_D:

Data file: tblBAS

Overview

Valid: 24966   Minimum: 2003-08-05   Maximum: 2023-09-13
Type: Discrete   Width: 11   Range: -   Format: character

SEX:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 1 - 2   Format: Numeric

MODE:

Data file: tblBAS

Overview

Valid: 0   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

NAME:

Data file: tblBAS

Overview

Valid: 91364
Type: Discrete   Width: 150   Range: -   Format: character

NAIVE_Y:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 9   Format: Numeric

PROPH_Y:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 9   Format: Numeric

RECART_Y:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 1   Format: Numeric

RECART_D:

Data file: tblBAS

Overview

Valid: 91350   Minimum: 1986-04-01   Maximum: 2023-09-14
Type: Discrete   Width: 11   Range: -   Format: character

AIDS_Y:

Data file: tblBAS

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 1   Format: Numeric

AIDS_D:

Data file: tblBAS

Overview

Valid: 77361   Invalid: 0
Type: Discrete   Width: 30   Range: -   Format: character

HIV_POS_D:

Data file: tblBAS

Overview

Valid: 5545   Minimum: 2002-08-05   Maximum: 2023-09-13
Type: Discrete   Width: 11   Range: -   Format: character

PATIENT:

Data file: tblLAB_CD4

Overview

Valid: 247439   Invalid: 0
Type: Discrete   Width: 36   Range: -   Format: character

CD4_D:

Data file: tblLAB_CD4

Overview

Valid: 247439   Minimum: 1969-08-19   Maximum: 2102-03-21
Type: Discrete   Width: 11   Range: -   Format: character

CD4_D_A:

Data file: tblLAB_CD4

Overview

Valid: 247439   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

CD4_V:

Data file: tblLAB_CD4

Overview

Valid: 247439   Invalid: 0   Minimum: 0   Maximum: 54000   Mean: 483.31   Standard deviation: 327.946
Type: Continuous   Decimal: 0   Width: 10   Range: 0 - 54000   Format: Numeric

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CD4_U:

Data file: tblLAB_CD4

Overview

Valid: 247439   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 1 - 2   Format: Numeric

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PATIENT:

Data file: tblLAB_RNA

Overview

Valid: 353953   Invalid: 0
Type: Discrete   Width: 36   Range: -   Format: character

RNA_D:

Data file: tblLAB_RNA

Overview

Valid: 353953   Minimum: 1985-09-09   Maximum: 2088-11-03
Type: Discrete   Width: 11   Range: -   Format: character

RNA_D_A:

Data file: tblLAB_RNA

Overview

Valid: 353953   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

RNA_V:

Data file: tblLAB_RNA

Overview

Valid: 353953   Invalid: 0   Minimum: 0   Maximum: 12100000   Mean: 14427.887   Standard deviation: 156247.754

Type: Continuous   Decimal: 0   Width: 12   Range: 0 - 12100000   Format: Numeric

RNA_L:

Data file: tblLAB_RNA

Overview

Valid: 0   Invalid: 353953
Type: Discrete   Decimal: 0   Width: 12   Range: -   Format: Numeric

RNA_T:

Data file: tblLAB_RNA

Overview

Valid: 353953   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

PATIENT:

Data file: tblLTFU

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Width: 36   Range: -   Format: character

DROP_Y:

Data file: tblLTFU

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 1   Format: Numeric

DROP_D:

Data file: tblLTFU

Overview

Valid: 25230   Invalid: 0
Type: Discrete   Width: 30   Range: -   Format: character

DROP_D_A:

Data file: tblLTFU

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

DROP_RS:

Data file: tblLTFU

Overview

Valid: 25230   Invalid: 186622
Type: Discrete   Decimal: 0   Width: 12   Range: 2 - 2   Format: Numeric

DEATH_Y:

Data file: tblLTFU

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 1   Format: Numeric

DEATH_D:

Data file: tblLTFU

Overview

Valid: 3605   Invalid: 0
Type: Discrete   Width: 30   Range: -   Format: character

DEATH_D_A:

Data file: tblLTFU

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

L_ALIVE_D:

Data file: tblLTFU

Overview

Valid: 91261   Minimum: 2001-01-01   Maximum: 2102-12-21
Type: Discrete   Width: 11   Range: -   Format: character

L_ALIVE_D_A:

Data file: tblLTFU

Overview

Valid: 211852   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

PATIENT:

Data file: tblVIS

Overview

Valid: 3011934   Invalid: 0
Type: Discrete   Width: 36   Range: -   Format: character

CENTER:

Data file: tblVIS

Overview

Valid: 0   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

VIS_D:

Data file: tblVIS

Overview

Valid: 3011934   Minimum: 1959-12-29   Maximum: 2023-10-20
Type: Discrete   Width: 11   Range: -   Format: character

VIS_D_A:

Data file: tblVIS

Overview

Valid: 3011934   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

WEIGH:

Data file: tblVIS

Overview

Valid: 1017   Invalid: 3010917   Minimum: 0   Maximum: 836   Mean: 55.419   Standard deviation: 47.67
Type: Continuous   Decimal: 0   Width: 10   Range: 0 - 836   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1001	..

HEIGH:

Data file: tblVIS

Overview

Valid: 164   Invalid: 3011770   Minimum: 0   Maximum: 176   Mean: 1.788   Standard deviation: 16.159
Type: Continuous   Decimal: 0   Width: 10   Range: 0 - 176   Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1001	..

CDC_STAGE:

Data file: tblVIS

Overview

Valid: 3011934   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 9 - 9   Format: Numeric

WHO_STAGE:

Data file: tblVIS

Overview

Valid: 3011934   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 9 - 9   Format: Numeric

SMOKING_Y:

Data file: tblVIS

Overview

Valid: 3011934   Invalid: 0
Type: Discrete   Decimal: 0   Width: 12   Range: 9 - 9   Format: Numeric

PREG_Y:

Data file: tblVIS

Overview

Valid: 1353940   Invalid: 1657994
Type: Discrete   Decimal: 0   Width: 12   Range: 0 - 9   Format: Numeric

NEXT_VISIT_D:

Data file: tblVIS

Overview

Valid: 2088422   Minimum: 1934-12-05   Maximum: 2106-08-12
Type: Discrete   Width: 11   Range: -   Format: character

NEXT_VISIT_D_A:

Data file: tblVIS

Overview

Valid: 3011934   Invalid: 0
Type: Discrete   Width: 1   Range: -   Format: character

Download related resources

Technical documents

Documentation:IeDEA DTF 20161105

Title	Documentation:IeDEA DTF 20161105
Author(s)	Sweetness H Dube
Date	08/11/2023
Country	South Africa
Language	English
Publisher(s)	Sweetness H Dube
Filename	IeDEA_DTF_20161105.pdf

DDI:IeDEA

Title	DDI:IeDEA
Author(s)	Sweetness H Dube
Date	14/11/2023
Country	South Africa
Language	English
Publisher(s)	Sweetness H Dube
Filename	IeDEA.2004-2023.pdf