

South Africa - AHRI:ASTRA – Strengthening community and health- system resilience to extreme weather events among vulnerable populations living with HIV and/or tuberculosis in Southern Africa

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Report generated on: September 9, 2026

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Identification

SURVEY ID NUMBER

AHRI.ASTRA.ART.Treatment.visit

TITLE

AHRI:ASTRA – Strengthening community and health-system resilience to extreme weather events among vulnerable populations living with HIV and/or tuberculosis in Southern Africa

COUNTRY

Name	Country code
South Africa	ZA

ABSTRACT

ASTRA is a multi-country research programme investigating how extreme weather events (EWEs) affect communities and health systems, particularly vulnerable populations living with HIV and/or tuberculosis. The study uses interdisciplinary and mixed-methods approaches to understand the impacts of EWEs on health, healthcare access and service delivery, and to identify feasible interventions that can strengthen community and health-system resilience.

The study is being conducted across Mozambique, South Africa and Zambia and includes community members, people living with HIV and/or tuberculosis, healthcare workers, policymakers, government officials and other relevant stakeholders.

Study Aim: The aim of ASTRA is to use co-designed interdisciplinary approaches to propose, prioritise and evaluate feasible interventions that strengthen community and health-system resilience to extreme weather events among vulnerable populations living with HIV and/or tuberculosis.

Specific Objectives:

To develop a system dynamics model to assess how extreme weather events affect HIV service delivery and continuity of care for people living with HIV.

KIND OF DATA

ART Treatment Clinic Visits

UNIT OF ANALYSIS

Individuals

Version

VERSION DESCRIPTION

v1.0.0

Scope

TOPICS

Topic	Vocabulary	URI
Extreme weather events; climate change; HIV; tuberculosis; health systems; healthcare access; healthcare service delivery; Southern Africa.	Africa Health Research Institute	www.ahri.org

KEYWORDS

Keyword	Vocabulary	URI
Extreme weather events (EWEs), climate change, HIV, tuberculosis, health systems, healthcare access, healthcare service delivery.	Africa Health Research Institute	www.ahri.org

Coverage

GEOGRAPHIC COVERAGE

Umkhanyakude district in rural KwaZulu-Natal

UNIVERSE

Individuals who receive anti-retroviral treatment in two primary health facilities in Umkhanyakude district, specifically KwaMsane Clinic and Somkhele Clinic).

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Jabulani Mcineka	Africa Health Research Institute
Njabulo Myeza	Africa Health Research Institute
Nompumelelo Mkwanazi	Africa Health Research Institute
Prof. Collins Iwuji	Africa Health Research Institute
Prof. Salome Charalambous	Group Chief Scientific Officer, The Aurum Institute

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
National Institute for Health and Care Research	NIHR	Funder

Data collection

DATES OF DATA COLLECTION

Start	End
2007-03-06	2025-08-20

Data Processing

DATA EDITING

Queried the data directly from the Tier.Net database, created a mapping file, anonymised the data, and converted the final dataset to a Stata (.dta) file for publication.

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

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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

Mcineka, J., Myeza, N., Mkwazazi, N., Iwuji, C., & Charalambous, S. (2026). AHRI:ASTRA – Strengthening community and health-system resilience to extreme weather events among vulnerable populations living with HIV and/or tuberculosis in Southern Africa [Dataset]. Africa Health Research Institute.

DOI: <https://doi.org/10.23664/AHRI.ASTRA.ART.TREATMENT.VISIT>

Metadata production

DDI DOCUMENT ID

AHRI.ASTRA.ART.Treatment.visit

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

Data Dictionary

Data file	Cases	Variables
AHRI.ASTRA_Dataset_2026.V1.0	454285	12

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Cases: 454285

Variables: 12

Variables

ID	Name	Label	Question
V13	FacilityID	Facility Name	
V14	SubClinicTypeID	SubClinicType	
V15	TBStatusID	TB Status	
V16	VisitPurposeID	Visit Purpose	
V17	VisitStatusID	Visit Status	
V18	IsRegimenDateEstimatedID	Regimen Date Estimated	
V19	LateForAppointmentID	Late For Appointment	
V20	MedicalExaminerID	Medical Examiner	
V21	IsCCMDDVisitID	CCMDD Visit	
V22	RegimenDate	Regimen Date	
V23	RegimenDuration	Regimen Duration	
V24	NextAppointmentDate	Next Appointment Date	

Total: 12

FACILITYID: Facility Name

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 454285 Invalid: 0
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	kz KwaMsane Clinic	303557	66.8%
2	kz Somkhele Clinic	150728	33.2%

SUBCLINICTYPEID: SubClinicType

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 46244 Invalid: 408041
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	ART	41801	90.4%
2	BOTH	4443	9.6%
Sysmiss		408041	

TBSTATUSID: TB Status

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 377867 Invalid: 76418
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 5 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Asymptomatic	367022	97.1%
2	On TB treatment at another facility	27	0%

3	On TB treatment at this facility	4826	1.3%
4	Screening Status Unknown	4767	1.3%
5	Symptomatic	1225	0.3%
Sysmiss		76418	

VISITPURPOSEID: Visit Purpose

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 453741 Invalid: 544
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 3 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	DIDNOTATTEND	72797	16%
2	REGIMENONE	372611	82.1%
3	REGIMENTWO	8333	1.8%
Sysmiss		544	

VISITSTATUSID: Visit Status

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 453743 Invalid: 542
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Attended	380946	84%
2	Missed	72797	16%
Sysmiss		542	

ISREGIMENDATEESTIMATEDID: Regimen Date Estimated

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 454285 Invalid: 0
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	TRUE	0	0%
2	FALSE	454285	100%

LATEFORAPPOINTMENTID: Late For Appointment

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 0 Invalid: 454285
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category
1	TRUE
2	FALSE
Sysmiss	

MEDICALEXAMINERID: Medical Examiner

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 380923 Invalid: 73362
Type: Discrete Decimal: 0 Width: 12 Range: 1 - 4 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Club Facilitator	313	0.1%
2	Doctor	3686	1%
3	Nurse	376702	98.9%
4	Unknown	222	0.1%

Sysmiss		73362	
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ISCCMDDVISITID: CCMDD Visit

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 454250 Invalid: 35
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 2 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	TRUE	15450	3.4%
2	FALSE	438800	96.6%
Sysmiss		35	

REGIMENDATE: Regimen Date

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 454285 Minimum: 2016-01-01 Maximum: 2024-12-31
 Type: Discrete Width: 11 Range: - Format: character

REGIMENDURATION: Regimen Duration

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 454285 Invalid: 0
 Type: Discrete Decimal: 0 Width: 12 Range: 0 - 12 Format: Numeric

NEXTAPPOINTMENTDATE: Next Appointment Date

Data file: AHRI.ASTRA_Dataset_2026.V1.0

Overview

Valid: 375930 Minimum: 2007-03-06 Maximum: 2025-08-20
 Type: Discrete Width: 11 Range: - Format: character

Download related resources

Other materials

DDI:ASTRA_ART_Treatment_Visit

Title DDI:ASTRA_ART_Treatment_Visit
Filename ASTRA_ART_Treatment_Visit.pdf
