

South Africa - AHRI:Sesikhona! (we are here) Sexual Behaviour

Nompumelelo Mkwazi

Report generated on: December 4, 2025

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Identification

SURVEY ID NUMBER

AHRI.Sesikhona.SexualBehaviour.Survey

TITLE

AHRI:Sesikhona! (we are here) Sexual Behaviour

COUNTRY

Name	Country code
South Africa	ZA

ABSTRACT

The Sesikhona study is the first of its kind study using smartphone-based GPS technology to record ultra-high resolution mobility patterns of over 200 young adults aged 20-30 years in rural KwaZulu Natal. The study seeks to identify distinct movement typologies within this highly mobile, HIV hyper-endemic population and to quantify travel in and out of known high-risk locations, with the long-term goal of developing a location-intelligent smartphone intervention that delivers real-time, precision messaging to individuals at heightened risk of HIV acquisition, transmission or treatment interruption. Conducted in three phases between 2021 and 2025, the study used the Avicenna Research Platform to collect GPS and survey data. Between 2023 and 2025, consenting individuals self-completed monthly sexual behavior surveys to understand the associations between mobility patterns and engagement in sexual risky behavior.

KIND OF DATA

Survey data

UNIT OF ANALYSIS

Young adults aged 20-30 years old

Version

VERSION DESCRIPTION

v1.0.0

Scope

TOPICS

Topic	Vocabulary	URI
GPS technology, smartphone-based GPS, human mobility, young adults, HIV, mobile health, digital technology, sexual health, sexual behavior	Africa Health Research Institute	www.ahri.org

KEYWORDS

Keyword	Vocabulary	URI
Human mobility, HIV, GPS technology, digital technology, sexual behaviour	Africa Health Research Institute	www.ahri.org

Coverage

GEOGRAPHIC COVERAGE

Residents from uMkhanyakude in KwaZulu Natal but move anywhere in South Africa

UNIVERSE

A random sample of adults aged 20-30 years old who were residents in Southern PIPSA, participated in the 2019 HIV surveillance and consented to participate in Sesikhona study and opted in for the sexual behavior surveys

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Prof. Frank Tanser(Principal Investigator)	Africa Health Research Institute/ Stellenbosch University
Prof Adrian Dobra	University of Washington
Prof Till Barnighausen	Africa Health Research Institute/Medical Faculty and University Hospital, Heidelberg University, Heidelberg Institute of Global Health, Heidelberg, Germany

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
National Institute of Health	NIH	Funder
German Science Foundation	DFG	Funder
Academy of Medical Sciences Newton Fund	NAF	Funder

Sampling

SAMPLING PROCEDURE

Participants were randomly selected from the 2019 AHRI HIV surveillance program if they were aged 20-30 years old and had participated in the HIV survey in 2019 and were resident members in the southern PIP and owned a smartphone that supported the study app.

Data collection

DATES OF DATA COLLECTION

Start	End
2023-11-01	2025-06-30

Data Processing

DATA EDITING

Sexual behavior survey responses from Sesikhona participants via the Avicenna app

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

Tanser, F., Dobra, A., & Barnighausen, T. (2025). AHRI:Sesikhona! (we are here) Sexual Behaviour [Data set]. Africa Health Research Institute.

DOI: <https://doi.org/10.23664/AHRI.SESIKHONA.SEXUALBEHAVIOUR.SURVEY>

Metadata production

DDI DOCUMENT ID

DDI.AHRI.Sesikhona.SexualBehaviour.Survey

PRODUCERS

Name	Abbreviation
Africa Health Research Institute	AHRI

Data Dictionary

Data file	Cases	Variables
AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1	1733	10

Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1

Cases: 1733

Variables: 10

Variables

ID	Name	Label	Question
V117	participant_id	Participant ID	
V118	sess_time	Session Schedule Time	
V119	record_time	Record Time	
V120	status	Status	
V121	saq_1	Have you been sexually active in the last month?	
V122	saq_2	Have you had sex without a condom?	
V123	saq_3	Have you had sex without a condom with an individual whose HIV status you did not	
V124	saq_4	Have you had an STI?	
V125	saq_5	Have you had sex with more than one partner without a condom?	
V126	saq_6	Have you had sex under the influence of alcohol and/or drugs?	

Total: 10

PARTICIPANT_ID: Participant ID**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 1733 Invalid: 0 Minimum: 473 Maximum: 103961 Mean: 52734.013 Standard deviation: 13566.154
 Type: Continuous Decimal: 0 Width: 12 Range: 473 - 103961 Format: Numeric

SESS_TIME: Session Schedule Time**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 1733 Minimum: 2023-06-13 Maximum: 2025-08-12
 Type: Discrete Width: 11 Range: - Format: character

RECORD_TIME: Record Time**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 1539 Minimum: 2023-11-06 Maximum: 2025-10-09
 Type: Discrete Width: 11 Range: - Format: character

STATUS: Status**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 1733 Invalid: 0
 Type: Discrete Decimal: 0 Width: 12 Range: 1 - 6 Format: Numeric

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	The participant completed the activity and submitted it	1418	81.8%
2	The participant did not want to complete the activity and explicitly canceled it	24	1.4%
3	The activity was not responded to in time, so Ethica automatically closed the session and uploaded it to the server	260	15%
4	The session was blocked by another active session from the same activity and could not be prompted	31	1.8%
5	Based on the responses the participant has provided so far, this session's criteria is invalid and will not be presented	0	0%
6	The session is started by the participant but it's not completed yet	0	0%

SAQ_1: Have you been sexually active in the last month?**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 1382 Invalid: 351

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

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	761	55.1%
2	No	621	44.9%
Sysmiss		351	

SAQ_2: Have you had sex without a condom?**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 756 Invalid: 977

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

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	515	68.1%
2	No	241	31.9%
Sysmiss		977	

SAQ_3: Have you had sex without a condom with an individual whose HIV status you did not**Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1****Overview**

Valid: 759 Invalid: 974

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

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	160	21.1%

2	No	599	78.9%
Sysmiss		974	

SAQ_4: Have you had an STI?

Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1

Overview

Valid: 757 Invalid: 976

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

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	106	14%
2	No	651	86%
Sysmiss		976	

SAQ_5: Have you had sex with more than one partner without a condom?

Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1

Overview

Valid: 758 Invalid: 975

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

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	204	26.9%
2	No	554	73.1%
Sysmiss		975	

SAQ_6: Have you had sex under the influence of alcohol and/or drugs?

Data file: AHRI.Sesikhona.SexualBehaviour.Survey.2025.v1

Overview

Valid: 746 Invalid: 987

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

Questions and instructions

CATEGORIES

Value	Category	Cases	
1	Yes	140	18.8%
2	No	606	81.2%
Sysmiss		987	

Download related resources

Technical documents

DDI:AHRI.Sesikhona.SexualBehaviour.Survey

Title	DDI:AHRI.Sesikhona.SexualBehaviour.Survey
Author(s)	Nompumelelo Mkwanazi
Date	2025-12-04
Country	South Africa
Language	English
Publisher(s)	Nompumelelo Mkwanazi
Filename	AHRI.Sesikhona.SexualBehaviour.Survey.pdf
