

# South Africa - Implementation and effectiveness of the linkage to HIV care intervention carried out within the ANRS 12249 TasP trial (2012-2016) in the Hlabisa sub-district, rural KwaZulu-Natal, South Africa

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## Overview

### Identification

ID NUMBER  
AHRI.TasP.linkage.paper.dataset

### Version

VERSION DESCRIPTION  
V1.0.0

## Overview

#### ABSTRACT

The analysis conducted aimed at describing the implementation and effectiveness of the linkage-to-care intervention in rural KwaZulu-Natal, South Africa. In the ANRS 12249 TasP trial on Universal Testing and Treatment (UTT) implemented between 2012-2016, resident individuals  $\geq 16$  years were offered home-based HIV testing every six months. Those ascertained to be HIV-positive were referred to trial clinics. Starting May 2013, a linkage-to-care intervention was implemented in both trial arms, consisting of tracking through phone calls and/or home visits to “re-refer” people who had not linked to care to trial clinics within three months of the first home-based referral. We first described fidelity of the linkage-to-care intervention implementation: (1) adherence, describing whether the intervention has been implemented as designed, was measured looking at “contact attempt” (or tracking), i.e. when a fieldworker tried to contact an HIV-positive individual eligible for the intervention, either by phoning or visiting the person at home; and (2) exposure, describing how the target population received the intervention, was measured by looking at “re-referral”, i.e. when the individual answered his/her phone or opened his/her door when visited at home (assuming that a re-referral in care occurred at each successful contact). We then studied the effectiveness of the linkage-to-care intervention, defined as having linked to care, meaning having attended a TasP trial clinic (the variable used was “date of the first visit in a trial clinic”) or a DoH clinic (the variables used were “date of first CD4 count or viral load measurement” or “date of first visit in a DoH clinic”) following HIV identification through BHCT.

#### KIND OF DATA

The primary data source for this analysis was the TasP trial database, which provided information on trial registrations and exits; uptake and results of home-based rapid HIV testing; clinic visits of PLHIV seen in trial clinics; and sociodemographic and behavioural characteristics collected at home every 6-monthly survey round through questionnaires. This main trial database was merged with the linkage-to-care intervention database of all forms filled at each tracking attempt, indicating the type of contact attempt (phone call or home visit) and whether the person answered his/her phone or opened his/her door. In addition, two data sources were used to capture information from PLHIV seen in local DoH clinics: (a) viral loads and CD4 counts from National Health Laboratory Service NHLS; and (b) managed by the district DoH and AHRI. Both NHLS and ACCDB database contain data from Hlabisa primary care clinics since 2004.

#### UNITS OF ANALYSIS

We included all individuals (i) ascertained HIV-positive by trial fieldworkers and referred at least once to a trial clinic between March 2012 and December 2015 (from January 2016, HIV-positive individuals started being referred to the Department of Health (DoH) clinics in preparation for the trial closure), (ii) who were not in care at the time of referral, neither in the trial clinics nor in the local HIV treatment program (i.e. no CD4 count, viral load measurement and clinic visit recorded in the DoH clinics within the 13 months before referral), (iii) who were still resident and alive in trial area  $\geq 3$  months (no migration, no death, no end of data follow-up within three months of re-referral), and (iv) who had not linked to a trial or DoH clinic within three months of their first home-based referral to care. We excluded individuals with inconsistent dates (i.e. date of a first clinic visit or death before the date of first referral).

#### TOPICS

Topic	Vocabulary	URI
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HIV; Delivery of health care; Cell phone use; House calls; Implementation Sciences; South Africa; Rural populations	Africa Health Research Institute	www.ahri.org
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#### KEYWORDS

Linkage to HIV care, Phone calls, Home visits, Implementation, South Africa, rural

## Coverage

#### GEOGRAPHIC COVERAGE

Hlabisa sub-district, KwaZulu-Natal, Rural South Africa

#### UNIVERSE

The Hlabisa sub-district is a largely rural area, with scattered homesteads, an estimated HIV prevalence of 30.5%, and a decentralised HIV treatment program. In our study, 74% were female, 30% had an education primary or lower, and 74% were not employed nor students.

## Producers and Sponsors

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## Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Africa Health Research Institute	AHRI		

DDI DOCUMENT ID

DDI.AHRI.TasP.linkage.paper.dataset

## Sampling

### Sampling Procedure

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No size calculations. No sampling.

## Questionnaires

No content available

## Data Collection

### Data Collection Dates

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<b>Start</b>	<b>End</b>	<b>Cycle</b>
2012-01-01	2016-12-04	N/A



## Data Processing

No content available

## Data Appraisal

No content available

## **File Description**

## **Variable List**

## BDD\_Collins

Content

Cases 2837

Variable(s) 25

Structure Type:  
Keys: ()

Version

Producer

Missing Data

## Variables

ID	NAME	LABEL	TYPE	FORMAT	QUESTION
V3125	IndividualId	IndividualId	contin	numeric	
V3126	Sex	Sex	discrete	numeric	
V3127	DateFirstReferredToClinic	DateFirstReferredToClinic	contin	numeric	
V3128	CareAtReferral	CareAtReferral	discrete	numeric	
V3129	NewlyDiagnosedAtReferral	NewlyDiagnosedAtReferral	discrete	numeric	
V3130	BaselineClinicVisitDate	BaselineClinicVisitDate	contin	numeric	
V3131	DateARTemisFTAR	DateARTemisFTAR	contin	numeric	
V3132	DateACCDBFVAR	DateACCDBFVAR	contin	numeric	
V3133	DaysARTemisLTBR	DaysARTemisLTBR	contin	numeric	
V3134	DaysACCDLVBR	DaysACCDLVBR	contin	numeric	
V3135	DaysObservationAR	DaysObservationAR	contin	numeric	
V3136	CalendarRoundAt1stReferral	CalendarRoundAt1stReferral	discrete	character	
V3137	AgeImputed	AgeImputed	contin	numeric	
V3138	FirstDateTel		discrete	character	
V3139	FirstDateHome		discrete	character	
V3140	FirstDateBoth		discrete	character	
V3141	ExitDate		discrete	character	
V3142	ExitType		discrete	numeric	
V3143	KnowsPosFamilyAtReferral	Knows any PLWHIV - A family member	discrete	numeric	
V3144	distTasP_DoHclini_recod		discrete	numeric	
V3145	ArmAtReferral		discrete	numeric	
V3146	ActivityAtReferral		discrete	numeric	
V3147	EducLevelAtReferral		discrete	numeric	
V3148	AssetsCatAtReferral		discrete	numeric	
V3149	ClusterAtReferral		contin	numeric	

## FinalKMCurves\_Collins

Content

Cases 2837

Variable(s) 5

Structure Type:  
Keys: ()

Version

Producer

Missing Data

## Variables

ID	NAME	LABEL	TYPE	FORMAT	QUESTION
V3150	IndividualId	IndividualId	contin	numeric	
V3151	contact_attempt	contact_attempt	discrete	numeric	
V3152	time_contact_attempt	time_contact_attempt	contin	numeric	
V3153	contact_success	contact_success	discrete	numeric	
V3154	time_contact_success	time_contact_success	contin	numeric	



## IndividualId (IndividualId)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 3
Decimals: 0	Maximum: 28627
Range: 3-28627	Mean: 14351.6
	Standard deviation: 8267.8

## Sex (Sex)

File: BDD\_Collins

### Overview

Type: Discrete	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	
Decimals: 0	
Range: 0-1	

## DateFirstReferredToClinic (DateFirstReferredToClinic)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 19064
Decimals: 0	Maximum: 20424
Range: 19064-20424	Mean: 19953.6
	Standard deviation: 301.1

## CareAtReferral (CareAtReferral)

File: BDD\_Collins

### Overview

Type: Discrete	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	
Decimals: 0	
Range: 2-3	

## NewlyDiagnosedAtReferral (NewlyDiagnosedAtReferral)

File: BDD\_Collins

### Overview

Type: Discrete	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	
Decimals: 0	
Range: 0-1	



## BaselineClinicVisitDate (BaselineClinicVisitDate)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 451
Format: numeric	Invalid: 2386
Width: 9	Minimum: 19256
Decimals: 0	Maximum: 20590
Range: 19256-20590	Mean: 20041.5
	Standard deviation: 303.9

## DateARTemisFTAR (DateARTemisFTAR)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 438
Format: numeric	Invalid: 2399
Width: 9	Minimum: 19178
Decimals: 0	Maximum: 20655
Range: 19178-20655	Mean: 20162
	Standard deviation: 284.5

## DateACCDBFVAR (DateACCDBFVAR)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 190
Format: numeric	Invalid: 2647
Width: 9	Minimum: 19194
Decimals: 0	Maximum: 20964
Range: 19194-20964	Mean: 20175.8
	Standard deviation: 282.6

## DaysARTemisLTBR (DaysARTemisLTBR)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 563
Format: numeric	Invalid: 2274
Width: 9	Minimum: 401
Decimals: 0	Maximum: 3044
Range: 401-3044	Mean: 1110.5
	Standard deviation: 593.1

## DaysACCDBLVBR (DaysACCDBLVBR)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 55
Format: numeric	Invalid: 2782
Width: 9	Minimum: 143
Decimals: 0	Maximum: 2790
Range: 143-2790	Mean: 627.9
	Standard deviation: 523.7

## DaysObservationAR (DaysObservationAR)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 92
Decimals: 0	Maximum: 1603
Range: 92-1603	Mean: 554.8
	Standard deviation: 305.3

## CalendarRoundAt1stReferral (CalendarRoundAt1stReferral)

File: BDD\_Collins

### Overview

Type: Discrete	Valid cases: 2837
Format: character	Invalid: 0
Width: 1	

## AgeImputed (AgeImputed)

File: BDD\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 16
Decimals: 0	Maximum: 111.4
Range: 16.0328767123288-111.386301369863	Mean: 34
	Standard deviation: 11.8

## (FirstDateTel)

File: BDD\_Collins

### Overview

Type: Discrete	Valid cases: 413
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

## (FirstDateHome)

File: BDD\_Collins

### Overview

Type: Discrete	Valid cases: 155
Format: character	Minimum: NaN
Width: 11	Maximum: NaN

## (FirstDateBoth)

File: BDD\_Collins

### Overview

Type: Discrete  
Format: character  
Width: 11

Valid cases: 71  
Minimum: NaN  
Maximum: NaN

(ExitDate)  
File: BDD\_Collins

#### Overview

Type: Discrete  
Format: character  
Width: 11

Valid cases: 1020  
Minimum: NaN  
Maximum: NaN

(ExitType)  
File: BDD\_Collins

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-3

Valid cases: 1020  
Invalid: 1817

Knows any PLWHIV - A family member (KnowsPosFamilyAtReferral)  
File: BDD\_Collins

#### Overview

Type: Discrete  
Format: numeric  
Width: 16  
Decimals: 0  
Range: 1-99

Valid cases: 2837  
Invalid: 0

(distTasP\_DoHclini\_recod)  
File: BDD\_Collins

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-3

Valid cases: 2837  
Invalid: 0

(ArmAtReferral)  
File: BDD\_Collins

#### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 0-1

Valid cases: 2837  
Invalid: 0

## (ActivityAtReferral)

File: BDD\_Collins

### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-4

Valid cases: 2837  
Invalid: 0

## (EducLevelAtReferral)

File: BDD\_Collins

### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-3

Valid cases: 2837  
Invalid: 0

## (AssetsCatAtReferral)

File: BDD\_Collins

### Overview

Type: Discrete  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-3

Valid cases: 2837  
Invalid: 0

## (ClusterAtReferral)

File: BDD\_Collins

### Overview

Type: Continuous  
Format: numeric  
Width: 9  
Decimals: 0  
Range: 1-22

Valid cases: 2837  
Invalid: 0  
Minimum: 1  
Maximum: 22  
Mean: 11.6  
Standard deviation: 5

## IndividualId (IndividualId) File: FinalKMCurves\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 3
Decimals: 0	Maximum: 28627
Range: 3-28627	Mean: 14351.6
	Standard deviation: 8267.8

## contact\_attempt (contact\_attempt) File: FinalKMCurves\_Collins

### Overview

Type: Discrete	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	
Decimals: 0	
Range: 0-1	

## time\_contact\_attempt (time\_contact\_attempt) File: FinalKMCurves\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 1
Decimals: 0	Maximum: 1480
Range: 1-1480	Mean: 363.3
	Standard deviation: 248.6

## contact\_success (contact\_success) File: FinalKMCurves\_Collins

### Overview

Type: Discrete	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	
Decimals: 0	
Range: 0-1	

## time\_contact\_success (time\_contact\_success) File: FinalKMCurves\_Collins

### Overview

Type: Continuous	Valid cases: 2837
Format: numeric	Invalid: 0
Width: 9	Minimum: 1
Decimals: 0	Maximum: 1480
Range: 1-1480	Mean: 403.6
	Standard deviation: 264.9



# Documentation

## Technical documents

### DDI:TasP.linkage.paper.dataset

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Title	DDI:TasP.linkage.paper.dataset
Author(s)	Sweetness H Dube
Date	10/01/2023
Country	South Africa
Language	English
Publisher(s)	Sweetness H Dube
Filename	AHRI.TasP.linkage.paper.dataset.pdf

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