

Tanzania - Rufiji HDSS INDEPTH Core Dataset 1999-2014 (Release 2017)

Dr. Eveline Gaubbel - Thematic group leader of M&E Ifakara Health Institute, Mr. Sigilbert Mrema - Unit leader of Rufiji Health and Demographic Surveillance System

Report generated on: June 30, 2017

Visit our data catalog at: <http://www.indepth-ishare.org/index.php>

Overview

Identification

ID NUMBER

INDEPTH.TZ012.CMD2014.V1

Version

VERSION DESCRIPTION

CMD2014.v1: Edited dataset for public distribution

PRODUCTION DATE

2017-05-20

Overview

ABSTRACT

The Rufiji Health and Demographic Surveillance System (HDSS) was established in October 1998 to evaluate the impact on burden of disease of health system reforms based on locally generated data, prioritization, resource allocation and planning for essential health interventions. The Rufiji HDSS collects detailed information on health and survival and provides a framework for population based health research of relevance to local and national health priorities. In December 2011 the population under surveillance was about 97,000 people, residing in 19,000 households. Monitoring of households and members within households is undertaken in regular four months cycles known as "rounds". Self-reported information is collected on demographic, household, socio-economic and geographic characteristics. Verbal Autopsy is conducted using standardized questionnaires, to determine probable causes of death.

Basic Rufiji HDSS data and data requisition forms are available at www.data.ihi.or.tz Access to online data requires permission from the Data Centralization Team (dc@ihi.or.tz). Requests for data are subject to ethics committee approval and will only be accepted from bona fide researchers with specified research objectives or collaborations.

KIND OF DATA

Event history data

UNITS OF ANALYSIS

Individual

Scope

NOTES

Homestead: In this subject the following information are collected: Latitude, longitude, altitude, village name, village code, name of hamlet and location identifier (Location ID). Household: Rufiji HDSS define household as a group of individuals sharing, or who eat from, the same cooking pot. In this subject the following information are collected: Household name and household head.

On Individuals, information like names (Given name, Middle name and Family name), sex, birthdate, marital status, relation to household head, occupation, education level and individual ID.

To residency, the following information such as residency status (resident, died, out-migrated), marital status to members with ≥ 13 years of age, pregnancy status for women aged 13-49 years, location ID and Individual ID are collected.

Pregnancy outcome: In this theme, the following information are collected; live birth, number of babies, still birth, abortion, date of birth, place of birth, names (3), sex of child, mother's personal identity number (link), father's personal identity number.

Death: In this theme information collected are, date of death, place of death, individual ID, Age at Death and field worker collected.

Verbal Autopsy is done to identify the probable cause of death.

In-migration: In this theme the following information are collected: Date of in-migration, Individual ID, names (3), sex, date of birth of migrant, reason for in-migration, relation to household head, origin of migration episode and whether the migrant had a previous residence within the Rufiji HDSS.

Out-migration: Date of out-migration, Individual ID, reason for out-migration and destination of migration episode.

TOPICS

Topic	Vocabulary	URI
Demography [N01.224]	MeSH	http://www.ncbi.nlm.nih.gov/mesh
Emigration and Immigration [N01.224.625.350]	MeSH	http://www.ncbi.nlm.nih.gov/mesh
Mortality [N01.224.935.698]	MeSH	http://www.ncbi.nlm.nih.gov/mesh
Birth Rate [N01.224.935.849.500]	MeSH	http://www.ncbi.nlm.nih.gov/mesh

KEYWORDS

Fertility, Mortality, Migration

Coverage

GEOGRAPHIC COVERAGE

The Demographic Surveillance Area (DSA) is located in Rufiji District, Coastal Region Tanzania about 178 km south of Dar es Salaam city and extends between south latitude -7.47 and -8.03S and east longitude 38.62 and 39.17E. The Rufiji HDSS covers 1,813 km² that comprising 38 villages of Rufiji district. The district is largely rural though population is clustered around Utete (outside the DSA, District headquarters), Ikwiriri, Kibiti and Bungu townships (Figure 2). The population density of Rufiji HDSS is about 53 people per kilometer square and the average population per village is about 2,552 inhabitants.

As a district observatory, information which is collected by Rufiji HDSS can be used by nearby districts with similar ecological characteristics for planning purposes

UNIVERSE

All residents in HDSS area

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Dr. Eveline Gaubbel	Thematic group leader of M&E Ifakara Health Institute
Mr. Sigilbert Mrema	Unit leader of Rufiji Health and Demographic Surveillance System

OTHER PRODUCER(S)

Name	Affiliation	Role
Mr. Imani Irema	Ifakara Health Institute	Data Officer
Prof. Eliuther Mwageni	Ifakara Health Institute	Technical assistance in questionnaire design
Prof. Don de Savigny	SwissTPH	Technical assistance in questionnaire design
Dr. Honorati Masanja	Ifakara Health Institute	Technical assistance in questionnaire design
Prof. Eliuther Mwageni	Ifakara Health Institute	Technical assistance in sampling methodology/selection
Prof. Don de Savigny	SwissTPH	Technical assistance in sampling methodology/selection
Dr. Honorati Masanja	Ifakara Health Institute	Technical assistance in sampling methodology/selection
Mr. Sigilbert Mrema	Ifakara Health Institute	Technical assistance in data collection

Name	Affiliation	Role
Mr. Kahema Irema	Ifakara Health Institute	Technical assistance in data collection
Mr. Francis Levira	Ifakara Health Institute	Technical assistance in data processing
Mr. Amanuel Mono	Ifakara Health Institute	Technical assistance in data processing
Mr. Liberati Kahumba	Ifakara Health Institute	Technical assistance in data processing
Dr. Honorati Masanja	Ifakara Health Institute	Technical assistance in data analysis
Mr. Francis Levira	Ifakara Health Institute	Technical assistance in data analysis
Mr. Sigilbert Mrema	Ifakara Health Institute	Technical assistance in data analysis

FUNDING

Name	Abbreviation	Role
Ministry of Health and Social Welfare of Tanzania	MoHSW	
International Development Research Center	IRDC	
UK Department for International Development	DFID	
Rockefeller Foundation	RF	
Bill and Melinda Gates Foundation	BMGF	
Doris Duke Charitable Foundation	DDCF	
Comic Relief, UK	Comic Relief, UK	
European Union FP7	UE-FP7	
United State Urgency for International Development	USAID	
US Centres for Disease Control	USAID	
Global Fund for HIV, TB and Malaria	GFATM	
RBM-MTIMBA	RBM-MTIMBA	
President's Malaria Initiative	PMI	
INDEPTH Network	INDEPTH Network	

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Fieldworkers	Ifakara Health Institute	
Data Clerks	Ifakara Health Institute	
Rufiji HDSS Villagers	Ifakara Health Institute	

Metadata Production**METADATA PRODUCED BY**

Name	Abbreviation	Affiliation	Role
iSHARE2 Technical Team	iS2TT	INDEPTH Network	Documentation of the study
INDEPTH Network	INDEPTH	INDEPTH Network	agency
Ifakara Health Institute	IHI		agency
Imani Irema	IHI	Ifakara Health Institute	DDI Author

DATE OF METADATA PRODUCTION

2017-05-20

DDI DOCUMENT VERSION

CMD2014.v1: 2017-05-20

DDI DOCUMENT ID

DDI.INDEPTH.TZ012.CMD2014.V1

Sampling

Sampling Procedure

No sampling.

Deviations from Sample Design

Not applicable

Response Rate

Response rate: In Rufiji HDSS information on refusals is not collected. However, active community engagement programmes which includes Key Informants (KIs) days, where the HDSS team convenes meetings with KIs for presentations on recent findings to feed back to community and distribution of news letters to households are in place. Community sensitization events are held at the time of introducing new studies. Those initiatives have cemented good relationship with the community and eventually maintained high participation.

Weighting

Not applicable

Questionnaires

Overview

The questionnaires are designed to capture the core HDSS information which includes the baseline, birth, immigration, outmigration and death along with the other questionnaires.

Data Collection

Data Collection Dates

Start	End	Cycle
1999-01-01	2014-12-31	Release Coverage

Time Periods

Start	End	Cycle
1998-11		Baseline
1999-01		Round 1 to Round 43
2013-06-01		Round 44 (Second round of 2013)
2014-02-08		Round 45 (First round of 2014)
2014-09-08		Round 46 (Second round of 2014)
2015-01-10		Round 47 (First round of 2015)
2015-07-01		Round 48 (Second round of 2015)

Data Collection Mode

Proxy Respondent [proxy]

DATA COLLECTION NOTES

Paper based data collection and fed into HRS2 system upto 2012.
From 2013 migrated to tablet based data collection on OpenHDS platform.

Data Collectors

Name	Abbreviation	Affiliation
Liberate Kahumba		Data Manager
Mary Godwin Shuma		Assistant Field Manager

Data Processing

Data Editing

Data processing: Data from the field are collected for entry at the data center. Data is entered into the server through a network of workstations. Until 2014, the HDSS used custom designed software called the Household Registration System 2 (HRS 2) developed in Visual FoxPro 6.

Data Appraisal

Estimates of Sampling Error

Not applicable

Other forms of Data Appraisal

INDEPTH-data quality metrics: To ensure data quality Rufiji HDSS portions this process into two sections. In the field section, quality of collected information is monitored through a validation process where 3-5% of households are sampled at random for re-interview by a field supervisor who validates the previous collected data. In the data management section, the software used in data management is able to identify some inconsistencies. Some of them are edited online and others are printed and reported back to the field for more clarification and correction. Finally the clean data base is archived for report generation.

Centred	Metric	Table	QMetric	Illegal	Legal	Total	Metric	RunDate
TZ012	MicroDataCleaned	Starts	205383	2017-05-19	10:31			
TZ012	MicroDataCleaned	Transitions	0	514426	514426	0	2017-05-19	10:31
TZ012	MicroDataCleaned	Ends	205383	2017-05-19	10:32			
TZ012	MicroDataCleaned	SexValues	4	514422	514426	0	2017-05-19	10:32
TZ012	MicroDataCleaned	DoBValues	2	514424	514426	0	2017-05-19	10:32

File Description

Variable List

TZ012.CMD2014.v1

Content	This file contains event history micro dataset of Rufiji HDSS
Cases	651844
Variable(s)	14
Structure	Type: Keys: ()
Version	CMD2014.v1: Initial extraction for public distribution
Producer	Rufiji HDSS
Missing Data	

Variables

ID	Name	Label	Type	Format	Question
V1	RecNr	Rec Number	contin	numeric	
V2	CountryId	Country ID	discrete	numeric	
V3	CentreId	Centre ID	discrete	character	
V4	IndividualId	Individual ID	contin	numeric	
V5	Sex	Sex	discrete	numeric	
V6	DoB	Date of Birth	discrete	character	
V7	EventCount	Event Count	discrete	numeric	
V8	EventNr	Event Numbeerr	discrete	numeric	
V9	EventCode	Event Code	discrete	character	
V10	EventDate	Event Date	discrete	character	
V11	ObservationDate	Observation Date	discrete	character	
V12	LocationId	Location ID	contin	numeric	
V13	MotherId	Mother ID	contin	numeric	
V14	DeliveryId	Delivery ID	contin	numeric	

Rec Number (RecNr)

File: TZ012.CMD2014.v1

Overview

Type: Continuous	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 1
Range: 1-290314	Maximum: 651844
	Mean: 325922.5
	Standard deviation: 188171.3

Description

A sequential number uniquely identifying each record in the data file

Country ID (CountryId)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	
Range: 834-834	

Description

ISO 3166-1 numeric code of the country in which the surveillance site is situated

Centre ID (CentreId)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: character	Invalid: 0
Width: 5	

Description

An identifier issued by INDEPTH to each member centre of the format CCNNS, Where CCNNS is the INDEPTH Member site code, constructed as follows:

- CC the ISO 3166-1 alpha-2 code of the country where the site is situated
- NN is a sequential number uniquely identifying an INDEPTH member centre within the country. Starting with 01 to 99, for a maximum of 99 centres per country
- S is a sequential character uniquely identifying the geographical surveillance site. Starting with 1 to 9, thereafter A to Z, for a maximum of 35 sites per centre.

Individual ID (IndividualId)

File: TZ012.CMD2014.v1

Overview

Type: Continuous	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 2
Range: 1-127889	Maximum: 209803
	Mean: 104658.3
	Standard deviation: 60346.2

Description

A number uniquely identifying all the records belonging to a specific individual in the data file. This number is not the same as the identifier used by contributing centre to identify the individual.

Sex (Sex)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	
Range: 0-2	

Description

Sex of individual

Date of Birth (DoB)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: character	Minimum: NaN
	Maximum: NaN

Description

The date of birth of the individual Format: YYYY-MM-DD

Event Count (EventCount)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	
Range: 2-6	

Description

The total number of events associated with the individual in this dataset

Event Numbeerr (EventNr)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	
Range: 1-6	

Description

A number increasing from 1 to EventCount for each event record in order of event occurrence

Event Code (EventCode)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: character	Invalid: 0
Width: 3	

Description

A code identifying the type of event that has occurred

Event Date (EventDate)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651844
Format: character	Minimum: NaN
	Maximum: NaN

Description

The date on which the event occurred: Format YYYY-MM-DD

Observation Date (ObservationDate)

File: TZ012.CMD2014.v1

Overview

Type: Discrete	Valid cases: 651761
Format: character	Minimum: NaN
	Maximum: NaN

Description

Date on which the event was observed (recorded), also known as surveillance visit date:
Format YYYY-MM-DD

Location ID (LocationId)

File: TZ012.CMD2014.v1

Overview

Type: Continuous	Valid cases: 651844
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 1
Range: 1-28800	Maximum: 39679
	Mean: 19962.3
	Standard deviation: 11453.3

Description

Unique identifier associated with a residential unit within the site and is the location where the individual was or became resident when the event occurred. For data anonymization purposes, this identifier should not be the same as the identifier used internally by the contributing centre, but the contributing centre should retain a mapping of this identifier to their internal location identifier

Mother ID (MotherId)

File: TZ012.CMD2014.v1

Overview

Type: Continuous	Valid cases: 76549
Format: numeric	Invalid: 575295
Decimals: 0	Minimum: 1
Range: 3-128077	Maximum: 209596
	Mean: 105074.4
	Standard deviation: 60365.1

Description

The IndividualId of the mother. Only provided for BTH event

Delivery ID (DeliveryId)

File: TZ012.CMD2014.v1

Delivery ID (DeliveryId)

File: TZ012.CMD2014.v1

Overview

Type: Continuous
Format: numeric
Decimals: 0
Range: 1-40405

Valid cases: 76549
Invalid: 575295
Minimum: 1
Maximum: 46456
Mean: 23945.1
Standard deviation: 13315.8

Description

The RecNr of the delivery event associated with this birth

