

# Bangladesh - Chakaria HDSS INDEPTH Core Dataset 2005-2016 (Release 2019)

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

## Overview

### Identification

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ID NUMBER  
INDEPTH.BD013.CMD2016.v1

### Version

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VERSION DESCRIPTION  
CMD2016.v1: Edited Dataset for public distribution

PRODUCTION DATE  
2019-06-22

NOTES  
CMD2016.v1

### Overview

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#### ABSTRACT

Chakaria Health and Demographic Surveillance System (CHDSS), located on the south-eastern coast of the Bay of Bengal, and is one of the field sites of International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR) was established in 1999 covering 183 villages of 166,405 individuals living in 26,979 households. In CHDSS since 2004 data on socio-demographic and health indicators including birth, death, migration, marriage, maternal health, education and employment have been systematically collected and recorded from 7,042 households, randomly chosen from the total of 26,979 households through quarterly household visits by a team of surveillance workers (SWs) with supervision from a team of two supervisors. In 2011 data collection system was modified choosing 49 villages randomly from a total of 183 which were divided into 14 work areas and 14 SWs were recruited from their residing areas. Most of the households included in the system prior to this modification were also included in the new system. The modification of the system has resulted the visit by SWs almost double the number of households, saving time spent on travel in comparison with the previous system. In addition, the modification allowed the possibility of estimating migration as the system includes complete villages. Currently, surveillance covers 82,160 individuals (16,272 households). The primary objective of CHDSS is to monitor the changes in socio-demographic indicators, inequalities in health and impact of public health interventions. A demographic change was accompanied by a shift from traditional to modern society during the past decade, but inequality in health still persists. The findings from the surveillance are shared regularly among the local and global communities. Data are also available upon request to ICDDR and INDEPTH for use by researchers and policy makers.

KIND OF DATA  
Event history data

UNITS OF ANALYSIS  
Individual

### Scope

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#### NOTES

So far, all the important demographic indicators related to fertility, mortality, migration and nuptiality have been measured. Information on causes of deaths and migration are also collected and tabulated. In addition, indicators of special interest such as hunger, water and sanitation, use of family planning, use of safe delivery services, immunization, health-seeking behaviour, use of iodized salt, consumption of tobacco, nutritional anthropometry, ownership of mobile phone and household socio-economic condition have been collected when felt appropriate. Socio-economic inequities for the major health and

demographic indicators have always been assessed and published.

#### TOPICS

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

#### KEYWORDS

Fertility, Mortality, Migration

## Coverage

#### GEOGRAPHIC COVERAGE

Chakaria is one of the 500 upazilas (sub-districts) in Bangladesh. It is located between latitudes 21o34' and 21o55' North and longitudes 91o54' and 92o13' East in the southeastern coast of the Bay of Bengal. Administratively, it is under Cox's Bazar district with an estimated population of 511,861 in 2013. The highway from Chittagong to Cox's Bazar passes through Chakaria. The east side of Chakaria is hilly, while on the west side towards the Bay of Bengal is lowland. The Chakaria HDSS covered 11 unions, namely Baraitali, Kaiarbil, Bheola Manik Char, Paschim Boro Bheola, Shaharbil, Kakara, Harbang, Purba Boro Bheola, Surajpur Manikpur, Konakhali, and Dhemoshia.

#### UNIVERSE

Although Chakaria HDSS started in 1999, covering 183 villages of 166,405 individuals living in 26,979 households, data collection was interrupted during 2001-03. Since 2004, quarterly data collection has resumed, and data have been systematically collected from 7,042 households, randomly chosen from the total of 26,979 households. Data have been collected through quarterly visits by a team of surveillance workers (SWs) with supervision from a team of two supervisors. On a typical day, prior to 2011 a SW would come to the office and take a list of households assigned by the supervisors, travel to respondents' households, update the events and return the collected data sheets to the office. Using this system, data collection and data management took a significant amount of time and money, involving daily travel to the households by SWs. The above system of data collection was modified in 2011. The modification involved choosing 49 villages randomly from a total of 183. The 49 villages were divided into 14 work areas and 14 SWs were recruited from the 14 work areas where they resided. Most of the households included in the system prior to this modification were also included in the new system. The modification of the system has resulted in the SWs visiting almost double the number of households in comparison with the previous system, saving time spent on travel in the earlier system. In addition, the modification allowed the possibility of estimating migration as the system includes complete villages.

## Producers and Sponsors

#### PRIMARY INVESTIGATOR(S)

Name	Affiliation
SM Manzoor Ahmed Hanifi	Chakaria Health and Demographic Surveillance System, ICDDR,B
Dr. Mohammad Iqbal	Chakaria Health and Demographic Surveillance System, ICDDR,B
Dr. Abbas Bhuiya (Upto 2017)	Chakaria Health and Demographic Surveillance System, ICDDR,B

#### OTHER PRODUCER(S)

Name	Affiliation	Role
Amena Sultana	Chakaria Health and Demographic Surveillance System, ICDDR,B	Check quality of data and analyze
Shehrin Shaila Mahmood	Chakaria Health and Demographic Surveillance System, ICDDR,B	Technical support in report writing

Name	Affiliation	Role
Sabrina Rasheed	Chakaria Health and Demographic Surveillance System, ICDDR,B	Technical support in report writing
Mohammad Nahid Mia	Chakaria Health and Demographic Surveillance System, ICDDR,B	Data analysis
Asiful Haidar Chowdhury	Chakaria Health and Demographic Surveillance System, ICDDR,B	Data quality check, Data analysis, Interpretation of findings, Technical support in report writing
Md. Abdur Razzak Ali Sorker	Chakaria Health and Demographic Surveillance System, ICDDR,B	Technical support in HDSS online application

## FUNDING

Name	Abbreviation	Role
International Centre for Diarrhoeal Disease, Research, Bangladesh	ICDDR,B	

## OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Department for International Development (UK Aid)		
Government of Bangladesh		
Global Affairs Canada	GAC	
Swedish International Development Cooperation Agency	Sida	
Chakaria villagers		
Team members of the Chakaria Community Health Project		
Surveillance Workers		
Data Manger		
Field Reserach Manager		

## Metadata Production

## METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
iSHARE2 Technical Team	iS2TT	INDEPTH Network	Documentation of the study
INDEPTH Network	int.indepth	INDEPTH Network	agency
Md Abdur Razzak Ali Sorker	MARAS	ICDDR,B	DDI Author

## DATE OF METADATA PRODUCTION

2019-06-22

## DDI DOCUMENT VERSION

Version BD013.CMD2016.v1: 2019-06-22

## DDI DOCUMENT ID

DDI.INDEPTH.BD013.CMD2016.v1

## Sampling

### **Sampling Procedure**

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This dataset is related to the demographic surveillance population as a whole

### **Deviations from Sample Design**

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Not applicable

### **Response Rate**

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On an average the response rate is 99.99% in all rounds over the years.

### **Weighting**

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Not applicable

# Questionnaires

## Overview

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Child Health Profile form  
Death form  
Household Characteristics form  
DSS data collection blank form  
Abolished form  
Correction form  
Listing form  
Migration form

## Data Collection

### Data Collection Dates

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<b>Start</b>	<b>End</b>	<b>Cycle</b>
2005-01-01	2016-12-31	Release Coverage

### Time Periods

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<b>Start</b>	<b>End</b>	<b>Cycle</b>
2004-03-02		01
2004-07-07		02
2004-11-21		03
2005-03-08		04
2005-09-10		05
2006-02-14		06
2006-05-04		07
2006-08-02		08
2007-03-07		09
2007-12-05		10
2008-08-05		11
2009-02-02		12
2009-05-14		13
2009-10-18		14
2010-02-15		15
2011-01-13		16
2011-01-20		17
2011-06-29		18
2012-01-07		19
2012-05-31		20
2013-03-24		21
2013-06-30		22
2014-03-03		23
2014-11-30		24
2015-02-08		25
2015-09-17		26
2016-01-17		27
2016-05-05		28
2016-08-24		29
2016-11-27		30
2017-05-31		31
2017-09-12		32
2017-09-12		33
2017-11-30		34

### Data Collection Mode

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Proxy Respondent [proxy]

### Data Collection Notes

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Data have been collected through quarterly visits by a team of surveillance workers (SWs) with supervision from a team of two supervisors. On a typical day, prior to 2011 a SW would come to the office and take a list of households assigned by the supervisors, travel to respondents' households, update the events and return the collected data sheets to the office. The above system of data collection was modified in 2011. The modification involved choosing 49 villages randomly from a total

of 183. The 49 villages were divided into 14 work areas and 14 SWs were recruited from the 14 work areas where they resided.

## Questionnaires

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Child Health Profile form  
 Death form  
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 Migration form

## Data Collectors

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Name	Abbreviation	Affiliation
Surveillance workers	SWs	Chakaria HDSS
Supervisors		Chakaria HDSS

## Supervision

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Two supervisors supervised the data-collection process. To detect any anomalies, the supervisors re-visited 5% of the households, chosen randomly, within 2 days of data collection by the field workers. Later on, the supervisors and the relevant field workers together sorted out any inconsistencies in the collected data. All the filled-up questionnaires were manually checked for completeness and for any inconsistencies.



## Data Processing

### **Data Editing**

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All the filled-up questionnaires were manually checked for completeness and for any inconsistencies. Subsequently, computer-based data-editing procedures were applied to ensure the quality of data.

## Data Appraisal

### Estimates of Sampling Error

Not applicable

### Other forms of Data Appraisal

CentreId MetricTable QMetric Illegal Legal Total Metric RunDate

BD013 MicroDataCleaned Starts 156523 2019-06-22 13:11

BD013 MicroDataCleaned Transitions 0 330723 330723 0. 2019-06-22 13:11

BD013 MicroDataCleaned Ends 156523 2019-06-22 13:11

BD013 MicroDataCleaned SexValues 330723 2019-06-22 13:11

BD013 MicroDataCleaned DoBValues 330723 2019-06-22 13:11

# File Description

# Variable List

**BD013.CMD2016.v1**

Content	This file contains BD013 INDEPTH Core microdataset in event history format. This file was generated using ETL through Pentaho Kettle.
Cases	360859
Variable(s)	14
Structure	Type: Keys: ()
Version	CMD2016.v1: for public distribution
Producer	Chakaria HDSS
Missing Data	None

**Variables**

ID	Name	Label	Type	Format	Question
V1	RecNr	RecNr	contin	numeric	
V2	CountryId	CountryId	discrete	numeric	
V3	CentreId	CentreId	discrete	character	
V4	IndividualId	IndividualId	contin	numeric	
V5	Sex	Sex	discrete	numeric	
V6	DoB	DoB	discrete	character	
V7	EventCount	EventCount	discrete	numeric	
V8	EventNr	EventNr	discrete	numeric	
V9	EventCode	EventCode	discrete	character	
V10	EventDate	EventDate	discrete	character	
V11	ObservationDate	ObservationDate	discrete	character	
V12	LocationId	LocationId	contin	numeric	
V13	MotherId	MotherId	contin	numeric	
V14	DeliveryId	DeliveryId	contin	numeric	



## RecNr (RecNr)

File: BD013.CMD2016.v1

### Overview

Type: Continuous	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 1
Range: 1-326162	Maximum: 360859
	Mean: 180430
	Standard deviation: 104171.2

### Description

A sequential number uniquely identifying each record in the datafile

## CountryId (CountryId)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	
Range: 50-50	

### Description

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

## CentreId (CentreId)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: character	Invalid: 0
Width: 5	

### Description

An identifier issued by INDEPTH to each member centre of the format CCCSS, where CCC is a sequential centre identifier and SS is a sequential identifier of the site within the centre in the case of multiple site centres

## IndividualId (IndividualId)

File: BD013.CMD2016.v1

### Overview

Type: Continuous	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 1
Range: 1-145661	Maximum: 156719
	Mean: 78405.3
	Standard deviation: 45234.1

### 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 issued by a contributing centre to identify the individual.

## Sex (Sex)

File: BD013.CMD2016.v1

## Sex (Sex)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	
Range: 0-2	

### Description

Sex of the individual. 1 for Male and 2 for Female

## DoB (DoB)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: character	Minimum: NaN
	Maximum: NaN

### Description

The date of birth of the individual. Format: YYYY/MM/DD

## EventCount (EventCount)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	
Range: 2-10	

### Description

The total number of events associated with this individual in this data set

## EventNr (EventNr)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	
Range: 1-10	

### Description

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

## EventCode (EventCode)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: character	Invalid: 0
Width: 3	

### Description



## EventCode (EventCode)

File: BD013.CMD2016.v1

A code identifying the type of event that has occurred

## EventDate (EventDate)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 360859
Format: character	Minimum: NaN
	Maximum: NaN

### Description

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

## ObservationDate (ObservationDate)

File: BD013.CMD2016.v1

### Overview

Type: Discrete	Valid cases: 104233
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

## LocationId (LocationId)

File: BD013.CMD2016.v1

### Overview

Type: Continuous	Valid cases: 360859
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 1
Range: 1-25319	Maximum: 30255
	Mean: 15086.6
	Standard deviation: 8724.7

### 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. This identifier is not the same as the identifier used internally by the contributing centre.

## MotherId (MotherId)

File: BD013.CMD2016.v1

### Overview

Type: Continuous	Valid cases: 41616
Format: numeric	Invalid: 319243
Decimals: 0	Minimum: 4
Range: 5-145660	Maximum: 156706
	Mean: 78703.9
	Standard deviation: 45065.6

### Description

The IndividualID of the mother. Only provided for BTH events.

# DeliveryId (DeliveryId)

## File: BD013.CMD2016.v1

### Overview

Type: Continuous	Valid cases: 41616
Format: numeric	Invalid: 319243
Decimals: 0	Minimum: 2
Range: 1-17629	Maximum: 26670
	Mean: 13371.5
	Standard deviation: 7662.4

### Description

The RecNr of the delivery event associated with this birth

