Release statement

Confidence intervals for selected reproductive, maternal, newborn, child, and adolescent health and development indicators at district level for 2015-16 India, version 1.0

18/08/2022

Release content

1. India_indicators_CI.gdb
2. India_indicators_CI.csv

File descriptions

1. India_indicators_CI.gdb: a geodatabase containing a shapefile with appended data on the confidence intervals for the different indicators at the district level in India.

India_indicators_CI.gdb/India_indicators_CI: The dataset presented here is a shapefile of India with the district level confidence intervals (uncertainty) for rare events indicators/modelled-based indicators at district level using NFHS-4. The shapefile of the administrative boundaries for the districts was adapted from a dataset provided by the Children's Investment Fund Foundation (CIFF, 2021, personal communication, 14 April). The following are the fields of the different indicators found within the shapefile with their description. Uncertainties are presented as the difference between the upper and lower limit of the confidence interval for each indicator. The following are the name of the fields (aliases) of the different indicators found within the shapefile with their description and methods for constructing confidence intervals.

Still birth rate - confidence intervals (NFHS4)

District level estimates of stillbirth rate uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the stillbirth rate. The confidence intervals for

the stillbirth rate have been calculated using Byar's approximation for counts above 5 (1-3) while tables of the exact probabilities have been used for counts below 5 (4).

Teenage pregnancies - confidence intervals (NFHS4)

District level estimates of teenage pregnancies proportion uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the teenage pregnancies proportion. The confidence intervals for teenage pregnancies proportion have been calculated using the Wilson Score method (5-8).

Child mortality rate - confidence intervals (NFHS4)

District level estimates of child mortality rate uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the stillbirth rate. The confidence intervals for child mortality rates are calculated using the delta method and the variance-covariance matrix of the modelled rates to estimate the standard errors (9).

Neonatal mortality rate - confidence intervals (NFHS4)

District level estimates of neonatal mortality rate uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the stillbirth rate. The confidence intervals for neonatal mortality rates are calculated using the delta method and the variance-covariance matrix of the modelled rates to estimate the standard errors (9).

Total Fertility Rate - confidence intervals (NFHS4)

District level estimates of total fertility rate uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the stillbirth rate. The confidence intervals for total fertility rates are calculated using the delta method and the variance-covariance matrix of the modelled rates to estimate the standard errors (9).

ASFR 15-19 - confidence intervals (NFHS4)

District level estimates of total fertility rate uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the stillbirth rate. The confidence intervals for total fertility rates are calculated using the delta method and the variance-covariance matrix of the modelled rates to estimate the standard errors (9).

ASFR 20-24 - confidence intervals (NFHS4)

District level estimates of total fertility rate uncertainty are calculated as the difference between the upper and lower limit of the confidence interval for the stillbirth rate. The confidence intervals for total fertility rates are calculated using the delta method and the variance-covariance matrix of the modelled rates to estimate the standard errors (9).

2. India_indicators_CI.csv Table (CSV) with data on the confidence intervals estimated for the different indicators at the district level in India that are found in the shapefile with the field name and aliases described above.

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Suggested citation

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Source data

This work is based on the India National Family Health Survey 4 (NFHS-4) - also called the 2015-16 India Demographic Health Survey (DHS) interchangeably. The 2015-16 India NFHS-4 were conducted by the Ministry of Health and Family Welfare (MoHFW), Government of India and International Institute for Population Sciences (IIPS), Mumbai, with the technical assistance of ICF through the DHS Program (funded by USAID). Microdata and more information can be found here: http://rchiips.org/nfhs/nfhs4.shtml and here: https://dhsprogram.com/. Indicators were adapted from the open-source code shared by the DHS Program Code Share Project (https://github.com/DHSProgram) (10).

Acknowledgement

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