

HEALTH DATA: INDICATORS AND ACCESS

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Survey Data and Service Statistics

- Health indicators (outcomes and processes)
 - Survey data
 - Survey design is concerned with the key objective (indicator of interest)
 - Sampling is guided by the level at which the estimates are mandated (district or state)
 - Survey data facilitates research on associations and causations with various determinants
 - Service statistics (Program MIS)
 - The indicator framework (systems approach) should facilitate holistic understanding
 - Real time information to facilitate timely reviews and corrective actions
 - Data producers should use it at all levels for monitoring and evaluation
- Scientific validity of (estimated) indicators is a prerequisite
 - Survey data estimates are often robust and provides understanding of level of the indicator
 - Service statistics are still evolving but informs about the direction of trends (progress)

Indicators in a systems approach

THE WHO HEALTH SYSTEM FRAMEWORK

SYSTEM BUILDING BLOCKS

SERVICE DELIVERY

HEALTH WORKFORCE

INFORMATION

MEDICAL PRODUCTS, VACCINES & TECHNOLOGIES

FINANCING

LEADERSHIP / GOVERNANCE

ACCESS
COVERAGE

QUALITY
SAFETY

OVERALL GOALS / OUTCOMES

IMPROVED HEALTH (LEVEL AND EQUITY)

RESPONSIVENESS

SOCIAL AND FINANCIAL RISK PROTECTION

IMPROVED EFFICIENCY

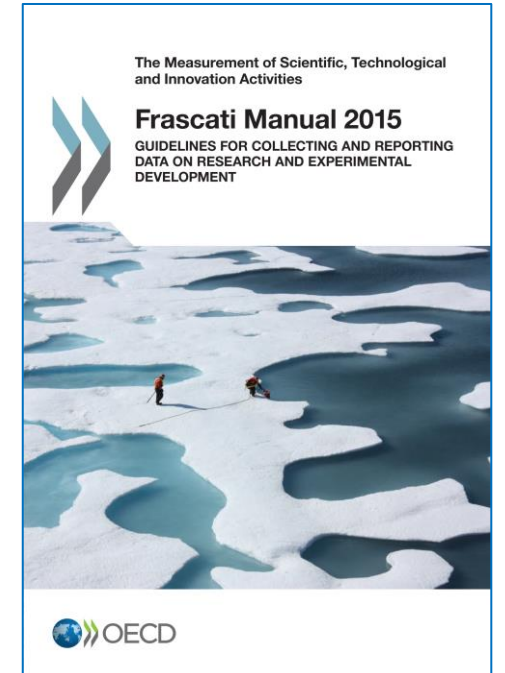


Data sources for systems approach

- Financing
 - Health budgets (MoHFW budget, RBI, public finance)
 - National health accounts reports
 - Program implementation plan (National Health Mission)
- Service delivery
 - Health Management Information System
 - Drugs and Vaccine Distribution Management System
- Infrastructure and human resources
 - Rural Health Statistics
 - National Health Profile
 - Health Management Information System
- Goals and outcomes
 - Sample Registration System
 - National Sample Survey (Social Consumption: Health; EUS; Enterprises)
 - Global Adult Tobacco Survey (GATS)
 - Longitudinal Aging Study of India (LASI)
 - District Level Household Survey (DLHS) / Annual Health Survey (AHS)
 - National Family Health Survey (NFHS)

Data to Statistic

- Producing estimates and indicators from survey and service statistics
 - Reports and publications of concerned government departments
 - Survey reports of the nodal agencies
 - Publications by researchers
- Standardization of data as per indicator definitions
- Statistics as per national and international indicator frameworks
- From an era that focused on vital statistics, the MDGs and SDGs have transformed indicator frameworks



Citation: OECD (2015), **Frascati Manual 2015**: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris.

Fundamental principles of official statistics

1. Relevance, impartiality and equal access
2. Professional standards, scientific principles, and professional ethics
3. Accountability and transparency
4. Prevention of misuse
5. Sources of official statistics
6. Confidentiality
7. Legislation
8. National coordination
9. Use of international standards
10. International cooperation

United Nations E/RES/2013/21



Economic and Social Council

Distr.: General
28 October 2013

Substantive session of 2013
Agenda item 13 (c)

Resolution adopted by the Economic and Social Council on 24 July 2013

[on the recommendation of the Statistical Commission (E/2013/24)]

2013/21. Fundamental Principles of Official Statistics

The Economic and Social Council,

Recalling recent resolutions of the General Assembly and the Economic and Social Council highlighting the fundamental importance of official statistics for the national and global development agenda,¹

Bearing in mind the critical role of high-quality official statistical information in analysis and informed policy decision-making in support of sustainable development, peace and security, as well as for mutual knowledge and trade among the States and peoples of an increasingly connected world, demanding openness and transparency,

Bearing in mind also that the essential trust of the public in the integrity of official statistical systems and its confidence in statistics depend to a large extent on respect for the fundamental values and principles that are the basis of any society seeking to understand itself and to respect the rights of its members and, in this context, that the professional independence and accountability of statistical agencies are crucial,

Stressing that, in order to be effective, the fundamental values and principles that govern statistical work have to be guaranteed by legal and institutional frameworks and respected at all political levels and by all stakeholders in national statistical systems,

Endorses the Fundamental Principles of Official Statistics, set out below as adopted by the Statistical Commission in 1994² and reaffirmed in 2013,³ and recommends them to the General Assembly for endorsement:

¹ These include General Assembly resolution 64/267 on World Statistics Day and Economic and Social Council resolutions 2005/13 on the 2010 World Population and Housing Census Programme and 2006/6 on strengthening statistical capacity.

² *Official Records of the Economic and Social Council, 1994, Supplement No. 9 (E/1994/29), chap. V.*

³ *Ibid.*, 2013, Supplement No. 4 (E/2013/24), chap. I, sect. C, decision 44/102.

13-43456



 Please recycle



E/RES/2013/21 Fundamental Principles of Official Statistics

Fundamental Principles of Official Statistics

Principle 1. Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

Principle 2. To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

Principle 3. To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

Principle 4. The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

Principle 5. Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

Principle 6. Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

Principle 7. The laws, regulations and measures under which the statistical systems operate are to be made public.

Principle 8. Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

Principle 9. The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.

Principle 10. Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

*46th plenary meeting
24 July 2013*

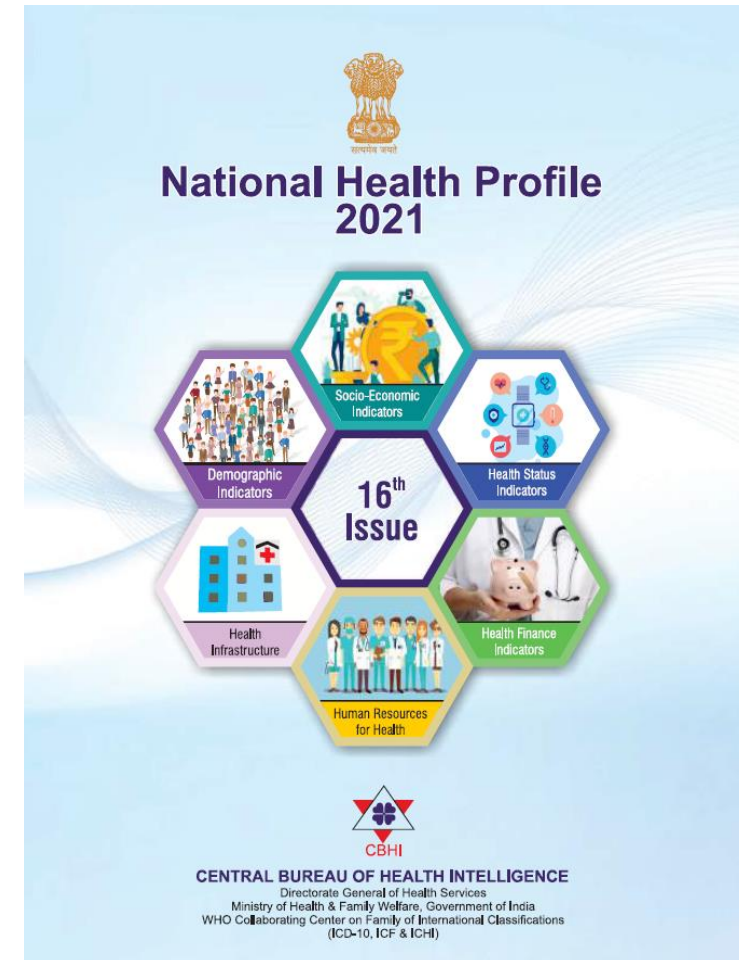
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Outline

- Focus
 - National Health Profile (CBHI, MoHFW)
 - Cause of Death (Sample Registration System, MoHA)
 - Mission Antyodaya (MoRD)
 - Health Management Information System (MoHFW)
 - National Family Health Survey (IIPS, MoHFW)
 - Consumer Pyramid Household Survey (CMIE)
- Digital Platforms (UWIN, HMIS, RCH, IHIP, DVDMS, POSHAN Tracker, ABDM); Disease Registries
- Surveys for nutrition indicators
 - National Family Health Surveys (NFHS)
 - District Level Household Surveys (DLHS)
 - Annual Health Surveys (AHS)
 - National Sample Surveys (NSS)
 - Comprehensive National Nutrition Survey (CNNS)
 - National Nutrition Monitoring Bureau (NNMB) Surveys
 - Longitudinal Aging Study of India (LASI)
 - India Human Development Surveys (IHDS)
 - Young Lives India

National Health Profile

- Indicators
 - Demographic Indicators
 - Socio-Economic Indicators
 - Health Status Indicators
 - Health Finance Indicators
 - Human Resource for Health
 - Health Infrastructure
- Data source
 - The data in this publication is collected from various source agencies. CBHI relies on these source agencies to compile the data for National Health Profile namely (a) Central Ministries/ Departments (b) Health Authorities of all States/UTs (c) Autonomous Organizations & other Agencies which have been indicated at the bottom of the data tables.
- Background and availability
 - MoHFW and CBHI (Nodal)
 - 2011 to 2021 (except 2014)
 - (<https://cbhidghs.mohfw.gov.in/index1.php?lang=1&level=1&sublinkid=75&lid=1135>)



National Health Profile

- Demographic indicators (Population Statistics and Vital Statistics)
- Population, population projections, fertility rates, infant mortality rate, maternal mortality ratio, crude birth and death rates.
- Sources used for compilation of population statistics
 - Census of India, Registrar General of India
 - Report of the Technical Group on Population Projections, NCP
 - Indirect methods
 - SRS Statistical Report and SRS Bulletin, Registrar General of India
 - Direct methods
 - Civil Registration System (CRS) and Medical Certification of Cause of Death (MCCD)

National Health Profile

- Socioeconomic indicators (Education, Gender, Poverty & Employment)
- Literacy rate, age at marriage, PCNSDP, PC cereals / pulses, employment exchange statistics, poverty (2011-12), housing, water and sanitation
- Sources used for compilation of socioeconomic indicators
 - Census of India, Registrar General of India
 - Unified District Information System for Education Plus (UDISE+)
 - NITI Aayog, MoSPI, MoA, MoDWS
 - State governments (employment exchange, directorate of economics and statistics)

National Health Profile

- Health status indicators (Communicable & Non-Communicable Disease)
 - Communicable diseases
 - Cases and deaths: malaria, chikungunya, kala-azar, acute encephalitis syndrome, Japanese encephalitis, dengue, cholera, acute diarrhoeal diseases, enteric fever, acute respiratory infection, tetanus neonatal, whooping cough, diphtheria, measles, viral hepatitis, rabies, Pneumonia, meningococcal meningitis, gonococcal infection, syphilis, HIV (AIDS, ART), leprosy, swine flue, chicken pox
 - Non-communicable diseases
 - Cancer, diabetes, cardiovascular diseases, stroke, eye, accident, suicides, unnatural deaths, disabled persons, snake bite, dental and skeletal fluorosis, goitre
 - Maternal and child health
 - Maternity care, delivery care, family planning, child feeding practices, child immunization, anemia, foeticide and infanticide
- Sources used for compilation of socioeconomic indicators
 - MoHFW Divisions
 - Directorate of Health Services of State
 - NCRB, RGI and NFHS

National Health Profile

- Health finance indicators (public health expenditure)
 - Public expenditure on health (states), NHM expenditure, hospitalization cases by major source of finance, coverage of scheme of health expenditure support, medical expenditure for treatment, OOPE, ESIC, RSBY, PM-JAY, health insurance, central allocation patterns, scheme-wise allocations
- Sources used for compilation of socioeconomic indicators
 - MoHFW (Budget Divisions)
 - National Health Authority, ESIC,
 - National Sample Survey (Health)
 - National Health Accounts Cell

National Health Profile

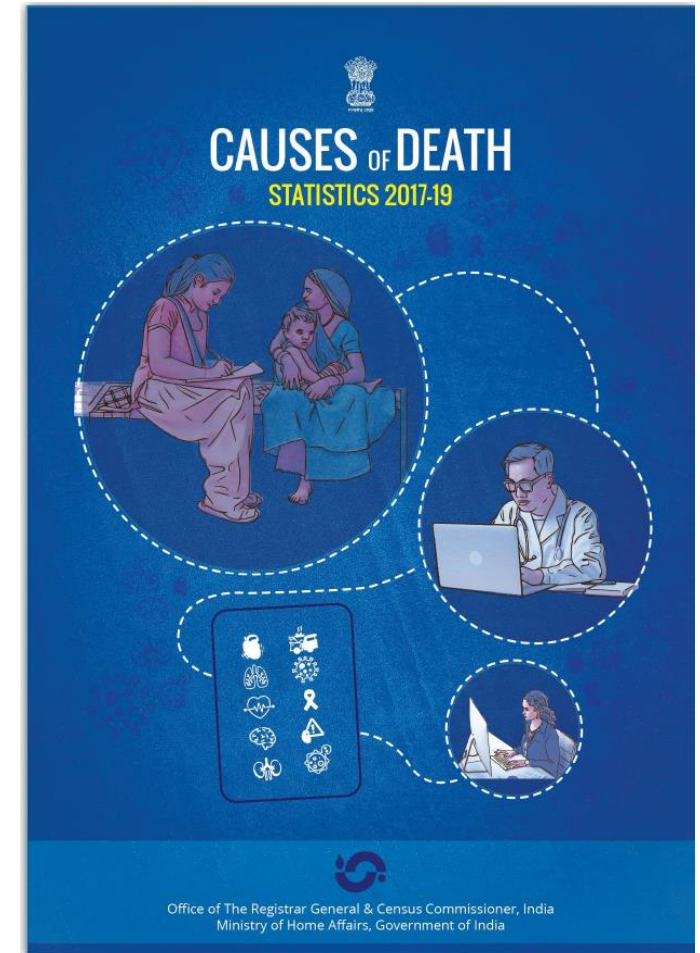
- Human resource for health (medical, nursing and paramedical personnel)
 - Professional Councils in India
 - Registered doctors, dentists, AYUSH practitioners, nurses, pharmacists
 - Medical courses and seats
 - HR for health in service sector
 - HR in rural areas (PHC, SC)
 - HR in urban areas (UPHC, UCHC, SDH, DH, MC)
 - HR in railways, ESIC hospitals,
- Sources used for compilation of socioeconomic indicators
 - Medical Council of India
 - Dental Council of India
 - Indian Nursing Council & Pharmacy Council of India
 - Directorate of Health Services (States)
 - ESIC, Ministry of Railways, Ministry of AYUSH
 - Rural Health Statistics (MoHFW)

National Health Profile

- Health infrastructure indicators (education and service infrastructure)
 - Education infrastructure
 - Medical colleges, PG seats, AIIMS, AYUSH colleges, Admissions (medical, dental, nursing, pharmacy)
 - Service infrastructure
 - SC, PHC, CHC functioning, SDH, DH, MMU, MC, Hospital beds, blood banks, eye banks, mental health hospitals, CGHS facilities, vaccine production
 - Clinical establishments registered
- Sources used for compilation of socioeconomic indicators
 - Medical Council of India
 - Dental Council of India
 - Indian Nursing Council & Pharmacy Council of India
 - Directorate of Health Services (States)
 - ESIC, Ministry of Railways, Ministry of AYUSH
 - Annual Reports; Rural Health Statistics (MoHFW)

Cause of death statistics (SRS, RGI)

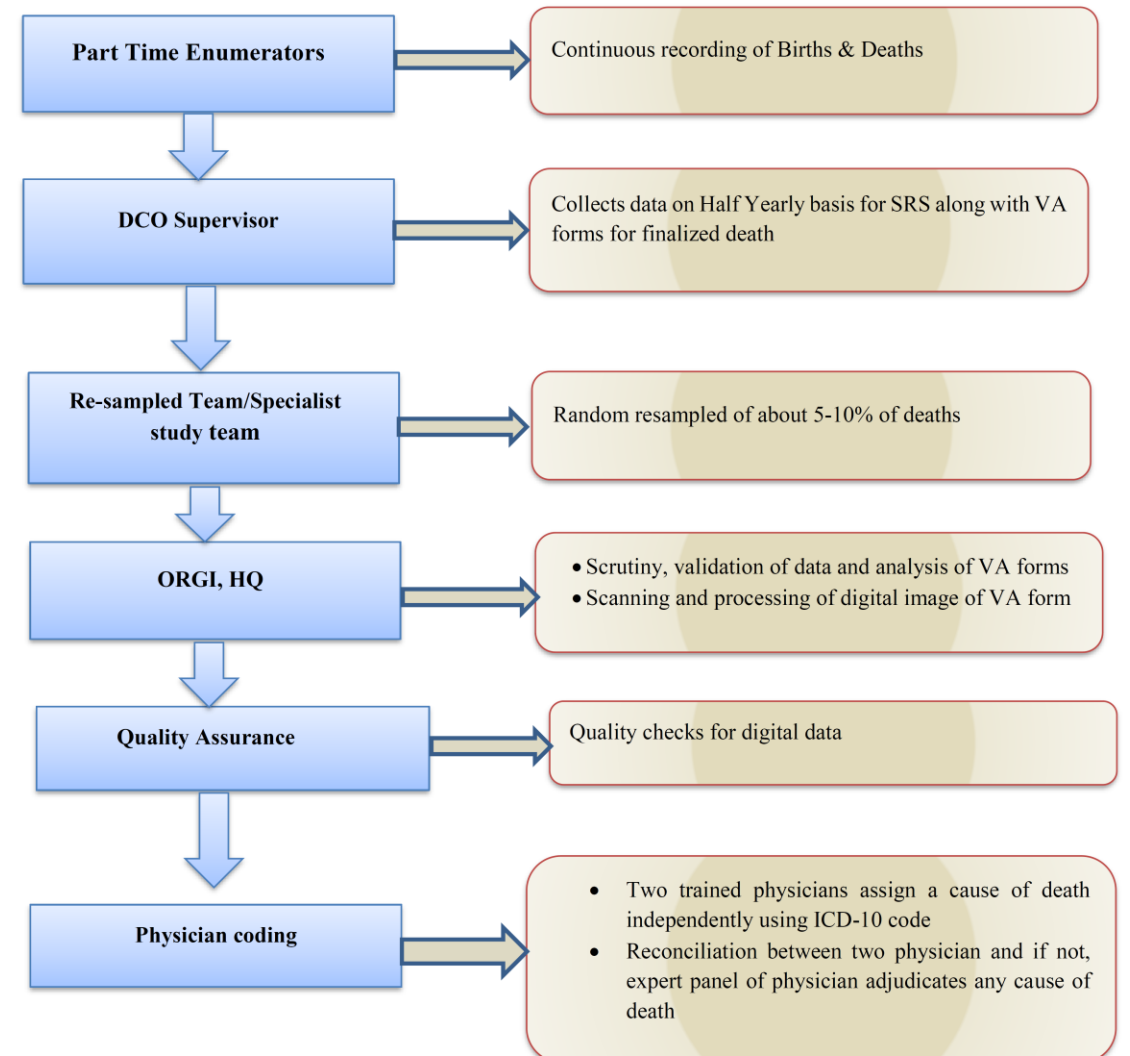
- Sample Registration System (Indirect)
 - Survey of causes of death in rural areas merged with SRS in 1999
 - Verbal autopsy to ascertain underlying cause of death started from 2001-03 onwards
 - Use of WHO ICD 10th Revision
 - Medical evaluation by two independent trained physicians with technical support from AIIMS
 - Joint exercise of centre and state government
- Objective: To build up statistics on most probable causes of death using lay diagnosis reporting (post death verbal autopsy) method
- <https://censusindia.gov.in/census.website/data/SRSCOD>



Cause of death statistics (Indirect method, SRS)

- Data: SRS 2014 sample drawn from 2011 Census frame covering 8844 sample units (4,960 rural and 3,884 urban units) with approximately 8.2 million population across 29 states and 7 union territories for the year 2017-1.
- The causes of death is determined using an advanced form of Verbal Autopsy called the "RHIME" or Representative, Re-sampled, Routine Household Interview of Mortality with Medical Evaluation method
- Each household in the SRS sample units where a death occurs is visited, retrospectively, by the trained SRS supervisors to collect the details of signs and symptoms
- The assignment of cause of death involved medical evaluation by two independent trained physicians who examines the field reports using a web-based system. Continuing disagreements would be referred to a senior third physician.
- A random sample of about 5% of the units is re-surveyed by an independent team to ensure the quality of fieldwork, completeness and accuracy
- ICD 10 categories are further clubbed as: (I) communicable, maternal, perinatal and nutritional conditions; (II) non-communicable diseases; and (III) injuries.

Field Activities and Cause of Death assignment



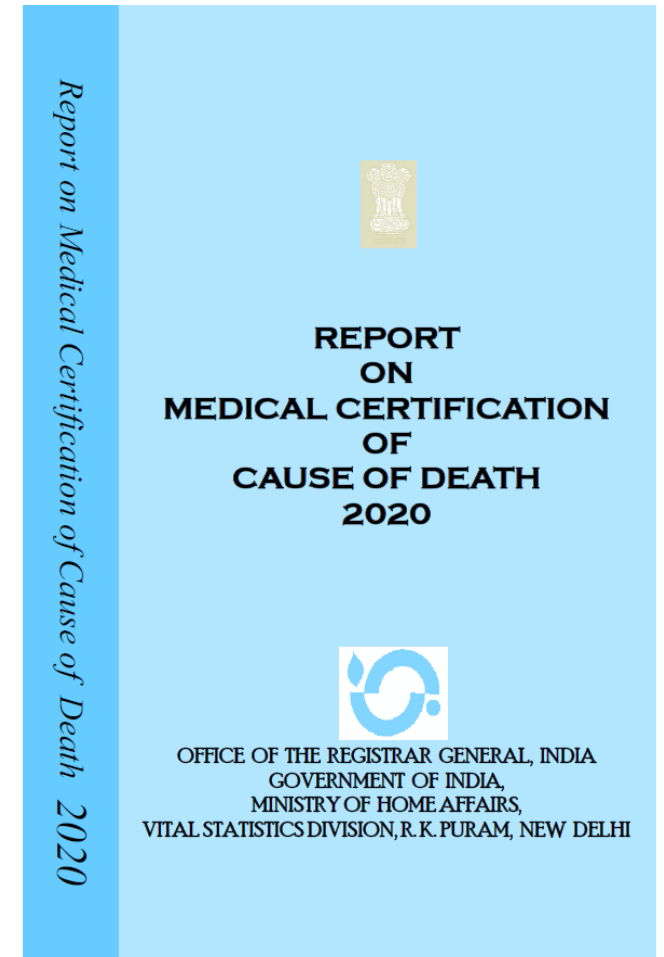
Cause of death statistics (Indirect method, SRS)

Table 1.3A - Distribution of Deaths in India: 2017-2019, Person

Causes of Death	Age-Group (Percentage of Deaths)							
	Person	0-4	05-14	15-29	30-44	45-54	55-69	70+
Communicable, maternal, perinatal and nutritional conditions	21.5	83.6	38.2	19.8	14.3	12.2	14.7	18.1
Acute bacterial sepsis & severe infections	0.5	4.0	0.4	0.4	0.3	0.2	0.3	0.2
Diarrhoeal diseases	3.3	5.8	9.2	2.8	1.5	1.4	2.4	4.2
Fever of unknown origin	5.0	4.1	9.1	4.4	2.5	2.4	4.5	6.7
HIV/AIDS	0.2	0.0	0.1	0.4	0.8	0.4	0.1	0.0
Malaria	0.4	0.3	1.9	1.0	0.5	0.4	0.4	0.2
Maternal conditions	0.2	0.0	0.0	2.6	0.7	0.0	0.0	0.0
Nutritional deficiencies	0.4	0.8	1.4	0.4	0.3	0.3	0.3	0.5
Other infectious and parasitic diseases	0.9	1.8	6.5	2.0	1.3	0.8	0.7	0.4
Perinatal conditions	3.7	49.0	0.1	0.0	0.0	0.0	0.0	0.0
Respiratory infections	3.6	17.4	6.3	1.0	0.9	1.2	1.9	3.7
Selected tropical diseases	0.4	0.3	2.3	1.0	0.7	0.4	0.4	0.2
Tuberculosis	2.9	0.1	0.9	3.8	4.8	4.7	3.8	1.8
Non-Communicable diseases	56.0	10.1	25.0	29.5	55.4	72.7	74.4	52.5
Cardiovascular diseases	28.9	0.6	1.5	9.4	24.4	37.1	40.0	29.0
Congenital anomalies	0.5	5.7	4.1	0.8	0.2	0.0	0.0	0.0
Diabetes mellitus	3.2	0.0	0.2	0.7	1.6	3.4	5.0	3.4
Digestive diseases	5.0	1.8	7.7	6.9	11.5	9.3	5.7	2.4
Genito-urinary diseases	3.0	0.2	1.2	2.4	4.0	4.5	3.9	2.5
Malignant and other Neoplasms	6.8	0.4	3.7	5.1	9.4	12.9	10.0	4.0
Neuro-psychiatric conditions	0.8	0.8	4.7	2.4	1.7	0.9	0.6	0.5
Respiratory diseases	7.3	0.3	0.9	1.4	2.2	4.3	8.9	10.5
Other Non-Communicable Diseases	0.3	0.3	1.0	0.5	0.4	0.3	0.3	0.3
Injuries	10.4	4.9	33.5	47.1	28.0	12.9	6.1	3.7
Injuries of Undetermined intent	0.1	0.0	0.5	0.5	0.4	0.1	0.0	0.0
Intentional injuries: Other Than Suicide	0.2	0.1	0.6	1.0	0.6	0.3	0.1	0.0
Intentional injuries: Suicide	2.5	0.0	2.3	17.4	8.2	3.3	1.1	0.3
Unintentional injuries: Motor Vehicle Accidents	3.6	0.7	7.7	18.4	12.5	5.1	2.1	0.6
Unintentional injuries: Other Than Motor Vehicle Accidents	4.0	4.0	22.4	9.8	6.3	4.0	2.8	2.8
Symptoms, signs and Ill-defined conditions	12.2	1.4	3.3	3.6	2.3	2.2	4.8	25.7
Ill-defined/All other symptoms, signs and abnormal clinical and laboratory findings	12.2	1.4	3.3	3.6	2.3	2.2	4.8	25.7

Cause of death statistics (VSD, RGI)

- Medical Certification of Cause of Death (Direct)
 - Registration of Births and Deaths Act, 1969. Section 10(2) of the Act empowers the State Government to enforce the provision relating to medical certification of cause of death in specified areas taking into consideration the availability of medical facilities.
 - Data on medically certified cause of deaths received from 34 States/UTs
 - ICD 10th Revision; Covid-19 code (U07.1 and U07.2) recommended by ICMR
- Objective: To provide reliable cause-specific mortality statistics on a regular basis to Administrators, Policy Planners, Researchers and other Professionals for evidence-based decision-making with regard to resource allocation, monitoring of indicators, identifying the priorities for programs and other related activities in the area of Public Health.
- <https://censusindia.gov.in/nada/index.php/catalog/42681>



Cause of death statistics (VSD, RGI)

- Methodology
 - Data is collected in the prescribed forms (Form 4 for Hospital deaths and Form 4A for Non-institutional deaths).
 - The forms are filled-up by the medical professionals attending to the deceased at the time of terminal illness.
 - The forms are sent to Registrars of Births and Deaths for onward transmission to the Chief Registrar Office. The States/UTs subsequently send it to the Office of RGI
- Scope and coverage
 - MCCD-2020, is based upon 18,11,688 total medically certified deaths (Male: 11,60,119 and Female: 6,51,569).
 - As per CRS, 2020, the number of registered deaths at National level is 81,15,882.
 - Medically certified deaths account for 22.5 per cent of total registered deaths at National level

Cause of death statistics (VSD, RGI)

- Distribution of Deaths by Cause
- Nine leading cause-groups of deaths constituting around 88.7 per cent of MCCD
 - Diseases of Circulatory System (32.1 per cent)
 - Diseases of Respiratory System (10.0 per cent)
 - Codes for Special Purposes – COVID-19 (8.9 per cent)
 - Certain Infectious and Parasitic Diseases (7.1 per cent)
 - Endocrine, Nutritional and Metabolic Diseases (5.8 per cent)
 - Injury, Poisoning and Certain other Consequences of External Causes (5.6 per cent)
 - Neoplasms (4.7 per cent)
 - Certain Conditions Originating in the Perinatal Period (4.1 per cent)
 - Symptoms Signs & Abnormal Clinical Findings “Not Elsewhere Classified” (10.6 per cent)
- Specific cause of Mortality in different age groups (state-wise tables cross-classified by age, sex and cause of death)

Cause of death statistics (VSD, RGI)

Chart 3.4.1

Percentage distribution of male deaths under MCCD by nine leading cause groups - 2020

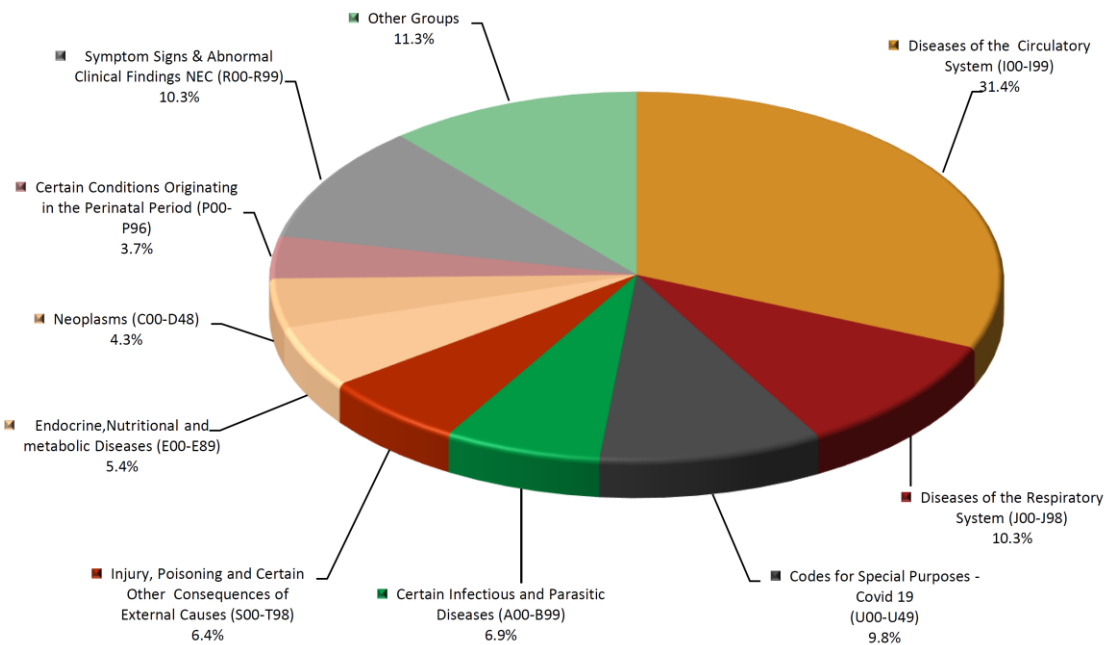
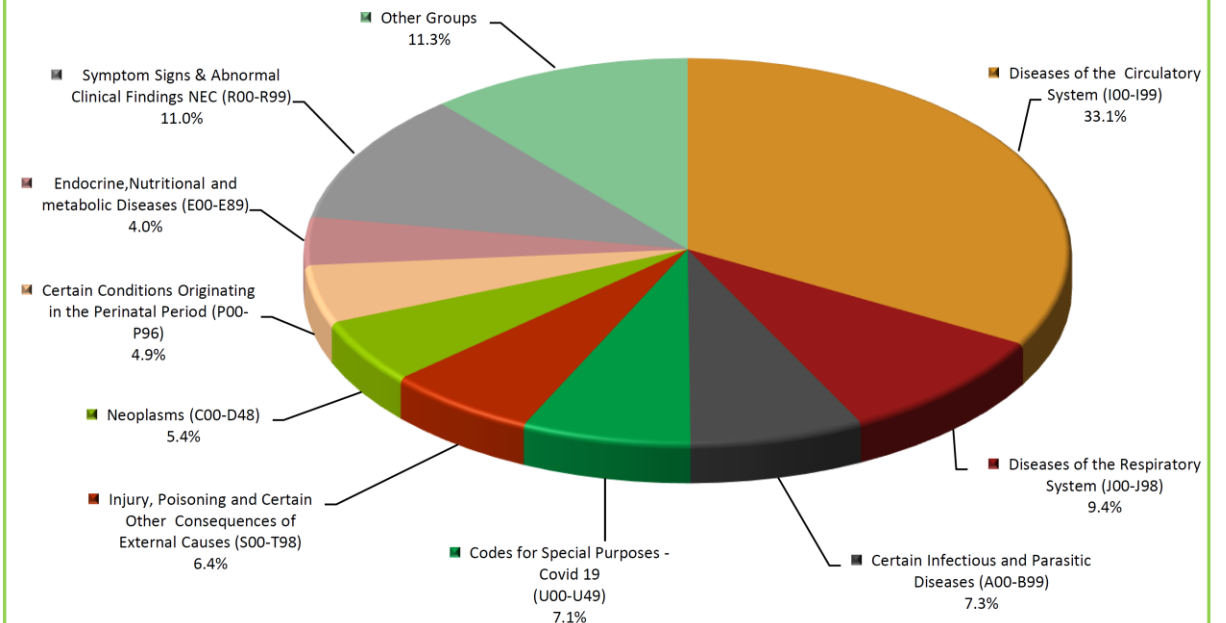


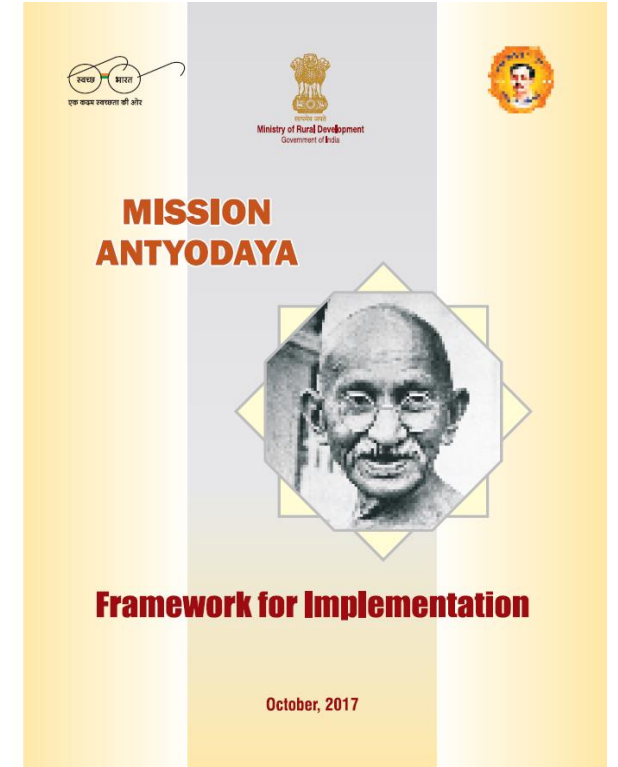
Chart 3.4.2

Percentage distribution of female deaths under MCCD by nine leading cause groups - 2020



Mission Antyodaya

- Adopted in Union Budget 2017-18, Mission Antyodaya is a convergence and accountability framework aiming to bring optimum use and management of resources allocated by 27 Ministries / Department of the Government of India under various programmes for the development of rural areas.
- It is envisaged as state-led initiative with Gram Panchayats as focal points of convergence efforts.
- Annual survey in Gram Panchayats across the country is an important aspect of Mission Antyodaya framework.
- It is carried out coterminous with the People's Plan Campaign (PPC) of Ministry of Panchayat Raj and its' purpose is to lend support to the process of participatory planning for Gram Panchayat Development Plan (GPDP).
- <https://missionantyodaya.nic.in/maz020/rawData2020.html>



Mission Antyodaya

Figure 1: Multidimensional approach under 'Mission Antyodaya'



Mission Antyodaya Portal

Latest Update

MA Training Video I

Language: Hindi (हिंदी) Login (Registered User)



Mission Antyodaya 2022-23



Survey Progress & Statistics (Analytics)

Dashboard Last updated on : 12/07/2023 01:01 PM

Survey Progress

Survey Statistics



Total States & UTs

36



Total Districts

765



Total Blocks

7254



Total Gram Panchayats

268214



Total Villages

657574



Total GPs Uninhabited

188

Gram Panchayats Progress

Villages Progress

Total Downloaded	265442 [98.97%]	654012 [99.46%]
Total Uploaded	264246 [98.52%]	638357 [97.08%]
Signed PDF Uploaded	263143 [98.11%]	635629 [96.66%]
All Assets Geo - Tagged	261306 [97.42%]	597736 [90.9%]
Gram Sabha Video Uploaded	205626 [76.66%]	Not Available at Village Level
Signed PDF Accepted	262313 [97.8%]	633809 [96.39%]
Survey Data Verified	261719 [97.58%]	632511 [96.19%]
Geo Tagged Accepted	260536 [97.14%]	595997 [90.64%]
Survey Finalized	260643 [97.18%]	630484 [95.88%]

Mission Antyodaya Survey Completion

State Name	Districts	Blocks	GPs	Villages		2017-18		2019		2022*
Total	735	7201	269942	667933	247910	92%	265031	98%	267205	99%
Andaman And Nicobar Islands (35)	3	9	70	361	70	100%	69	99%	70	100%
Andhra Pradesh (28)	13	668	13371	20256	12904	97%	13058	98%	13370	100%
Arunachal Pradesh (12)	25	114	2106	5798	1673	79%	1467	70%	1974	94%
Assam (18)	33	242	2722	27342	2649	97%	2370	87%	2625	96%
Bihar (10)	38	534	8387	45821	7239	86%	8378	100%	8386	100%
Chandigarh (4)										
Chhattisgarh (22)	28	146	11664	20321	10968	94%	11593	99%	11664	100%
Delhi (7)										
Goa (30)	2	12	191	403	193	101%	191	100%	191	100%
Gujarat (24)	33	250	14269	18828	14293	100%	13994	98%	14111	99%
Haryana (6)	22	142	6237	7468	5722	92%	6197	99%	6237	100%
Himachal Pradesh (2)	12	81	3663	22627	3233	88%	3213	88%	3242	89%
Jammu And Kashmir (1)	20	280	4283	7365	4227	99%	4209	98%	4179	98%
Jharkhand (20)	24	264	4364	32804	3795	87%	4175	96%	4359	100%
Karnataka (29)	30	227	6151	33429	6012	98%	6018	98%	5994	97%
Kerala (32)	14	152	941	1594	939	100%	941	100%	941	100%
Ladakh (37)	2	31	193	267	190	98%	183	95%	191	99%
Lakshadweep (31)	1	5	5	5	10	200%	0	0%	0	0%
Madhya Pradesh (23)	52	313	22793	55472	22716	100%	22751	100%	22711	100%
Maharashtra (27)	36	351	27894	43746	27862	100%	27876	100%	27884	100%
Manipur (14)	16	70	3192	3724	1527	48%	2848	89%	3079	96%
Meghalaya (17)	11	46	6751	6758	4117	61%	6151	91%	6138	91%
Mizoram (15)	11	26	834	864	655	79%	805	97%	834	100%
Nagaland (13)	11	74	1262	1262	1141	90%	1233	98%	1257	100%
Odisha (21)	30	314	6806	50275	3762	55%	6651	98%	6781	100%
Puducherry (34)	4	3	108	139	40	37%	100	93%	0	0%
Punjab (3)	22	152	13290	14856	12804	96%	13193	99%	13271	100%
Rajasthan (8)	33	353	11367	46558	9841	87%	11030	97%	11310	99%
Sikkim (11)	4	32	186	447	185	99%	185	99%	186	100%
Tamil Nadu (33)	38	403	12842	18082	12543	98%	12510	97%	12541	98%
Telangana (36)	33	577	12769	15832	7295	57%	12761	100%	12769	100%
The Dadra And Nagar Haveli And Daman And Diu (38)	3	3	38	102	35	92%	38	100%	38	100%
Tripura (16)	8	59	1305	1784	1204	92%	1137	87%	1181	90%
Uttarakhand (5)	13	97	7798	16026	7601	97%	7782	100%	7791	100%
Uttar Pradesh (9)	75	827	58728	106167	57243	97%	58701	100%	58677	100%
West Bengal (19)	23	344	3362	41150	3210	95%	3223	96%	3223	96%

Mission Antyodaya Survey Questionnaire

- Basic parameters
- Agriculture and Land Development, fuel and fodder
- Animal Husbandry
- Fisheries
- Rural Housing
- Water & Environmental Sanitation
- Roads & communication
- Conventional & Nonconventional Energy
- Financial and Communication Infrastructure
- Markets and fairs
- Public distribution system
- Libraries
- Recreation & Sports
- Education/Vocational Education
- Welfare of the weaker sections
- Poverty Alleviation Programme
- Khadi, village and cottage industries
- Small scale industries
- Social forestry
- **Health, Nutrition, Mother & Child development & Family Welfare**
- Good Governance - GP Infrastructure & services
- <https://missionantyodaya.nic.in/ma2020/rawData2020.html>

Mission Antyodaya Survey Questionnaire (Health / Nutrition)

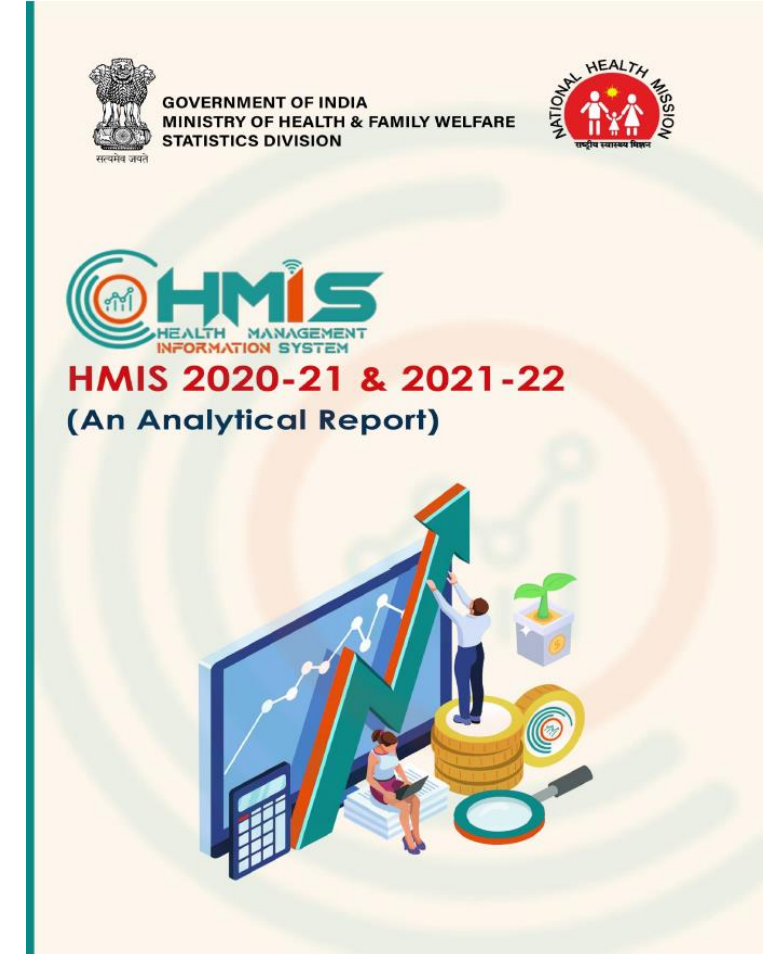
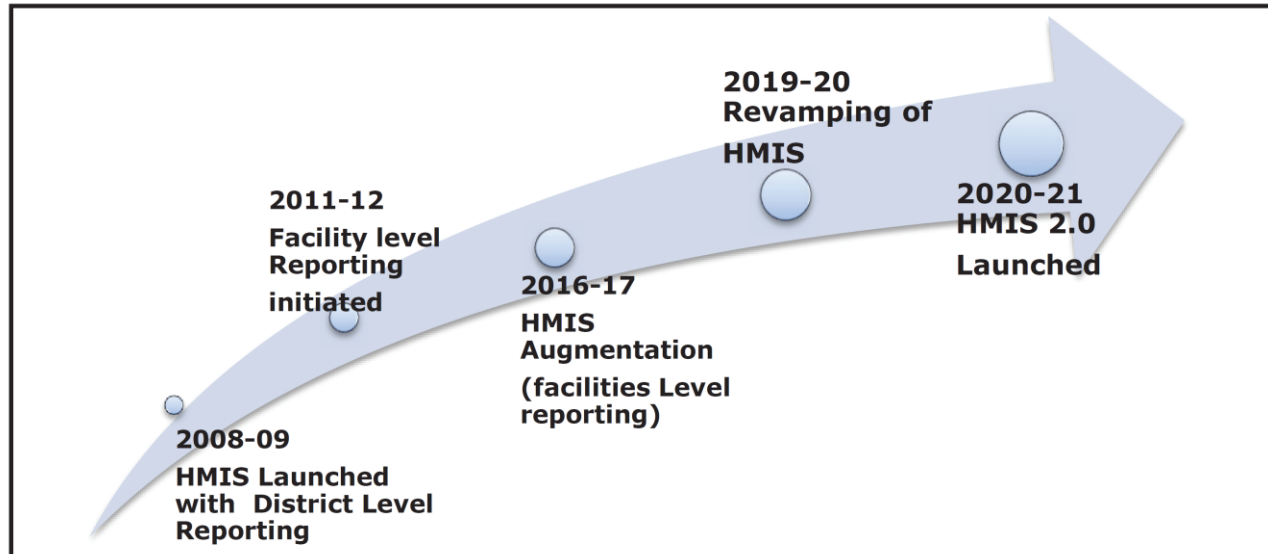
- Data items (about 40 indicators under the section)
 - SC, PHC, CHC, nearest PM-JAY facility by distance
 - Jan Aushadhi Kendra
 - AWC and service statistics (beneficiaries)
 - Anemic, stunted, SAM, LBW, child and maternal deaths etc
 - TB
 - Mental health institutional access
- Data providers
 - ASHA/ANM/ICDS Supervisor/Health Supervisor/AWW
 - VLCPC/Block PMU of CPU/VCPC
 - Women Self Help Group
 - Panchayat Office (from population register)
 - Gram Paanchayat Office/Panchayat Secretary/eGramSwaraj

Health Management Information System (HMIS)

- The HMIS Portal facilitates the flow of physical performance from the Facility level to the Sub-district, District, State and National level using a web based Health Management Information System (HMIS) interface. The portal provides periodic reports on the status of the health services performances and Human Resources and Infrastructure services facilities available.
- HMIS captures facility-wise information as follows:
 - Service Delivery (Reproductive, Maternal and Child Health related, Immunisation family planning, Vector borne disease, Tuberculosis, Morbidity and Mortality, OPD, IPD Services, Surgeries etc. data) on monthly basis.
 - Infrastructure (Manpower, Equipment, Cleanliness, Building, Availability of Medical Services such as Surgery etc., Super Specialties services such as Cardiology etc., Diagnostics, Para Medical and Clinical Services etc. data) on monthly basis.
- <https://hmis.mohfw.gov.in/#/>

HMIS Journey

- HMIS 1.0 started functioning from 2008-09 with District level reporting. Gradually, facility level data entry was initiated during 2011-12 and it was completed by 2016-17.
- Due to technological and programme need, HMIS revamping was initiated in 2019-20 and further launched in Dec 2020.



HMIS Formats

Annual *(Infrastructure)*

- DH
- SDH
- CHC
- PHC
- SC

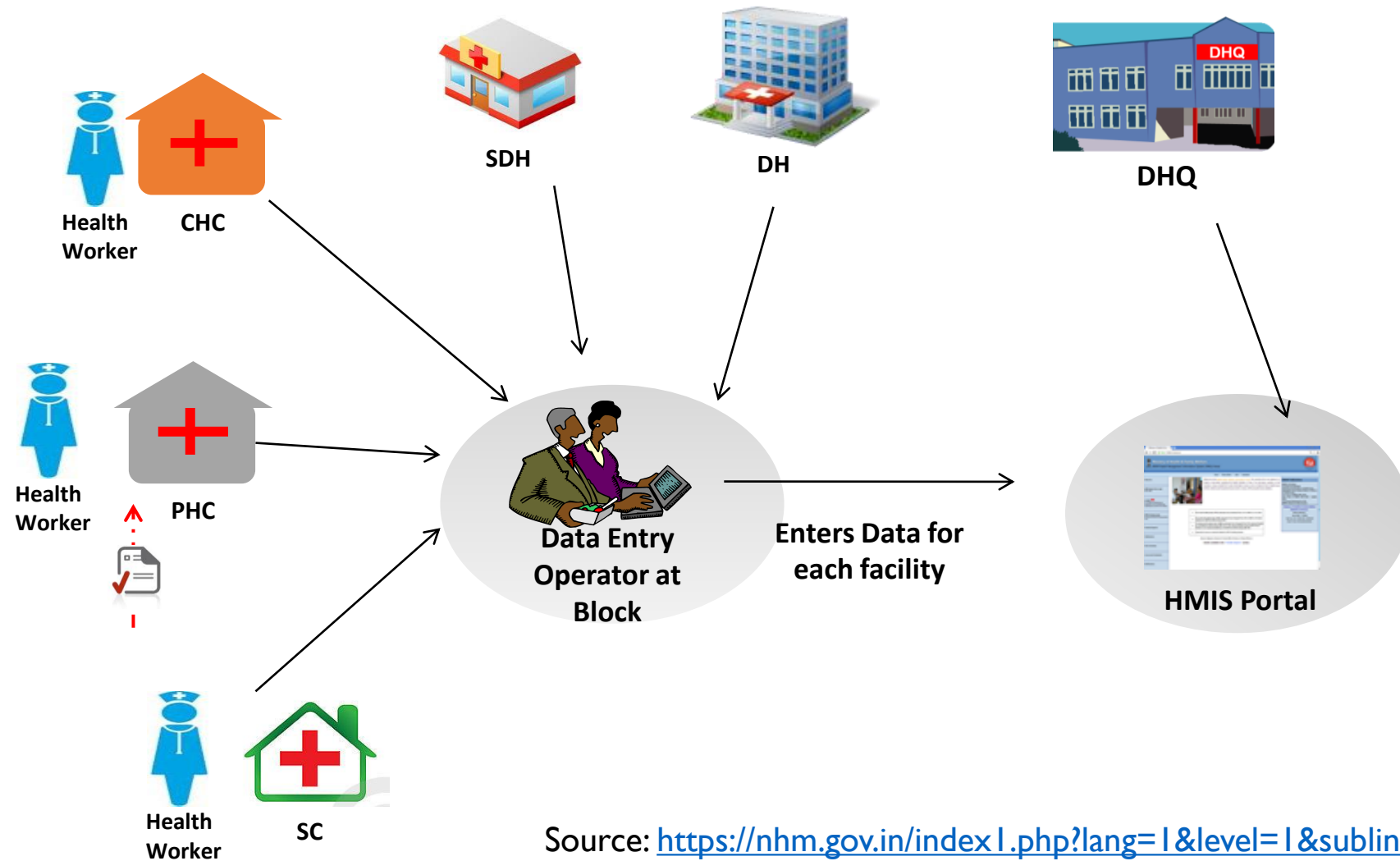
Monthly *(Service delivery)*

- District HQ
- DH
- SDH
- CHC
- PHC
- SC

Quarterly *(Trainings)*

- State
- District

HMIS Data Flow



Source: <https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=1304&lid=688>

HMIS Features

- Data entry
 - All types of public health facilities and private hospitals are mapped either as SC/PHC/CHC/SDH/DH and based on this mapping, set of data items for which data has to be filled are generated.
 - Inbuilt Consistency check for Data Quality i.e. inter-data validation, comparison with data reported in the previous months etc.
- Integration with other Systems
 - Linkage through API with other national level portal of Ministry of Health & Family Welfare, Ministry of Rural Development, Ministry of Tribal Affairs etc.
 - State specific generic API for fetching data from State MIS portal (like PCTS portal of Rajasthan)
- Reporting
 - Provisioning for real-time monitoring, Alerts, Analytics GIS Integration with layers up to road, village boundary etc.
 - Data Visualization through GIS and Interactive Dashboard
 - Standard reports in public domain and real time reports in login available. Real time reports include data reporting status, all data items report, Key HMIS report, Min-Max, Range report etc.

Data captured in HMIS

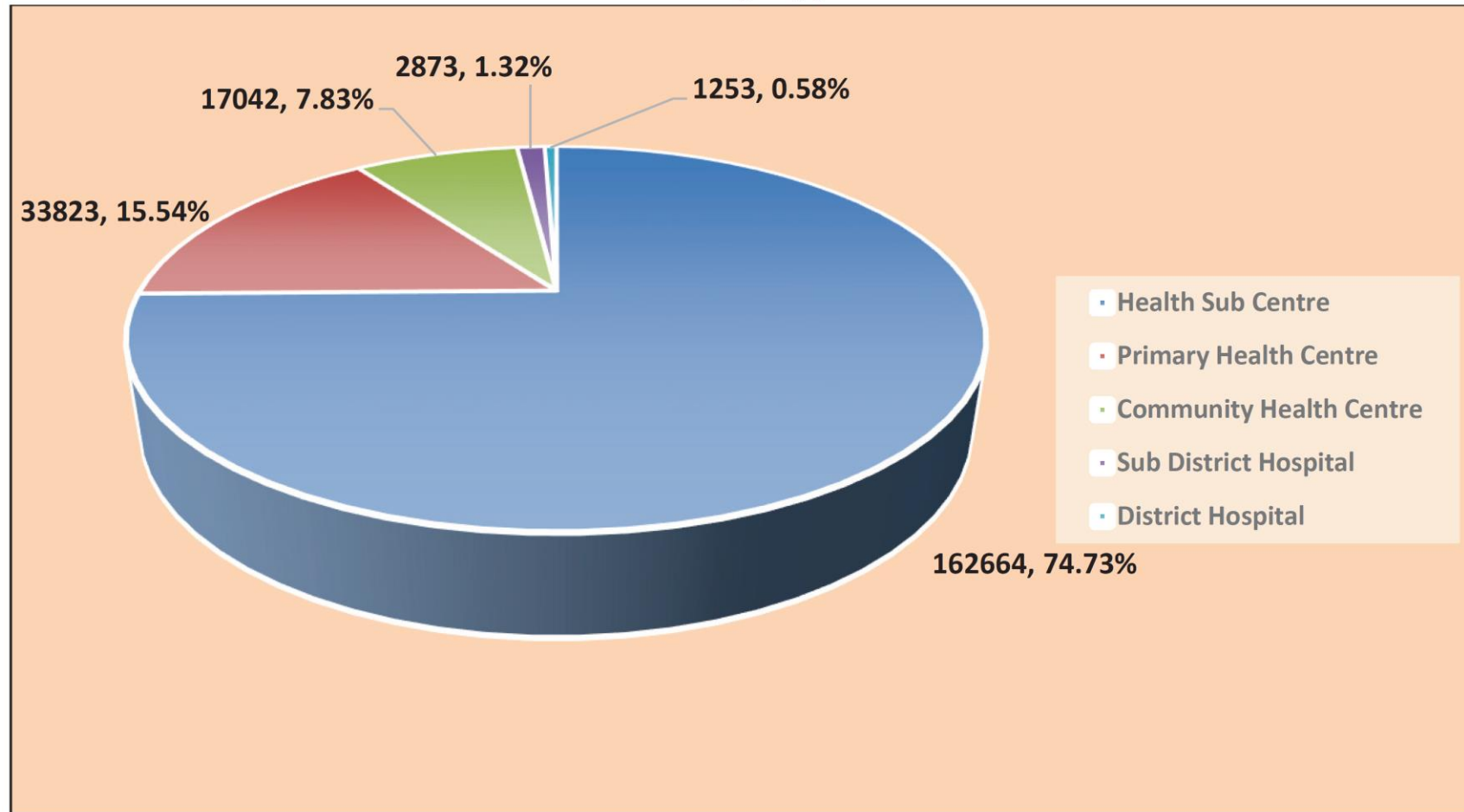
- Service Delivery:
 - Maternal Health, Child-health & Immunization, Family Planning,
 - Vector Borne Disease, Tuberculosis, Morbidity and Mortality,
 - OPD, IPD Services, Surgeries etc.
- Infrastructure:
 - Manpower, Equipment,
 - Cleanliness, Building,
 - Availability of Medical Services such as Surgery etc.,
 - Super Specialties services such as Cardiology etc.,
 - Diagnostics,
 - Para Medical and Clinical Services etc.
- Standard reports with 203 indicators (2019-20) for states, districts and blocks

Coverage of HMIS

Facility Type /No*.	Sub-Centre	Primary Health Centre	Community Health Centre	Sub-District Hospital	District Hospital	Total
Total	160894	30802	11762	2276	1200	206934
Public	160814	30354	5631	1350	1008	199157
Private	80	448	6131	926	192	7777
Rural	157413	24963	7195	1072	1197	191840
Urban	3481	5839	4567	1207	0	15094

As of March 2022, there were around 747 districts and around **2.17 lakh health facilities** mapped and reporting through HMIS Portal

Coverage of HMIS



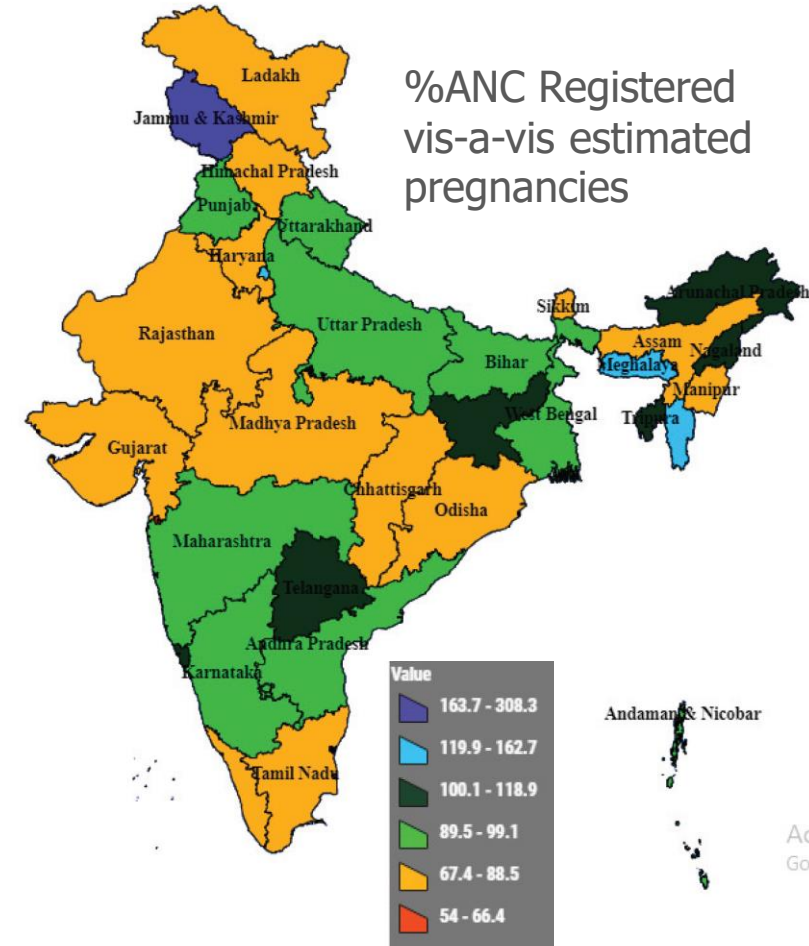
Coverage of HMIS

State/UT-wise number of Public Health Facilities by type of health facility as mapped in HMIS (As on 31st March 2022)

Sl. No.	States/UTs	Health Sub Centre	Primary Health Centre	Community Health Centre	Sub District Hospital	District Hospital	Total
All India		162652	32281	6217	1407	1070	203627
1	Andaman & Nicobar Islands	123	27	4	0	3	157
2	Andhra Pradesh	11480	1691	181	51	29	13432
3	Arunachal Pradesh	367	131	58	0	20	576
4	Assam	4701	1010	202	14	35	5962
5	Bihar	10450	1787	307	51	47	12642
6	Chandigarh	0	44	2	1	4	51
7	Chhattisgarh	5494	823	170	12	34	6533
8	Delhi	399	565	26	11	52	1053
9	Goa	219	63	6	2	3	293
10	Gujarat	9132	1807	361	54	40	11394
11	Haryana	2691	535	152	25	27	3430
12	Himachal Pradesh	2127	595	99	84	16	2921
13	Jammu And Kashmir	2500	982	82	0	27	3591
14	Jharkhand	3848	351	177	19	21	4416
15	Karnataka	9366	2532	212	151	48	12309
16	Kerala	5475	944	230	87	56	6792
17	Ladakh	289	33	7	0	2	331
18	Lakshadweep	15	4	3	2	1	25
19	Madhya Pradesh	10227	1544	324	113	51	12259
20	Maharashtra	10669	3524	448	98	83	14822
21	Manipur	415	95	17	1	9	537
22	Meghalaya	460	147	28	2	13	650
23	Mizoram	367	65	7	2	12	453
24	Nagaland	452	136	23	0	12	623
25	Odisha	6688	1391	384	33	37	8533
26	Puducherry	84	46	4	2	4	140
27	Punjab	3120	526	164	44	29	3883
28	Rajasthan	13589	2518	685	91	30	16913
29	Sikkim	153	26	2	0	4	185
30	Tamil Nadu	8715	1874	412	311	32	11344
31	Telangana	4910	834	82	44	21	5891
32	The Dadra And Nagar Haveli And Daman And Diu	97	14	4	1	3	119
33	Tripura	999	115	23	12	8	1157
34	Uttarakhand	1851	607	80	21	14	2573
35	Uttar Pradesh	20783	3515	849	0	190	25337
36	West Bengal	10397	1380	402	68	53	12300

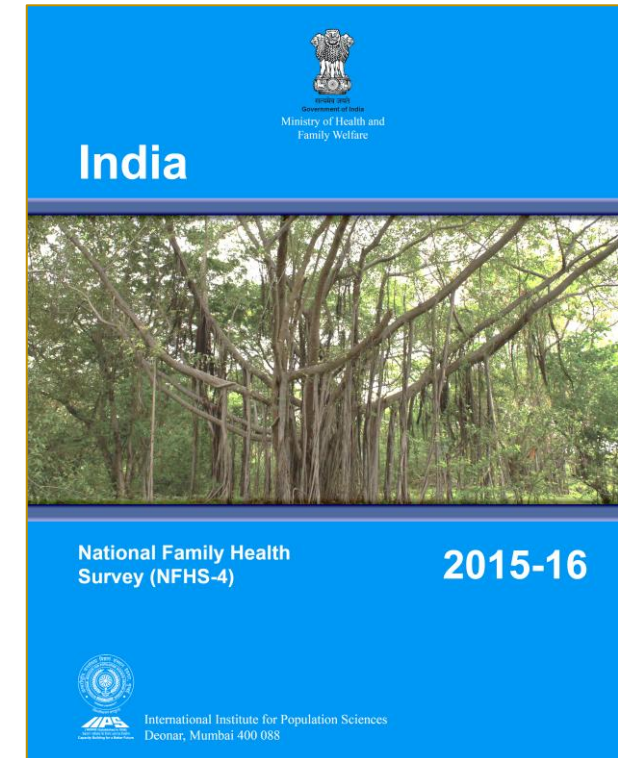
State/UT-wise number of Private Health Facilities by type of health facility as mapped in HMIS (As on 31st March 2022)

Sl. No.	States/UTs	Health Sub Centre	Primary Health Centre	Community Health Centre	Sub District Hospital	District Hospital	Total
All India		12	1542	10825	1466	183	14028
1	Andaman & Nicobar Islands	0	11	1	0	0	12
2	Andhra Pradesh	0	0	2904	669	0	3573
3	Arunachal Pradesh	0	0	0	0	4	4
4	Assam	4	401	150	5	1	561
5	Bihar	1	468	0	0	1	470
6	Chandigarh	0	0	0	0	0	0
7	Chhattisgarh	0	1	48	112	0	161
8	Delhi	0	10	512	77	40	639
9	Goa	0	0	0	0	0	0
10	Gujarat	0	51	2222	6	10	2289
11	Haryana	2	220	175	62	27	486
12	Himachal Pradesh	0	0	0	88	0	88
13	Jammu And Kashmir	0	2	52	0	0	54
14	Jharkhand	0	38	69	0	0	107
15	Karnataka	0	0	0	12	17	29
16	Kerala	0	0	0	155	0	155
17	Ladakh	0	0	0	0	0	0
18	Lakshadweep	0	0	0	0	0	0
19	Madhya Pradesh	0	0	34	5	0	39
20	Maharashtra	0	0	1	0	1	2
21	Manipur	1	1	22	0	0	24
22	Meghalaya	2	0	2	0	10	14
23	Mizoram	0	0	0	14	0	14
24	Nagaland	2	6	8	0	4	20
25	Odisha	0	0	411	9	16	436
26	Puducherry	0	0	0	0	0	0
27	Punjab	0	0	156	0	0	156
28	Rajasthan	0	0	0	16	0	16
29	Sikkim	0	0	0	0	1	1
30	Tamil Nadu	0	0	0	0	0	0
31	Telangana	0	0	0	0	0	0
32	The Dadra And Nagar Haveli And Daman And Diu	0	16	0	0	0	16
33	Tripura	0	8	0	0	2	10
34	Uttarakhand	0	0	0	2	0	2
35	Uttar Pradesh	0	0	3332	0	0	3332
36	West Bengal	0	309	726	234	49	318



National Family Health Survey (NFHS)

- Nationally representative sample enabling a state level disaggregation.
- Facilitates an analysis with the unit as households, women of reproductive ages, men and children below five years of age. Allows for Common socio-economic indicators of disaggregation like residence, caste, religion, SLI, age, sex, HH size etc.
- Even though it is labeled as a demographic survey, Five consecutive rounds since 1992-93 which enables a temporal analysis
- Covers potential maternal and child health-care seeking segments of the population. Health outcomes like morbidity, mortality as well as nutrition is available in detail



DHS: Demographic and Health Surveys

- DHS as a follow up of World Fertility Surveys
 - DHS-I 1984 – 1990
 - DHS-II 1989 – 1993
 - DHS-III 1992 – 1998
 - DHS-IV 1997 – 2003 (MEASURE DHS)
 - DHS-V 2003 – 2008 (MEASURE DHS+)
 - DHS-VI 2008 – 2013 (MEASURE DHS Phase III)
 - DHS-7 2013 – 2018
 - DHS-8 2018 – 2023
- Mainly in countries receiving USAID funding



Guide to DHS Statistics

DHS-7 (version 2)

The Demographic and Health Surveys Program

DHS: Demographic and Health Surveys

- The main objective of The DHS Program is to improve the collection, analysis, and dissemination of population, health, and nutrition data and to facilitate use of these data for planning, policy-making and program management, resulting in:
 - Improved tools, methods, partnerships, and technical guidance to collect quality population, health, and nutrition data.
 - Increased in-country individual and institutional capacity for identification of data needs and for survey design, management, and data collection to meet those needs.
 - Improved availability of DHS Program survey data and information.
 - Advanced availability and synthesis of DHS Program survey data.
 - Improved facilitation of DHS Program data use among stakeholders worldwide.

Women's questionnaire

- Background characteristics
- Reproduction
- Contraception
- Pregnancy and postnatal care
- Child immunization
- Child health and nutrition
- Marriage and sexual activity
- Fertility preferences
- Husband's background and woman's work
- HIV/AIDS
- Other health issues

The [DHS Interviewer's Manual](#) provides a detailed explanation of the survey questions and tips on conducting interviews.

The [DHS Supervisor's and Editor's Manual](#) explains the roles of the supervisor in leading the field teams, and for editors, how to check completed questionnaires.

[Training Field Staff for DHS Surveys](#) is designed for survey managers to provide tips on how to organize and conduct training for field staff. It describes techniques of mock interviewing, demonstration interviews in front of the class, field practice, and sample tests for trainees.

The [DHS Sampling Manual](#) presents the DHS approach to issues like optimum sampling frames, sample domains, stages, and sample selection. The Household Listing portion of the sampling manual describes how to locate selected sample points, how to draw a sketch map, and how to list the households and structures.

The [DHS Tabulation Plan for Key Indicators Report](#) describe the key tabulations in the Key Indicators Report.

The [Tabulation Plan for DHS Final Report](#) details the tabulations that will be produced with the survey data for each chapter of the report. This manual also aids data processing staff in determining the exact tabulations that are required for the survey reports. The Guide to DHS Statistics should be used in conjunction with the Tabulation Plan and describes the statistics presented in each tabulation.

The [Biomarker Field Manual](#) is designed to be used, in combination with classroom instruction and practical experience, to teach fieldworkers how to collect biomarkers for a DHS, MIS or AIS.

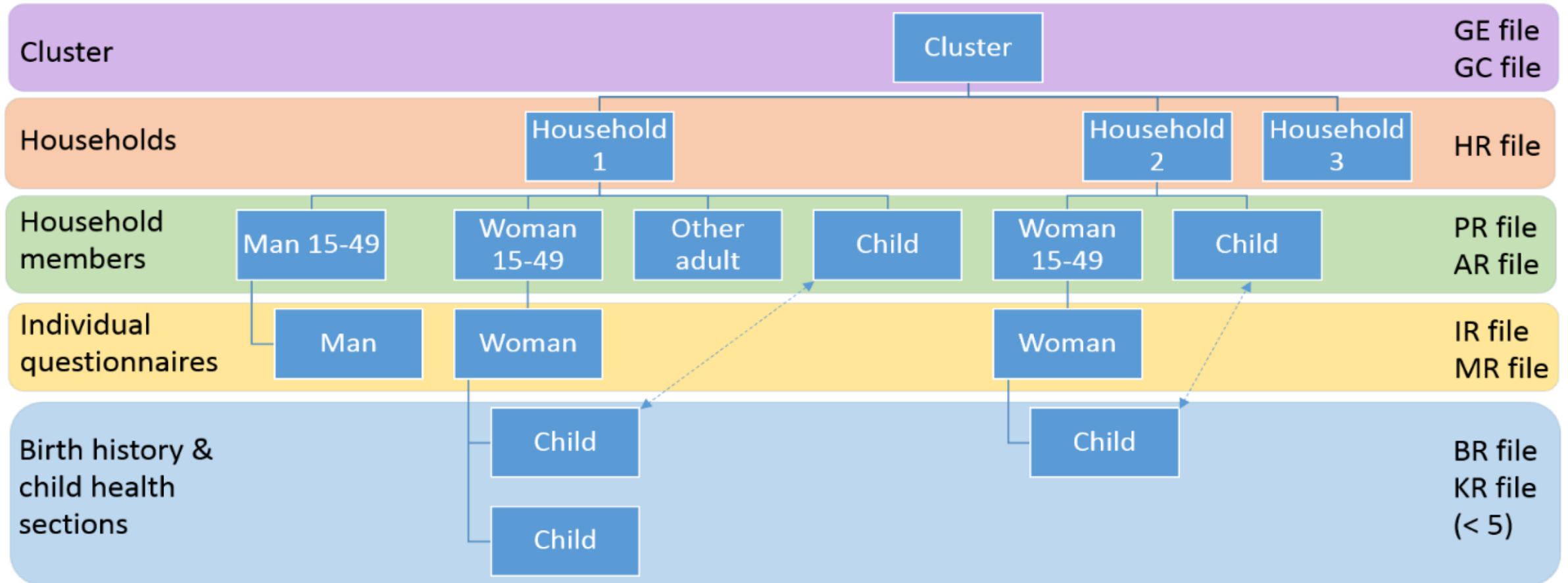
The [DHS User's Guide for Questionnaires in Excel](#) is guide to using the Excel versions of the DHS questionnaires in adapting them to individual surveys.

[Incorporating Geographic Information into Demographic and Health Surveys: A Field Guide to GPS Data Collection](#) is designed to be a start-to-finish guide to Global Positioning System (GPS) data collection in DHS, MIS, and AIS. This guide provides background information on GPS, how the technology works, how GPS data are collected, and how they are used in the context of a DHS.

[DHS Survey Organization Manual](#) is intended as an aid to host country survey staff, donors, and others, and explains the standard approach to implementing a DHS.

The basic documentation for The DHS Program can be found at <https://www.dhsprogram.com/publications/Publication-Search.cfm?type=35>.

Data collection



Recode Files

- HR: Household Recode
- Unit of analysis: Households
- Includes household characteristics, the household roster, and biomarkers rosters as repeating sets of variables. This dataset is used for calculation of household level indicators such as water and sanitation

- PR: Household members (or Persons) Recode
- Unit of analysis: Household member
- Includes characteristics of household members including age, sex, marital status, education, as well as biomarker measurement information.

Recode Files

- IR: Individual (Women's) Recode
- Unit of analysis: De facto woman interviewed
- Contains all the data collected in the Woman's Questionnaire for de facto women plus some variables from the Household Questionnaire. Up to 20 births in the birth history

- BR: Births Recode
- Unit of analysis: Birth
- Contains the full birth history of all women interviewed, including information on pregnancy and postnatal care as well as immunization, health and nutrition data for children born in the last 5 years.

Recode Files

- KR: Kids Recode
 - Unit of analysis: Child under age 5 born to a woman interviewed
 - Contains the information related to the child's pregnancy and postnatal care and immunization, health and nutrition data. The data for the mother of each of these children is also included.
- MR: Men's Recode
 - Unit of analysis: De facto man interviewed
 - Contains all data collected in the Man's Questionnaire de facto men plus some variables from the Household Questionnaire.
- CR: Couples Recode
 - Unit of analysis: Married woman and man
 - Contains data for married or living together women and men who both declared that they are married (living together) to each other and with completed individual interviews.

Recode Files

- AR: HIV testing Recode
 - Unit of analysis: Person tested for HIV
 - Contains the result of lab testing for HIV from blood samples provided by women and men, together with a separate weight variable for use when analyzing HIV test results.
-
- GE: Geographic Data
 - Unit of analysis: Cluster
 - The geographic datasets (also known as GPS data) contain a single record per cluster in which the survey was conducted and provide the latitude, longitude and elevation for the survey cluster, for use in Geographic Information Systems (GIS).

Recode File Naming

- The naming of the zip files and their contents follows the DHS file naming convention: CCDDVVFF[DS].ZIP
- Code Description:
 - CC: Country Code
 - DD: Dataset Type.
 - VV: Dataset Version. First character - DHS Phase, second character - Release version.
 - FF: File Format. DT - Stata, SV - SPSS, SD - SAS, FL - Flat, no file format – Hierarchical.
 - DS: Data Structure. SPA only: SR - SPA Recode, SP - SPA Raw.
- For example, UGIR7ADT.ZIP contains the Stata version of the Individual Women's Recode dataset for the Uganda 2016 DHS conducted as part of DHS-7.

HR and PR

- Household Recode (HR) and Household Member Recode (PR)
 - hv0xx Basic characteristics of the household interview (hhid,hv000-hv046)
 - hv8xx Time of household interview and date of biomarker visit (hv801-hv807a)
 - hv1xx Characteristics of household members (hvidx,hv101-hv140)
 - hv2xx Characteristics of the household (hv201-hv271a)
 - haxx Anthropometry, anemia and biomarkers for women (hao-ha70)
 - hbxx Anthropometry, anemia and biomarkers for men (hbo-hb70)
 - hcxx Anthropometry, anemia and biomarkers for children (hco-hc73)
 - hmlxx Mosquito net characteristics and use (hmlidx,hml3-hml11,hml21-hml23,hmla-hmle)
 - Mosquito net use by household members (hml12-20), and malaria test results (hml30-hml36)
 - shxxx Survey-specific household or household member characteristics

IR, BR and KR

- Women's Individual Recode (IR), Births Recode (BR), and Children Under age 5 Recode (KR)
- voxx Basic characteristics of the women's interview (caseid,vo00-vo46)
- v1xx Woman's characteristics (v101-v191a)
- bxx Birth history (bidx,bord,b1-b20)
- v2xx Reproduction (v201-v244)
- v3xx Contraception (v301-v3a09b)
- mxx Maternal health, pregnancy, postnatal care and breastfeeding (midx,m1-m78j)
- v4xx Anthropometry and anemia of interviewed women, breastfeeding, and feeding of youngest child living with mother (v401-v482c)
- hxx Immunization and child health (hidx,ho-h80g)
- hwxx Anthropometry for children of interviewed women (hwidx,hw1-hw73)
- v5xx Marriage and sexual exposure
- v6xx Fertility preferences

IR, BR and KR

- Women's Individual Recode (IR), Births Recode (BR), and Children Under age 5 Recode (KR)
- v7xx Husband's characteristics, women's work, women's empowerment (v701-v746)
- HIV/AIDS knowledge, attitudes and practices, and sexually transmitted infections (v750-v791a)
- v8xx Interview characteristics (v801-v815c)
- HIV related practices, sexual activity (v820-v858)
- vcal Reproductive/contraceptive calendar
- mmxx Adult and maternal mortality (optional)
- mlxx Malaria-related child health (idxml, mlo-ml25a)
- dxxx Domestic violence (d005, d101-d130c)
- gxxx Female genital cutting (g100-g119, gidx, g121-124)
- sxxx Women's survey-specific

MR

- Men's Recode (MR)
- mv0xx Basic characteristics of the men's interview (mcaseid,mv000-mv046)
- mv8xx Interview characteristics (mv801-mv803)
- mv1xx Man's characteristics (mv101-mv191a)
- mv2xx Reproduction (mv201-mv252)
- mv3xx Contraception (mv301-mv3b25b)
- mv4xx Smoking, tuberculosis and other adult health issues (mv463a-mv484l)
- mv5xx Marriage and sexual exposure (mv501-mv541)
- mv6xx Fertility preferences (mv602-mv634d)
- mv7xx Employment (mv714-mv747b)
- HIV/AIDS knowledge, attitudes and practices, and sexually transmitted infections (mv750-mv793b,mv820-mv858)
- mgxxx Female genital cutting (mg100-mg119)
- smxx Men's survey-specific

Information on nutrition in surveys

- Surveys for nutrition indicators
 - National Family Health Surveys (NFHS)
 - District Level Household Surveys (DLHS)
 - Annual Health Surveys (AHS)
 - National Sample Surveys (NSS)
 - Comprehensive National Nutrition Survey (CNNS)
 - National Nutrition Monitoring Bureau (NNMB) Surveys
 - Longitudinal Aging Study of India (LASI)
 - India Human Development Surveys (IHDS)
 - Young Lives India

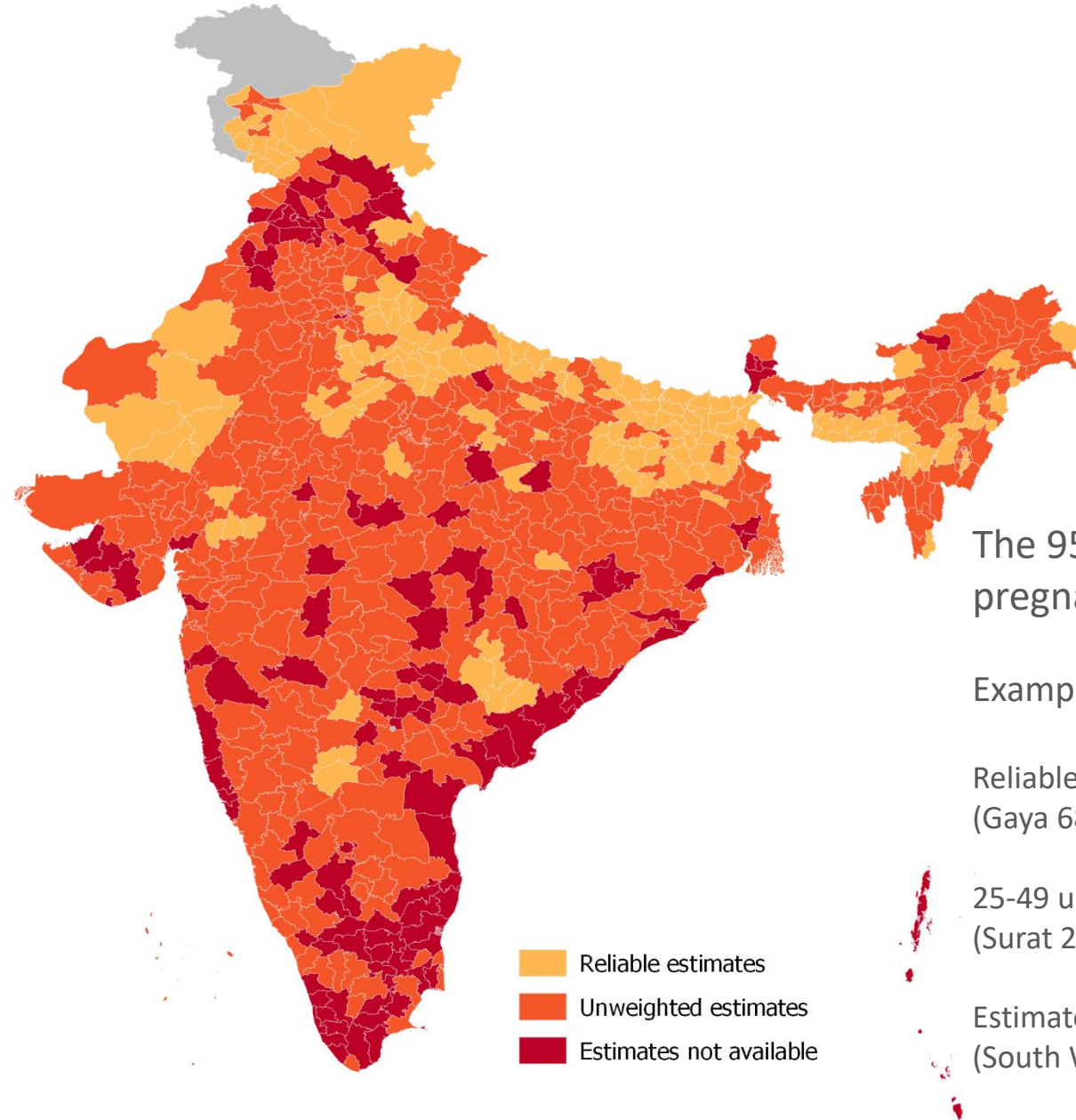
Gaps in NFHS

- No information on income or expenditure. Also no focus on elderly.
- No greater details regarding each and every individual of the household – children and adolescents (5-14 years; thin sample of men)
- Information only on recently born children for key indicators
- Elderly information not available from care perspective
- Diets not comprehensive
- District level estimates needs careful interpretation

Anemia

Pregnant women age 15-49 years who are anemic (<11.0 g/dl) (%)

- Reliable estimates for 152 districts (out of 707 districts)
- Estimates based on 25-49 unweighted cases (N) for 420 districts out of 707 districts
- Estimates unavailable (fewer than 25 unweighted cases) for 135 districts

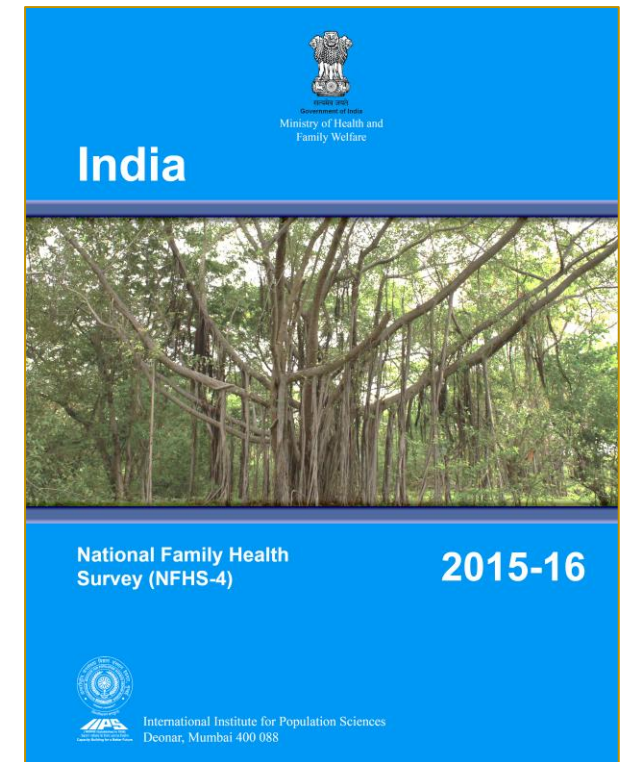


National Family Health Surveys (NFHS)

- Indicators
 - Anthropometrics (stunting, underweight, wasting, BMI)
 - Anemia (severe, mild, moderate)
 - Consumption frequency by food groups (IYCF guidelines; 8 food groups)
 - Micronutrients (IFA consumption, Vitamin A doses, Iodized salt)
 - Breastfeeding and complementary feeding practices
 - Blood sugar and blood pressure

- Sample and estimates
 - Cross-sectional design
 - Women 15-49 years; children below 5 years; men 15-54 years
 - All India (state and district level estimates)
 - Allows determinants analysis (socioeconomic and demographic factors)

- Background and availability
 - MoHFW and IIPS (Nodal)
 - 1992-93; 1998-99; 2005-06; 2015-16 and 2019-20
 - (<http://rchiips.org/nfhs/>)



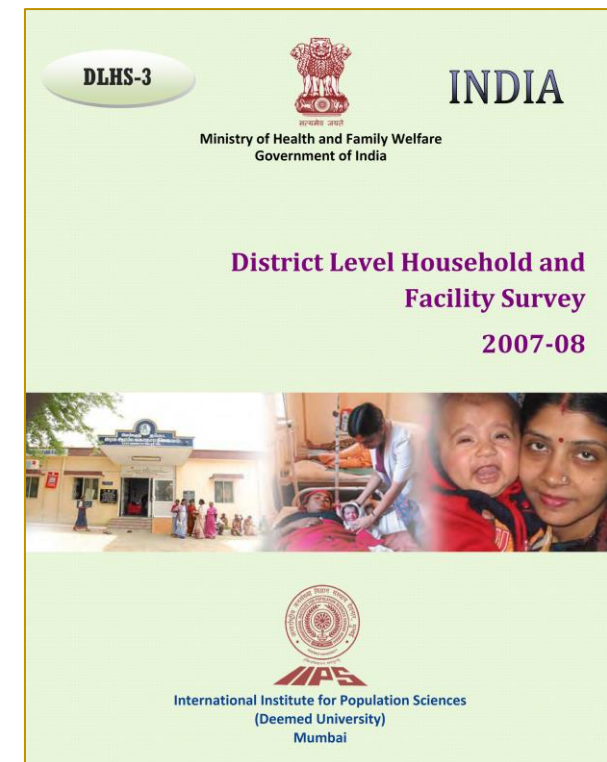
Information	Access	Quality	Frequency	Research
★	★	★	★	★

District Level Household Surveys (DLHS)

- Indicators
 - Anthropometrics (stunting, underweight, wasting, BMI)
 - Anemia (severe, mild, moderate)
 - Micronutrients (IFA consumption, Vitamin A doses, Iodized salt)
 - Breastfeeding and complementary feeding practices
 - Blood sugar and blood pressure

- Sample and estimates
 - Cross-sectional design
 - Women 15-49 years; children below 5 years
 - All India (state and district level estimates)
 - Allows determinants analysis (socioeconomic and demographic factors)

- Nodal organization and availability
 - MoHFW and IIPS (Nodal)
 - 1998-99; 2002-04; 2007-08 and **2012-13**
 - (<http://rchiips.org/DLHS-4.html>)



Information	Access	Quality	Frequency	Research
★	★		★	

Annual Health Surveys (AHS)

- Indicators
 - Anthropometrics (stunting, underweight, wasting, BMI)
 - Anemia (severe, mild, moderate)
 - Micronutrients (IFA consumption, Vitamin A doses, Iodized salt)
 - Breastfeeding and complementary feeding practices
 - Blood sugar and blood pressure

- Sample and estimates
 - Longitudinal design (no identifiers – hence cross-sectional)
 - Women 15-49 years; children below 5 years; Adolescents
 - All India (state and district level estimates)
 - Allows determinants analysis (socioeconomic and demographic factors)

- Background and Availability
 - RGI (Nodal) and MoHFW
 - 2010-11, 2011-12, 2012-13 and 2014
 - (<https://censusindia.gov.in/2011-Common/AHSurvey.html>)



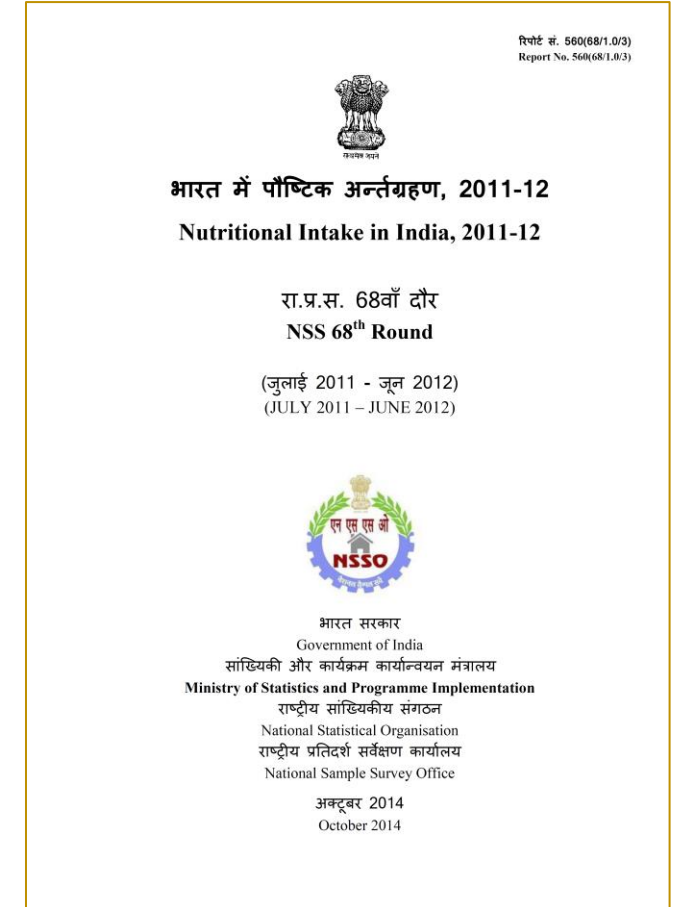
Information	Access	Quality	Frequency	Research
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National Sample Surveys (NSS)

- Household Consumer Expenditure Survey Indicators
 - Calories, protein and fat intake by households
 - Food items consumed by quantity
 - Cereals, pulses, milk and milk products, sugar and salt
 - Edible oil, egg, fish and meat, vegetables, fruits, spices, beverages and processed food
 - Pan, tobacco and intoxicants

- Sample and estimates
 - Cross-sectional design
 - Household level information
 - All India (state level estimates by rural and urban areas)
 - Basic socioeconomic and demographic factors and some elasticities

- Background and availability
 - MoSPI and NSSO (Nodal)
 - 1983 (Round 38); 1987/88 (round 43); 1993/94 (Round 50); 1999-00 (Round 55)
 - 2004-05 (round 61); 2009-10 (Round 66); 2011-12 (Round 68)
 - (<http://mospi.nic.in/g8-consumption-surveys-and-levels-living>)



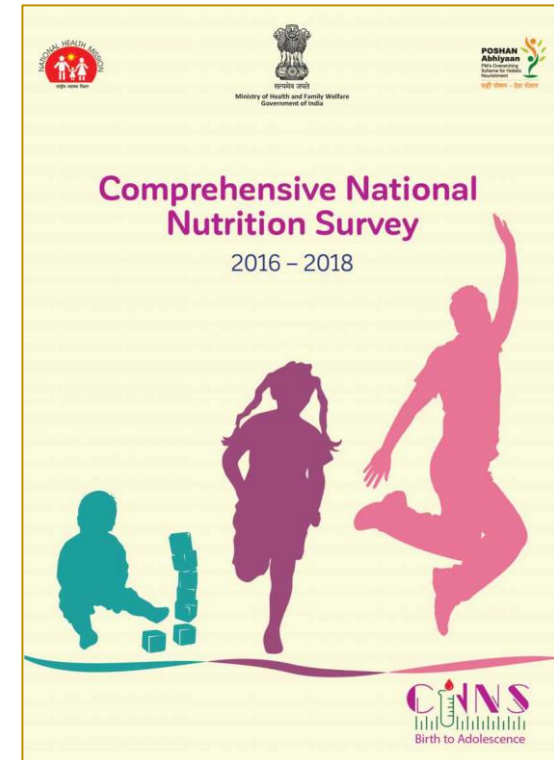
Information	Access	Quality	Frequency	Research
★	★	★	★	★

Comprehensive National Nutrition Survey (CNNS)

- Indicators
 - Anthropometrics (stunting, underweight, wasting, BMI)
 - Anemia (severe, mild, moderate)
 - Consumption frequency by food groups (IYCF guidelines; 8 food groups)
 - Micronutrients (IFA consumption, Vitamin A doses, Iodized salt)
 - Breastfeeding and complementary feeding practices
 - Micronutrient deficiency (Vitamin A, D, B₁₂, Folate, Zinc, Iodine)
 - NCD markers - Blood sugar, blood pressure, lipid profile, renal function

- Sample and estimates
 - Cross-sectional design
 - Children 0-9 years; Adolescents 10-19 years
 - All India (state level estimates)
 - Allows determinants analysis (socioeconomic and demographic factors)

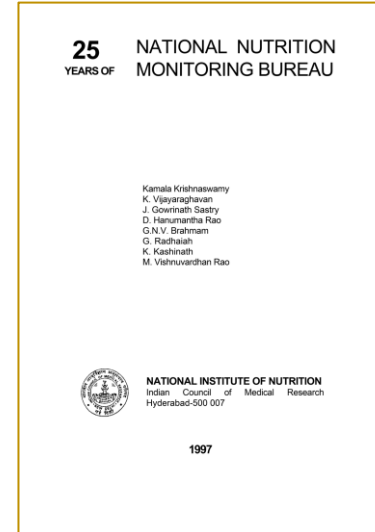
- Background and availability
 - MoHFW and UNICEF (Nodal)
 - 2016-18
 - (<https://nhm.gov.in/WriteReadData/l892s/1405796031571201348.pdf>)



Information	Access	Quality	Frequency	Research
★		★		★

National Nutrition Monitoring Bureau (NNMB)

- Indicators
 - Calories, protein and fat intake by households
 - Food items consumed
 - Anthropometrics and Anemia
 - Diabetes and hypertension
- Sample and estimates
 - Cross-sectional design
 - Individual level information
 - Children 0-9 years; Adolescents 10-19 years, Adult males and females
 - Selected states
 - Basic socioeconomic and demographic factors
- Background and availability
 - MoHFW and NIN (Nodal)
 - Several rounds from 1972 onwards but for selected states / target groups
 - (<https://www.nin.res.in/researchdivision/publichealth.html>)



foreword

The formulation and implementation of our National Nutrition Policy must rest on sound scientific data. It is important for the policy-makers to be fully informed of the current nutritional status of populations in different regions of the country; of the possible factors contributing to malnutrition among them; and of the changing trends brought on by development and nutrition programmes. This will enable the administrator to determine his priorities for action.

Sound scientific data on current nutritional status and on changing trends are also important for the nutrition research scientist. Such data will provide many valuable leads for research, and will ensure that such research is action-oriented.

It is because of these considerations that the National Nutrition Monitoring Bureau (NNMB) was set up 25 years ago. A good beginning was made. As many as 9 States were covered in the initial phase of the operation. The sampling design and the statistical procedures needed for the survey operation were worked out in close collaboration with the noted Statistician Prof.C.R.Rao. The programme was launched by the ICMR with the cooperation of the concerned State governments.

It was hoped that NNMB will in due course, be further expanded to cover all the States of the country; and that it will be given a permanent status as an integral part of the National Institute of Nutrition.

During the years that followed, NNMB despite financial constraints, had done commendable work. The Annual Reports and the Five-Yearly Reports of the NNMB are the only authentic National data available today with regard to the current nutritional status of the population groups in the country. The National Institute of Nutrition and the ICMR could well be proud of NNMB's contributions.

Unfortunately, however, NNMB did not receive the type of financial support and encouragement which it ought to have received. It continued to operate on a shoe-string budget and on a year to year temporary basis. This must have greatly cramped its work.

It is possible that part of this was due to the mistaken belief that NNMB surveys were a 'routine service' and not part of 'scientific research. Unfortunately NNMB reports while providing useful data, did not clearly indicate the practical leads for action, and the new areas of research that flowed from its data. This might have been one of the reasons for the lack of adequate support, and recognition of its valuable contribution.

Now that it is clear that the nutritional status of a population is the major determinant of not only its health status, but also of the process of national development itself, it is to be hoped that the Government of India and the ICMR will provide adequate strength and support to NNMB, in future.

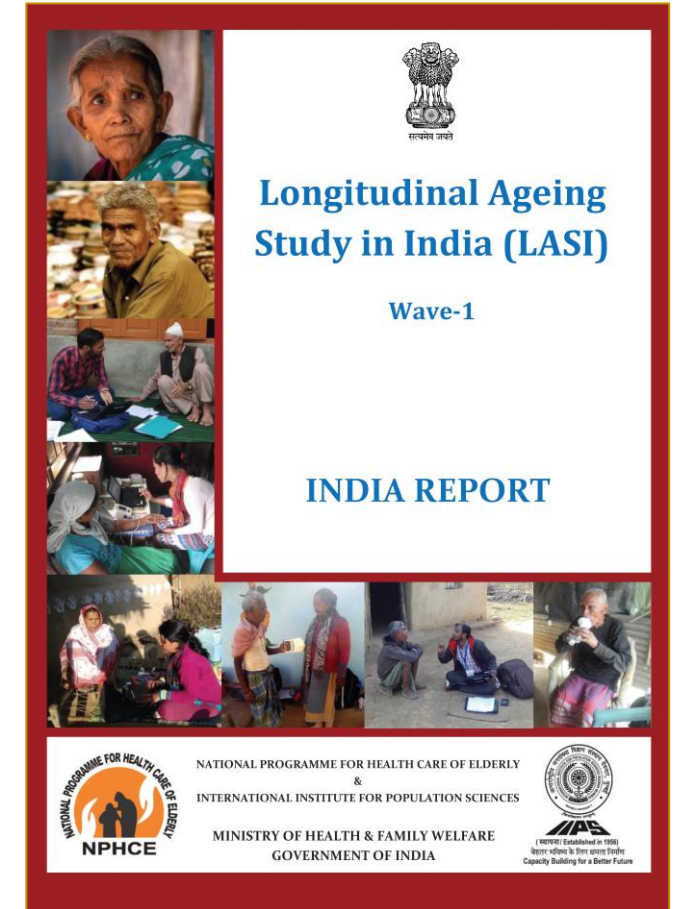
C.Gopalan
President,
Nutrition Foundation of India,
Former Director-General, ICMR

New Delhi,
September 15, 1997

Information	Access	Quality	Frequency	Research
★		★	★	★

Longitudinal Aging Study of India (LASI)

- Indicators
 - Anthropometrics (stunting, underweight, wasting, BMI)
 - Anemia (severe, mild, moderate)
 - Consumption frequency by food groups (IYCF guidelines; 8 food groups)
 - Micronutrients (IFA consumption, Vitamin A doses, Iodized salt)
 - Breastfeeding and complementary feeding practices
 - Blood sugar and blood pressure
- Sample and estimates
 - Cross-sectional design
 - Women 15-49 years; children below 5 years; men 15-54 years
 - All India (state and district level estimates)
 - Allows determinants analysis (socioeconomic and demographic factors)
- Background and availability
 - MoHFW and IIPS (Nodal)
 - 2017-18
 - (<https://www.iipsindia.ac.in/lasi>)



Information	Access	Quality	Frequency	Research
★	★	★	★	★

Consumer Pyramids Household Survey (CPHS)

- Consumer Pyramids Household Survey (CPHS) is a continuous survey administered on a panel of sample households.
- Census 2011 as frame for CPHS waves since late 2013. A multi-stage stratified survey design is adopted with villages and towns of the 2011 Census as the PSUs.
- The broadest level of stratification is the Homogeneous Regions (HRs). A Homogeneous Region is a set of neighbouring districts within a state that has similar agro-climatic conditions, relatively similar urbanisation levels and relatively similar female literacy and are of a similar size in terms of households as per the 2011 Census.
- The 640 districts of the 2011 Census have been organised into 110 HRs.
- <https://consumerpyramidsdx.cmie.com/>

Consumer Pyramids Household Survey

Survey Design and Sample

Mahesh Vyas

March 12, 2020

Centre for Monitoring Indian Economy Pvt. Ltd.

¹Modified on November 17, 2020

Consumer Pyramids Household Survey (CPHS)

- The sample size is fixed at 16 households per selected sample village. Total number sample villages selected per rural Homogeneous Region is 30. Therefore, the sample size per rural Homogeneous Region is 480.
- The sample size per ultimate urban sampling unit (i.e. per CEB) is fixed at 16 households per selected sample CEB of a sample town. The number of CEBs per town is fixed at 21. Therefore, the sample size per town was 336.
- As of the Wave of September-December 2019, there were 3,965 villages in the sample.
- As of the Wave of May-August 2019, there were 322 towns in the sample.

CPHS Sample

Table 4: Response Rate

Wave No.	Wave	Sample	Accepted responses	Response rate(%)
Wave1	Jan 01 2014-Apr 30 2014	166,744	145,984	87.55
Wave2	May 01 2014-Aug 31 2014	160,705	140,692	87.55
Wave3	Sep 01 2014-Dec 31 2014	157,442	136,798	86.89
Wave4	Jan 01 2015-Apr 30 2015	158,443	136,448	86.12
Wave5	May 01 2015-Aug 31 2015	158,666	135,746	85.55
Wave6	Sep 01 2015-Dec 31 2015	158,624	133,252	84.00
Wave7	Jan 01 2016-Apr 30 2016	158,624	132,908	83.79
Wave8	May 01 2016-Aug 31 2016	159,778	132,399	82.86
Wave9	Sep 01 2016-Dec 31 2016	160,511	132,777	82.72
Wave10	Jan 01 2017-Apr 30 2017	161,167	135,389	84.01
Wave11	May 01 2017-Aug 31 2017	160,847	132,686	82.49
Wave12	Sep 01 2017-Dec 31 2017	168,165	135,465	80.55
Wave13	Jan 01 2018-Apr 30 2018	169,215	143,216	84.64
Wave14	May 01 2018-Aug 31 2018	172,365	149,160	86.54
Wave15	Sep 01 2018-Dec 31 2018	173,181	147,163	84.98
Wave16	Jan 01 2019-Apr 30 2019	174,405	146,328	83.90
Wave17	May 01 2019-Aug 31 2019	174,405	147,868	84.78
Wave18	Sep 01 2019-Dec 31 2019	174,405	147,319	84.47

Table 6: State-wise distribution of sample : January - April 2020

State	Urban Sample			Rural Sample		Total Sample	Districts covered in sample	Total Districts in state
	Towns	CEBs	Households	Villages	Households			
Andhra Pradesh	14	354	5,024	191	3,056	8,080	13	13
Assam	4	92	1,179	36	576	1,755	15	27
Bihar	16	369	5,078	269	4,304	9,382	35	38
Chandigarh	1	37	456	0	0	456	1	1
Chhattisgarh	9	202	2,864	121	1,935	4,799	13	18
Goa	2	41	648	26	416	1,064	2	2
Gujarat	18	430	5,658	213	3,408	9,066	25	26
Haryana	11	273	3,874	104	1,664	5,538	21	21
Himachal Pradesh	2	45	640	40	640	1,280	9	12
Jammu & Kashmir	4	81	1,228	85	1,360	2,588	11	22
Jharkhand	8	187	2,534	136	2,176	4,710	20	24
Karnataka	17	449	6,341	211	3,376	9,717	29	30
Kerala	10	228	3,362	89	1,424	4,786	14	14
Madhya Pradesh	17	382	5,232	248	3,968	9,200	41	50
Maharashtra	37	929	13,626	388	6,208	19,834	33	35
Meghalaya	1	21	336	44	704	1,040	4	7
Delhi	1	81	880	31	495	1,375	8	9
Odisha	12	258	3,737	189	3,024	6,761	26	30
Puducherry	2	44	644	31	496	1,140	1	4
Punjab	12	314	4,472	143	2,288	6,760	20	20
Rajasthan	20	474	6,934	247	3,952	10,886	33	33
Tamil Nadu	21	546	7,674	204	3,264	10,938	28	32
Telangana	10	300	4,022	113	1,808	5,830	10	10
Tripura	2	49	728	29	464	1,192	4	4
Uttar Pradesh	43	1,076	15,237	477	7,631	22,868	66	71
Uttarakhand	4	85	1,242	50	800	2,042	10	13
West Bengal	23	552	6,989	220	3,513	10,502	19	19
Sikkim	1	21	336	30	480	816	3	4
India	322	7,920	110,975	3,965	63,430	174,405	514	589

Consumer Pyramids Household Survey (CPHS)

- Questionnaire
 - Member roster
 - Member identities, education and health (healthy, on medication, hospitalized, mobile)
 - Member occupation and industry
 - Member employment status and type
 - Member time use
 - Member financial inclusion
 - Member income and household income
 - Household savings, asset ownerships and borrowings
 - Household monthly food expenses and non-food expenses
- Household monthly health expenses
 - Medicines, Doctors/ physiotherapist's fee, X- Ray/ tests, Hospitalisation fees, Premium for health insurance, Diapers / sanitary napkins etc, Gym/yoga classes/ dietician fees, Spectacles, lenses and other medical aids)

Concluding remarks

- Health data landscape is expanding to match the requirements as per the SDG indicator framework (NIF mapping)
- There are gaps in level of disaggregation and timeliness for some indicators. Quality and consistency of information content is also critical.
- Data sharing and access is improving (especially with Mission Antyodaya). Greater availability can be expected after updation of HMIS 2.0
- All survey agencies should be encouraged to share anonymized data



Thank you!

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