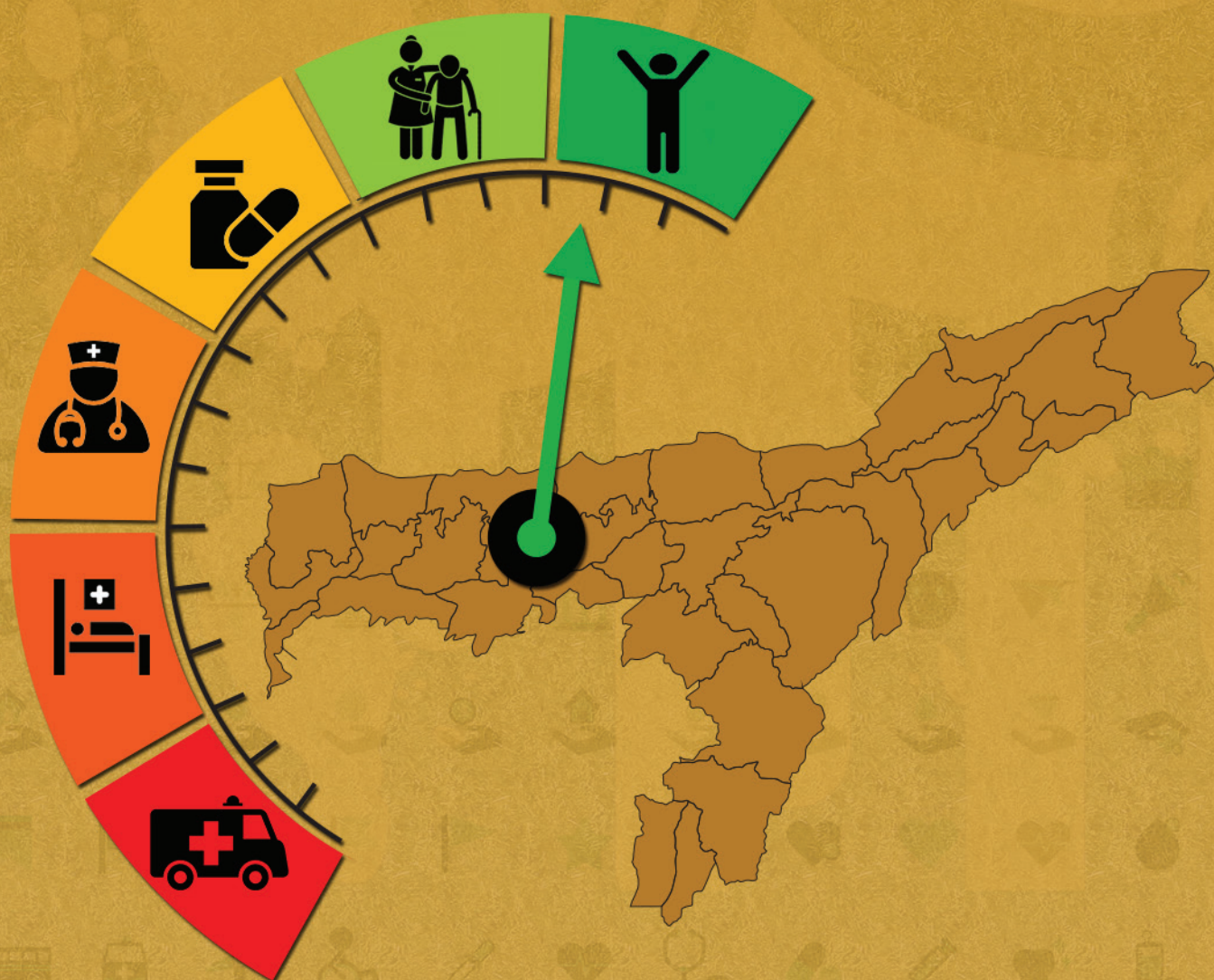


HEALTH DOSSIER 2021

Reflections on Key Health Indicators



ASSAM

DISTRICTS VISITED IN COMMON REVIEW MISSIONS

CRM	Districts Visited	
1 st	Kamrup Rural	Darrang
2 nd	Sivasagar	Bongaigaon
4 th	Lakhimpur	Dhemaji
5 th	Dhubri	Nagaon
6 th	Jorhat	Sonitpur
8 th	Karimganj	Tinsukia
9 th	Dibrugarh	Golaghat
11 th	Goalpara	Nalbari
12 th	Barpeta	Kamrup Rural
14 th	Cachar	Hailakandi

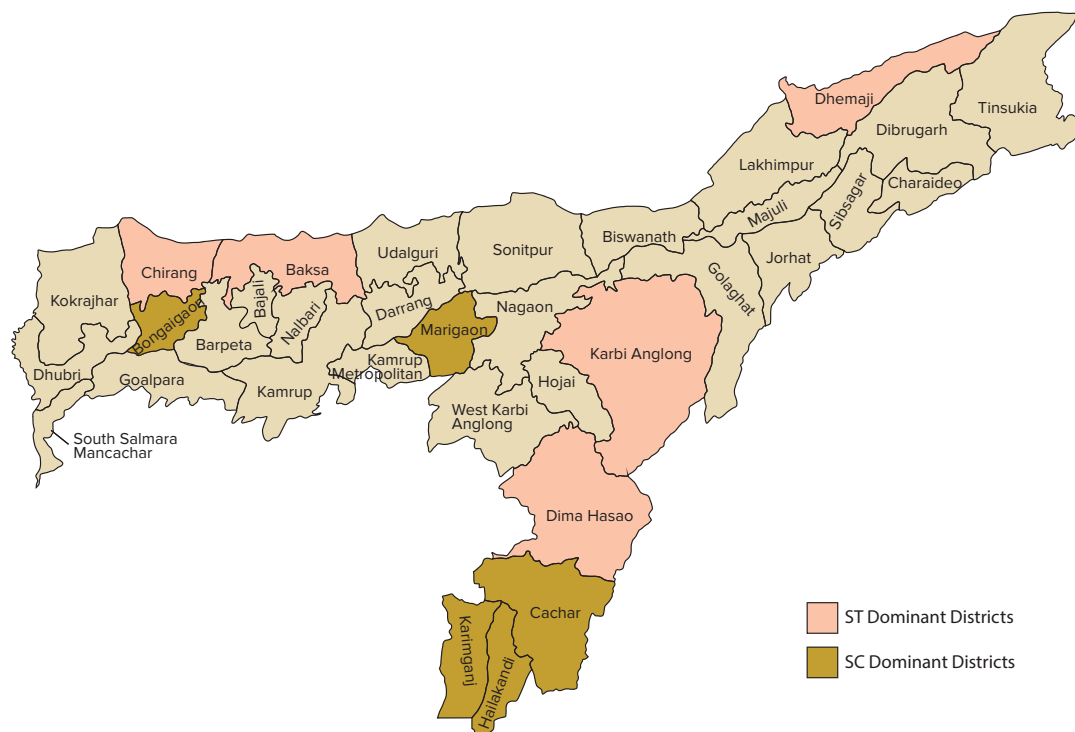
ASSAM

1. BACKGROUND

1.1 State Profile

Assam is positioned^a 20th in India for a geographical spread of 45,294.26 km². The State is divided into 27 districts and estimated to have a population of over 3.12 crores^b, which accounts for approximately 2.58% of India's total population (RHS 2019-20). It is projected that the population would reach around 3.50 crores by 2021 (Census Population Projection 2019 Report). As per Census 2011, the Scheduled Caste (SC) and Scheduled Tribe (ST) population is 0.22 crores (7.15%) and 0.39 crores (12.45%), respectively. Out of the 27 districts, top five ST dominant districts account for 39.28% of ST population, and top five SC dominant districts account for 31.11% of SC population in the State (Annexure 1.1; fig 1). As of 2021, 14 cities^c are covered under NUHM, with a total catchment of 43.8 lakh urban population. In the State,

Figure 1: Top 5 ST & SC Dominant Districts



^a Including all States & UTs

^b Census 2011

^c QPR NHM MIS Report as on 31 Dec 2020

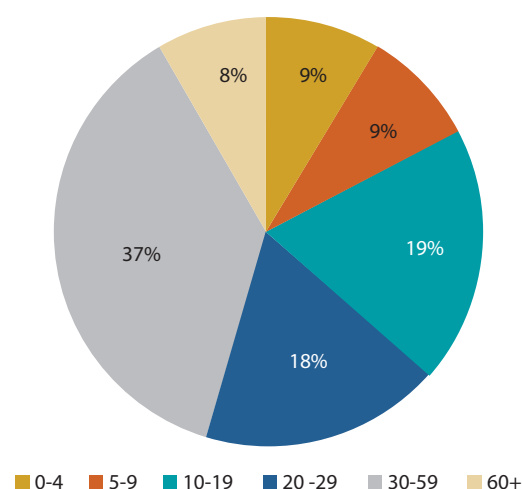
85.90% of the population reside in rural areas, while only 14.10% constitute the urban population. The total length of roads^d in the State is 3,37,777 km (6.75%^e), in which, the length of the national highways is 3844 km (3.4%^f) and state highways is 2530 km (1.45%^g).

A detail report on the key indicators has been attached as Annexure 1

1.2 Demography

In Assam, out of the 27 districts, only 1 district has a population between 20-30 lakhs, 14 districts have a population between 10-20 lakhs, and 12 districts have a population less than 10 lakhs (Annexure 1.1 State profile). The State's Sex ratio at birth of 925 females for every 1000 males is higher than the national average of 899 (Annexure 1.2). It is estimated that there are 19% of the total population in the age group of 10-19 years, 55% within 20 to 59 years; while 8% is 60 years and above (Census Population Projection 2019 Report) (Figure 2). The crude birth rate and the crude death rate have declined from 25.0 & 8.7 in 2005 to 21 & 6.3 in 2019, respectively (Annexure 2; figure 2). The literacy rate increased from 63.3% in 2001 to 72.2% in 2011, with male & female literacy rates being 77.8% and 66.3%, respectively (Annexure 1.1). As per ESAG 2018 report, the Gross Enrollment Rate (GER)^h was 15.4% for higher education, 38.81% for senior secondary education, 77.59% for secondary education, 101.62% for elementary education, and 106.11% for primary education.

Figure 2: Assam – Distribution of estimated Population 2021 (%)



1.3 Elderly

Population ageing has profound social, economic, and political implications. Elderly people aged 60 years and above constitute 8% of the State's total population. The life expectancy at 60 years of age is 16.5 and 17.6 for males and females, respectively (2014-2018). In Assam, 77.0% of elderly females and 42.0% elderly males living in rural areas are economically fully dependent on others. Whereas in urban areas, 65% of elderly females and 24% elderly males are economically fully dependent on others. The old age dependency ratio is 11.0 in 2011; which is 10.9 for males and 11.1 for females, 11.0 in rural & 11.0 in urban areas. The illness (any deviation from the state of physical and mental well-being) perception among the elderly is reported as 38% for men and 41% for women, which are above the national average of 31% for bothⁱ.

^d Basic Road Statistics 2019, MoRTH

^e Percentage of total length of roads in Assam

^f Percentage of total length of National Highways in the country

^g Percentage of total length of State Highways in the country

^h Gross Enrolment Rate (GER): Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school-year. School-age Population: Population of the age group which officially corresponds to the relevant level of education; senior secondary education is XI-XII, secondary is IX-X, primary is I-V and elementary is I-VIII

ⁱ Elderly in India 2016 Report

2. HEALTH STATUS AT A GLANCE

2.1 Maternal Health

The State has been able to provide RMNCHA+N^j services with major focus on primary and secondary care services under the NHM. Indicators for Antenatal care (ANC)^k, institutional deliveries, C sections, distribution of IFA^l tablets, follow up of high-risk pregnancies, provision of postnatal and newborn care - have shown substantial improvement since 2005 (NFHS 4 & 5). The maternal mortality ratio has significantly declined from 390 (SRS MMR Bulletin 2007-09) to 215 (SRS MMR Bulletin 2018) per 1,00,000 live births. In Assam, 85.3% of women received 4 ANC check-ups (Annexure 1.4). As per NFHS 5 report- Jorhat, Kamrup Metropolitan, Dibrugarh, Majuli, and Sivasagar districts reported high ANC coverage, ranging between 67% - 80.9%. Whereas, Cachar, Bongaigaon, South Salmara Mancachar, Kokrajhar, and Darrang districts reported low ANC coverage, ranging between 32.7% - 37.5%. As reported in HMIS 2019-20, around 91.2% of the deliveries took place in institutions, out of which 83.6% took place in public health facilities. Total percentage of C-sections is (23.5%) is higher than the WHO's standard (10-15%); and out of the total reported C-sections, about 15.3% was conducted at private facilities in the State. Around 87.2% of women were tracked for the first postpartum check-up between 48 hours and 14 days (Annexure 1.4). Prevalence of anaemia in women aged 15-49 years increased from 46% (NFHS-4) to 65.9% (NFHS-5). Anaemia in females of reproductive age group is almost twice than that in men of similar age group (Annexure 2, figure 5).

Refer Annexure 3 for a detailed district wise comparison.

2.2 Newborn, Infant & Child Health

Ever since the inception of NHM in 2005, the State has shown a significant decline in IMR from 68 (2005) to 40 (2019), which is exceptionally lower than the national average of 30 (Annexure 2, Figure 1). Similarly, NNMR^m and Still Birth (per 1,000 live births) rates have also significantly decreased from 33.4 and 8.6 (2005) to 21 and 2 (2018) respectively (Annexure 2, figure 4). Improvement in the indicators can be attributed to several interventions at the State level, including infrastructure strengthening under NHM, such as establishment of SNCUs, NBSUs and NBCCsⁿ (Annexure 1.4). The life expectancy at birth has also improved from 61.9 (2006-10) to 66.9 (2014-18), though it is below the national average of 69.4 years (Annexure 2, Figure 3). As per NFHS 5, Majuli, Darrang, Jorhat, and Bongaigaon districts reported low SRB^o ranging between 701 – 881, while Baksa, West Karbi Anglong, Golaghat, Udalgiri, and Sonitpur districts reported high SRB, ranging between 1097 - 1325.

Full vaccination^p coverage for children between 12 – 23 months of age has improved from 67.8% (NFHS 4) to 71.8% (NFHS 5). The proportion of under 6-months children exclusively breastfed has remained a constant of 63.5% since it was last reported in NFHS-4. An increase in childhood anaemia from 35.7% to 68.4% in children aged 6-59 months has been reported in NFHS 5 (Annexure 2, Figure 5). Though the burden of malnutrition declined over a span of 29 years (GBD 2019), there is a wide variation in the nutritional status

^j Reproductive, Maternal, Newborn, Child, Adolescent Health & Nutrition

^k Antenatal Check up

^l Iron Folic Acid Tablets

^m Neonatal Mortality Rate

ⁿ QPR NHM MIS Report (Status as on 1.03.2020)

^o Sex Ratio at Birth

^p NFHS 5 Assam Factsheet, based on information from vaccination card only

within the State. As per NFHS 5 report, Kamrup, Kamrup Metropolitan, Sivasagar, Golaghat, and Dibrugarh districts reported relatively low burden of stunting, ranging from 22.6% to 27.3%; while Biswanath, Chirang, Hailakandi, Morigaon, Bongaigaon, and Dhubri districts reported high burden ranging from 42.7% to 48.5%, were reported from. For under-5 wasting – Hojai, Sonitpur, Majuli, Kamrup and Nalbari districts reported relatively low burden ranging from 12.7% to 15.4%; while Goalpara, Darrang, Biswanath, Cachar, and Karimganj districts reported relatively high burden ranging from 24.3% to 48%.

2.3 Family Planning

The TFR^a has reduced from 2.9 in 2005 to 2.2 in 2018 (Annexure 2, Figure 4). As per NFHS 5 report, the total unmet need in the State is reported as 11%, while the unmet need for spacing is 4.1% (NFHS 5). Kamrup district reported the highest total unmet need (17.6%), while Biswanath reported the lowest (5.3%). Approximately 60.8% of married women reported to avail any modern method of family planning in the State (NFHS 5); with sterilization acceptance being 9% among females and 0.1% among males.

2.4 Communicable Diseases

The State has 27 functional IDSP units in place. The proportion of communicable, maternal, neonatal, and nutritional diseases [CMNND] contribute to 34.06% of total disease burden (Annexure 1.4). Diarrheal diseases, lower respiratory tract infections, neonatal preterm birth and tuberculosis are the leading causes of deaths due to CMNND in the State (Annexure 2, Figure 6'). For TB, the annualized total case notification rate is 123 % and NSP^s success rate is 84% as opposed to the national averages of 163% and 79%, respectively. For NLEP^t, the reported prevalence rate of 0.25 per 10,000 population is less than the national average of 0.61. In FY 2019-20, 4 deaths due to Malaria were reported, while none by Dengue or Kala Azar.^u

2.5 Non-Communicable Diseases (NCDs) & Injuries

It is reported that 71.3% of the total disease burden in the State is due to premature deaths and 28.7% due to disability or morbidity. CVDs like Ischaemic heart diseases, Intra cerebral hemorrhage and COPD are the major causes of DALYs in the State (Annexure 2, Figure 6). NCDs contribute to 55.96% of DALYs; whereas, injuries contribute to 9.98% of DALYs in the State (GBD 2019). The State is positioned 18th in the country for the total number of fatal road accidents with respect to other States (Annexure 1.4). It is found in the recent NFHS 5 report that 22.1% of women and 51.8% of men used any kind of tobacco, while 7.3% of women and 25.1% of men consumed alcohol. Overall, metabolic factors (high systolic blood pressure, high fasting plasma glucose), and behavioral factors (smoking, alcohol use) are the major risk factors for all DALYs and YLLs (Annexure 2, figure 7).

2.6 Health Care Financing

The State's Net State Domestic Product (NSDP) for FY 2018-19 is 2,82,782 crores. The State is positioned 28th out of 32 states in terms of per capita^v of ₹ 82,837. According to NHA 2017-18, the per capita

^a Total Fertility Rate

^r <https://vizhub.healthdata.org/gbd-compare/india>

^s New Smear Positive

^t National Leprosy Eradication Programme

^u QPR NHM MIS Report (Status as on 1.03.2020)

^v Directorate of Economics & Statistics

Government Health Expenditure in the State is estimated as ₹ 1,392, which is less than the national average of ₹ 1,753. On the other hand, the OOPE^w as a share of Total Health Expenditure is estimated as 35.9%, which is less than the national average of 48.8%. As per NSS 2017-18, the OOPE for IPD care per hospitalized case in rural areas is estimated to be around ₹ 5,883 in public facilities & ₹ 29,392 in private facilities; whereas for urban areas, it is around ₹ 10,155 in public facilities and ₹ 63,346 in private facilities. For childbirth in rural areas, OOPE is estimated to be around ₹ 3,596 in public facilities & ₹ 26,114 in private facilities; whereas in urban areas - OOPE is estimated to be around ₹ 4,671 in public facilities and ₹ 33,218 in private facilities. In public health facilities, the share of expenditure on medicines as a proportion of inpatient medical expenditure is estimated to be 22% in rural and 21% in urban areas; whereas for diagnostics, it is 44% in rural and 42% in urban areas (Annexure 1.6).

2.7 Health Infrastructure

As per the recent RHS data, the number of SCs, PHCs and CHCs have been increasing since 2005 (Annexure 2, Figure 8). Though public health facilities have increased over time, there remains a shortfall of 27.61% SCs, 9.90% PHCs and 27.48% CHCs (Annexure 2, Figure 9). Currently, there are 4,659 SCs, 946 PHCs and 190 CHCs in place, against the required 6,436 SCs, 1,050 PHCs and 262 CHCs. Similarly, in urban settings, there are 56 PHCs in place against the required 106, which accounts to a shortfall of 47.17%. The State has 24 DHs, 14 SDHs and 7 government medical colleges. In the State, 100% of DHs (25), 45.8% of SDHs (11), and 16.8% of CHCs (32) serve as functional FRUs. In tribal catchments, there are 786 SCs, 185 PHCs and 32 CHCs in place, against the required 1,344 SCs, 201 PHCs and 50 CHCs. This accounts to a shortfall of 41.52%, 7.96% and 36.0% of the required SCs, PHCs and CHCs, respectively, in the tribal areas.

Under the recently introduced Ayushman Bharat – Health and Wellness Centres (AB-HWCs), a total of 2301 HWCs (1620 SHCs & 681 PHCs) are operationalized in the State as of 22nd December 2021^x.

The State has 100% of required ASHAs in position under both NRHM and NUHM. The doctor to staff nurse ratio in place is 1:1, with 6 public health providers (MO, specialists, staff nurse & ANM) per 10,000 population (Annexure 1, Table 1.5).

Recent data (Annexure 1.3) reveals that out of 1000 population who availed services from public health facilities, 1085.82 availed (events) OPD services and 48.23 availed (events) IPD services. As per the NSSO data (2017-18), 51% of all OPD cases in rural areas and 23% in urban areas; and 77% of all IPD cases in rural areas & 48% in urban areas utilized public facilities. (Annexure 1.6).

^w Out of Pocket Expenditure

^x AB-HWC Portal

ANNEXURE 1: KEY INDICATORS

1.1 Assam Profile^y

Indicator	Assam 2011 ¹	India
Total Population (In Crore)	3.12	121.08
Rural (%)	85.90	68.86
Urban (%)	14.10	31.14
Scheduled Caste population (SC) (in crore)	0.22 (7.15%)	20.14 (16.63%)
Scheduled Tribe population (ST) (in crore)	0.39 (12.45%)	10.45 (8.63%)
Total Literacy Rate (%)	72.2	74.0
Male Literacy Rate (%)	77.8	82.1
Female Literacy Rate (%)	66.3	65.5
Number of Districts in the Assam ²	27	
Number of districts per lakh population in Assam (Census 2011)	Population ¹	Districts ¹ (Numbers)
	<10 Lakhs	12
	≥ 10 Lakhs - <20 Lakhs	14
	≥20 Lakhs - <30 lakhs	1
	≥30 Lakhs	0
ST SC Dominant (Top 5) Districts of Assam ¹		
ST Dominant Districts (%)	SC Dominant Districts (%)	
Dima Hasao - 70.92%	Cachar - 15.25%	
Karbi Anglong - 56.33%	Karimganj - 12.85%	
Dhemaji - 47.45%	Morigaon - 12.30%	
Chirang - 37.06%	Bongaigaon - 11.20%	
Baksa - 34.84%	Hailakandi - 10.71%	
Top 5 ST dominant district accounts for - 39.28%	Top 5 SC dominant district accounts for - 31.11%	

1.2 Key Health Status & Impact Indicators

Indicators	Assam	India
Infant Mortality Rate (IMR) ³	40	30
Crude Death Rate (CDR) ³	6.3	6.0

^y Sources are mentioned at the end of Annexure 1

Crude Birth Rate (CBR) ³	21	19.7
Maternal Mortality Ratio (MMR) ³	215	113
Neo Natal Mortality Rate (NNMR) ⁴	21	23
Under Five Mortality Rate (U5MR) ⁴	47	36
Still Birth Rate ⁴	2	4
Total Fertility Rate (TFR) ⁴	2.2	2.2
Life expectancy at birth ⁵	66.9	69.4
Sex Ratio at Birth ⁴	925	899

1.3 Key Health Infrastructure Indicators^{aa}

Indicators		Numbers (Total)		
Number of District Hospitals ²		24		
Number of Sub District Hospital ²		14		
Number of Government (Central + State) Medical College ⁶		7		
Number of Private (Society + Trust) Medical Colleges ⁶		0		
Number of AB-HWCs functional as of 22 nd December 2021 ¹⁶	Status (Total)	Target FY (2020-21)	Target FY (2021-22)	Target FY (2022-23)
SHC-HWC	1620	1208	2476	3322
PHC-HWC	681	946	946	946
UPHC-HWC	N/A ^{bb}	55	55	55
Total-HWC	2301	2209	3477	4323
Rural ²	Required (R)	In place (P)	Shortfall (S) (%)	
Number of Community Health Centres (CHC)	262	190	27.48	
Number of Primary Health Centres (PHC)	1,050	946	9.90	
Number of Sub Centres (SC)	6,436	4,659	27.61	
Number of functional First Referral Units (FRUs)	DH	SDH	CHC	
	25	11	32	
Urban ²	Required (R)	In place (P)	Shortfall (S) (%)	
Number of PHC	106	56	47.17	
Tribal ²	Required (R)	In place (P)	Shortfall (S)%	
Number of CHC	50	32	36.00	
Number of PHC	201	185	7.96	
Number of SC	1,344	786	41.52	

^{aa} Sources are mentioned at the end of Annexure 1

^{bb} Not available as per HWC Portal (as of 22nd Dec 2021)

Patient Service⁹	Assam	India
IPD per 1000 population	48.23	62.60
OPD per 1000 population	1085.82	1337.12
Operation (surgeries) major (General and Spinal Anaesthesia) per 10000 population	18.55	36.40

1.4 Major Health Indicator^{cc}

% Share of DALYs to Total Disease Burden (GBD 2019)⁷	Assam	India
% DALY [#] accountable for CMNNDs	34.06	27.46
% DALY accountable for NCDs	55.96	61.43
% DALY accountable for Injuries	9.98	11.11
Birth, Death Registration & Medical Certification of Cause of Death (MCCD) Indicator⁸	Assam	India
Level of Birth Registration (%)	100	92.7
Level of Death Registration (%)	74	92
Percentage of medically certified deaths to total registered deaths (%)	17.2	20.7
RMNCHA+N		
Maternal Health⁹	Assam	India
% 1st Trimester registration to Total ANC Registrations	88	71.9
% Pregnant Woman received 4 ANC check-ups to Total ANC Registrations	85.3	79.4
Total Reported Deliveries	608156	21410780
% Institutional deliveries to Total Reported Deliveries	91.2	94.5
% Deliveries conducted at Public Institutions to Total Institutional Deliveries	83.6	67.9
% Deliveries conducted at Private Institutions to Total Institutional Deliveries	16.4	32.1
% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries	23.5	20.5
% C-sections conducted at public facilities to Deliveries conducted at public facilities	15.3	14.1
% C-sections conducted at Private facilities to Deliveries conducted at private facilities	65.9	34.2
% Women getting 1st Post-Partum Checkup between 48 hours and 14 days to Total Reported Deliveries	87.2	53.4
Neonatal⁹	Assam	India
% live birth to Reported Birth	97.9	98.8
% Newborns having weight less than 2.5 kg to Newborns weighed at birth	14.1	12.4
% Newborns breast fed within 1 hour of birth to Total live birth	96.6	89.9

^{cc} Sources are mentioned at the end of Annexure 1

New Born Care Units Established¹¹	Assam	India
Sick New Born Care Unit (SNCU)	28	895
New Born Stabilization Unit (NBSU)	146	2418
New Born Care Corner (NBCC)	922	20337
Child Health & Nutrition¹⁰	Assam (NFHS 5)	India (NFHS 5)
Prevalence of diarrhoea (reported) in the last 2 weeks preceding the survey (%)	5.5	7.3
Children with diarrhoea in the last 2 weeks who received oral rehydration salts (ORS) (%)	69.1	60.6
Children under 5 years who are underweight (weight-for-age) (%)	32.8	32.1
Child Immunization¹⁰	Assam (NFHS 5)	India (NFHS 5)
Children age 12-23 months fully vaccinated based on information from vaccination card only (%)	71.8	83.8
Children age 12-23 months who have received BCG (%)	92.5	95.2
Children age 12-23 months who have received first dose of measles containing vaccine (%)	82.8	87.9
Family Planning¹⁰	Assam (NFHS 5)	India (NFHS 5)
Unmet need for spacing (%)	4.1	4
Communicable Diseases		
Integrated Disease Surveillance Programme (IDSP)¹¹	Assam	India
Number of districts with functional IDSP unit	27	720
Revised National Tuberculosis Control Programme (RNTCP)¹¹	Assam	India
Annualized total case notification rate (%)	123	163
New Smear Positive (NSP) Success rate (in %)	84	79
National Leprosy Eradication Programme (NLEP)¹¹	Assam	India
Prevalence Rate/10,000 population	0.25	0.61
Number of new cases detected	851	1,14,359
Malaria, Kala Azar, Dengue¹¹	Assam	India
Deaths due to Malaria ¹¹	4	79
Deaths due to Kala azar reported ¹¹	0	0
Deaths due to Dengue reported ¹¹	0	168
Number of Kala Azar Cases reported ¹¹	0	3,706
HIV¹⁰	Assam (NFHS 5)	India (NFHS 5)
Women (age 15-49 years) who have comprehensive knowledge of Human Immunodeficiency Virus (HIV)/Acquired immunodeficiency syndrome (AIDS) (%) ¹⁰	19.2	21.6
Men (age 15-49 years) who have comprehensive knowledge of HIV/AIDS (%) ¹⁰	25.3	30.7

Non-Communicable Disease		
Diabeties and Hypertension ¹⁰	Assam (NFHS 5)	India (NFHS 5)
Women - Mildly elevated Blood Pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	11	12.4
Men - Mildly elevated Blood Pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	12.9	15.7
Women - Blood sugar level - high (141-160 mg/dl) (%)	6.9	6.1
Men - Blood sugar level - high (141-160 mg/dl) (%)	8.4	7.3
Tobacco Use and Alcohol Consumption among Adults (age 15 years & above) ¹⁰	Assam (NFHS 5)	India (NFHS 5)
Women who use any kind of tobacco (%)	22.1	8.9
Men who use any kind of tobacco (%)	51.8	38
Women who consume alcohol (%)	7.3	1.3
Men who consume alcohol (%)	25.1	18.8
Injuries		
Road Traffic Accident ¹²	Assam	India
Rank (Total number of fatal Road Accidents in State/UT wrt other States/UTs)	18	NA
Total number of fatal Road Accidents	3,019	1,37,689
Severity (Road accident deaths per 100 accidents) of Road Accidents	38.4	33.7
Number of persons killed in Road Accidents	3,208	115113

1.5 Access to Care^{dd}

Health Systems Strengthening		
Ambulances & Mobile Medical Units (MMU) ¹¹	Assam	India
Number of Districts equipped with MMU under NRHM	33	506
Number of Districts equipped with MMU/Health Units under NUHM	0	31
Number of ERS vehicles operational in the States/UTs Under NHM	Assam	India
102 Type	316	9955
104 Type	0	605
108 Type	387	10993
Others	235	5129
Number of Ambulances functioning in the State/UTs other than NHM (At PHC/CHC/SDH/DH)	0	11070

^{dd} Sources are mentioned at the end of Annexure 1

Key Domain Indicators			
ASHA ¹³	Assam	India	
Total number of ASHA targeted under NRHM	30920	946563	
Total number of ASHA in position under NRHM	30920	904211	
% of ASHA in position under NRHM	100	96	
Total number of ASHA targeted under NUHM	1212	75597	
Total number of ASHA in position under NUHM	1212	64272	
% of ASHA in position under NUHM	100	85	
Community Process ¹¹	Assam	India	
Number of Village Health Sanitation and Nutrition Committees (VHSNCs) constituted	27673	554847	
Number of Mahila Arogya Samitis (MAS) formed	658	81134	
RKS ¹¹ - Number of Rogi Kalyan Samitis (RKS) registered (Total)	Assam	India	
DH	24	796	
CHC	197	6036	
PHC	947	20273	
UHC	2	126	
UPHC	55	3229	
Human Resource for Health ¹⁴			
HRH Governance		Assam	
Specialist Cadre Available in the state (Y/N)		No	
HR Policy available (Y/N)		No	
Implementation of HRIS (Y/N)		Yes	
HR Integration initiated (Y/N)		Yes	
Public Health Cadre available (Y/N)		No	
Overall Vacancies (Regular + contractual)	Specialists + MO MBBS (%)	28	
	Dentists (%)	5	
	Nurse (%)	12	
	LT (%)	3	
	ANM (%)	2	
HRH Distribution		Sanctioned	In Place
Doctors (MO & specialists) to staff nurse ¹⁴		1:1	1:1
Availability of public healthcare providers (MO, specialists, staff nurse & ANM) in district healthcare system ¹⁴		7 per 10,000	6 per 10,000
Regular to contractual service delivery staff ratio ¹⁴		1:1	1:1

Ranking: Human Resource Index of Assam¹⁵

Category	Total (Regular + NHM)					Ranking: HR Gap Index
	Required (R)	Sanctioned (S)	In-Place (P)	Vacancy (V)	Actual Gap# (R-P)	
MPW ^{ee}	14251	13907	13362	545	889	78.04
Staff Nurse	11500	7182	5659	1523	5841	
Lab Technician	2506	1845	1841	4	665	
Pharmacists	1628	1906	1786	120	0	
MO MBBS ^{ff}	2733	3683	3074	609	0	
Specialist ^{gg}	2157	1170	1141	29	1016	

1.6 Healthcare Financing

National Health Accounts (NHA) (2017-18)	Assam		India	
Per Capita Government Health Expenditure (in ₹)	1392		1753	
Government Health expenditure as % of Gross Domestic Product (GSDP)	1.6		1.35	
Government Health Expenditure as % of General Government Expenditure (GGE)	7.5		5.12	
OOPE as a Share of Total Health Expenditure (THE) %	35.9		48.8	
National Sample Survey Office (NSSO) (2017-2018)	Assam		India	
	Rural	Urban	Rural	Urban
OPD - % of non-hospitalized cases using public facility	51	23	33	26
IPD - % of hospitalized cases using public facility	77	48	46	35
Out of Pocket Expenditure (OOPE) (NSSO)*	Rural	Urban	Rural	Urban
OPD - Per non-hospitalized ailing person (in INR) in last 15 days - Public	1362	1318	472	486
OPD - Per non-hospitalized ailing person (in INR) in last 15 days - Private	1454	1002	845	915
IPD - Per hospitalized case (in INR) - Public	5,883	10,155	5,729	5,939
IPD - Per hospitalized case (in INR) - Private	29,392	63,346	28,816	34,122
IPD - % of diagnostics expenditure as a proportion of inpatient medical expenditure in Public (NSSO)	22	21	18	17
IPD - % of drugs expenditure as a proportion of inpatient medical expenditure – Public (NSSO)	44	42	53	43

^{ee} MPW – Multi Purpose Health Worker (Female + Male)

^{ff} MO MBBS (Full Time)

^{gg} Specialist (All Specialist)

* Estimated by NHSRC using unit level data of NSSO 2017-18, where OOPE = [Total Medical Expenditure + Transportation Cost] – Reimbursement

Childbirth - Average out of pocket expenditure per delivery in public health facility (₹) (NSSO)	3,596	4,671	2,402	3,091
Childbirth - Average out of pocket expenditure per delivery in private health facility (₹)	26,114	33,218	20,692	26,701
State Health Expenditure	Assam		All India Average	
State Health Department expenditure as a share of total expenditure (%) (2017-18)**	6.8		5 ^{hh}	

Sources used for Annexure 1

- ¹ Census 2011
- ² Rural Health Statistic (RHS) 2019-20
- ³ Sample Registration Survey (SRS) Bulletin 2018 & 2019
- ⁴ Registrar General of India (RGI) Statistical Report (SRS) 2018
- ⁵ SRS Based Abridged Life Tables 2014-18
- ⁶ National Health Profile 2020
- ⁷ Global Burden of Disease Data 2019, <https://vizhub.healthdata.org/gbd-compare/>
- ⁸ Annual Report on Vital Statistics of India based on CRS 2019 & Medical Certification of Cause of Death 2019
- ⁹ HMIS (2019-20)
- ¹⁰ NFHS 4 & 5
- ¹¹ QPR NHM MIS Report [Status as on 01.03.2020 & recent 31.12.2020 (some indicators removed from the recent report have been taken from report released on 01.03.2020)]
- ¹² Ministry of Road Transport & Highways (MoRTH) - Road Accidents in India 2019
- ¹³ Update on ASHA Programme July 2019 (NHSRC Publication)
- ¹⁴ Human Resources for Health in District Public Health Systems of India: State Wise Report 2020
- ¹⁵ HRH Division NHSRC
- ¹⁶ As per HWC Portal

^{hh} Represents data for all states and 2 UTs with legislative assembly (Puducherry + Delhi)

** RBI, State Finances: Study of Budgets 2019-20

ANNEXURE 2

Figure 1: IMR Trend

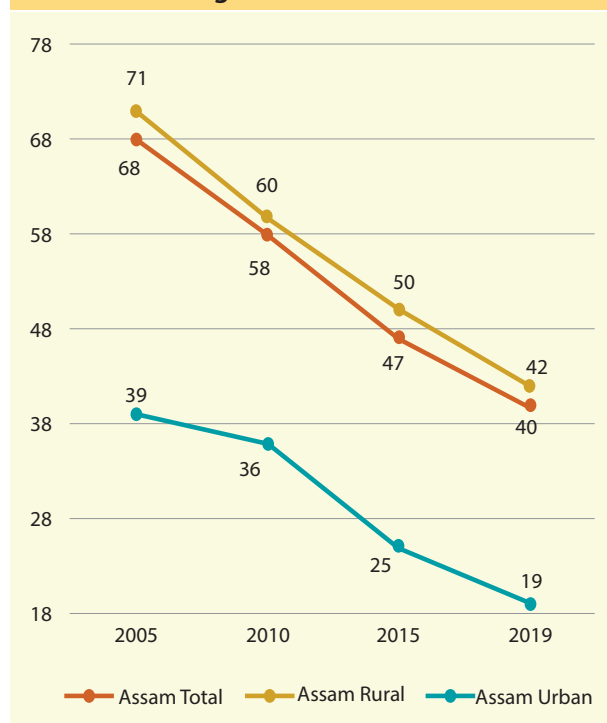


Figure 2: CBR & CDR Trend

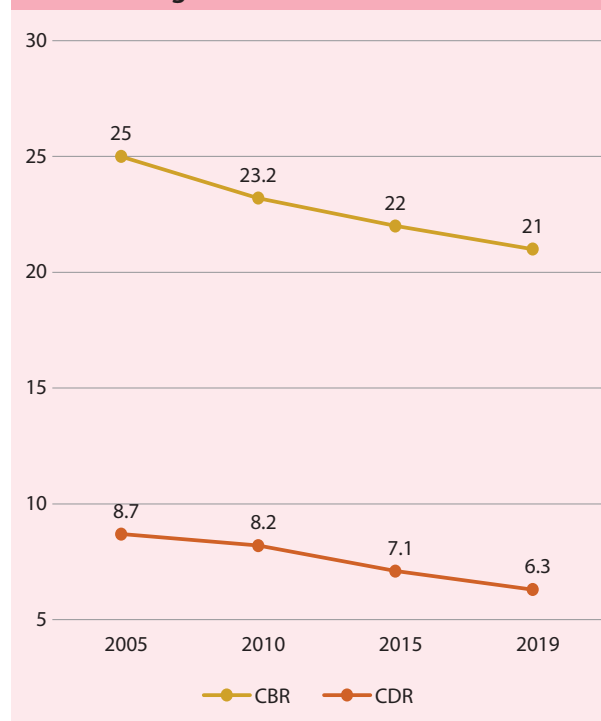


Figure 3: Life Expectancy At Birth Trend

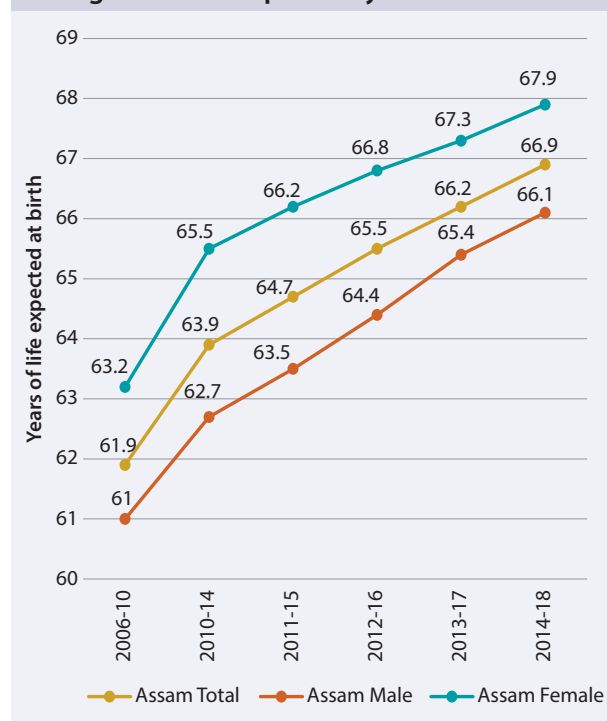


Figure 4: NNMR, TFR & Still Birth Trend

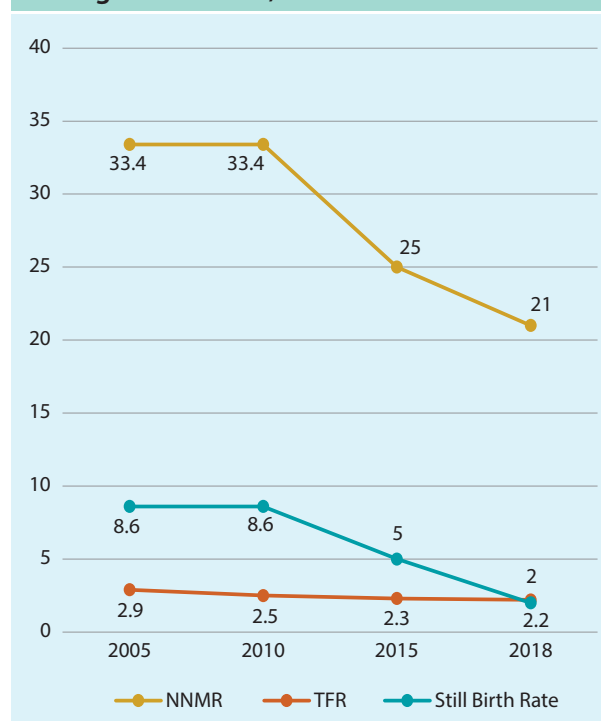


Figure 5: Comparison of Key NFHS 5 & 4 Indicators

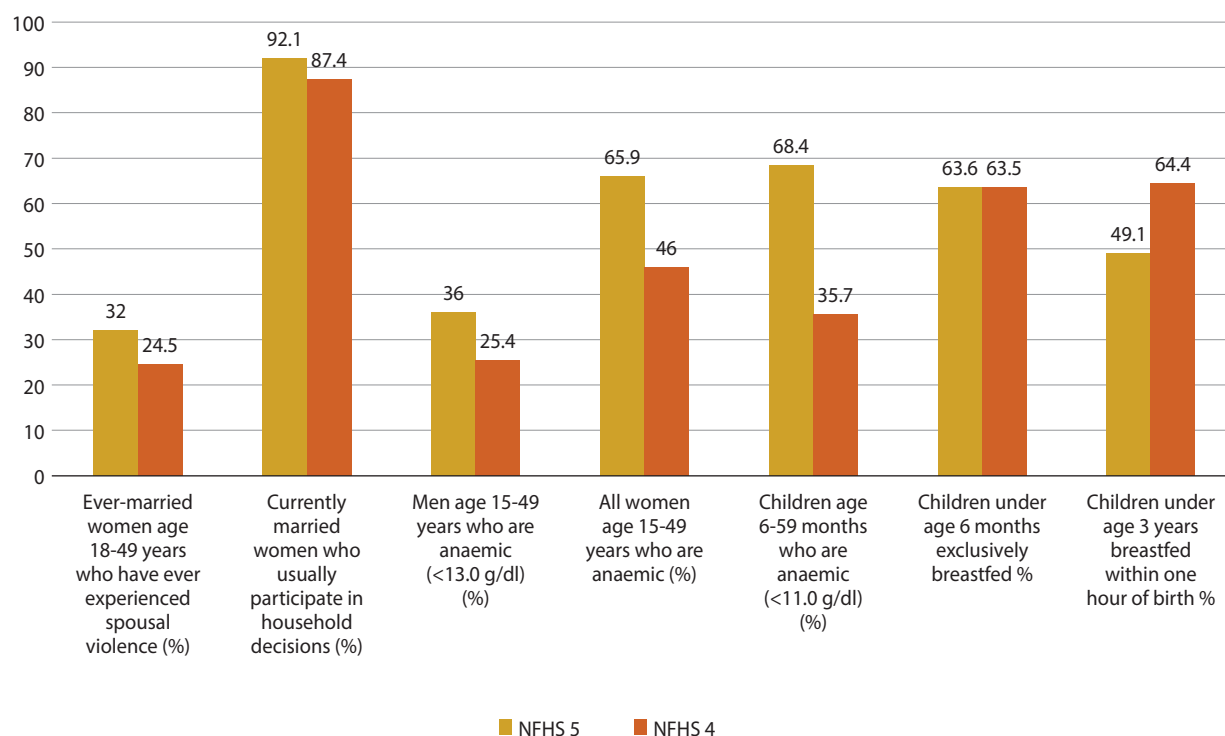


Figure 6: Top 15 causes of DALYs, 1990-2019

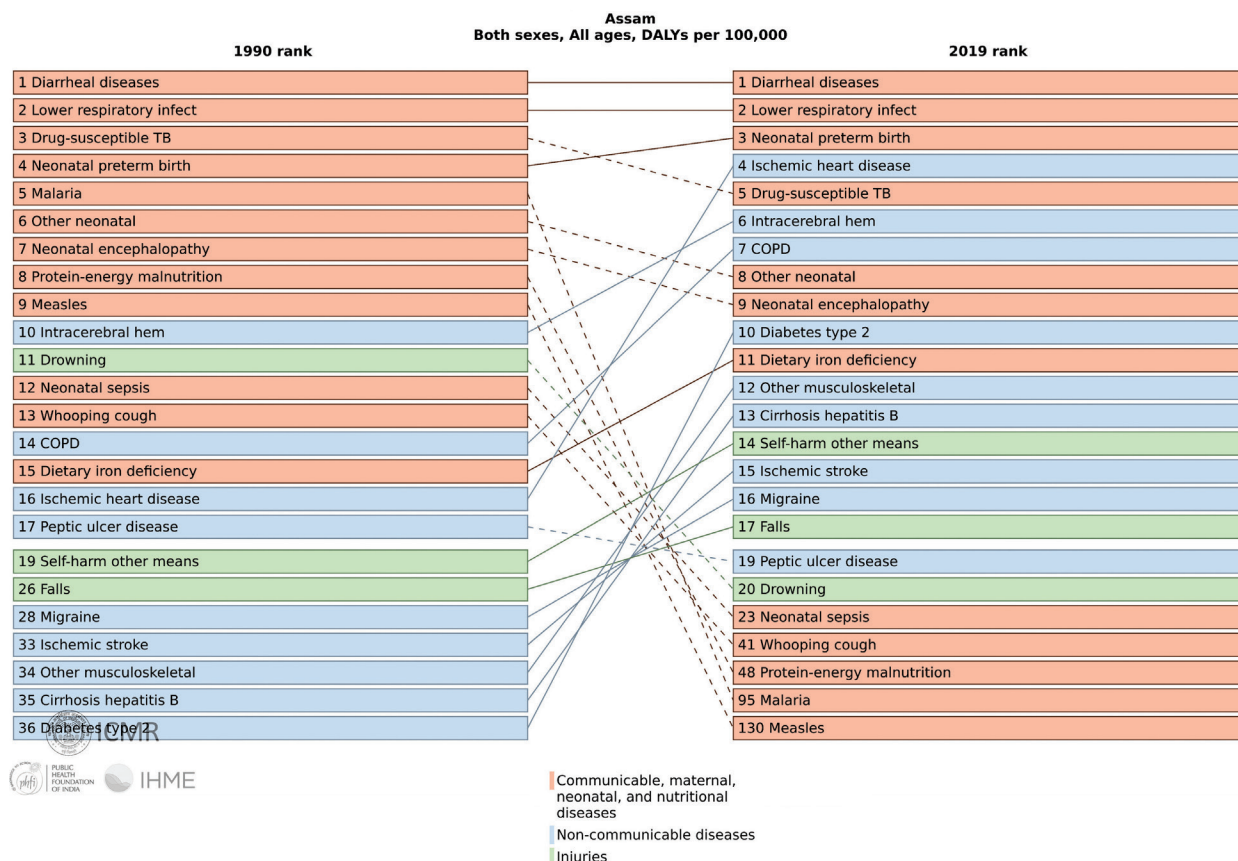


Figure 7: Top 15 risk of DALYs, 1990-2019

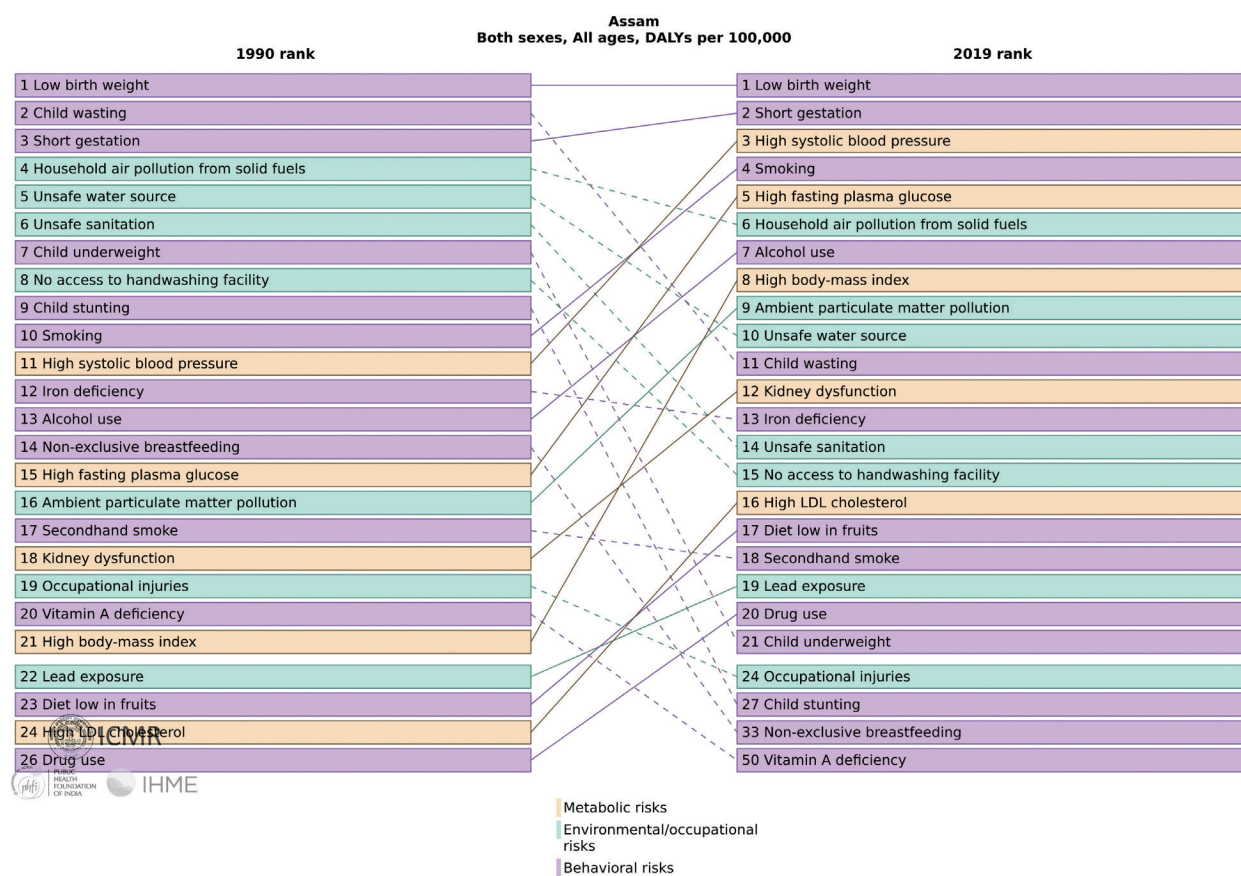


Figure 8: Year Wise Required/In Position Health Infrastructure Status in Rural Area (In numbers)

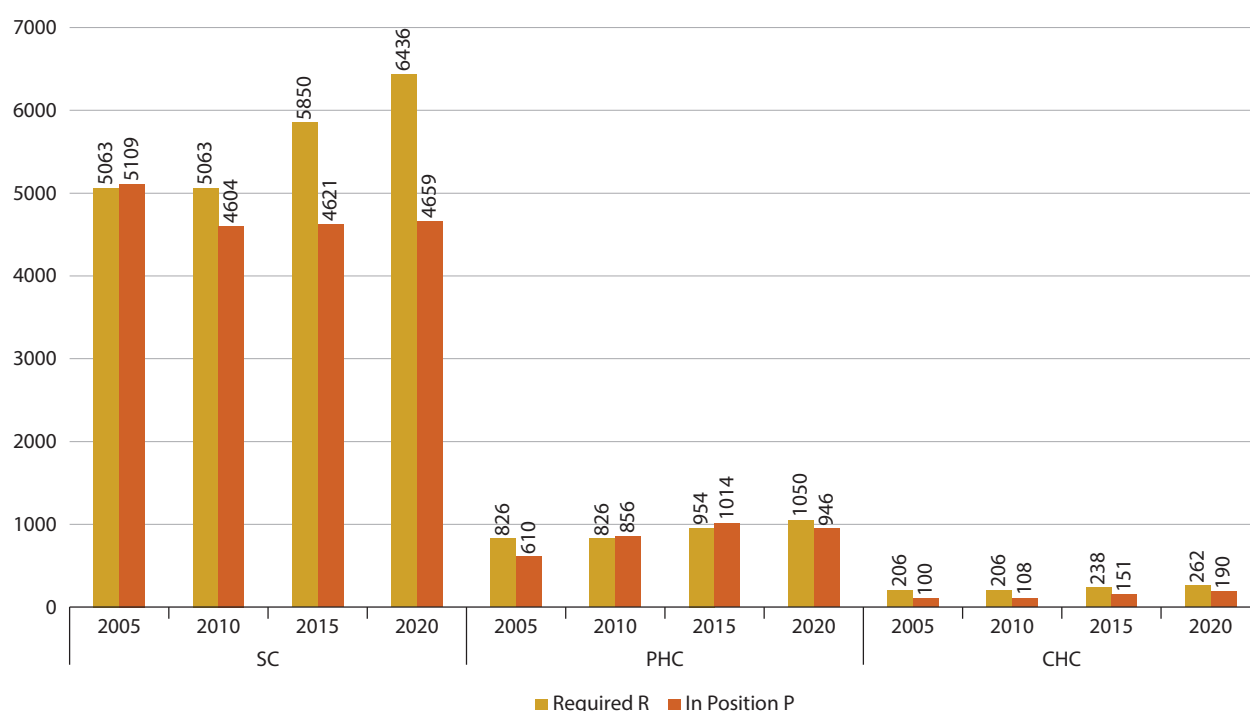


Figure 9: Year Wise Health Infrastructure Shortfall (%)

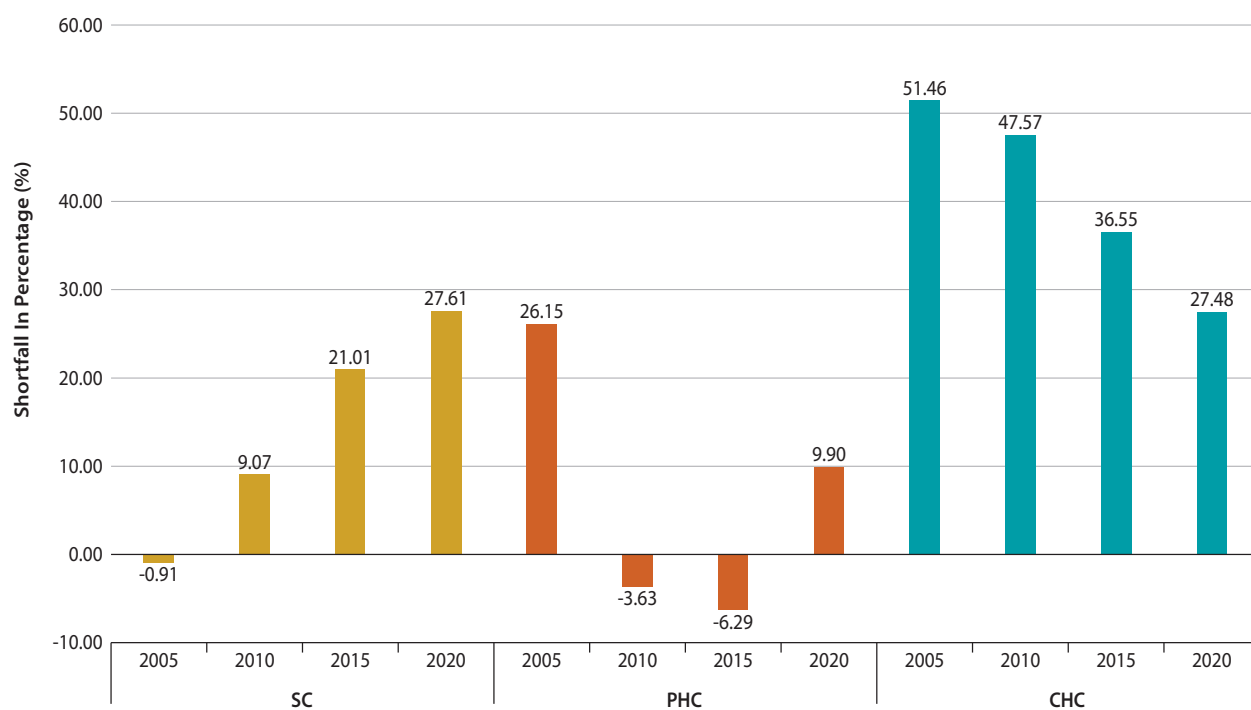
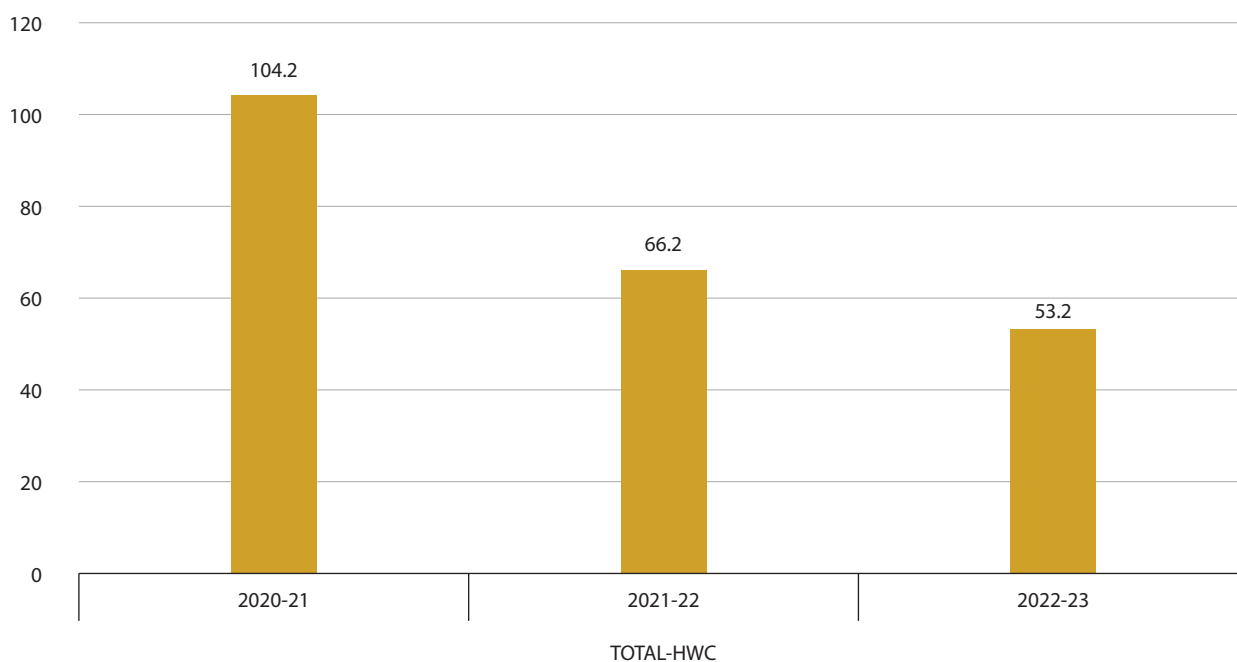


Figure 10: Percentage HWCs progress against target - FY wise (%)

Assam (% HWCs progress as of 22/Dec/2021 against targets-FY wise)



ANNEXURE 3: DISTRICT WISE PERFORMANCE WITH RESPECT TO KEY NFHS 5 INDICATORS

S. No.	States/Districts	Data Source	(Green – Good Performance, Red – Poor Performance) (District Wise Rural Urban Stats Not Available)													
			Sex Ratio At Birth (Females/1000 Males)	Households with any usual member covered under a health insurance/financing scheme (%)	Women Literate 15-49 Age (%)	Women Age 20-24 Years Married Before 18 (%)	Any Method Used For Family Planning By Currently Married Women Age 15-49 years (%)	IUD/PIUD (%)	Condom Use (%)	Total Unmet Need (%)	Mother Who Had At Least 4 Antenatal Care Visits (%)	Institutional Births (%)	Children Age 12-23 Months Fully Vaccinated Based On Information From Vaccination Card Only* (%)	Total Children Age 6-23 Months Receiving Adequate Diet**, # (%)	Stunted^ (Height For Age) - Children Under 5 Years - (%)	Wasted^ (Weight For Height) - Children Under 5 Years - (%)
1	Assam	NFHS 4 Total	929	10.4	N/A	30.8	52.4	2.2	2.7	14.2	46.4	70.6	67.8	8.9	36.4	17
2	Assam	NFHS 5 Urban	916	50.1	87.5	22.3	61.4	3.4	7.6	9.9	62.6	93.5	70.6	7.9	29.8	19.1
3	Assam	NFHS 5 Rural	970	61.9	75.4	33.4	60.7	2.9	4.4	11.1	49.2	82.9	72	8	36	22.1
4	Assam	NFHS 5 Total	964	60	77.2	31.8	60.8	2.9	4.9	11	50.7	84.1	71.8	8	35.3	21.7
5	Baksa	NFHS 5 Total	1097	69	74.8	24.9	59.2	3.3	2.7	12.5	56	89.9	67.3	14	41.2	17
6	Barpeta	NFHS 5 Total	1007	58.9	74.8	40.1	57.3	2	3.6	12.3	43.6	87.6	59.6	5.5	29.8	19.5
7	Biswanath	NFHS 5 Total	1014	68.4	69.2	25.3	72.4	2.1	4.5	5.3	46.5	84.3	74.3	14.5	42.7	27.1
8	Bongaigaon	NFHS 5 Total	881	57.6	75.8	41.7	57.6	2.6	4.8	16.1	33.9	84.5	73.2	16.5	46.2	20.2
9	Cachar	NFHS 5 Total	991	57.9	77.2	29.9	48	1	6.1	15.6	32.7	79.2	82.1	2.7	28.7	30.7
10	Charaideo	NFHS 5 Total	1040	64.9	71.9	22.6	67	4	4.4	8.3	64.5	88.2	81.5	9.9	39	23.5
11	Chirang	NFHS 5 Total	906	61.5	71.5	30.9	65.8	5.2	6.1	9.8	56.5	83.7	68.2	9.7	42.7	19.5
12	Darrang	NFHS 5 Total	757	53.7	75.6	42.8	46.8	2.8	3.1	14.8	37.5	84.4	58.1	9.1	42	27
13	Dhemaji	NFHS 5 Total	1022	66.8	81.5	32	72.6	3.8	1.6	7.1	62.2	87.3	90.8	6.8	37.2	18.3
14	Dhubri	NFHS 5 Total	914	59.4	69.5	50.8	64.1	1.3	5.1	11.5	37.6	64.2	69.5	7.4	48.5	21.5
15	Dibrugarh	NFHS 5 Total	979	58.8	76.6	23	64.6	3	4.5	8.7	75.6	93.1	85.5	5.6	27.3	20.6
16	Dima Hasao	NFHS 5 Total	908	61.9	87.7	16.5	65.5	4	3.1	9.7	46.9	89.5	63.8	8.7	30.6	23.6
17	Goalpara	NFHS 5 Total	1027	71.1	74.1	41.8	66.8	3.2	3.6	7.4	44.1	92.3	72.7	7.5	38.9	24.3
18	Golaghat	NFHS 5 Total	1145	69.3	75.1	20.7	61.6	3.1	5.6	10.9	65.7	90.4	75.9	4.4	26.3	19.2
19	Hailakandi	NFHS 5 Total	951	53.6	82.2	32.9	66.8	4.3	12.8	8.6	43.1	83	76.9	1.6	42.9	22.2
20	Hojai	NFHS 5 Total	1017	67.4	83.2	30.9	61.1	1.2	4.9	13.2	51.3	82.1	63.6	2.7	39.3	12.7
21	Jorhat	NFHS 5 Total	833	60.1	85.1	24.9	63.8	3.6	6	10.4	67	96.5	70.4	11.5	38.7	15.5
22	Kamrup	NFHS 5 Total	701	47	79.6	21.9	38.7	3.4	4.8	17.6	46.9	85	73	6.5	22.6	14.8

S. No.	States/Districts	Data Source	Sex Ratio At Birth (Females/1000 Males)	Households with any usual member covered under a health insurance/financing scheme (%)	Women Literate 15-49 Age (%)	Women Age 20-24 Years Married Before 18 (%)	Any Method Used For Family Planning By Currently Married Women Age 15-49 years (%)	IUD/PPIUD (%)	Condom Use (%)	Total Unmet Need (%)	Mother Who Had At Least 4 Antenatal Care Visits (%)	Institutional Births (%)	Children Age 1-23 Months Fully Vaccinated Based On Information From Vaccination Card Only* (%)	Total Children Age 6-23 Months Receiving Adequate Diet**, # (%)	Stunted^ (Height For Age) (%)	Wasted^ (Weight For Height) (%)
23	Kamrup Metropolitan	NFHS 5 Total	986	45.5	86	21.9	56.8	4.5	6.6	8.8	68.9	89.1	69	1	25.4	18.2
24	Karbi Anglong	NFHS 5 Total	882	54.1	78.8	26.1	66.3	6.2	1.8	9.3	63.9	74.9	74.3	18.1	31.6	17.2
25	Karimganj	NFHS 5 Total	885	64.4	80.7	27.7	64.3	2.3	9.5	8.6	42.8	76.4	75.9	5.3	29.1	48
26	Kokrajhar	NFHS 5 Total	1003	50.2	73.7	36.2	72.3	4.1	3.2	10	36.9	81.9	52.6	10	34.6	20.5
27	Lakhimpur	NFHS 5 Total	985	67	83.9	36.3	67.1	3	5.9	9.8	51.7	96.2	72.4	7.9	38.5	18.2
28	Majuli	NFHS 5 Total	754	60.8	83.4	25.5	63.7	3.4	1.2	11.6	72.2	90.3	83.9	14.2	35.4	14.1
29	Morigaon	NFHS 5 Total	1070	62.5	78.7	39.1	70.6	3.8	5.5	6.5	42	88.3	82.9	8.6	43.2	16.1
30	Nagaon	NFHS 5 Total	969	59.4	78.4	42.6	58.6	2.8	5.4	12.3	59.4	83.7	68	8.6	38.9	19.4
31	Nalbari	NFHS 5 Total	994	52.5	83.9	28.1	53.3	2.6	2.9	13.2	55.9	91.8	79.8	8.8	27.5	15.4
32	Sivasagar	NFHS 5 Total	915	60.7	86.6	27.9	67.3	4.4	5.1	8.3	80.9	95.3	76.7	24.4	26.1	21.1
33	Sonitpur	NFHS 5 Total	1325	66.9	76.9	24	74.4	1.7	5.3	5.8	45.5	83.5	76.8	4.3	36.7	13.1
34	South Salmara Mankachar	NFHS 5 Total	911	68.2	63.5	44.7	71.5	2.9	2.5	8	35.3	71.7	66	7.1	38.9	18.2
35	Tinsukia	NFHS 5 Total	884	60	70.5	19.8	59.2	3	2.1	11	63.1	82.6	78.8	16.3	32.8	21.5
36	Udalguri	NFHS 5 Total	1255	70.6	70	32	50.2	2	3	14.6	49.8	86.2	52	2.5	33.8	21.3
37	West Karbi Anglong	NFHS 5 Total	1105	63.1	73.9	21.3	69.9	3.9	4.4	7.1	46.7	72.5	54.5	12.8	40.9	23.2

* NFHS5 recoded 'Immunized' (word) from NFHS4 to 'Vaccinated'; Out of two indicators with 'either vaccination card or mother's recall' & 'vaccination card only' indicator was used to reduce the recall bias, among children whose vaccination card was shown to the interviewer, percentage vaccinated with BCG, measles-containing vaccine (MCMV)/MMR/Measles, and 3 doses each of polio (excluding polio vaccine given at birth) and DPT or penta vaccine

** Based on the youngest child living with the mother

Breastfed children receiving 4 or more food groups and a minimum meal frequency, non-breastfed children fed with a minimum of 3 Infant and Young Child Feeding Practices (fed with other milk or milk products at least twice a day, a minimum meal frequency that is receiving solid or semi-solid food at least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months, and solid or semi-solid foods from at least four food groups not including the milk or milk products food group)

^ Below -2 standard deviations, based on the WHO standard. 1.3 Below -3 standard deviations, based on the WHO standard

A. Green Color – Best five performing districts within the districts for a particular indicator

B. Red – Worst five performing districts within the districts for a particular indicator

C. * Full antenatal care is at least four antenatal visits, at least one tetanus toxoid (TT) injection and iron folic acid tablets or syrup taken for 100 or more days

D. ** Based on the youngest child living with the mother

E. # Breastfed children receiving 4 or more food groups and a minimum meal frequency, non-breastfed children fed with a minimum of 3 Infant and Young Child Feeding Practices (fed with other milk or milk products at least twice a day, a minimum meal frequency that is receiving solid or semi-solid food at least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months, and solid or semi-solid foods from at least four food groups not including the milk or milk products food group)

F. ^ Below -2 standard deviations, based on the WHO standard. 1.3 Below -3 standard deviations, based on the WHO standard

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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