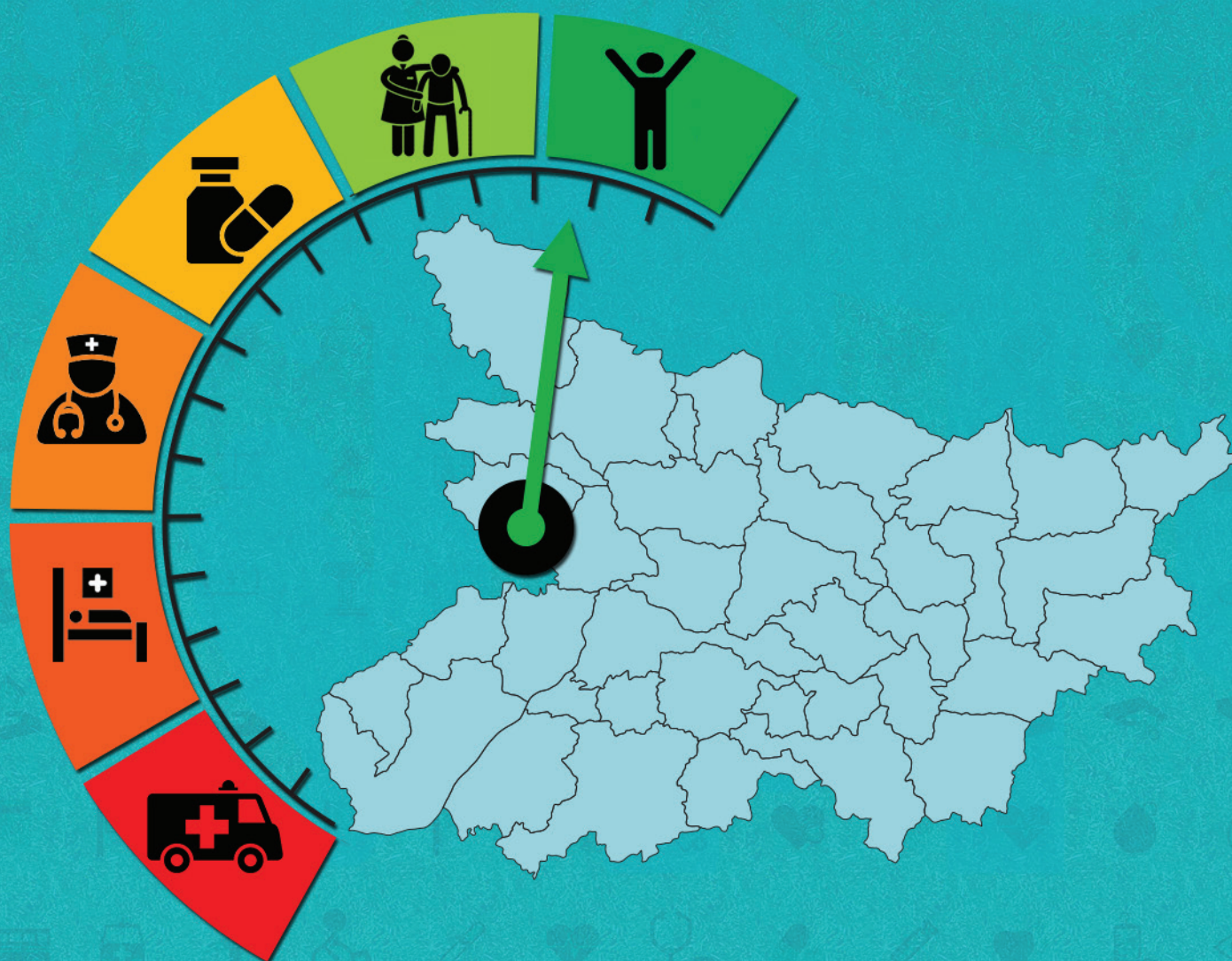


HEALTH DOSSIER 2021

Reflections on Key Health Indicators



BIHAR

DISTRICTS VISITED IN COMMON REVIEW MISSIONS

CRM	Districts Visited	
1 st	Patna	Vaishali
2 nd	Muzaffarpur	Vaishali
3 rd	Nalanda	Khagariya
5 th	Begusarai	Kishangarh
6 th	Banka	Gopalganj
7 th	Purnea	Vaishali
8 th	Patna	Madhubani
10 th	Siwan	West Champaran
11 th	Bhojpur	Madhepur
12 th	Rohtas	Muzaffarpur
13 th	Bhagalpur	Begusarai
14 th	Jamui	Lakhisarai

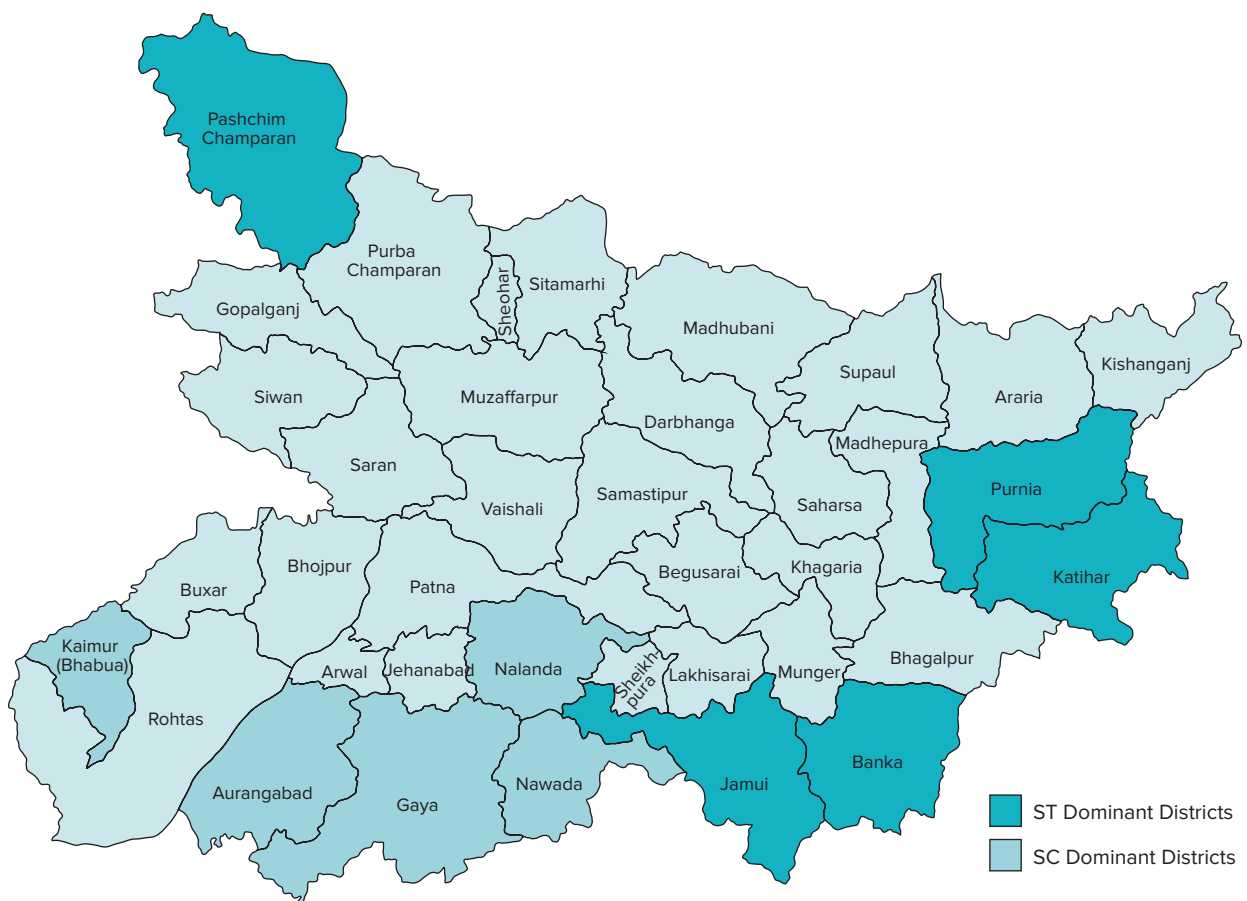
BIHAR

1. BACKGROUND

1.1 State Profile

Bihar is the thirteenth^a largest State by area in India, with a geographical spread of 94,163 km², accounting for 2.89% of the country's area (RHS 2019-20). The State is divided into 38 districts. It is the third most populous State in the country, with a population of over 10.4 crores, accounting for 8.6% of the country's total population^b, and is projected to increase to 12.3 crores by 2021 (Census

Figure 1: Top 5 ST & SC Dominant Districts



^a Including all States & UTs, as per RHS 2019-20

^b Census 2011

Population Projection 2019 Report). As per Census 2011, the Scheduled Caste (SC) and Scheduled Tribe (ST) population is 1.6 crores (15.91%) and 0.13 crores (1.28%), respectively. Out of the 38 districts, top five SC & ST dominant districts account for 21.06% of SC & 55.27% of ST population in the State (Figure 1 & Annexure 1.1, State Profile). As reported, Bihar has the second lowest urbanization rate in India, with 88.7% of the population residing in rural areas, while only 11.3% in urban areas.

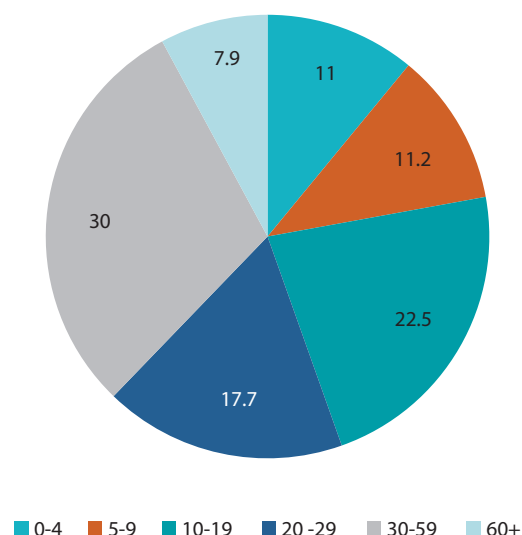
The total length of roads^c in the State is 2,09,549 kms (4.19%^d), in which, the length of national highways is 4,839 kms (4.2%^e) and state highways is 4,006 kms (2.2%^f). Agriculture remains the mainstay of the Bihar's economy.

A detailed report on the Key indicators has been attached as Annexure 1.

1.2 Demography

In Bihar, 15 districts have a population over 30 lakhs, 11 districts have around 20-30 lakhs population, 9 districts have around 10-20 lakhs population and only 3 districts have less than 10 lakhs population (Annexure 1.1). The State's sex ratio of 895 females for every 1000 males is only slightly higher than the national average of 889 females for every 1000 males (Annexure 1.2). As estimated, there are 22.5% of the total population in the age group of 10-19 years, 47.7% within 20 to 59 years, and 7.9% are in the age group of 60 years and above (Figure 2). The crude birth and death rates have declined from 30.4 and 8.1 (2005) to 25.8 and 5.5 (2019) respectively (Annexure 2, Figure 2). The literacy rate has increased from 47% in 2001 to 61.8% in 2011, with male literacy reported as 71.2%, while female literacy being only 51.5% (Annexure 1.1). As per ESAG 2018 report, the Gross Enrollment Rate (GER)^g is 107.67% for primary education, 107.74% for elementary education, 78.37% for secondary education, 35.62% for senior secondary education, and 14.3 % for higher education.

Figure 2: Bihar - distribution of estimated population 2021 (%)



1.3 Elderly

Elderly people aged 60 years and above share 7.9% of the State's total population (Figure 2). The life expectancy at 60 years of age is 16.3 years for males and 16.8 years for females (SRS Based Life Abridged Table, 2014-18). It is reported^h that in rural areas, around 73% of elderly females and 23% elderly males are economically fully dependent. As per Elderly in India 2016 report, the old age dependency ratio of

^c Basic Road Statistics 2019, MoRTH

^d Percentage of total length of roads in the State/UT

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

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

^g 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

^h NSSO report number 586

14.2 (2011) is at par with the national average, with regional variations of 14.5 in rural areas & 12.3 in urban areas. The illness (any deviation from the state of physical and mental well-being) perception among the elderly is low. Only 19% of men and 17% of women reported illness, which is less than the national average of 31% for both.

2. HEALTH STATUS AT A GLANCE

2.1 Maternal Health

The RMNCHA+Nⁱ services have improved with the launch of NHM in the State. Indicators for Antenatal care (ANC)^j, institutional deliveries, C sections, distribution of IFA^k tablets, follow up of high-risk pregnancies, provision of postnatal and newborn care have shown improvement since 2005 (NFHS 4 & 5). The maternal mortality ratio has declined from 261^l (SRS MMR Bulletin 2007-09) to 149 (SRS MMR Bulletin 2018) per 1,00,000 live births. In Bihar, out of the total ANC registration, 69.8% of pregnant women received 4 ANC check-ups (Annexure 1.4). As reported in HMIS 2019-20, around 85% of all reported deliveries took place in institutions out of which 88.3% deliveries took place in public health facilities. Total percentage of C-section deliveries out of the reported institutional deliveries in the State (2.6%) is less than the national average of 20.5%, out of which 8.5% of them are conducted in private facilities (Annexure 1.4). Around 38% of women were tracked for the first postpartum check-up between 48 hours and 14 days (Annexure 1.4). The prevalence of anaemia in women increased from 61% to 65.7%. Anemia in females of reproductive age group (65.7%) is more than thrice than in men (29.5%) of similar age group (Annexure 2, Figure 5).

2.2 Newborn, Infant & Child Health

Ever since the inception of NHM in 2005, the State has shown a decline in IMR from 61 (2005) to 29 (2019), which is below the national average of 30 (Annexure 2, Figure 1). Though the NNMR^m has significantly decreased from 32.4 (2005) to 25 (2018), the Still Birth (per 1,000 live births) Rate, however, shows a rising trend from 1.7 (2005) to 2 (2018) (Annexure 2, Figure 4). The life expectancy at birthⁿ has improved from 65.8 years in 2006-10 to 69.1 years in 2014-18, varying marginally between females (68.7 years) and males (69.4 years) (Annexure 2, Figure 3), yet is slightly less than the national average of 69.4 years. In NFHS 5, Vaishali, Jehanabad, Siwan, Begusarai & Madhepura districts reported high SRBs ranging between 1118-1058, while Muzaffarpur, Saran, Madhubani, Darbhanga & Arwal districts reported low SRBs ranging between 685-815 (Annexure 3, NFHS 5).

Full vaccination^o for children between 12–23 months has improved from 77.1% (2015-16) to 82.7% (2019-20; NFHS 5). The percentage of under 6-months children exclusively breastfed also increased from 53.4% to 58.9% (NFHS 5). Though the burden of malnutrition declined over time^p, there is a wide variation in the nutritional status across the state. A considerable increase in childhood anaemia from 63.5% to 69.4% in children aged 6-59 months has been reported (Annexure 2, figure 5). For under-5 stunting,

ⁱ Reproductive, Maternal, Newborn, Child Health, Adolescent Health & Nutrition

^j Antenatal Check up

^k Iron Folic Acid Tablets

^l Including Jharkhand

^m Neonatal Mortality Rate

ⁿ SRS Based Abridged Life Tables

^o NFHS 5 State/UT Factsheet, based on information from vaccination card only

^p Disease Burden Trends in the States of India 1990 to 2016

Gopalganj, Sheohar, Patna, Khagaria & Munger districts reported relatively low burden, ranging from 34.2% to 35.5%; and Sitamarhi, Sheikhpura, Araria, Nawada & Purba Champaran districts reported high burden ranging from 49.1% to 54.2%. Similarly, for under-5 wasting, Pashchim Champaran, Sitamarhi, Sheikhpura, Purba Champaran & Madhubani districts reported relatively low burden, ranging from 13.2% to 17.1%, while Arwal, Jehanabad, Sheohar, Buxar & Aurangabad districts reported high burden ranging from 32.9% to 36.8% (Annexure 3, NFHS 5).

2.3 Family Planning

The TFR^a has reduced from 4.3 (2005) to need 3.2 (2018) which is more than the national average of 2.2 (SRS Statistical Reports). The total unmet is 13.6%, while unmet need for spacing is 6.1 (NFHS 5). In the State, Sheikhpura reported the lowest unmet need (3.2%) and Nawada reported the highest (6.5). Around 44.4% of married women reported to avail any modern method of family planning in Bihar, with sterilization acceptance among females being 34.8% and nil among males (NFHS 5).

2.4 Communicable Diseases

The State has 38 functional IDSP units in place^r. The proportion of Communicable, Maternal, Neonatal, and Nutritional Diseases [CMNND] contribute to 40.24% of total disease burden while Diarrheal diseases, Lower Respiratory Infection and neonatal disorders remain the major causes of death in the State (Annexure 2, Figure 6). As per QPR report, for TB, the annualized total case notification rate is 92% and NSP^s success-rate is 75%, as opposed to the national averages of 163% and 79% respectively. For NLEP^t, the reported prevalence rate of 0.77% per 10,000 population is higher than the national average of 0.61. No death(s) from vector borne diseases (Dengue, Malaria, Kala Azar) are reported.

2.5 Non-Communicable Diseases (NCDs)& Injuries

It is reported that 69.9% of the total disease burden is due to premature deaths and 30.1% is due to disability or morbidity(2016)^[1]. As per GBD^u 2019, the leading causes of DALY include Ischemic Heart Disease, Chronic Obstructive Pulmonary Disease, and Diabetes Mellitus Type 2. NCDs contribute to 50.34% of DALYs, while injuries contribute to around 9.42% of DALYs in the State (Annexure 1.4). It is found in recent NFHS 5 report that 5% of women and 48.8% of men used any kind of tobacco, while 0.4% of women and 15.5% of men consumed alcohol. In general, the major risk factors for DALYs includes child & maternal malnutrition, air pollution, WASH^v, dietary risk factors and high blood pressure (Annexure 2, Figure 7).

2.6 Health Care Financing

The State's Net State Domestic Product (NSDP) for FY 2018-19 is ₹ 4,86,775.84 crores. In terms of per capita of ₹ 40,982, Bihar is positioned last among the 32 states^w. According to NHA 2017-18, the per capita Government Health Expenditure in the State is ₹ 556, which is less than the national average of

^a Total Fertility Rate

^r QPR NHM MIS Report as on 01.03.2020 & 31.12.2020

^s New Smear Positive

^t National Leprosy Eradication Programme

^u Global Burden of Disease, <https://vizhub.healthdata.org/gbd-compare/india>

^v Water, Sanitation and Hygiene

^w Directorate of Economics & Statistics

₹ 1,753. On the other hand, the OOPE^x as a share of Total Health Expenditure (THE) is 58.2%, as opposed to the national average of 48.8%. As per the NSSO 2017-18, the OOPE for inpatient care per hospitalization in rural areas is around ₹ 5,390 in public hospitals and ₹ 18,189 in private hospitals, in urban areas it is around ₹ 5,220 in public hospitals and ₹ 26,217 in private hospitals (Annexure 1.6). For childbirth, OOPE in public health facilities is around ₹ 2,422 in rural areas and ₹ 2,966 in urban areas, whereas in private health facilities, it is ₹ 15,729 in rural areas and ₹ 17,866 in urban areas. In public health facilities, the share of expenditure on medicine is 48% for inpatient care in rural and in urban areas; whereas for diagnostics it is 16 % and 17% in rural and urban areas respectively^y.

2.7 Health Infrastructure

As per the recent RHS data, the number of public health facilities have been increasing since 2005 (Annexure 1, Figure 8). Yet, a shortfall amounting to 57.88%, 52.68% and 93.66% of the required SCs, PHCs and CHCs, respectively still exist (Annexure 1, Figure 8 & 9). Currently, there are 9,112 SCs, 1,702 PHCs and 57 CHCs in place against the required 21,634 SCs, 3,597 PHCs and 899 CHCs. Similarly, in tribal areas there are only 232 SCs, 33 PHCs and no CHCs in place against the required 491 SCs, 73 PHCs and 80 CHCs. This accounts for a shortfall of 52.75% SCs, 54.79% PHCs and 100% CHCs in the tribal areas. However, in urban areas there are 325 PHCs in place against the required 294, thereby amounting to an excess of 10.54%. The State has 36 DHs, 35 SDHs and 10 Government medical colleges. In Bihar, 100% DHs & SDHs serve as functional FRUs (Annexure 1.3).

Under the recently introduced Ayushman Bharat – Health and Wellness Centres (AB-HWCs), a total of 2341 HWCs (1194 SHCs, 1049 PHCs & 98 UPHCs) are operationalized in the State as of 22nd December 2021^z.

In the State, none of the districts are equipped with MMUs under NHM. The State has 95% of ASHA in position under NRHM and 54% under NUHM. The doctors to staff nurse ratio is 1:1, with 3 public health providers available for every 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, 642 availed (events) OPD services and 33 availed (events) IPD services. However, as per the NSSO data (2017-18), only 18% of all OPD cases in rural and 23% in urban areas used public health facilities, which is less than the national average of 33% and 26% respectively. Whereas, 70% of all IPD cases in rural and 72% in urban areas utilized public health facilities, which is more than the national average of 46% and 35% respectively.

^x Out of Pocket Expenditure

^y National Sample Survey Office NSSO Figures

^z AB-HWC Portal

ANNEXURE 1: KEY INDICATORS

1.1 State Profile^{aa}

Indicator	Bihar 2011 ¹	India
Total Population (In Crore)	10.4	121.08
Rural (%)	88.7	68.85
Urban (%)	11.92	31.14
Scheduled Caste population (SC) (in crore)	1.6 (15.91%)	20.14 (16.63%)
Scheduled Tribe population (ST) (in crore)	0.13 (1.28%)	10.45 (8.63%)
Total Literacy Rate (%)	61.8	72.99
Male Literacy Rate (%)	71.2	80.89
Female Literacy Rate (%)	51.5	64.64
Number of Districts in the Bihar ²	38	
Number of districts per lakh population in Bihar (Census 2011)	Population ¹	Districts ¹ (Numbers)
	<10 Lakhs	3
	≥ 10 Lakhs - <20 Lakhs	9
	≥20 Lakhs - <30 lakhs	11
	≥30 Lakhs	15
ST SC Dominant (Top 5) Districts of Bihar ¹		
ST Dominant Districts (%)	SC Dominant Districts (%)	
Paschim Champaran - 6.35%	Gaya - 30.38%	
Katihar - 5.86%	Nawada - 25.46	
Jamui - 4.47%	Aurangabad - 24.09%	
Banka - 4.44%	Kaimur (Bhabua) - 22.69%	
Purina - 4.27%	Nalanda - 21.11%	
Top 5 ST dominant district accounts for - 55.27%	Top 5 SC dominant district accounts for - 21.06%	

1.2 Key Health Status & Impact Indicators

Indicators	Bihar	India
Infant Mortality Rate (IMR) ³	29	30
Crude Death Rate (CDR) ³	5.5	6.0

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

Crude Birth Rate (CBR) ³	25.8	19.7
Maternal Mortality Ratio (MMR) ³	149	113
Neo Natal Mortality Rate (NNMR) ⁴	25	23
Under Five Mortality Rate (U5MR) ⁴	37	36
Still Birth Rate ⁴	2	4
Total Fertility Rate (TFR) ⁴	3.2	2.2
Life expectancy at birth ⁵	69.1	69.4
Sex Ratio at Birth ⁴	895	899

1.3 Key Health Infrastructure Indicators^{bb}

Indicators				Numbers (Total)
Number of District Hospitals ²				36
Number of Sub District Hospital ²				35
Number of Government (Central + State) Medical College ⁶				10
Number of Private (Society + Trust) Medical Colleges ⁶				6
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	1194	2724	5437	7246
PHC-HWC	1049	1899	1899	1899
UPHC-HWC	98	100	100	100
Total-HWC	2341	4723	7436	9245
Rural ²	Required (R)	In place (P)	Shortfall (S) (%)	
Number of Community Health Centres (CHC)	899	57	93.66	
Number of Primary Health Centres (PHC)	3,597	1,702	52.68	
Number of Sub Centres (SC)	21,634	9,112	57.88	
Number of functional First Referral Units (FRUs)	DH	SDH	CHC	
	36	35	64	
Urban ²	Required (R)	In place (P)	Shortfall (S) (%)	
Number of PHC	294	325	-10.54	
Tribal ²	Required (R)	In place (P)	Shortfall (S)%	
Number of CHC	80	0	100.00	
Number of PHC	73	33	54.79	
Number of SC	491	232	52.75	

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

Patient Service ⁹	Bihar	India
IPD per 1000 population	33.3	62.6
OPD per 1000 population	641.8	1337.1
Operation (surgeries) major (General and Spinal Anaesthesia) per 10000 population	21.7	36.4

1.4 Major Health Indicator^{cc}

% Share of DALYs to Total Disease Burden (GBD 2019) ⁷	Bihar	India
% DALY accountable for CMNNDs ^{##}	40.24	27.46
% DALY accountable for NCDs	50.34	61.43
% DALY accountable for Injuries	9.42	11.11
Birth, Death Registration & Medical Certification of Cause of Death (MCCD) Indicator ⁸	Bihar	India
Level of Birth Registration (%)	89.3	92.7
Level of Death Registration (%)	51.6	92
Percentage of medically certified deaths to total registered deaths (%)	5.1	20.7
RMNCHA+N		
Maternal Health ⁹	Bihar	India
% 1st Trimester registration to Total ANC Registrations	69.1	71.9
% Pregnant Woman received 4 ANC check-ups to Total ANC Registrations	69.8	79.4
Total Reported Deliveries	2,207,610	21410780
% Institutional deliveries to Total Reported Deliveries	84.8	94.5
% Deliveries conducted at Public Institutions to Total Institutional Deliveries	88.3	67.9
% Deliveries conducted at Private Institutions to Total Institutional Deliveries	11.7	32.1
% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries	2.6	20.5
% C-sections conducted at public facilities to Deliveries conducted at public facilities	1.8	14.1
% C-sections conducted at Private facilities to Deliveries conducted at private facilities	8.5	34.2
% Women getting 1st Post-Partum Checkup between 48 hours and 14 days to Total Reported Deliveries	38	53.4
Neonatal ⁹	Bihar	India
% live birth to Reported Birth	98.9	98.8
% Newborns having weight less than 2.5 kg to Newborns weighed at birth	10.3	12.4
% Newborns breast fed within 1 hour of birth to Total live birth	92.7	89.9

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

New Born Care Units Established¹¹	Bihar	India
Sick New Born Care Unit (SNCU)	43	895
New Born Stabilization Unit (NBSU)	41	2418
New Born Care Corner (NBCC)	708	20337
Child Health & Nutrition¹⁰	Bihar (NFHS 5)	India (NFHS 5)
Prevalence of diarrhoea (reported) in the last 2 weeks preceding the survey (%)	13.7	7.3
Children with diarrhoea in the last 2 weeks who received oral rehydration salts (ORS) (%)	58.2	60.6
Children under 5 years who are underweight (weight-for-age) (%)	41	32.1
Child Immunization¹⁰	Bihar (NFHS 5)	India (NFHS 5)
Children age 12-23 months fully vaccinated based on information from vaccination card only (%)	77.1	83.8
Children age 12-23 months who have received BCG (%)	91.6	95.2
Children age 12-23 months who have received first dose of measles containing vaccine (%)	NA	87.9
Family Planning¹⁰	Bihar (NFHS 5)	India (NFHS 5)
Unmet need for spacing (%)	6.1	4
Communicable Diseases		
Integrated Disease Surveillance Programme (IDSP)¹¹	Bihar	India
Number of districts with functional IDSP unit	38	720
Revised National Tuberculosis Control Programme (RNTCP)¹¹	Bihar	India
Annualized total case notification rate (%)	92	163
New Smear Positive (NSP) Success rate (in %)	75	79
National Leprosy Eradication Programme (NLEP)¹¹	Bihar	India
Prevalence Rate/10,000 population	0.77	0.61
Number of new cases detected	16,595	114,359
Malaria, Kala Azar, Dengue¹¹	Bihar	India
Deaths due to Malaria ¹¹	0	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	2,846	3,706
HIV¹⁰	Bihar (NFHS 5)	India (NFHS 5)
Women (age 15-49 years) who have comprehensive knowledge of Human Immunodeficiency Virus (HIV)/Acquired immunodeficiency syndrome (AIDS) (%) ¹⁰	10.3	21.6
Men (age 15-49 years) who have comprehensive knowledge of HIV/AIDS (%) ¹⁰	25.2	30.7

Non-Communicable Disease		
Diabeties and Hypertension ¹⁰	Bihar (NFHS 5)	India (NFHS 5)
Women - Mildly elevated Blood Pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	8.7	12.4
Men - Mildly elevated Blood Pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	11.2	15.7
Women - Blood sugar level - high (141-160 mg/dl) (%)	6.4	6.1
Men - Blood sugar level - high (141-160 mg/dl) (%)	8.3	7.3
Tobacco Use and Alcohol Consumption among Adults (age 15 years & above) ¹⁰	Bihar (NFHS 5)	India (NFHS 5)
Women who use any kind of tobacco (%)	5	8.9
Men who use any kind of tobacco (%)	48.8	38
Women who consume alcohol (%)	0.4	1.3
Men who consume alcohol (%)	15.5	18.8
Injuries		
Road Traffic Accident ¹²	Bihar	India
Rank (Total number of fatal Road Accidents in State/UT wrt other States/UTs)	8	N/A
Total number of fatal Road Accidents	6,731	1,37,689
Severity (Road accident deaths per 100 accidents) of Road Accidents	72	33.7
Number of persons killed in Road Accidents	7205	115113

1.5 Access to Care^{dd}

Health Systems Strengthening		
Ambulances & Mobile Medical Units (MMU) ¹¹	Bihar	India
Number of Districts equipped with MMU under NRHM	0	506
Number of Districts equipped with MMU/Health Units under NUHM	0	31
Number of ERS vehicles operational in the States/UTs Under NHM	Bihar	India
102 Type	1158	9955
104 Type	0	605
108 Type	0	10993
Others	86	5129
Number of Ambulances functioning in the State/UTs other than NHM (At PHC/CHC/SDH/DH)	164	11070

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

Key Domain Indicators			
ASHA ¹³	Bihar	India	
Total number of ASHA targeted under NRHM	93687	946563	
Total number of ASHA in position under NRHM	88837	904211	
% of ASHA in position under NRHM	95	96	
Total number of ASHA targeted under NUHM	977	75597	
Total number of ASHA in position under NUHM	527	64272	
% of ASHA in position under NUHM	54	85	
Community Process ¹¹	Bihar	India	
Number of Village Health Sanitation and Nutrition Committees (VHSNCs) constituted	8406	554847	
Number of Mahila Arogya Samitis (MAS) formed	731	81134	
Number of Rogi Kalyan Samitis (RKS) registered (Total) ¹¹	Bihar	India	
DH	36	796	
CHC	230	6036	
PHC	235	20273	
UHC	0	126	
UPHC	80	3229	
Human Resource for Health ¹⁴			
HRH Governance		Bihar	
Specialist Cadre Available in the state (Y/N)		Yes	
HR Policy available (Y/N)		Yes	
Implementation of HRIS (Y/N)		In Process	
HR Integration initiated (Y/N)		Yes	
Public Health Cadre available (Y/N)		No	
Overall Vacancies (Regular + contractual)	Specialists (%)	72	
	Dentists (%)	97	
	MO MBBS (%)	37	
	Nurse (%)	52	
	LT (%)	68	
	ANM (%)	60	
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	3 per 10,000
Regular to contractual service delivery staff ratio ¹⁴		4:1	3:1

Ranking: Human Resource Index of Bihar¹⁵

Category	Total (Regular + NHM)					Ranking: HR Gap Index
	Required (R)	Sanctioned (S)	In-Place (P)	Vacancy (V)	Actual Gap# (R-P)	
MPW ^{ee}	45222	37591	19474	18117	25748	46.79
Staff Nurse	17996	19434	10737	8697	7259	
Lab Technician	4146	3653	921	2732	3225	
Pharmacists	2705	2359	766	1593	1939	
MO MBBS ^{ff}	6131	7164	4258	2906	1873	
Specialist ^{gg}	3214	5749	1593	4156	1621	

1.6 Healthcare Financing^{hh}

National Health Accounts (NHA) (2017-18)	Bihar		India	
Per Capita Government Health Expenditure (in ₹)	556		1,753	
Government Health expenditure as % of Gross Domestic Product (GSDP)	1.4		1.35	
Government Health Expenditure as % of General Government Expenditure (GGE)	5		5.12	
OOPE as a Share of Total Health Expenditure (THE) %	58.2		48.8	
National Sample Survey Office (NSSO) (2017-2018)	Bihar		India	
	Rural	Urban	Rural	Urban
OPD - % of non-hospitalized cases using public facility	18	23	33	26
IPD - % of hospitalized cases using public facility	39	32	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	420	973	472	486
OPD - Per non-hospitalized ailing person (in INR) in last 15 days - Private	1196	1484	845	915
IPD - Per hospitalized case (in INR) - Public	5,390	5,220	5,729	5,939
IPD - Per hospitalized case (in INR) - Private	18,189	26,217	28,816	34,122
IPD - % of diagnostics expenditure as a proportion of inpatient medical expenditure in Public (NSSO)	16	17	18	17
IPD - % of drugs expenditure as a proportion of inpatient medical expenditure – Public (NSSO)	48	48	53	43

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

^{ff} MO MBBS (Full Time)

^{gg} Specialist (All Specialist)

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

* 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)	2,422	2,966	2,402	3,091
Childbirth - Average out of pocket expenditure per delivery in private health facility (₹)	15,729	17,866	20,692	26,701
State Health Expenditure	Bihar		All India Average	
State Health Department expenditure as a share of total expenditure (%) (2017-18)**	4.5		5 ⁱⁱ	

Sources used for Annexure 1

- 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

ⁱⁱ 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

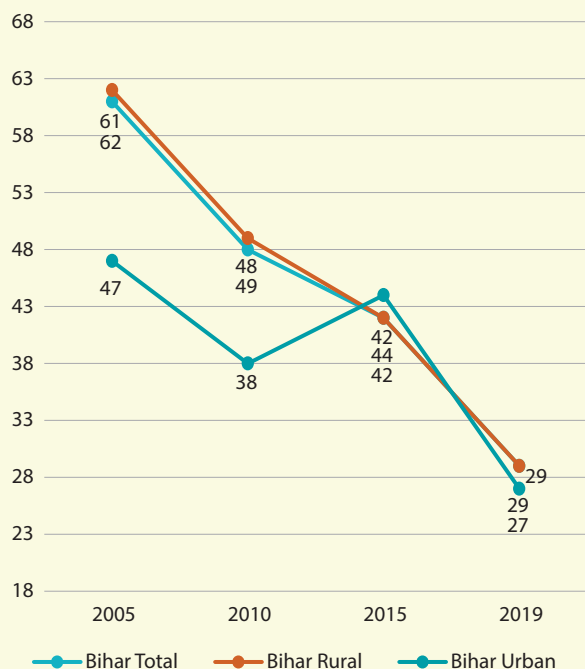


Figure 2: CBR & CDR Trend

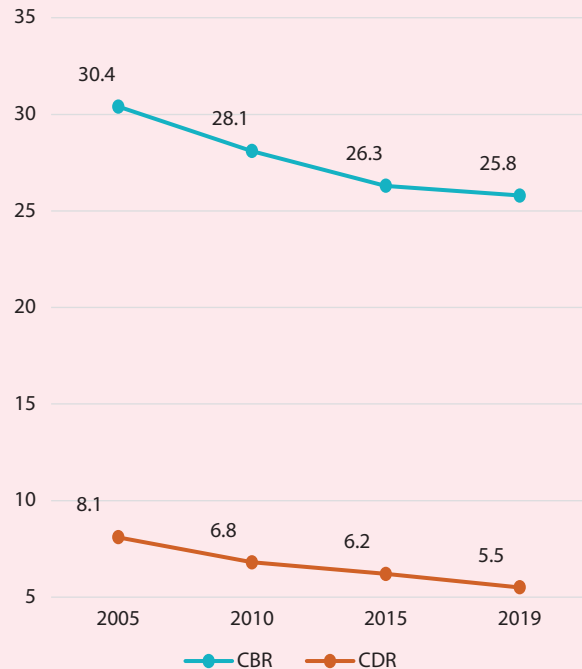


Figure 3: Life Expectancy At Birth Trend

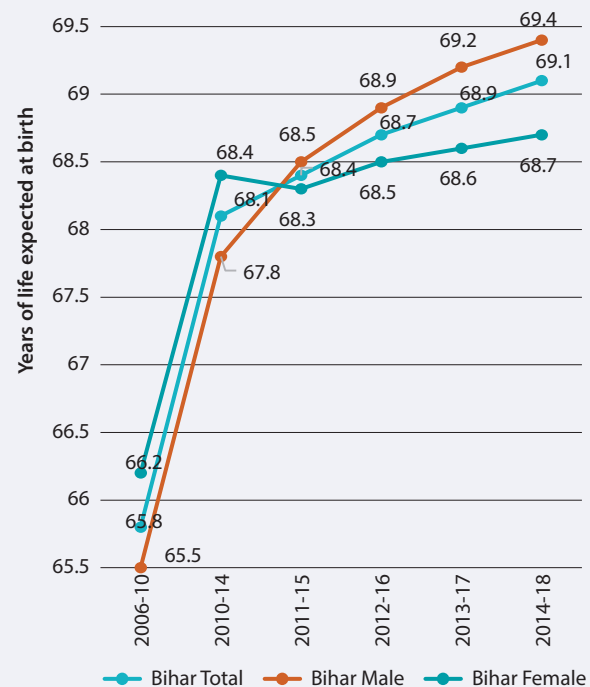


Figure 4: NNMR, TFR & Still Birth Trend

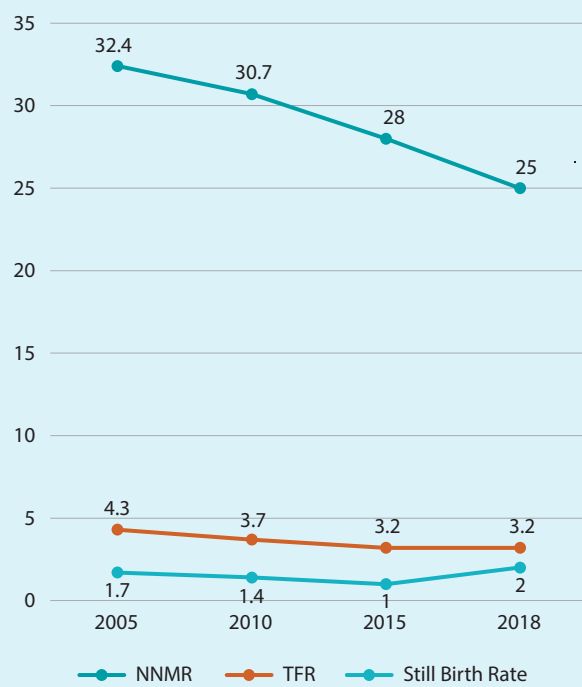


Figure 5: Comparison of Key NFHS 5 & 4 Indicators

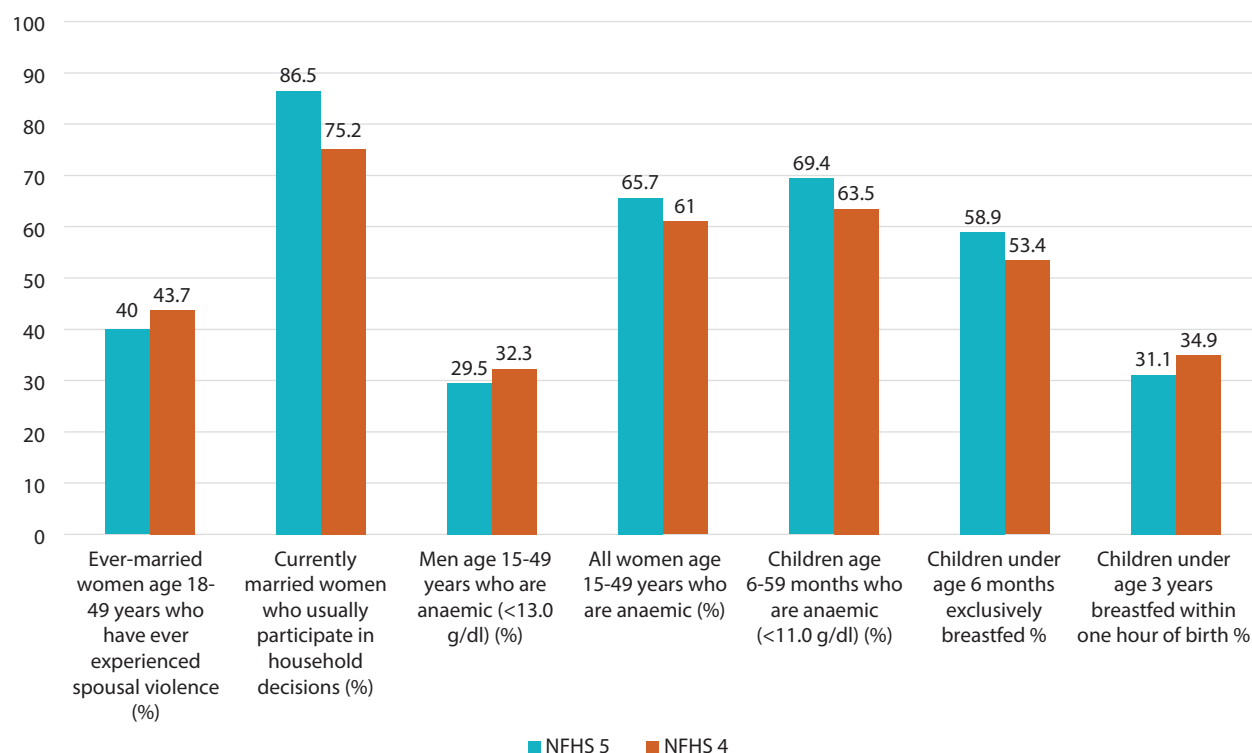


Figure 6: Top 15 causes of DALYs, 1990-2019

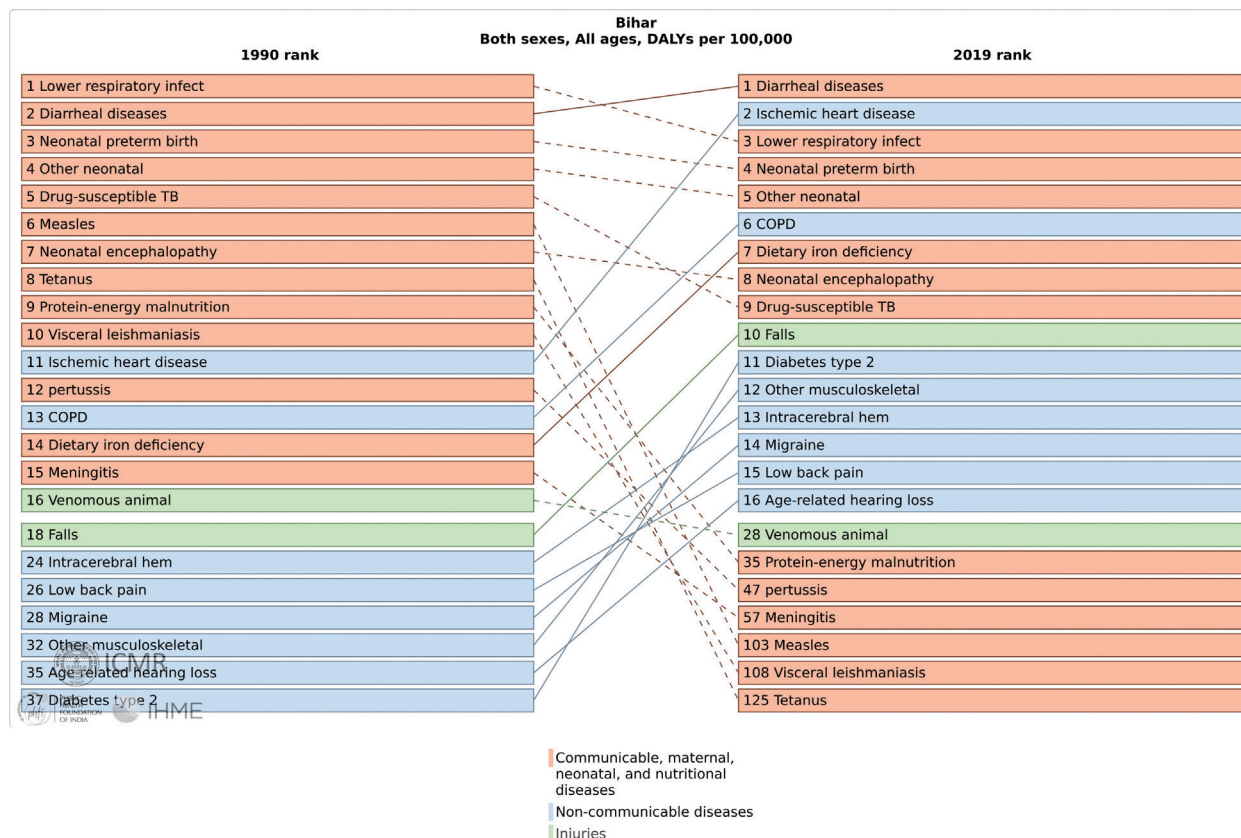


Figure 7: Top 15 risk of DALYs, 1990-2019

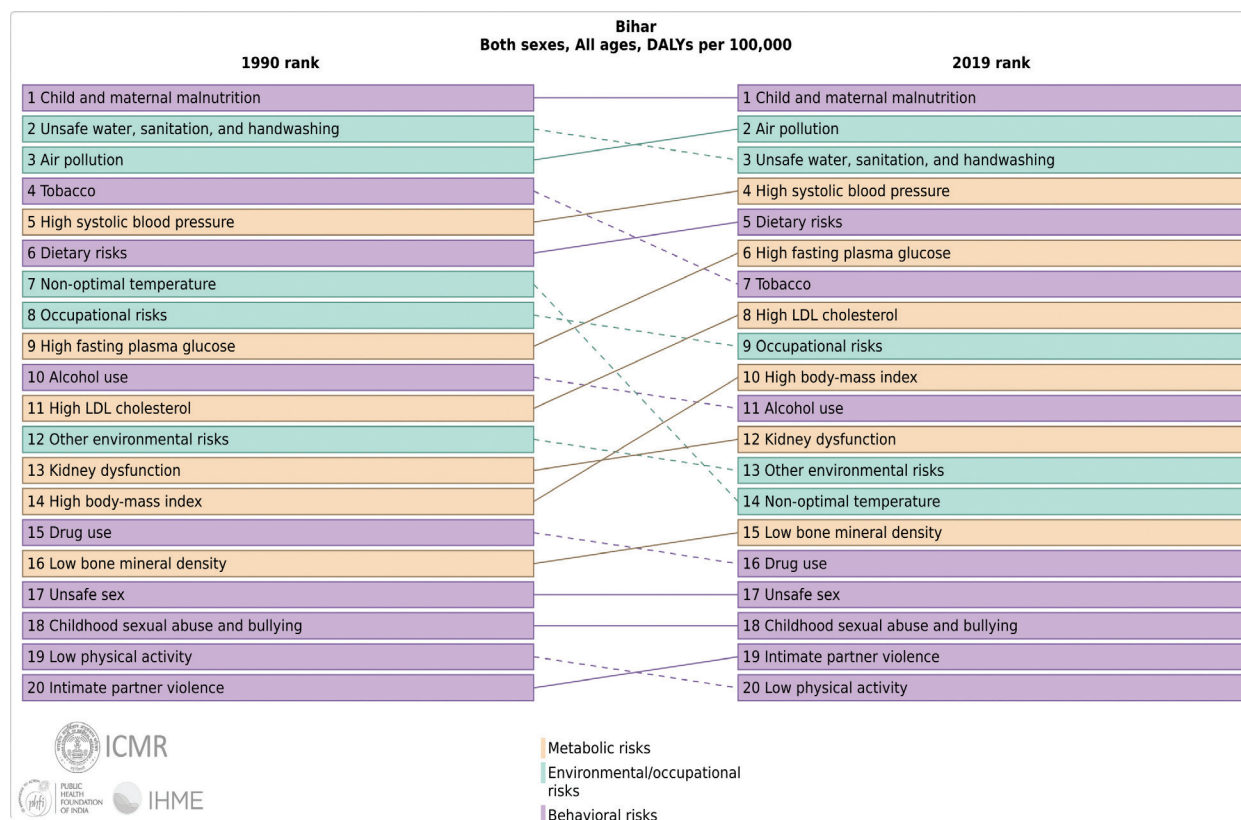


Figure 8: Year Wise Required/In Position Health Infrastructure Status in Rural Area (In numbers)

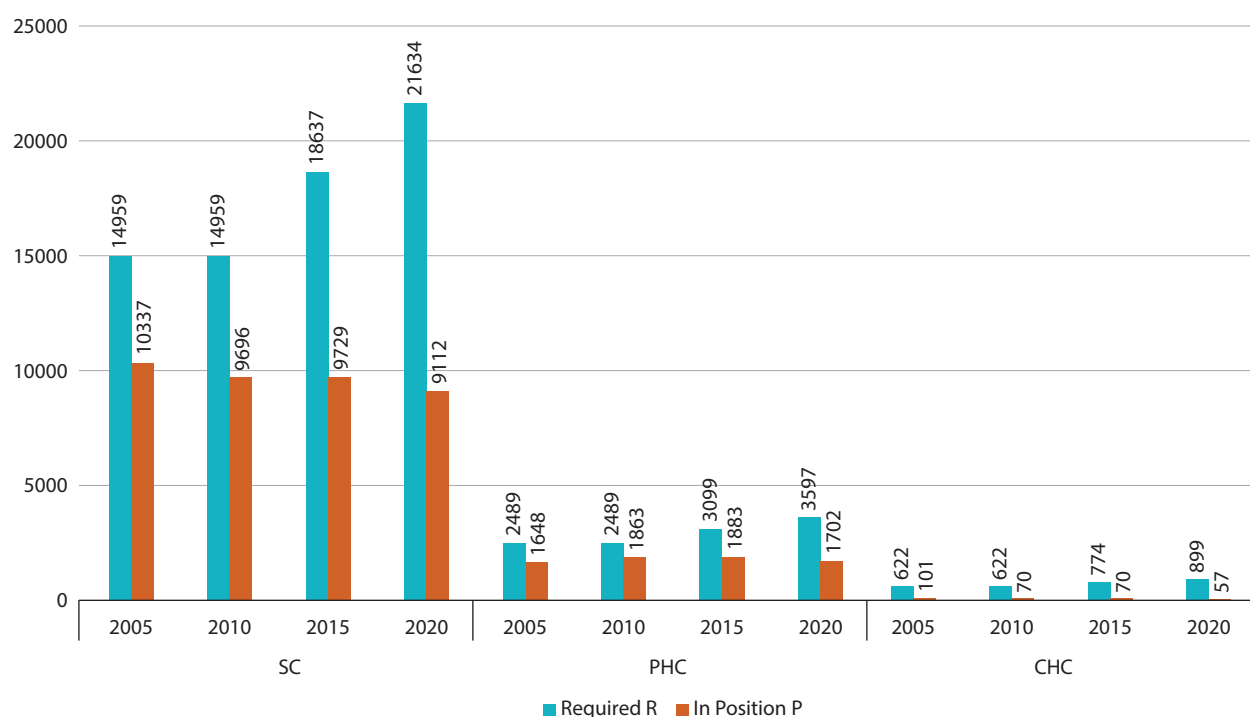


Figure 9: Year Wise Health Infrastructure Shortfall (%)

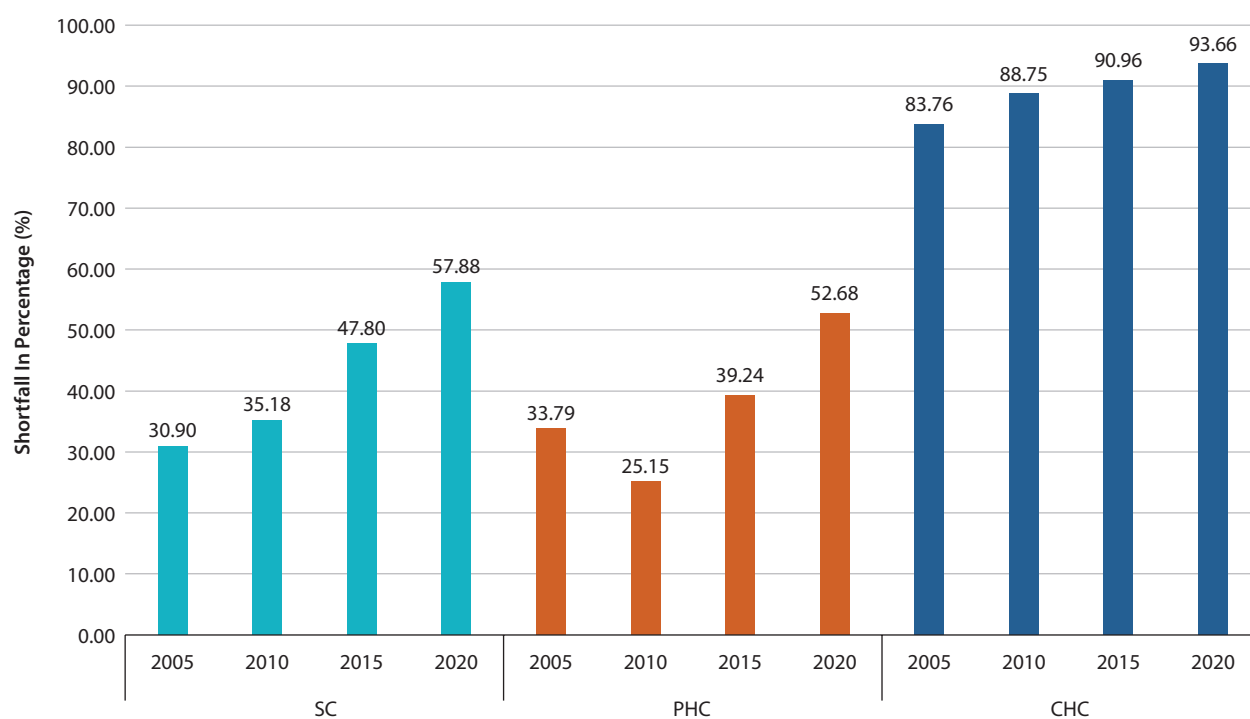


Figure 10: Percentage HWCs progress against target - FY wise (%)



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

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/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**, # (%)	Children Under 5 Years - Stunted ^Δ (Height For Age) (%)	Children Under 5 Years - Wasted ^Δ (Weight For Height) (%)
1.	Bihar	NFHS 4 Total	934	12.3	N/A	42.5	24.1	0.5	1	21.2	14.4	63.8	77.1	7.5	48.3	20.8
2.	Bihar	NFHS 5 Urban	940	11.6	74.9	27.9	62.3	1.3	7.3	11.5	32.4	84.1	77.4	9.2	36.8	21.6
3.	Bihar	NFHS 5 Rural	903	15.1	54.5	43.4	54.6	0.7	3.4	13.9	24	75	83.4	11.2	43.9	23.1
4.	Bihar	NFHS 5 Total	908	14.6	57.8	40.8	55.8	0.8	4	13.6	25.2	76.2	82.7	10.9	42.9	22.9
5.	Araria	NFHS 5 Total	885	19.5	43.7	52	46	0.1	1.7	15.9	25.8	66.2	71.1	12.8	49.9	23.9
6.	Arwal	NFHS 5 Total	815	15.6	62.5	37.5	60.5	0.5	3.4	12.2	34.5	79.2	89	11.5	45.6	36.8
7.	Aurangabad	NFHS 5 Total	886	15.4	67.6	27.3	69.4	0.9	4.3	7.2	29.3	77.5	90.6	5.8	41.2	32.9
8.	Banka	NFHS 5 Total	991	13.6	55.7	49.4	71.5	0.7	4.7	9.7	31.7	79.8	89.5	2.8	46.7	26.9
9.	Begusarai	NFHS 5 Total	1058	13.2	62.3	49.5	55.8	1	2.9	16	21.6	86	80.8	4.6	37.8	21
10.	Bhagalpur	NFHS 5 Total	879	16.3	65.6	42.4	57.4	0	9.1	12.8	27.6	77.2	81	8.1	40	21.2
11.	Bhojpur	NFHS 5 Total	872	9.6	64.1	31.2	63.9	2.2	4.1	11.8	33.5	86.9	80.6	7.7	40.7	31.3
12.	Buxar	NFHS 5 Total	886	11.4	68.1	30.8	60.5	1	3.8	9.1	27.4	89.5	81.7	8.3	39.6	33.2
13.	Darbhanga	NFHS 5 Total	812	25.3	49.4	45.1	61.3	0.4	4.9	12.7	24.9	69.9	80.7	14	45.4	19.3
14.	Gaya	NFHS 5 Total	863	9.7	59.4	42.8	73.3	1.4	4.4	5.9	25.1	76.6	84.2	12.5	47.4	24.3
15.	Gopalganj	NFHS 5 Total	943	12.7	63.3	28	57.3	0.2	3.3	19.4	27.9	85.9	97.9	13.8	34.2	21.5
16.	Jamui	NFHS 5 Total	986	14.3	48.7	51.9	69.6	0.9	5.3	9.5	37.9	73.4	80.2	3.3	43	19.4
17.	Jehanabad	NFHS 5 Total	1066	13.2	63.2	41.6	52.5	1.5	4.2	13	17.4	89.1	79.1	6.6	41.3	36.6
18.	Kaimur (Bhabua)	NFHS 5 Total	944	18.1	66	27.1	78.6	0.4	7.3	3.7	25.6	83.3	90.4	13.4	44.1	27.3
19.	Katihar	NFHS 5 Total	888	8.4	49.7	49.4	33.8	0.5	1.7	22.4	15.3	66.9	82.6	13.8	43.9	23.5
20.	Khagaria	NFHS 5 Total	918	15.6	51.8	44.9	40.9	0.2	2.8	15.4	17.4	74.2	84.3	16.3	34.8	25.3
21.	Kishanganj	NFHS 5 Total	1016	8.1	48	36.6	25.3	0.5	2.5	21.7	17.1	54.6	80.9	13.1	38.8	23.9

22.	Lakhisarai	NFHS 5 Total	886	15.1	57.9	56.1	67	1.2	5.2	11.7	28	75.8	76.8	3.6	42.7	25.6
23.	Madhepura	NFHS 5 Total	1058	9.5	47.6	52	55.8	0.3	4.3	11.1	20.9	75	87.7	6.9	46.3	20.6
24.	Madhubani	NFHS 5 Total	805	19.2	53.2	39.2	47.4	0.7	2.2	17.7	34.9	73.7	85.6	12	43.3	17.1
25.	Munger	NFHS 5 Total	966	15.2	69.5	34.7	68.6	0.6	8.6	10.3	36.8	93.2	84.8	5.1	35.5	26.7
26.	Muzaffarpur	NFHS 5 Total	685	13.2	63	32.9	66.1	0.9	4.7	12.1	28.2	72.5	83.7	17.2	42.6	19.9
27.	Nalanda	NFHS 5 Total	959	12.8	56.1	42	72.3	0.6	6	7.5	29.3	80.3	83.8	9.6	42.6	27.8
28.	Nawada	NFHS 5 Total	865	8.1	62.1	43.3	69.8	0.9	7.3	6.5	31.6	79.9	85.2	5.1	49.4	18.2
29.	Pashchim Champaran	NFHS 5 Total	904	20	52.5	39.1	50.7	0.2	2.7	12.1	25.4	79.5	82.7	13.6	43.5	13.2
30.	Patna	NFHS 5 Total	1002	10.2	67.6	26.6	49.3	1.9	4.9	15	17.9	89.1	72.5	8.3	34.5	27.5
31.	Purba Champaran	NFHS 5 Total	841	19.4	50.2	49.2	49.9	1.1	2.5	17.2	21.7	61.5	73.8	15.4	49.1	16.8
32.	Purnia	NFHS 5 Total	938	10.2	47.5	51.2	25.7	0.3	0.9	20.2	11.1	68.9	81.8	5.5	43.5	25.8
33.	Rohtas	NFHS 5 Total	924	17.2	76.5	30.3	73.9	1.2	6.1	5.9	34.2	89.1	93.6	2.6	40	31.8
34.	Saharsa	NFHS 5 Total	1034	12.8	43.1	51	44.7	0.8	0.9	16.7	11.7	70.4	88.5	10.3	47.8	20.5
35.	Samastipur	NFHS 5 Total	890	19	54.3	49.8	63.7	0.6	4.4	11.1	23.5	83.4	85.5	17.7	44	21.3
36.	Saran	NFHS 5 Total	779	9.4	65.6	26.2	41.1	0.4	4.9	17.3	30.7	73	85.7	7.1	39.7	28.8
37.	Sheikhpura	NFHS 5 Total	888	9.7	55	46.1	78.8	0.6	4.8	3.2	28.4	89.2	86.6	5.5	53.6	16.3
38.	Sheohar	NFHS 5 Total	1017	18.1	52.5	34.6	65.6	1.1	4.3	10.4	25.3	74.3	73.5	3.5	34.4	35.4
39.	Sitamarhi	NFHS 5 Total	1009	20.7	51.7	46.8	52.8	1.2	2.1	17	20.3	64.4	76.1	16.3	54.2	16.2
40.	Siwan	NFHS 5 Total	1060	8.2	70.9	21.3	53.5	0	7	15.4	30.3	86.4	83.2	10.8	36.7	18.2
41.	Supaul	NFHS 5 Total	884	14.2	42.1	55.9	63.7	0.6	1.5	12.1	30.9	80.4	80.5	14.5	42.3	25.8
42.	Vaishali	NFHS 5 Total	1118	13.5	62.4	44.9	45.8	0.9	1.9	16.7	24.5	81.6	84.2	11.7	38.3	19.6

* NFHS5 replaced 'immunized' (word) from NFHS4 to 'Vaccinated'; Out of two indicators with 'either vaccination card or mother's recall' & 'vaccination card only' - '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 (MCV)/MM/MN/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. 13 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. 13 Below -3 standard deviations, based on the WHO standard

NOTES

[illegible]

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