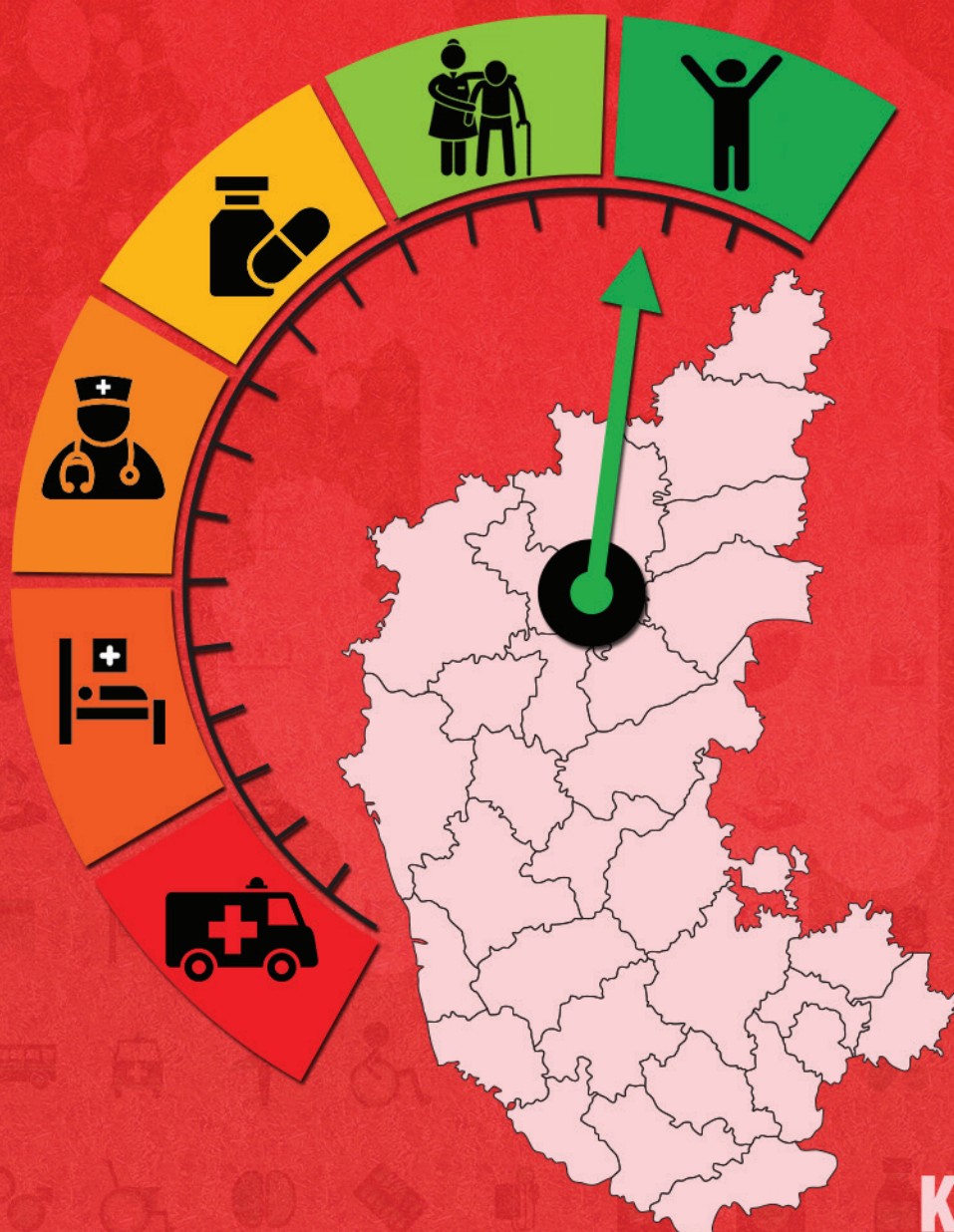


HEALTH DOSSIER 2021

Reflections on Key Health Indicators



KARNATAKA

DISTRICTS VISITED IN COMMON REVIEW MISSIONS

CRM	Districts Visited	
2 nd	Tumkur	Raichur
5 th	Bijapur	Chamarajanagar
7 th	Gulbarga	Haveri
9 th	Koppal	Dakshina Kannada
11 th	Raichur	Chitradurga
12 th	Chikmagalur	Udupi
14 th	Yadgir	Davangere

KARNATAKA

1. BACKGROUND

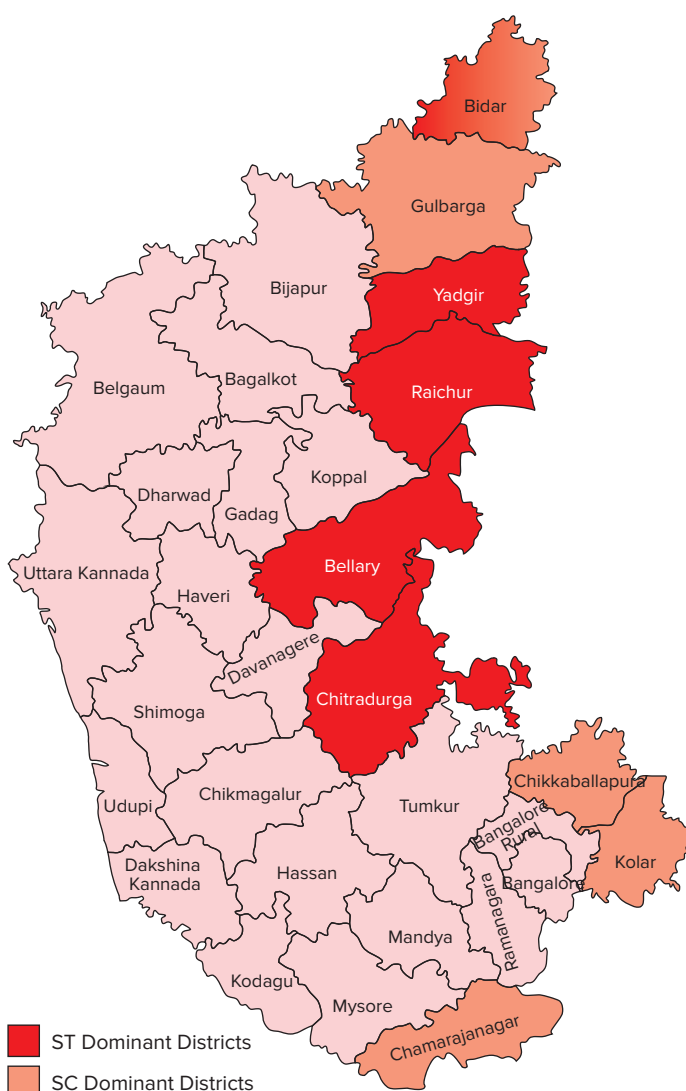
1.1 Karnataka Profile

Karnataka is positioned^a 7th in India for a geographical spread of 1,91,791.00 km² (RHS 2019). It is divided into 30 districts and estimated to have a population of over 6.10 crores^b, which accounts for approximately 5.05 percent of India's total population (RHS 2019). It is projected that the population would reach around 6.68 crores by 2021 (Census Population Projection 2019). As per Census 2011, the Scheduled Caste (SC) and Scheduled Tribe (ST) population is 1.04 crores (17.15%) and 0.42 crores (6.95%), respectively. Out of the 30 districts, top five ST & SC dominant districts account for 35.39% of ST & 19.92% of SC population in Karnataka (Figure 1 & Annexure 1, Karnataka Profile). Around 61.33% of the population reside in rural areas, while the rest constitute the urban population.

At present, 80 cities^c are covered under National Urban Health Mission, with a catchment of around 44.76 lakh urban population.

The total length of roads^d in Karnataka is 3,61,041 km (7.22%^e), in which, the length

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

^d Basic Road Statistics 2019, MoRTH

^e Percentage of total length of roads in Karnataka

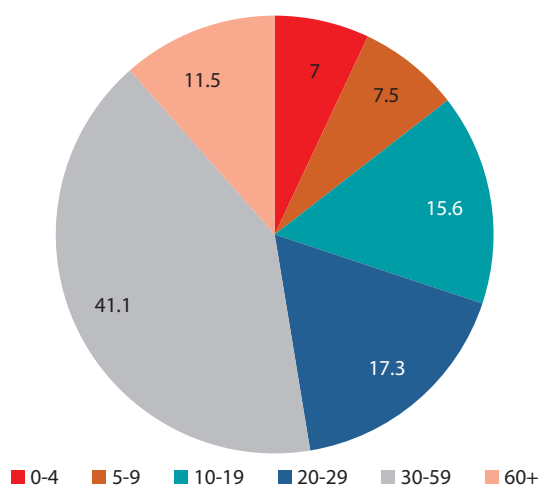
of the national highways is 6,762 km (5.9%^f) and state highways is 19,556 km (11.17%^g). About 45.6% of the main worker population are self-employed in the State, followed by casual laborers and wage earners (27.2%)^h.

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

1.2 Demography

Out of the 30 districts, 3 districts have a population of 30 lakhs and above, 5 districts have a population between 20-30 lakhs, 20 districts have a population between 10-20 lakhs, and 2 districts have a population less than 10 lakhs (Annexure 1.1 Karnataka profile). Karnataka's Sex ratio at birth (924 females for every 1000 males) is higher than the national average of 899 (Annexure 1.2). It is estimated that 15.6% of the total population are in the age group of 10-19 years, 58.4% within 20 to 59 years; while 11.5% are 60 years and above^[1] (Figure 2). The crude birth rate and the crude death rate have declined from 20.6 & 7.1 in 2005 to 16.9 & 6.2 in 2019, respectively (Annexure 2; figure2). The literacy rate increased from 66.6% in 2001 to 75.4% in 2011, with male & female literacy rates being 82.5% and 68.1%, respectively (Annexure 1.1). As per ESAG 2018 report, the Gross Enrollment Rate (GER)ⁱ is 26.1% for higher education, 39.86% for senior secondary education, 83.22% for secondary education, 99.38% for elementary education, and 102.98% for primary education.

Figure2: Karnataka - 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 11.5% of the Karnataka's total population. The life expectancy at 60 years of age is 16.6 and 18.1 for males and females, respectively (2014-2018). In Karnataka, 59% of elderly females and 22% elderly males living in rural areas are economically fully dependent on others. Whereas in urban areas, 71% of elderly females and 24% elderly males are economically fully dependent on others. The old age dependency ratio is 14.8 in 2011; which is 13.8 for males and 15.8 for females; 16.7 in rural & 12.0 in urban areas. The illness (any deviation from the state of physical and mental well-being) perception among the elderly is reported as 33% for men and 29% for women. The latter is less and the former is more than the national average of 31% for both men and women (Elderly in India 2016 report).

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

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

^h Directorate of Economics and Statistics; <https://mahades.maharashtra.gov.in/esm.do?type=R>

ⁱ 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

2. HEALTH STATUS AT A GLANCE

2.1 Maternal Health

Karnataka 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 178 (SRS MMR Bulletin 2007-09) to 92 (SRS MMR Bulletin 2016-18) per 1,00,000 live births. In Karnataka, 97.2% of women received 4 ANC check-ups (Annexure 1.4). As per NFHS 5 (Annexure 3), Bangalore rural, Chikkaballapura, Kolar, Mandya and Ramanagara districts reported good ANC coverage ranging between 88.7% - 90.9%; and Bellary, Bidar, Bijapur, Gulbarga and Koppal districts reported poor ANC coverage ranging between 50.7% - 56.4%. As reported in HMIS 2019-20, around 99.9% of the deliveries took place in institutions, out of which 61.2% took place in public health facilities. Total percentage of C-sections (32.2%) is higher than the WHO's standard (10-15%); and out of the total reported C-sections, about 41.7% is conducted at private facilities in Karnataka. Around 90.5% of women are tracked for their first postpartum check-up between 48 hours and 14 days (Annexure 1.4). Prevalence of anaemia in women aged 15-49 years increased from 44.8% (NFHS-4) to 47.8% (NFHS-5). Anaemia in females of reproductive age group is more than twice than 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, Karnataka has shown a significant decline in IMR from 50 (2005) to 21 (2019), which is 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 28.3 and 13 (2005) to 16 and 5 (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 NBCCs (Annexure 1.4). The life expectancy at birth has also improved from 67.2 (2006-10) to 69.4 (2014-18), which is on par with the national average of 69.4 years (Annexure 2, Figure 3). As per NFHS 5, the low SRBsⁿ ranging between 724-849 are reported in Chikmagalur, Davanagere, Haveri, Ramanagara and Uttara Kannada districts, while the high SRBs ones, ranging between 1123-1190 are reported in Bangalore, Bangalore rural, Kodagu, Mysore and Tumkur districts.

Full vaccination^o coverage for children between 12 – 23 months of age has improved from 72.7% (NFHS 4) to 88.3% (NFHS 5). The percentage of under 6-months children exclusively breastfed has also increased from 54.2% (NFHS 4) to 61.0% (NFHS 5). An increase in childhood anaemia from 60.9% (NFHS 4) to 65.5% in children aged 6-59 months has been reported in NFHS 5 (Annexure 2, Figure 5). As per NFHS 5 report, Dakshina Kannada, Hassan, Mandya, Ramanagara, and Udupi districts reported low burden of

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

^k Antenatal Check up

^l Iron Folic Acid Tablets

^m Neonatal Mortality Rate

ⁿ Sex Ratio at Birth

^o NFHS 5 Karnataka Factsheet, based on information from vaccination card only

stunting which ranged from 15.6% to 27.1% and Bagalkot, Bijapur, Dharwad, Gadag and Koppal districts reported considerably high burden which ranged from 45.2% to 56.7%. For under-5 wasting –Bijapur, Hassan, Kolar, Mandya, and Tumkur districts reported a low burden, which ranged from 10.9% to 15.5%; and Belgaum, Chikmagalur, Dakshina Kannada, Gulbarga, Raichur and Shimoga districts reported a high burden which ranged from 23.2% to 30.5%.

2.3 Family Planning

The TFR^p has reduced from 2.2 in 2005 to 1.7 in 2018 (Annexure 2, Figure 4). As per the NFHS 5 report, the total unmet need in Karnataka is reported as 6.5%, while the unmet need for spacing is 3.8% (NFHS 5). Gulbarga district reported the highest total unmet need of 12.6% while Chamarajanagar reported the lowest (3.4%). Approximately 68.2% of married women reported to avail any modern method of family planning in the State (NFHS 5); with sterilization acceptance among females being 57.4% and nil among males.

2.4 Communicable Diseases

Karnataka has 30 districts having functional IDSP units^q. The proportion of communicable, maternal, neonatal, and nutritional diseases [CMNND] contribute to 20.95% of total disease burden (Annexure 1.4). Neonatal preterm birth, diarrheal diseases, intracerebral hemorrhage and drug susceptible TB are the leading causes of deaths due to CMNND in Karnataka (Annexure 2, Figure 6^r). As per QPR report, for TB, the annual total case notification rate is 131% and NSP^s success rate is 163% as opposed to the national averages of 163% and 79%, respectively. For NLEP^t, the reported prevalence rate of 0.3 per 10,000 population is less than the national average of 0.61. In FY 2019-20, 13 deaths due to Dengue, and none due to Malaria, and Kala Azar are reported in Karnataka.

2.5 Non-Communicable Diseases (NCDs) & Injuries

It is reported that as high as 65.9% deaths are premature in the State, while disability or morbidity accounts for 34.1%. Ischaemic heart diseases, COPD, Self-harm means, & Diabetes Mellitus Type 2 are the major causes of DALYs in the State (Annexure 2, Figure 6). NCDs contribute to 65.42% of DALYs, whereas, injuries contribute to 13.63% of DALYs in the State. Karnataka is positioned 4th in the country for the total number of fatal road accidents with respect to other States (Annexure 1.4). As per NFHS 5 data, it is reported that 8.5% of women and 27.1% of men used any kind of tobacco, while 0.9% of women and 16.5% of men consumed alcohol. Overall, high systolic blood pressure, high fasting blood sugar, smoking, high body mass index and ambient particulate matter pollution are the top five major risk factors for all DALYs (Annexure 2, figure 7).

2.6 Health Care Financing

Karnataka's Net State Domestic Product (NSDP) for FY 2018-19 is ₹ 14,09,126 crores. The State is positioned 7th out of 32 states in terms of per capita of ₹ 2,12,477. According to NHA 2017-18, the per

^p Total Fertility Rate

^q QPR NHM MIS Report, status as on 01.03.2020

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

^s New Smear Positive

^t National Leprosy Eradication Programme

capita Government Health Expenditure in the Karnataka is ₹ 1,476 which is below the national average of ₹ 1,753. On the other hand, the OOPE^u as a share of Total Health Expenditure is 34.2%, 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 ₹ 4,719 in public facilities, ₹ 18,120 in private facilities; whereas for urban areas, it is around ₹ 5,451 in public facilities and ₹ 27,560 in private facilities. For childbirth in rural areas, OOPE is estimated to be around ₹ 3,588 in public facilities & ₹ 19,977 in private facilities; whereas in urban areas - OOPE is estimated to be around ₹ 3,944 in public facilities and ₹ 26,260 in private facilities. In public health facilities, the share of expenditure on medicines as a proportion of inpatient medical expenditure is estimated as 49% in rural and 51% in urban areas; whereas for diagnostics, it is 18% in rural and 20% 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). Except for CHCs, there is no shortfall in the required SCs, & PHCs (Annexure 2, Figure 9). Currently, there are 9188 SCs, 2176 PHCs, and 189 CHCs in place, against the required 8024 SCs, 1318 PHCs and 329 CHCs in rural areas. In urban settings, there are 358 PHCs in place against the required 575, amounting to a shortfall of 38%. The State has 26 DHs, 150 SDHs and 19 government medical colleges. In tribal catchments, there are 291 SCs, 65 PHCs and 7 CHCs in place, against the required 1153 SCs, 173 PHCs and 43 CHCs. This accounts to a shortfall of 74.76% of the required SCs, 62.43% of the required PHCs and 83.72% of the required CHCs in the tribal areas. There are 26 DHs, 150 SDHs and 19 government medical colleges in the state.

Under Government of India flagship program of Ayushman Bharat, a total of 5,829 (3,298 SHCs, 2,166 PHCs & 365 UPHCs) primary care facilities have been upgraded and are currently operational as Health & Wellness Centres (HWCs) to deliver Comprehensive Primary Health Care (as on 22nd Dec 2021, Annexure 1.3).

In Karnataka, 62 MMUs under the NRHM and 3 under the NUHM districts are functional. Karnataka has 98% of required ASHAs in position under the NRHM and 90% under the NUHM. The doctor to staff nurse ratio in place is 1:2, with 4 public health providers (MO, specialists, staff nurse & ANM) per 10,000 populations (Annexure 1, Table 1.5).

Recent data (Annexure 1.3) reveals that out of 1000 population who availed services from public health facilities, 1734.5 availed (events) OPD services and 124.3 availed (events) IPD services. As per the NSSO data (2017-18), 29% of all OPD cases in rural areas and 14% in urban areas; and 32% of all IPD cases in rural areas & 17% in urban areas utilized public health facilities. The public health facility utilization in Karnataka is below the national averages for both (Annexure 1.6).

^u Out of Pocket Expenditure

ANNEXURE 1: KEY INDICATORS

1.1 State Profile^v

Indicator	Karnataka 2011 ¹	India
Total Population (In Crore)	6.1	121.08
Rural (%)	61.33	68.85
Urban (%)	38.67	31.14
Scheduled Caste population (SC) (in crore)	1.04 (17.15)	20.14 (16.63%)
Scheduled Tribe population (ST) (in crore)	0.42 (6.95%)	10.45 (8.63%)
Total Literacy Rate (%)	75.4	72.99
Male Literacy Rate (%)	82.5	80.89
Female Literacy Rate (%)	68.1	64.64
Number of Districts in the Karnataka ²	30	
Number of districts per lakh population in Karnataka (Census 2011)	Population ¹	Districts ¹ (Numbers)
	<10 Lakhs	2
	≥ 10 Lakhs - <20 Lakhs	20
	≥20 Lakhs - <30 lakhs	5
	≥30 Lakhs	3
ST SC Dominant (Top 5) Districts of Karnataka ¹		
ST Dominant Districts (%)	SC Dominant Districts (%)	
Raichur - 19.03%	Kollar - 30.32%	
Bellary - 18.40%	Chamarajanagar - 25.41%	
Chitradurga - 18.23%	Gulbarga - 25.28%	
Bidar - 13.84%	Chikkaballapura - 24.90%	
Yadgir - 12.50%	Bidar - 23.47%	
Top 5 ST dominant district accounts for - 35.39%	Top 5 SC dominant district accounts for - 19.92%	

1.2 Key Health Status & Impact Indicators^w

Indicators	Karnataka	India
Infant Mortality Rate (IMR) ³	21	30
Crude Death Rate (CDR) ³	6.2	6

^v Sources are mentioned at the end of Annexure 1

^w Sources are mentioned at the end of Annexure 1

Crude Birth Rate (CBR) ³	16.9	19.7
Maternal Mortality Ratio (MMR) ³	92	113
Neo Natal Mortality Rate (NNMR) ⁴	16	23
Under Five Mortality Rate (U5MR) ⁴	28	36
Still Birth Rate ⁴	5	4
Total Fertility Rate (TFR) ⁴	1.7	2.2
Life expectancy at birth ⁵	69.4	69.4
Sex Ratio at Birth ⁴	924	899

1.3 Key Health Infrastructure Indicators^x

Indicators				Numbers (Total)
Number of District Hospitals ²				26
Number of Sub District Hospital ²				150
Number of Government (Central + State) Medical College ⁶				19
Number of Private (Society + Trust) Medical Colleges ⁶				41
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	3298	1886	4534	6299
PHC-HWC	2166	2359	2359	2359
UPHC-HWC	365	364	364	364
Total-HWC	5829	4609	7257	9022
Rural ²	Required (R)	In place (P)	Shortfall (S) (%)	
Number of Community Health Centres (CHC)	329	189	42.55	
Number of Primary Health Centres (PHC)	1,318	2,176	-65.10	
Number of Sub Centres (SC)	8,024	9,188	-14.51	
Number of functional First Referral Units (FRUs)	DH	SDH	CHC	
	15	136	22	
Urban ²	Required (R)	In place (P)	Shortfall (S) (%)	
Number of PHC	574	358	37.63	
Tribal ²	Required (R)	In place (P)	Shortfall (S)%	
Number of CHC	43	7	83.72	
Number of PHC	173	65	62.43	
Number of SC	1,153	291	74.76	

^x Sources are mentioned at the end of Annexure 1

Patient Service ⁹	Karnataka	India
IPD per 1000 population	124.3	62.6
OPD per 1000 population	1734.5	1337.1
Operation (surgeries) major (General and Spinal Anaesthesia) per 10000 population	75.7	36.4

1.4 Major Health Indicator^y

% Share of DALYs to Total Disease Burden (GBD 2019) ⁷	Karnataka	India
% DALY ^z accountable for CMNNDs ^{aa}	20.95	27.46
% DALY accountable for NCDs	65.42	61.43
% DALY accountable for Injuries	13.63	11.11
Birth, Death Registration & Medical Certification of Cause of Death (MCCD) Indicator ⁸	Karnataka	India
Level of Birth Registration (%)	92.3	92.7
Level of Death Registration (%)	100	92
Percentage of medically certified deaths to total registered deaths (%)	30.4	20.7
RMNCHA+N		
Maternal Health ⁹	Karnataka	India
% 1st Trimester registration to Total ANC Registrations	78.8	71.9
% Pregnant Woman received 4 ANC check-ups to Total ANC Registrations	97.2	79.4
Total Reported Deliveries	9,00,933	21410780
% Institutional deliveries to Total Reported Deliveries	99.9	94.5
% Deliveries conducted at Public Institutions to Total Institutional Deliveries	61.2	67.9
% Deliveries conducted at Private Institutions to Total Institutional Deliveries	38.8	32.1
% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries	32.2	20.5
% C-sections conducted at public facilities to Deliveries conducted at public facilities	26.2	14.1
% C-sections conducted at Private facilities to Deliveries conducted at private facilities	41.7	34.2
% Women getting 1st Post-Partum Checkup between 48 hours and 14 days to Total Reported Deliveries	90.5	53.4
Neonatal ⁹	Karnataka	India
% live birth to Reported Birth	99	98.8
% Newborns having weight less than 2.5 kg to Newborns weighed at birth	10.8	12.4
% Newborns breast fed within 1 hour of birth to Total live birth	92.3	89.9

^y Sources are mentioned at the end of Annexure 1

^z Disability Adjusted Life Years

^{aa} Communicable, Maternal, Neonatal, and Nutritional Diseases

New Born Care Units Established¹¹	Karnataka	India
Sick New Born Care Unit (SNCU)	42	895
New Born Stabilization Unit (NBSU)	165	2418
New Born Care Corner (NBCC)	1070	20337
Child Health & Nutrition¹⁰	Karnataka (NFHS 5)	India (NFHS 5)
Prevalence of diarrhoea (reported) in the last 2 weeks preceding the survey (%)	5.3	7.3
Children with diarrhoea in the last 2 weeks who received oral rehydration salts (ORS) (%)	71.3	60.6
Children under 5 years who are underweight (weight-for-age) (%)	32.9	32.1
Child Immunization¹⁰	Karnataka (NFHS 5)	India (NFHS 5)
Children age 12-23 months fully vaccinated based on information from vaccination card only (%)	88.3	83.8
Children age 12-23 months who have received BCG (%)	97.2	95.2
Children age 12-23 months who have received first dose of measles containing vaccine (%)	91.2	87.9
Family Planning¹⁰	Karnataka (NFHS 5)	India (NFHS 5)
Unmet need for spacing (%)	3.8	4
Communicable Diseases		
Integrated Disease Surveillance Programme (IDSP)¹¹	Karnataka	India
Number of districts with functional IDSP unit	30	720
Revised National Tuberculosis Control Programme (RNTCP)¹¹	Karnataka	India
Annualized total case notification rate (%)	131	163
New Smear Positive (NSP) Success rate (in %)	79	79
National Leprosy Eradication Programme (NLEP)¹¹	Karnataka	India
Prevalence Rate/10,000 population	0.3	0.61
Number of new cases detected	2,728	114,359
Malaria, Kala Azar, Dengue¹¹	Karnataka	India
Deaths due to Malaria ¹¹	0	79
Deaths due to Kala azar reported ¹¹	0	0
Deaths due to Dengue reported ¹¹	13	168
Number of Kala Azar Cases reported ¹¹	0	3,706
HIV¹⁰	Karnataka (NFHS 5)	India (NFHS 5)
Women (age 15-49 years) who have comprehensive knowledge of Human Immunodeficiency Virus (HIV)/Acquired immunodeficiency syndrome (AIDS) (%) ¹⁰	24.5	21.6
Men (age 15-49 years) who have comprehensive knowledge of HIV/AIDS (%) ¹⁰	26.6	30.7

Non-Communicable Disease		
Diabeties and Hypertension ¹⁰	Karnataka (NFHS 5)	India (NFHS 5)
Women - Mildly elevated Blood Pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	14.8	12.4
Men - Mildly elevated Blood Pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	17.2	15.7
Women - Blood sugar level - high (141-160 mg/dl) (%)	5.7	6.1
Men - Blood sugar level - high (141-160 mg/dl) (%)	6.6	7.3
Tobacco Use and Alcohol Consumption among Adults (age 15 years & above) ¹⁰	Karnataka (NFHS 5)	India (NFHS 5)
Women who use any kind of tobacco (%)	8.5	8.9
Men who use any kind of tobacco (%)	27.1	38
Women who consume alcohol (%)	0.9	1.3
Men who consume alcohol (%)	16.5	18.8
Injuries		
Road Traffic Accident ¹²	Karnataka	India
Rank (Total number of fatal Road Accidents in State/UT wrt other States/UTs)	4	N/A
Total number of fatal Road Accidents	10,060	137,689
Severity (Road accident deaths per 100 accidents) of Road Accidents	27	33.7
Number of persons killed in Road Accidents	10,958	115113

1.5 Access to Care^{bb}

Health Systems Strengthening		
Ambulances & Mobile Medical Units (MMU) ¹¹	Karnataka	India
Number of Districts equipped with MMU under NRHM	62	506
Number of Districts equipped with MMU/Health Units under NUHM	3	31
Number of ERS vehicles operational in the States/UTs Under NHM	Karnataka	India
102 Type	0	9955
104 Type	0	605
108 Type	711	10993
Others	200	5129
Number of Ambulances functioning in the State/UTs other than NHM (At PHC/CHC/SDH/DH)	812	11070

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

Key Domain Indicators			
ASHA ¹³	Karnataka	India	
Total number of ASHA targeted under NRHM	39195	946563	
Total number of ASHA in position under NRHM	38427	904211	
% of ASHA in position under NRHM	98.04	96	
Total number of ASHA targeted under NUHM	3329	75597	
Total number of ASHA in position under NUHM	3007	64272	
% of ASHA in position under NUHM	90.33	85	
Community Process ¹¹	Karnataka	India	
Number of Village Health Sanitation and Nutrition Committees (VHSNCs) constituted	26087	554847	
Number of Mahila Arogya Samitis (MAS) formed	3833	81134	
Number of Rogi Kalyan Samitis (RKS) registered (Total) ¹¹	Karnataka	India	
DH	35	796	
CHC	208	6036	
PHC	2538	20273	
UCHC	9	126	
UPHC	365	3229	
Human Resource for Health ¹⁴			
HRH Governance		Karnataka	
Specialist Cadre Available in the state (Y/N)		Yes	
HR Policy available (Y/N)		No	
Implementation of HRIS (Y/N)		No	
HR Integration initiated (Y/N)		No	
Public Health Cadre available (Y/N)		No	
Overall Vacancies (Regular + contractual)	Specialists (%)	38	
	Dentists (%)	22	
	MO MBBS (%)	10	
	Nurse (%)	11	
	LT (%)	13	
	ANM (%)	30	
HRH Distribution		Sanctioned	In Place
Doctors (MO & specialists) to staff nurse ¹⁴		1:2	1:2
Availability of public healthcare providers (MO, specialists, staff nurse & ANM) in district healthcare system ¹⁴		5 per 10,000	5 per 10,000
Regular to contractual service delivery staff ratio ¹⁴		3:1	5:1

Ranking: Human Resource Index of Karnataka¹⁵

Category	Total (Regular + NHM)					Ranking: HR Gap Index
	Required (R)	Sanctioned (S)	In-Place (P)	Vacancy (V)	Actual Gap# (R-P)	
MPW ^{cc}	23450	13454	10045	3409	13405	53.26
Staff Nurse	31127	15146	12785	2361	18342	
Lab Technician	6022	4245	3530	715	2492	
Pharmacists	4128	3887	2783	1104	1345	
MO MBBS ^{dd}	6497	3969	3281	688	3216	
Specialist ^{ee}	5091	4305	2971	1334	2120	

1.6 Healthcare Financing^{ff}

National Health Accounts (NHA) (2017-18)	Karnataka		India	
Per Capita Government Health Expenditure (in ₹)	1,476		1753	
Government Health expenditure as % of Gross Domestic Product (GSDP)	0.7		1.35	
Government Health Expenditure as % of General Government Expenditure (GGE)	5.5		5.12	
OOPE as a Share of Total Health Expenditure (THE) %	34.2		48.8	
National Sample Survey Office (NSSO) (2017-2018)	Karnataka		India	
	Rural	Urban	Rural	Urban
OPD - % of non-hospitalized cases using public facility	29	14	33	26
IPD - % of hospitalized cases using public facility	32	17	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	524	451	472	486
OPD - Per non-hospitalized ailing person (in INR) in last 15 days - Private	732	815	845	915
IPD - Per hospitalized case (in INR) - Public	4,719	5,451	5,729	5,939
IPD - Per hospitalized case (in INR) - Private	18,120	27,560	28,816	34,122
IPD - % of diagnostics expenditure as a proportion of inpatient medical expenditure in Public (NSSO)	18	20	18	17
IPD - % of drugs expenditure as a proportion of inpatient medical expenditure – Public (NSSO)	49	51	53	43

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

^{dd} MO MBBS (Full Time)

^{ee} Specialist (All Specialist)

^{ff} 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)	3,588	3,944	2,402	3,091
Childbirth - Average out of pocket expenditure per delivery in private health facility (₹)	19,977	26,260	20,692	26,701
State Health Expenditure	Karnataka		All India Average	
State Health Department expenditure as a share of total expenditure (%) (2017-18)**	4.4		5 ⁹⁹	

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

⁹⁹ Represents data for all states and 2 UTs with legislative assembly (Puducherry + Delhi)

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ANNEXURE 2

Figure 1: IMR Trend

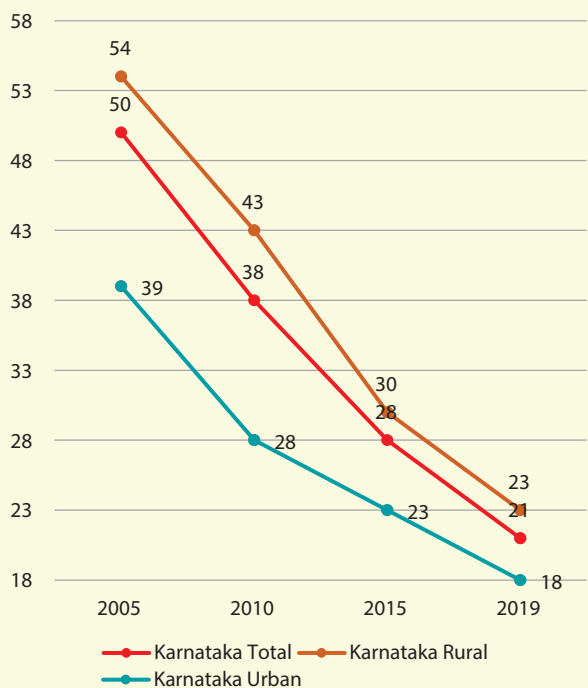


Figure 2: CBR & CDR Trend

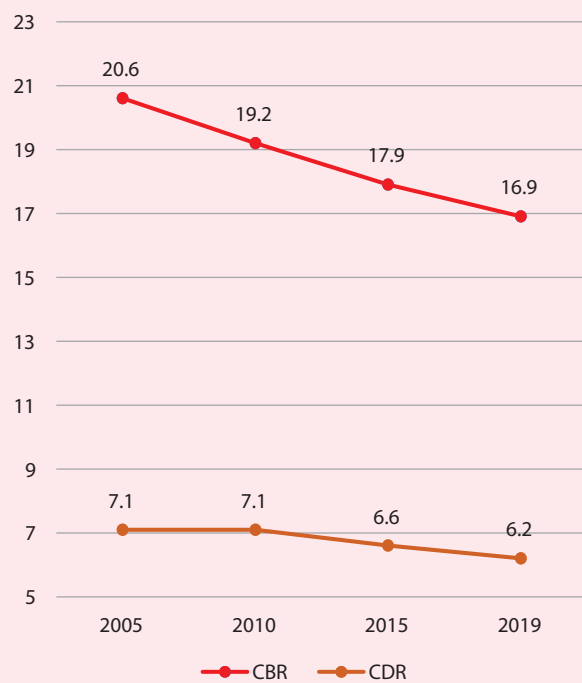


Figure 3: Life Expectancy At Birth Trend

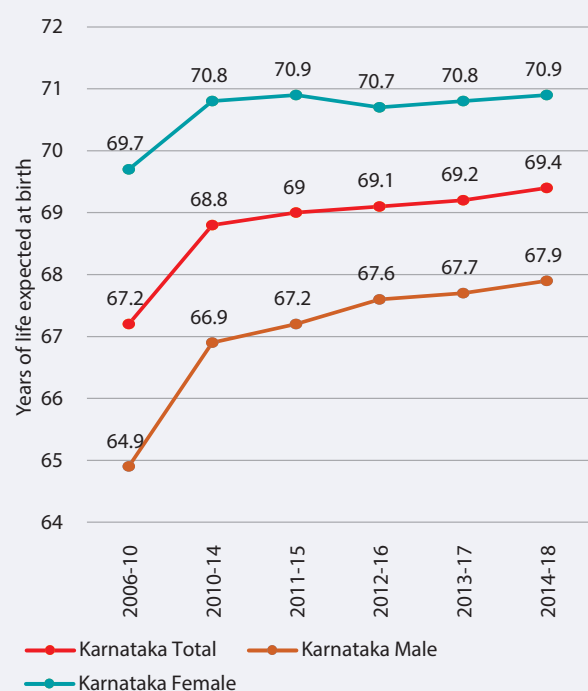


Figure 4: NNMR, TFR & Still Birth Trend

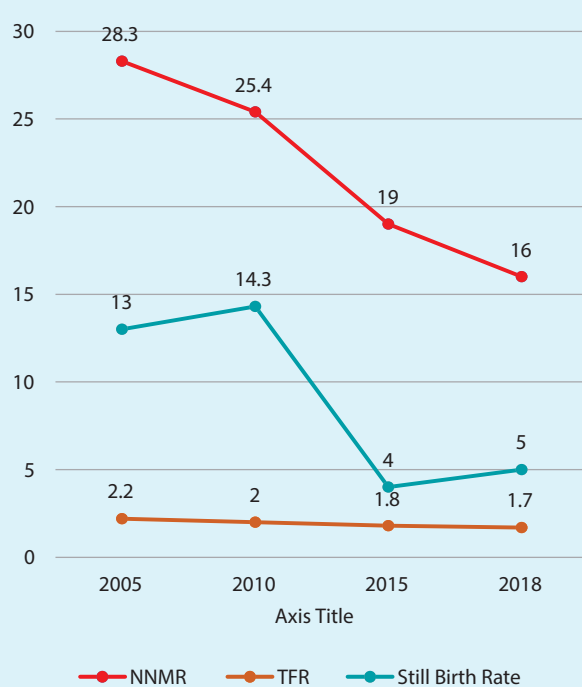


Figure 5: Comparison of Key NFHS 5 & 4 Indicators

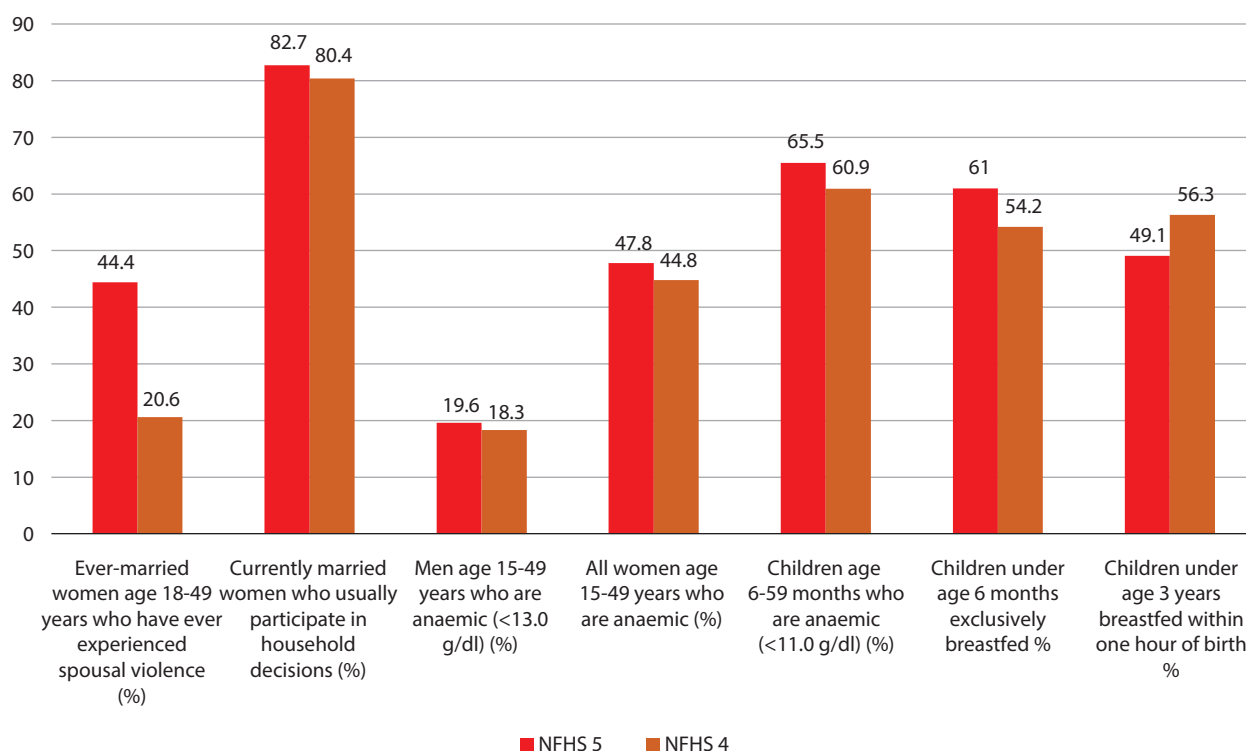


Figure 6: Top 15 causes of DALYs, 1990-2019

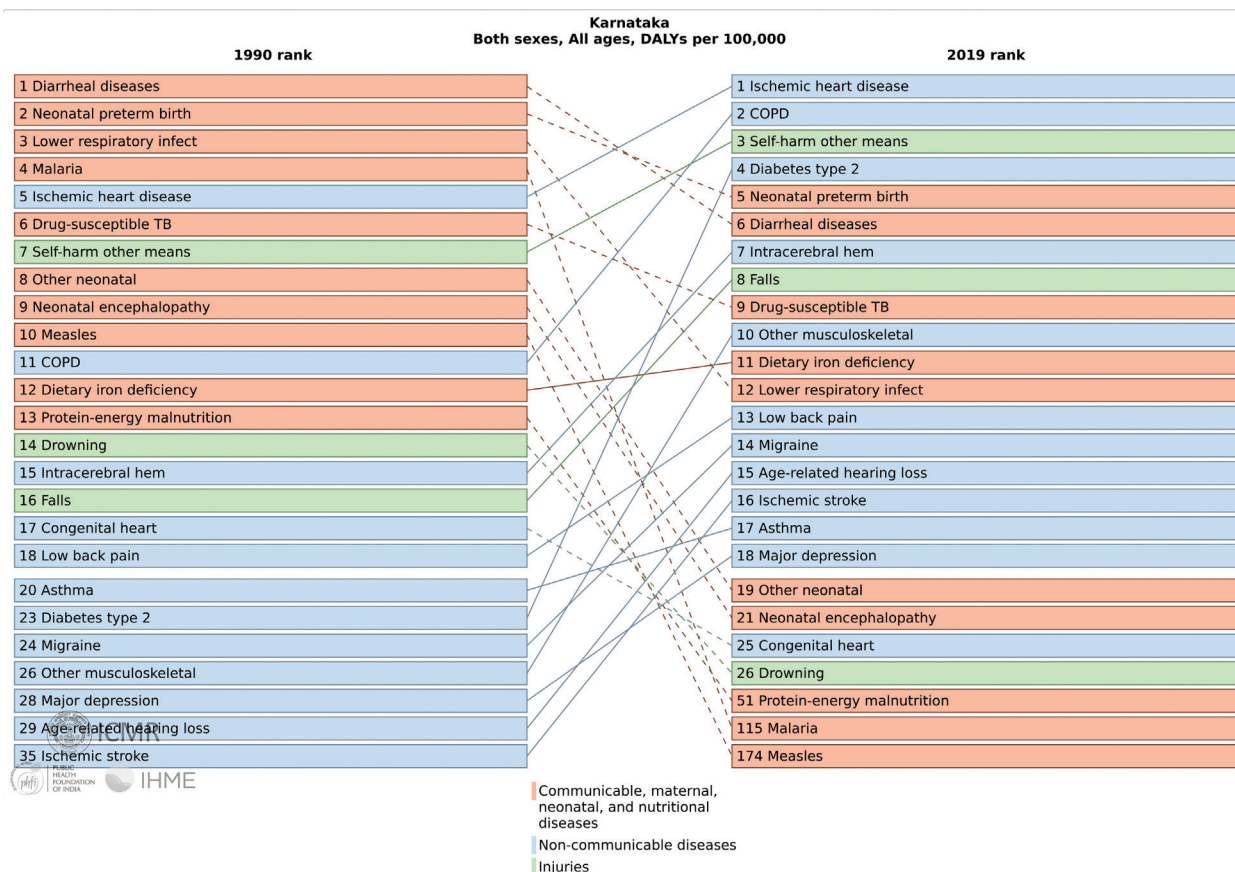


Figure 7: Top 15 risk of DALYs, 1990-2019

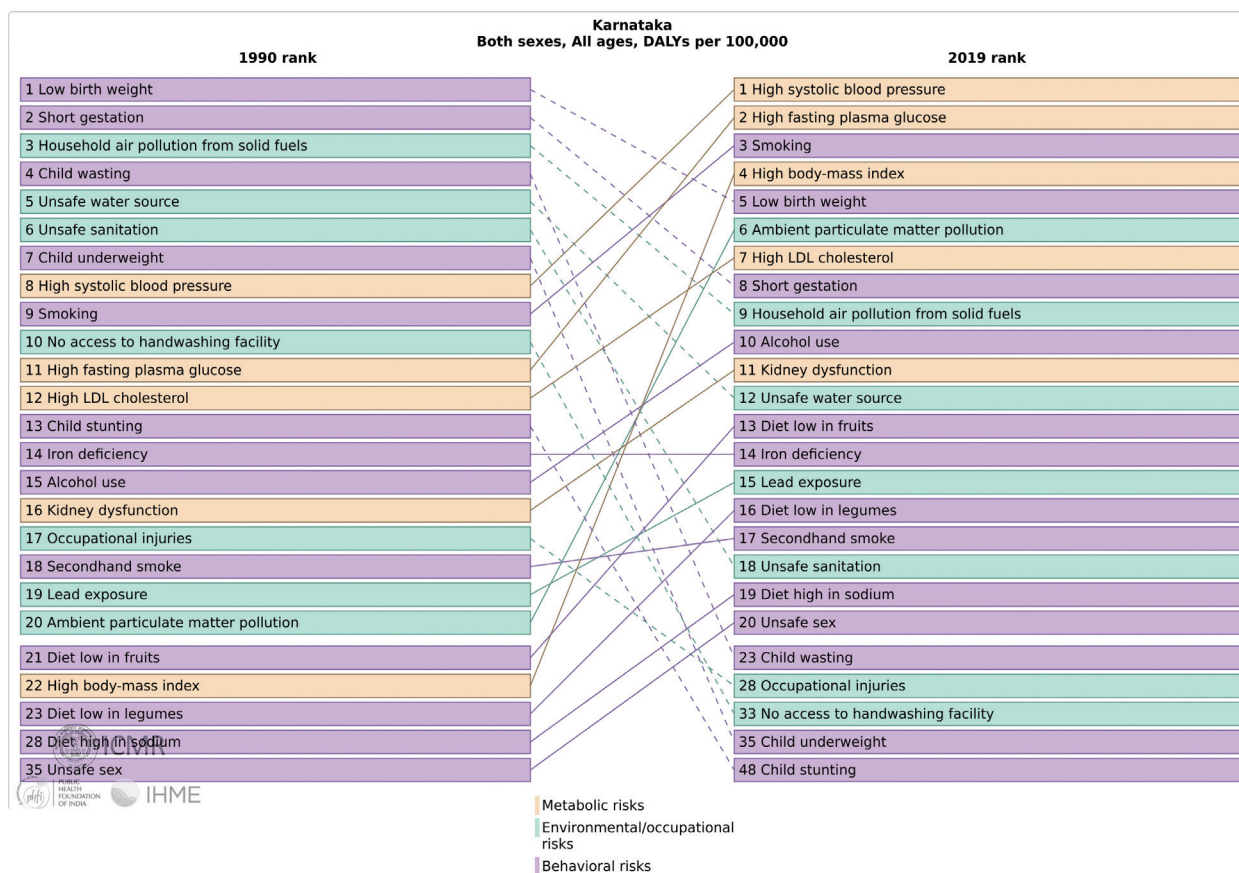


Figure 8: Year Wise Required/In Position Health Infrastructure Status in Rural Area (In numbers)

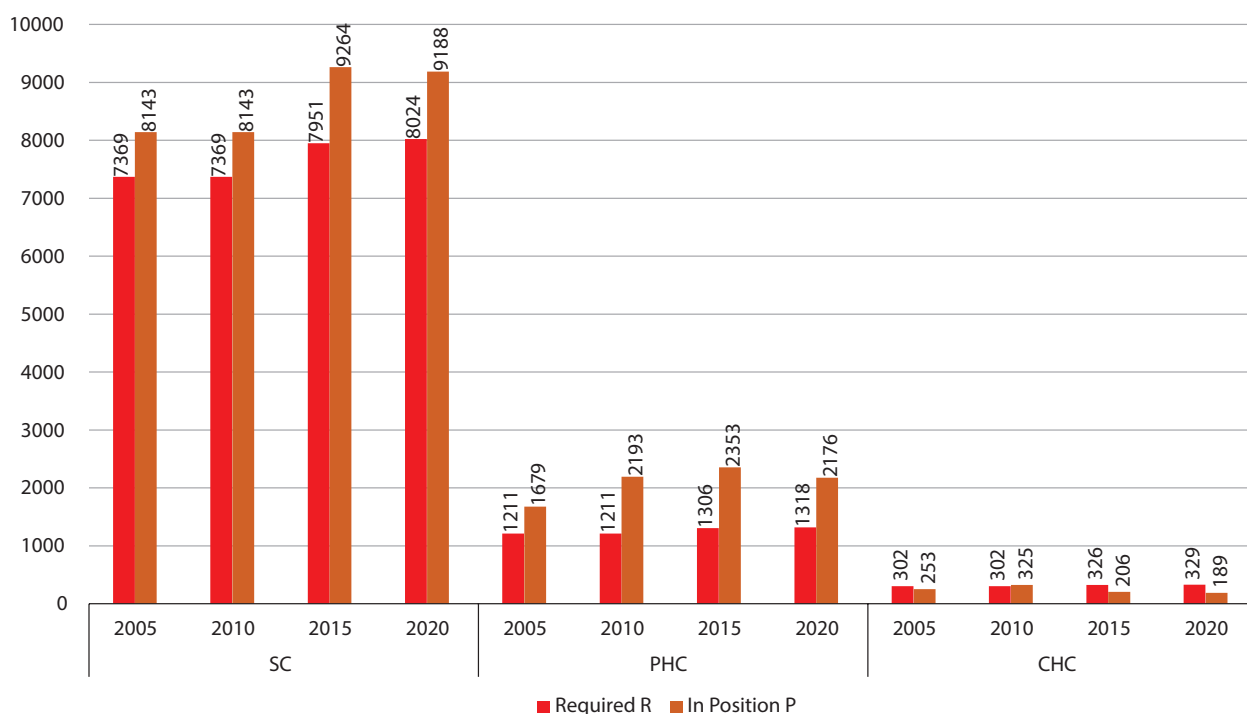


Figure 9: Year Wise Health Infrastructure Shortfall (%)

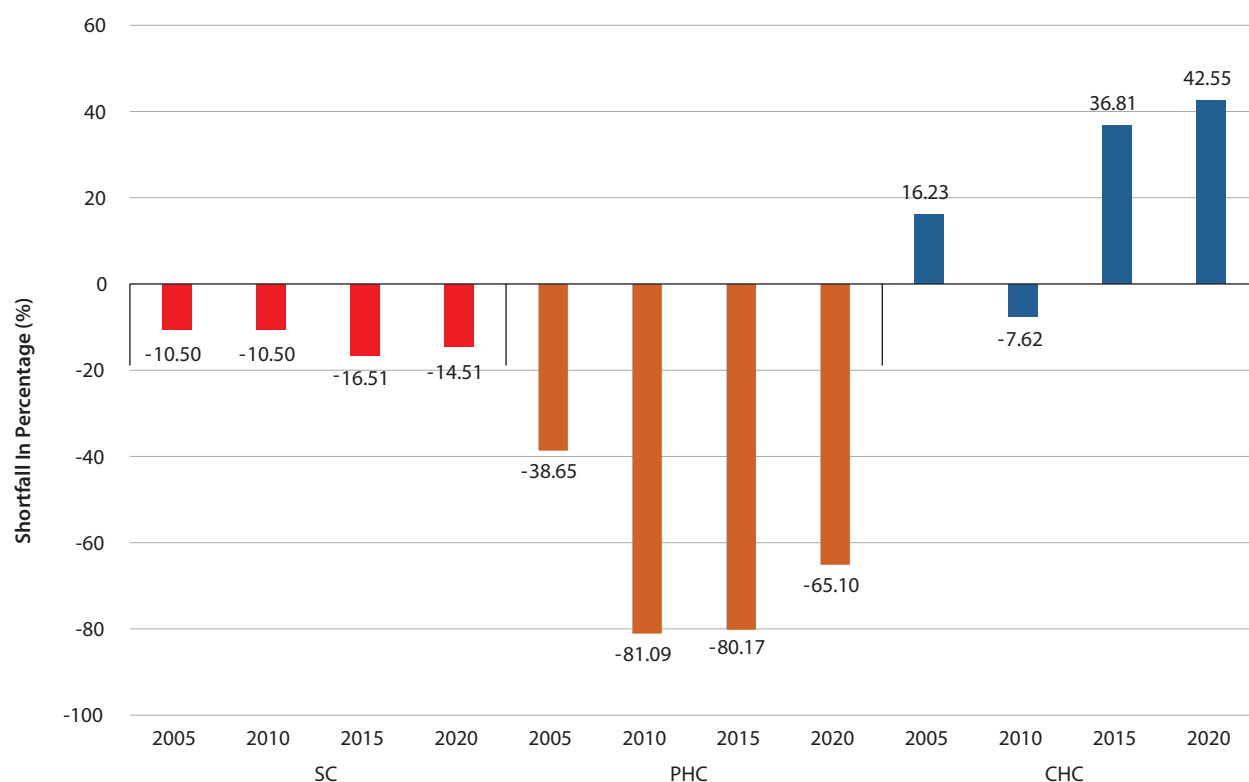
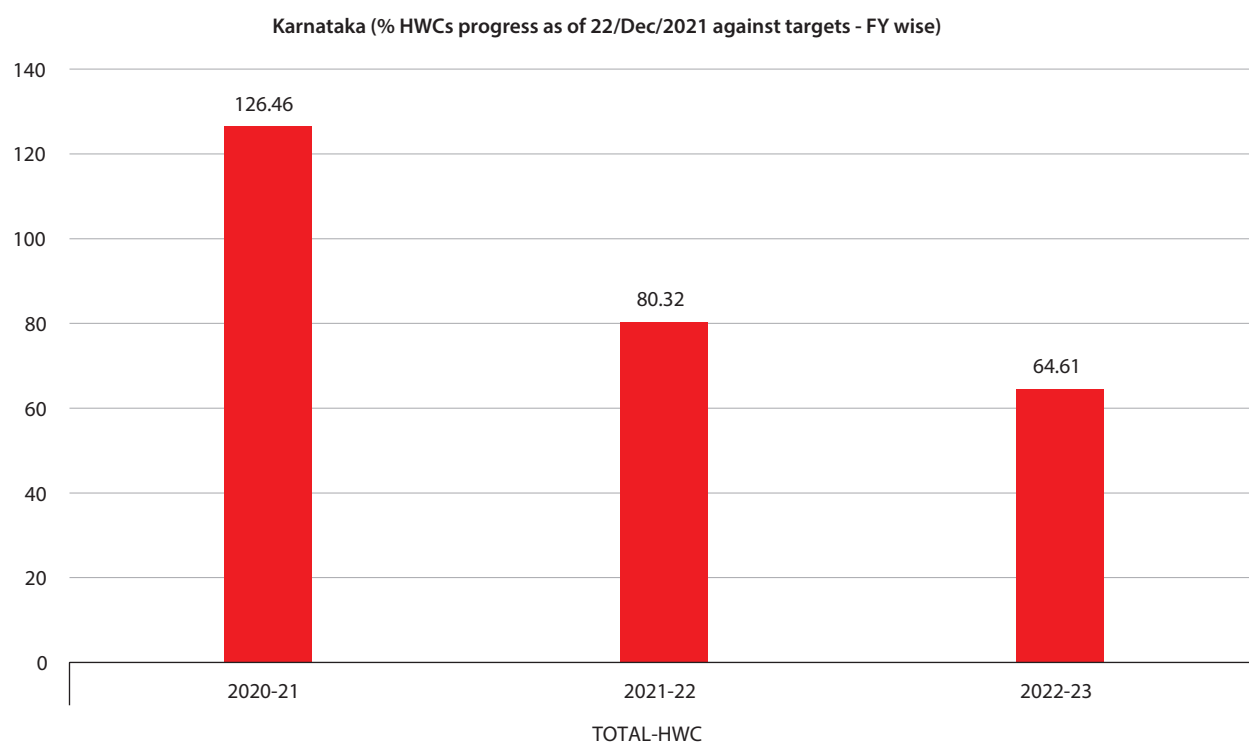


Figure 10: Percentage HWCs progress against target - FY wise (%)



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	Karnataka	NFHS 4 Total	910	28.1	N/A	21.4	51.8	0.8	1.3	10.4	70.1	94	72.7	8.2	36.2	26.1
2	Karnataka	NFHS 5 Urban	1063	28.2	85.1	16.1	69.6	3.4	6	7.3	71.2	98.3	88.3	11.4	32.2	18.5
3	Karnataka	NFHS 5 Rural	931	28	71	24.7	68.2	2.5	2.9	5.9	70.6	96.2	88.3	13.7	37.2	20.1
4	Karnataka	NFHS 5 Total	978	28.1	76.7	21.3	68.7	2.9	4.1	6.5	70.9	97	88.3	12.8	35.4	19.5
5	Bagalkot	NFHS 5 Total	879	22.3	69.7	38.7	65.3	2.2	1.2	5.8	76.2	95.2	79.5	6.1	48.3	16.9
6	Bangalore	NFHS 5 Total	1163	28.8	87.3	14.5	73.2	3.4	9.1	4.7	74.6	99.3	88.4	7.4	31.3	19.2
7	Bangalore Rural	NFHS 5 Total	1177	34.9	83.8	14.1	77.5	3.2	3.5	5.9	90.9	100	92.5	17.6	36.6	16.2
8	Belgaum	NFHS 5 Total	892	20.7	74	32.8	70.8	1.9	1.9	5.5	63.7	97.5	86.5	8.8	32.8	23.6
9	Bellary	NFHS 5 Total	1072	25.7	64.4	22.2	62.7	1.7	2.6	5.6	56.4	95.7	79.2	9.7	36.1	22.9
10	Bidar	NFHS 5 Total	898	21.4	73.8	19.2	69.1	2	5.4	8.1	55.3	99	77.7	13.8	36.8	22.1
11	Bijapur	NFHS 5 Total	885	21.2	66.6	39.2	63.1	1.3	2.5	7	56.4	91.8	73.2	14.6	45.9	15
12	Chamarajanagar	NFHS 5 Total	953	34.4	72.4	19.3	79.8	2.9	4.5	3.4	84.1	100	90.8	17.8	32.2	18
13	Chikkaballapura	NFHS 5 Total	1110	26.1	76.3	27.1	77.8	3.4	1.8	3.8	90.5	99	79.5	18.1	31.3	16.1
14	Chikmagalur	NFHS 5 Total	849	30	82.9	19.5	79.7	5.3	6.1	3.8	74.3	98.4	93.4	15.4	27.3	24.9
15	Chitradurga	NFHS 5 Total	1050	35.3	75.6	20.7	72.8	3.7	4.3	5	79.3	98.3	97.2	27.2	36	17.9
16	Dakshina Kannada	NFHS 5 Total	1038	36.3	92.7	4.9	61.9	3	7.5	9.5	82	100	93.9	5.3	25.1	30.5
17	Davanagere	NFHS 5 Total	797	25.2	76	19.1	47.1	1.5	2.3	11.5	63.1	98.3	83.5	16.8	38.4	18.8

18	Dharwad	NFHS 5 Total	1110	24.5	81.8	17.8	67.1	2.1	1.8	6.3	85.2	99.7	93.6	15.3	45.2	16.5
19	Gadag	NFHS 5 Total	911	28.3	70.7	27.7	58.3	2.5	2.7	7	68.7	96.2	81.4	9.5	45.2	18.2
20	Gulbarga	NFHS 5 Total	976	17.4	68.2	29.8	53	0.7	5.4	12.6	53.6	88.7	86.3	15.4	34.5	25
21	Hassan	NFHS 5 Total	872	36.9	82	16.2	78.1	6.3	3.3	5.2	75.8	100	94.3	29.1	27.1	15.2
22	Haveri	NFHS 5 Total	805	28.8	71.5	16.5	44.6	0.7	1	8.4	58.7	97.2	93.4	7.4	29.9	17.7
23	Kodagu	NFHS 5 Total	1190	45.6	88.5	12.8	73	6.3	5.6	5.6	74.4	98.4	96.5	9.1	30.4	21.7
24	Kolar	NFHS 5 Total	919	33.9	78.3	26.7	72.7	4.2	0.8	5.1	90.9	99.6	86.3	21.7	31.1	15.5
25	Koppal	NFHS 5 Total	952	20.6	59.8	27.1	63.4	1.9	1.2	9.7	50.7	90.7	93.4	12.2	49.1	23.1
26	Mandya	NFHS 5 Total	1041	39.9	78.3	13.1	80	3.6	3.6	3.8	90.1	99.5	96.9	12.4	24.3	11.8
27	Mysore	NFHS 5 Total	1123	26.2	78.9	17.5	79.5	2.4	4.2	5.6	85.7	100	92.6	13.4	27.5	15.6
28	Raichur	NFHS 5 Total	907	17.8	54.3	21.9	50.1	0.7	1.8	10	67.5	88.9	89.6	13	39.8	23.2
29	Ramanagara	NFHS 5 Total	781	35.7	82.7	11.8	78.1	2.8	2.4	5.1	88.7	100	92.6	16.6	15.6	20
30	Shimoga	NFHS 5 Total	1111	26.5	79.8	11.1	76.4	3.4	2.4	5.3	79.4	99.7	97.9	18.5	29	23.2
31	Tumkur	NFHS 5 Total	1133	31	81.9	24.8	77	5.1	4.4	5.3	80.4	100	93.5	15.5	40.3	10.9
32	Udupi	NFHS 5 Total	1093	50.9	90.3	4.4	72	6.4	8.9	7.1	59.4	98.9	87.8	10.3	23.1	17.6
33	Uttara Kannada	NFHS 5 Total	724	32	84.3	11.6	69.3	4.8	2.8	7.4	57.9	99.3	96.8	14.7	29.6	21.9
34	Yadgir	NFHS 5 Total	922	16.7	48.1	33.2	64	1.7	1.1	7.5	63.6	93.3	84.6	13.4	57.6	17.7

* NFHS5 replaced '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 (MCV)/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. 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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