Chapter - 1

1 Introduction

1.1 Introduction

Health is a vital indicator of human development and it is a basic ingredient of economic and social development. In India, the right to healthcare and protection has been recognised and considered a priority. The right to health is a fundamental part of human rights. Constitution of the World Health Organisation (WHO) states that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition."

National Health Policy, 2017 consists of Specific Quantitative Goals and Objectives outlined under three broad components viz., (a) health status and programme impact, (b) health systems performance and (c) health system strengthening. These goals are aligned to achieve sustainable development in health sector in keeping with the policy thrust.

The Government of Chhattisgarh (GoCG) has to provide necessary policy framework, institutions and resources in the shape of finances, personnel, drugs and equipment for the delivery of public healthcare services in the State. The Department of Health and Family Welfare (The Department), GoCG is entrusted with the responsibility of extending healthcare facilities in the State.

In view of the importance of functioning of healthcare sector in the State, a Performance Audit on "Public Health Infrastructure and Management of Health Services" was conducted.

1.2 Healthcare services

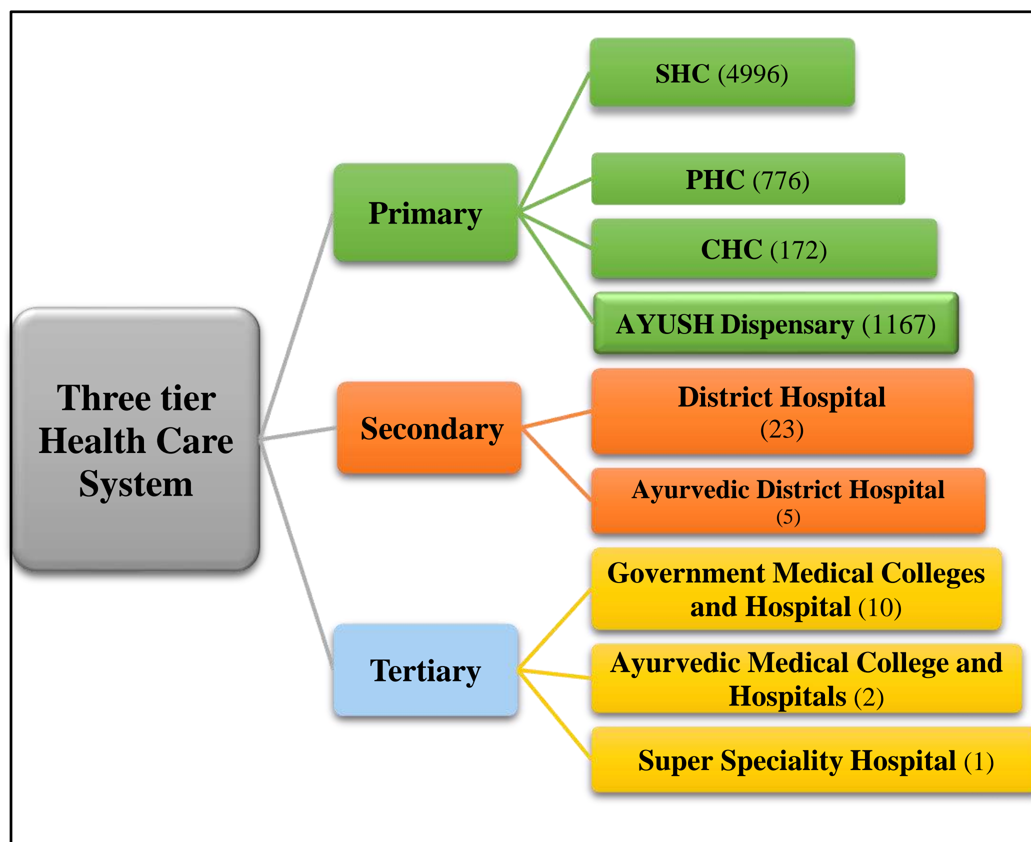
Delivery of quality and efficient healthcare services in public Healthcare Institutions (HI) plays a significant role in improving the health indicators of the public at large. For ensuring efficient operation of public sector hospitals, it is essential to prescribe standards/norms for providing various resources in the hospitals. On the basis of these standards/norms, requirement of resources should be assessed and provisions should be made accordingly. Audit has assessed the availability of line services, support services, auxiliary services in Chapter 3 and resource management has been discussed in Chapter 2, 4 and 5.

Line services	***Support services***
1. Outdoor patient department (OPD) 2. Indoor patient department (IPD) 3. Emergency Services 4. Super specialty (OT, ICU) 5. Maternity Services	1. Oxygen Services 2. Dietary services 3. Laundry services 4. Biomedical waste management 5. Ambulance services 6. Mortuary services 7. Blood bank 8. Diagnostic services
Auxiliary services	***Resource Management***
1. Patient safety facilities 2. Patient registration 3. Grievance / complaint redressal 4. Stores	1. Building Infrastructure 2. Human Resources 3. Drugs and Consumables 4. Equipment

1.3 Overview of healthcare institutions in the State

Availability, accessibility and usability of sound healthcare system are essential requirements to meet the challenges in the field of Health. The public healthcare institutions in the State are divided into three levels for providing primary care, secondary care and tertiary care under administrative control of Department, as detailed in ***Chart - 1.1***.

Chart - 1.1: Levels of Public Healthcare system



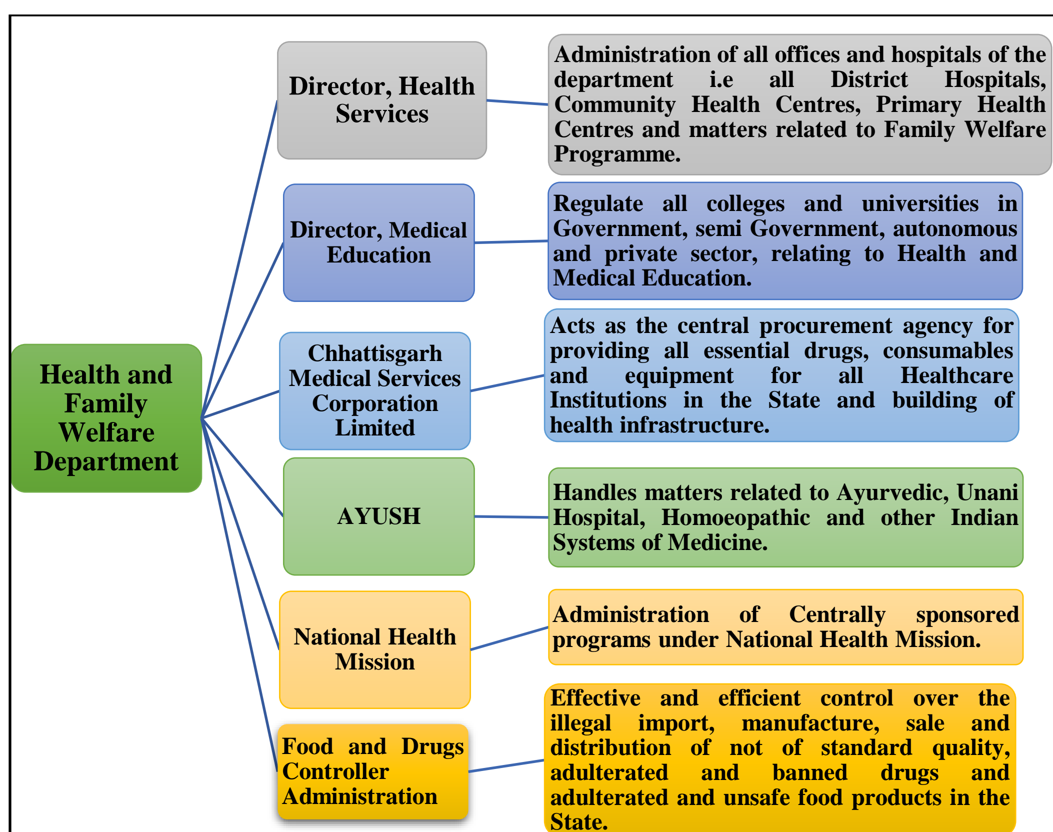
(Figures inside brackets represent number of institutions available in the State as on 31.03.22)

1.4 Organisational Set-up

The Secretary of the Department, GoCG is the executive authority for making policies and decisions in respect of health, medical education and family welfare schemes. The Secretary is assisted by the Director, Health Services (DHS); Director, Medical Education (DME); Director, Ayurveda, Yoga and Natural Treatment, Unani, Siddha and Homeopathy (AYUSH); Mission Director, National Health Mission (NHM) and Managing Director, Chhattisgarh Medical Services Corporation Limited (CGMSCL) and Controller, Food and Drugs Administration (FDCA).

The organisational set-up of the Department and the CGMSCL has been depicted in ***Chart - 1.2***

Chart - 1.2: Organisational set-up of the Department



1.5 Status of Health Indicators in the State

Health indicator is a yardstick to assess the performance of Government to improve the healthcare facilities. A comparison of Chhattisgarh with the overall performance of India in terms of important health indicators is shown in ***Chart - 1.3 (a), (b), (c), (d), (e) and (f).*** Indicator wise performance of the State in comparison to India has been discussed in **Chapter - 9**.

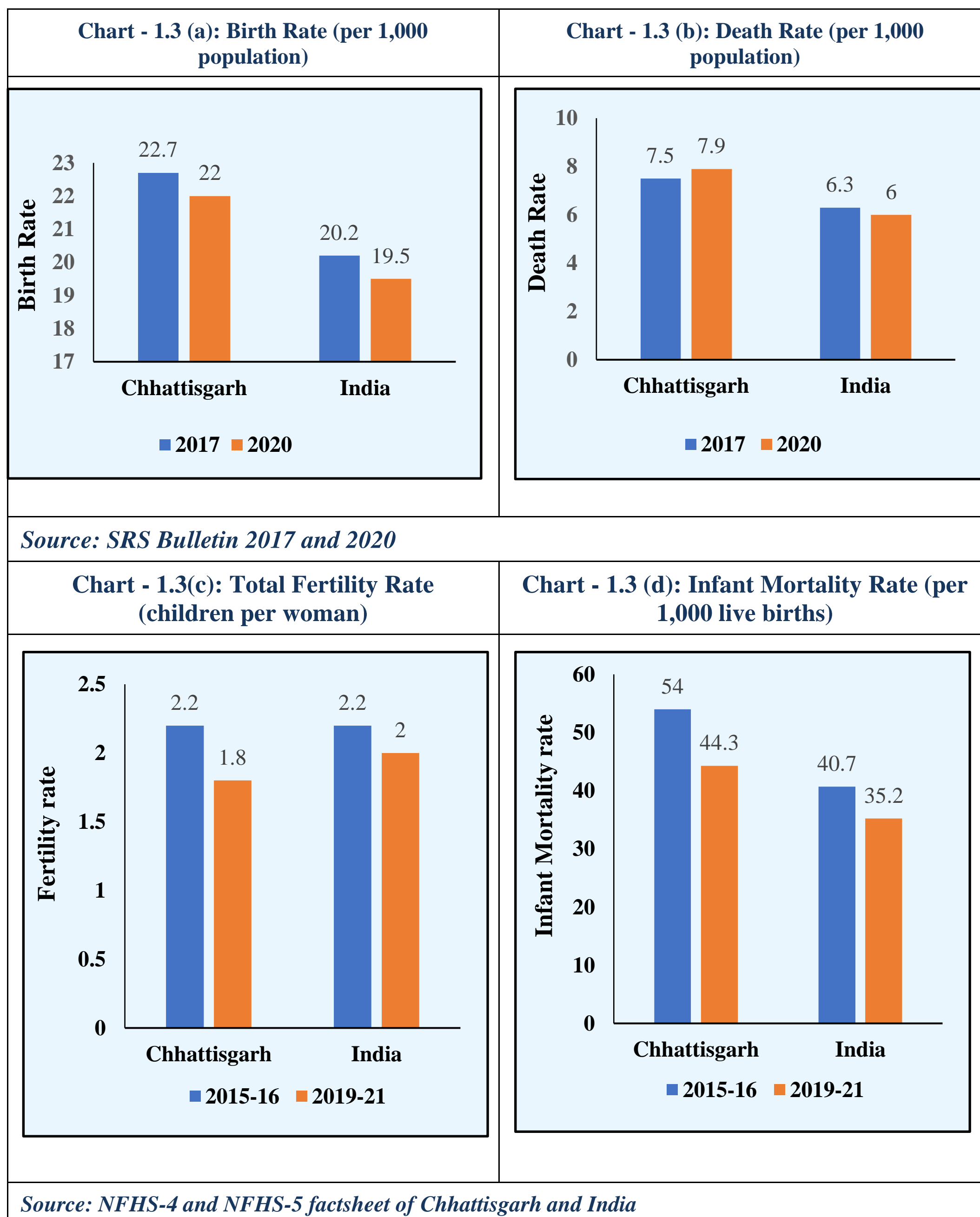


Chart - 1.3 (a): Birth Rate (per 1,000 population)
Birth Rate
23
22
21
20
19
18
17
22.7
22
20.2
19.5
Chhattisgarh
India
2017
2020
Chart - 1.3 (b): Death Rate (per 1,000 population)
Death Rate
10
8
6
4
2
0
7.5
7.9
6.3
6
Chhattisgarh
India
2017
2020
Source: SRS Bulletin 2017 and 2020
Chart - 1.3(c): Total Fertility Rate (children per woman)
Fertility rate
2.5
2
1.5
1
0.5
0
2.2
1.8
2.2
2
Chhattisgarh
India
2015-16
2019-21
Chart - 1.3 (d): Infant Mortality Rate (per 1,000 live births)
Infant Mortality rate
60
50
40
30
20
10
0
54
44.3
40.7
35.2
Chhattisgarh
India
2015-16
2019-21
Source: NFHS-4 and NFHS-5 factsheet of Chhattisgarh and India

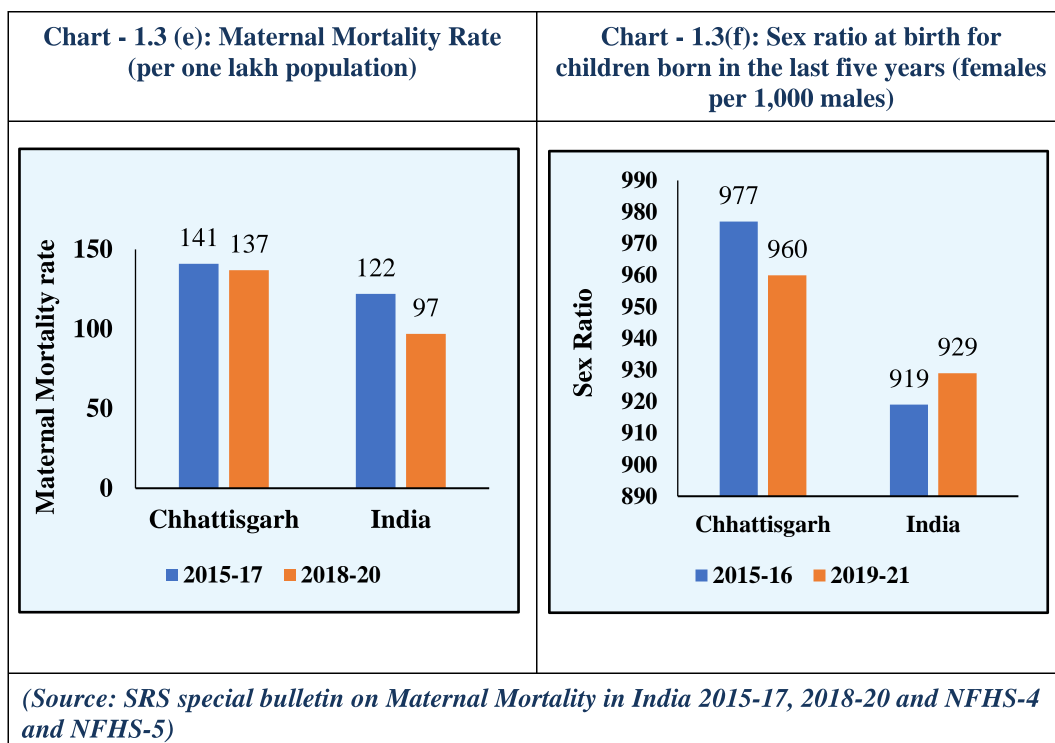


Chart - 1.3 (e): Maternal Mortality Rate (per one lakh population)

Chart - 1.3(f): Sex ratio at birth for children born in the last five years (females per 1,000 males)

(Source: SRS special bulletin on Maternal Mortality in India 2015-17, 2018-20 and NFHS-4 and NFHS-5)

1.6 Status of overall health indicators

To measure India's performance towards the indicators of Goal-3 (Good Health and Well-Being), *NITI Aayog* had assessed the performance based on these indicators, the Sustainable Development Goal (SDG) Index score and rank of Chhattisgarh for the years 2018, 2019 and 2020 which are shown in the following ***Table - 1.1***:

Table - 1.1: Ranking and score of Chhattisgarh State

Particulars	2018		2019		2020	
	Score	Rank	Score	Rank	Score	Rank
Score and ranking in terms of SDG 3: Good Health and Wellbeing	42	21	52	21	60	26

(Source- Niti Aayog SDG India Index & Dashboard 2018, 2019-20 and 2020-21)

As it could be seen from table, the SDG health index ranking of the State deteriorated over the period 2018-20; from 21 in 2018 to 26 in 2020. That means other states have improved in health index compared to Chhattisgarh.

1.6.1 Chhattisgarh Health indicators compared with National Health Indicators as per National Family Health Survey (NFHS)

A comparison of important health indicators as per National Health Indicators NFHS-4 and NFHS-5 of Chhattisgarh is depicted in the following ***Table - 1.2*****:**

Table - 1.2: Chhattisgarh Health Indicators as per NFHS- 4 and 5

Indicator	NFHS-4 (2015-16)		NFHS-5 (2019-21)	
	Chhattisgarh	India	Chhattisgarh	India
Sex ratio of the total population (females per 1,000 males)	1019	991	1015	1020
Sex ratio at birth for children born in the last five years (females per 1,000 males)	977	919	960	929
Total fertility rate (children per woman)	2.2	2.2	1.8	2.0
Neonatal mortality rate (NNMR)	42.1	29.5	32.4	24.9
Infant mortality rate (IMR)	54.0	40.7	44.3	35.2
Under-five mortality rate (U5MR)	64.3	49.7	50.4	41.9
Mothers who had an antenatal check-up in the first trimester (*per cent*)	70.8	58.6	65.7	70.0
Mothers who had at least 4 antenatal care visits (*per cent*)	59.1	51.2	60.1	58.1
Mothers whose last birth was protected against neonatal tetanus[1](*per cent*)	94.3	89.0	91.9	92.0
Mothers who consumed iron folic acid for 100 days or more when they were pregnant (*per cent*)	30.3	30.3	45.0	44.1
Mothers who consumed iron folic acid for 180 days or more when they were pregnant (*per cent*)	9.5	14.4	26.3	26.0
Registered pregnancies for which the mother received a Mother and Child Protection (MCP) card (*per cent*)	91.4	89.3	97.5	95.9
Mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (*per cent*)	63.6	62.4	84.0	78.0
Average out-of-pocket expenditure per delivery in a public health facility (in ₹)	1480	3197	1833	2916
Children born at home who were taken to a health facility for a check-up within 24 hours of birth (*per cent*)	4.7	2.5	9.8	4.2
Children who received postnatal care from a doctor/ nurse/LHV /ANM/ midwife/other health personnel within 2 days of delivery (*per cent*)	NA	NA	81.7	79.1
Institutional births (*per cent*)	70.2	78.9	85.7	88.6
Institutional births in public facility (*per cent*)	55.9	52.1	70.0	61.9
Home births that were conducted by skilled health personnel[2] (*per cent*)	8.4	4.3	5.8	3.2
Births attended by skilled health personnel (*per cent*)	78	81.4	88.8	89.4
Births delivered by caesarean section (*per cent*)	9.9	17.2	15.2	21.5
Births in a private health facility that were delivered by caesarean section (*per cent*)	46.6	40.9	57.0	47.4
Births in a public health facility that were delivered by caesarean section (*per cent*)	5.7	11.9	8.9	14.3

[1] Includes mothers with two injections during the pregnancy for their last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth.

[2] Doctor/ nurse/ LHV/ ANM/ midwife/ other health personnel

1.7 Audit Objectives

The Performance Audit was conducted to examine:

- The adequacy of the funding for the Government healthcare institutions.
- The availability and management of Government healthcare infrastructure.
- The availability of the necessary human resources in the Government Healthcare Institutions (HI).
- The availability of drugs, medicines, equipment and other consumables at Government HIs and efficient usage, with focus on availability of affordable and quality assured drugs for end users including Covid-19 pandemic period.
- The funding and spending under various schemes of the Government of India.
- The adequacy and effectiveness of the Regulatory mechanisms for ensuring that the quality healthcare services are provided in the HIs.
- Whether State spending on health has improved the health and wellbeing conditions of people as per SDG-3.

1.8 Audit Scope and Methodology

The Performance Audit covering the period 2016-22 was conducted during August 2021 to June 2022 through test check of records in the offices of the Managing Director, Chhattisgarh Medical Services Corporation Limited, Director (Health Services), Director (Medical Education), Director (AYUSH), Mission Director, National Health Mission, Medical Colleges and their attached Hospitals, Government Ayurveda College and Hospital, Drug Testing Laboratory and Research Centre (DTLRC), Chief Medical and Health Officers (CMHO), District Hospitals (DH), District Ayurveda Officer (DAO), District Ayurveda Hospital, Block Medical Officer (BMO), Community Health Centers (CHC), Primary Health Centers (PHC), Government Ayurveda Pharmacy, AYUSH Polyclinic and AYUSH Dispensary and Co-located Centre[3].

The Audit Methodology involved scrutiny of records and document analysis, response to audit queries, collection of information through questionnaires, proforma, prescription audit, doctor - patient survey of selected service users/ beneficiaries for end-user satisfaction. In addition, joint physical inspections of hospital assets, sub-stores and civil works were also conducted. Photographic evidences were obtained wherever necessary, to substantiate the audit findings. Analysis of database of web applications (DPDMIS, EMIS and HIMIS)[4] was also conducted through data-analysis tools such as Microsoft Excel and MySQL.

An Entry Conference was held on 25 February 2021 with Additional Chief Secretary of the Department, wherein audit objectives, audit criteria, audit scope and methodology were discussed. Further, the revised audit objectives were

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[3] 695 AYUSH dispensaries, 12 AYUSH poly clinic and 460 co-located centers.

[4] **DPDMIS:** Drugs Procurement and Distribution Management Information System; **EMIS**: Equipment Management Information System; and **HIMIS:** Health Infrastructure Management Information System

intimated on 3 February 2022 to the Principal Secretary of the Department. The draft report was issued to the Government on 18 August 2022. The Exit conferences were held on 4 November 2022 and 9 January 2023 to discuss the draft report with the Secretary of the Department and DHS respectively. The replies/ views of the Government have been suitably incorporated in the report. Further, revised PA Report was again issued to the State Government in November 2023 for which reply was awaited (26 March 2024). The coverage of the Performance Audit was as follows:

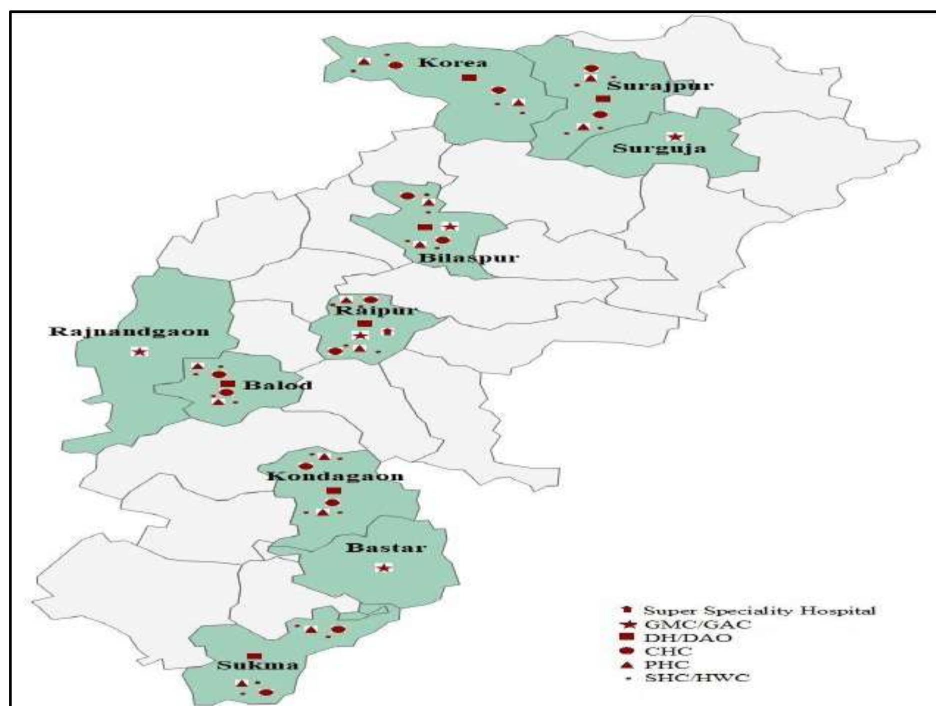
All five apex units

- Director, Health Services
- Director, Medical Education
- Chhattisgarh Medical Services Corporation Limited.
- Director, AYUSH
- Mission Director, National Health Mission

Seven districts (Balod, Bilaspur, Kondagaon, Korea, Raipur, Sukma and Surajpur) for field study out of 28 districts selected using SRSWOR method

- Seven District Hospitals pertaining to each of the selected districts.
- Seven Chief Medical and Health Offices pertaining to each of the selected districts.
- 14 Community Health Centres (CHCs), two in each selected districts.
- 14 Primary Health Centres (PHCs), one under each CHC
- 28 Sub Health Centres (SHCs) two under each PHC
- Five medical colleges and attached hospitals, one from each Division.
- The lone Super Speciality Hospital DKS PGI Super Speciality Hospital, Raipur (DKSPGI)
- Seven District Ayurveda Officer (DAO) out of total 22 DAOs and 77 AYUSH dispensaries under seven DAOs
- All two Ayurvedic Colleges and attached hospitals
- The only Drug Testing Laboratory and Pharmacy of AYUSH in the State was also covered.
- In CGMSCL, out of 156 tenders for drugs, 78 tenders were selected and out of 122 equipment tenders, 61 tenders were selected on the basis of stratified sampling method
- All Covid-19 pandemic procurement were reviewed.

The selected field units are marked in the following map of Chhattisgarh indicating uniform geographical representation:



1.9 Doctors'/ patient survey/ prescription audit

1.9.1 Patient - doctor survey conducted at healthcare institutions

As a part of Audit exercise, patient survey was conducted in 41 HIs covering 450 patients[5] on the overall facilities available in HIs, which has been discussed in **Chapter 3.**

1.9.2 Prescription Audit

Audit conducted prescription audit[6] of five GMCHs, seven test checked DHs and DKSPGI. Audit observed lack of details of ailment, clear dosages of medicines and duration of dosages in the prescription of patients, as detailed in ***Table – 4.25* of Chapter - 4*.***

1.10 Audit Criteria

The sources of audit criteria adopted for assessing the audit objectives were:

- National Health Policy, 2017;
- UN Sustainable Development Goals;
- MCI Act, 1956 replaced by National Medical Commission Act 2019;
- Indian Public Health Standards (IPHS) - 2012;
- Professional Conduct, Etiquette and Ethics Regulation 2002;
- Drugs & Cosmetics Act, 1940;
- Regulatory mechanism for AYUSH;

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[5] five GMCs (135), DKSPGI (25), seven DHs (178), 14 CHCs (70) and 14 PHCs (42)

[6] GMCHs (338), DHs (340) and DKSPGI (30)

- The National Commission for Indian System of Medicine Act, 2020;
- Bio Medical Waste Management Rules, 2016;
- Establishment of Medical College Regulations, 1999;
- WHO Norms;
- Framework for implementation of schemes issued by GoI;
- *NITI Aayog* Reports;
- Chhattisgarh Store Purchase Rules, 2002; and
- Orders and circulars issued by GoI and GoCG from time to time.

1.11 Ayushman Bharat scheme

Ayushman Bharat, a flagship health scheme of the Government of India, was launched (23 September 2018) to achieve Universal Health Coverage (UHC) as recommended in the National Health Policy, 2017. Ayushman Bharat scheme adopts a continuum of care approach, comprising of two inter-related components, which are (i) Health and Wellness Centres (HWCs); and (ii). *Pradhan Mantri Jan Arogya Yojana* (PMJAY), as discussed in following paragraphs:

Health and Wellness Centres (HWCs)

- Creation of 4,421 HWCs in Chhattisgarh by transforming the existing Sub Health Centres and Primary Health Centres in February 2018.
- Aim to deliver Comprehensive Primary Health Care (CPHC) covering maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services.

PMJAY

- Aims to provide a cover of ₹ 5 lakh per family per year for secondary and tertiary care hospitalisation across public and private empanelled hospitals in India.
- Over 37.29 lakh poor and vulnerable entitled families (approximately 1.37 crore beneficiaries) in Chhattisgarh are eligible for these benefits.
- Provides cashless access to healthcare services for the beneficiary at the point of service, that is, the hospital.
- Benefits of the scheme are portable across the country i.e., a beneficiary can visit any empanelled public or private hospital in India to avail cashless treatment.
- Services include approximately 1,393 procedures covering all the costs related to treatment, including but not limited to drugs, supplies, diagnostic services, physician's fees, room charges, surgeon charges, OT, and ICU charges etc.
- Public hospitals are reimbursed for the healthcare services at par with the private hospitals.

PMJAY provides cashless and paperless access to services for the beneficiaries at the point of service. The inclusion of households is based on the deprivation and occupational criteria of the Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas respectively. This number also includes families that were covered in the *Rashtriya Swasthya Bima Yojana* (RSBY) but were not present in the SECC 2011 database. Coverage of households and beneficiaries under *PMJAY* across the districts is detailed in ***Table - 1.3***:

Table - 1.3: Coverage of Households and Beneficiaries across districts under PMJAY

Sl. no.	Name of district	No. of eligible households	No. of eligible beneficiaries	No. of beneficiaries registered	Beneficiaries registered (in *per cent*)
1	2	3	4	5	6
1	Balod	92,109	3,33,953	1,29,097	38.66
2	Baloda Bazar	1,85,098	7,18,321	2,40,055	33.42
3	Balrampur	1,23,684	5,09,836	1,32,959	26.08
4	Bastar	1,35,232	5,13,018	88,148	17.18
5	Bemetara	86,379	3,47,416	1,68,096	48.38
6	Bijapur	44,203	1,87,704	23,476	12.51
7	Bilaspur*	3,01,752	10,96,003	3,30,570	30.16
8	Dantewada	45,537	1,71,954	28,976	16.85
9	Dhamtari	96,537	3,57,090	1,64,063	45.94
10	Durg	1,76,266	4,62,518	2,24,536	48.55
11	Gariyaband	1,13,015	4,05,822	1,19,327	29.40
12	Janjgir-Champa	2,66,047	9,95,784	3,36,698	33.81
13	Jashpur	1,49,146	6,06,422	2,10,489	34.71
14	Kabirdham	1,15,958	4,42,951	1,38,127	31.18
15	Kanker	1,05,938	4,43,833	1,70,358	38.38
16	Kondagaon	87,930	3,96,931	81,991	20.66
17	Korba	1,99,800	6,67,604	3,02,153	45.26
18	Korea	1,00,866	3,39,827	1,02,728	30.23
19	Mahasamund	1,87,687	6,70,977	1,74,493	26.01
20	Mungeli	1,12,203	4,32,557	1,19,693	27.67
21	Narayanpur	21,466	99,207	18,722	18.87
22	Raigarh	2,59,097	9,12,040	2,40,157	26.33
23	Raipur	2,39,002	7,24,482	2,33,158	32.18
24	Rajnandgaon	1,89,318	7,24,964	2,35,344	32.46
25	Sukma	42,672	1,66,737	6,756	4.05
26	Surajpur	1,10,177	4,37,028	1,43,690	32.88
27	Surguja	1,42,019	5,47,043	1,75,204	32.03
	Total	**37,29,138**	**1,37,12,022**	**43,39,064**	**31.64**

(Source: Data provided by SNA PMJAY)

****Bilaspur district included data for Gaurela-Pendra-Marwahi district formed in February 2020.***

As average percentage is 31.64, Districts with percentage below 32 has been highlighted in pink colour.

It could be seen from the above table that out of 27 districts, 14 districts were having low coverage (below 32 *per cent*) of beneficiaries.

1.12 Audit Findings

Audit findings related to the identified components and the factors that contribute towards their achievement have been discussed in detail in the succeeding chapters under the following headings:

Chapter 2: Human Resources

Chapter 3: Healthcare Services

Chapter 4: Availability of Drugs, Medicines and Equipment in the Healthcare Institutions

Chapter 5: Availability and management of healthcare infrastructure

Chapter 6: Funding for healthcare in Chhattisgarh

Chapter 7: Implementation of Centrally Sponsored Schemes

Chapter 8: Adequacy and effectiveness of the regulatory mechanism

Chapter 9: Sustainable Development Goal-3 “Good health and wellbeing”

1.13 Acknowledgement

Audit acknowledges the cooperation of the Government of Chhattisgarh including Additional Chief Secretary of the Department and its apex units. Audit also appreciates the assistance provided by the field functionaries of the Department for smooth conduct of the audit.