Chapter I

Introduction

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Health is a vital indicator of human development which is a basic ingredient of economic and social development. In India, the right to health care and protection has been recognized and is considered a priority. The right to health is a fundamental part of human rights. Constitution of the World Health Organization (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 or economic or social condition."

National Health Policy (NHP) 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.

Given the importance of functioning of health sector in National Capital Territory of Delhi, a performance audit to assess adequacy and effectiveness of Public Health Infrastructure and Management of Health Services of GNCTD was conducted covering the period 2016-17 to 2021-22.

1.1 Health services

Health services provided by the hospitals can broadly be divided in the categories *viz.,* Line services, Support services, Auxiliary services and Managmement of hospital resources as shown in **Chart 1.1**.

Chart 1.1: Services provided by Hospitals

Line services

i. Outdoor patient department
ii. Indoor patient department
iii. Emergency Services
iv. Super specialty (OT, ICU)
v. Maternity
vi. Blood bank
vii. Diagnostic services

Support services

i. Oxygen Services
ii. Dietary service
iii. Laundry service
iv. Biomedical waste management
v. Ambulance service
vi. Mortuary service

Auxiliary services

i. Patient safety facilities
ii. Patient registration
iii. Grievance / complaint redressal
iv. Stores

Resource Management

i. Building Infrastructure
ii. Human Resource
iii. Drugs and Consumables
iv. Equipment

All public health services depend on the presence of basic infrastructure including availability of human resources. Every public health programme such as immunisation, infectious disease monitoring, cancer and asthma prevention, drinking water quality, injury prevention etc. requires health professionals who are competent in synergising their professional and technical skills in public health and provide organisations with the capacity to assess and respond to community health needs. Public health infrastructure has been referred to as "the nerve centre of the public health system". While creation of strong infrastructure is the responsibility of many organisations, public health agencies (health department) are considered the primary players.

The primary objective of National Health Policy, 2017 is to improve health status through concerted policy action in all sectors and expand preventive, promotive, curative, palliative and rehabilitative services provided through the public sector. The policy also recognises the pivotal importance of Sustainable Development Goals to ensure healthy lives and promote wellbeing for all at all ages. At the global level, the Sustainable Development Agenda aims to ensure healthy lives and promote well-being for all at all ages by 2030 as per Sustainable Development Goal (SDG) 3.

Indian Public Health Standards (IPHS) are a set of uniform standards envisaged to improve the quality of health care delivery in the country. IPHS norms were revised in 2012 and 2022 keeping in view the changing protocols of the existing programmes and introduction of new programmes especially for Non-Communicable Diseases.

1.2 Overview of healthcare facilities in the State

Healthcare system in Delhi was re-structured in July 2015 into a four tier system as follows:

a) Mohalla Clinic (Aap Ka Swasthya Kendra)

b) Multi Speciality Clinic (Polyclinic)

c) Multi Speciality Hospital

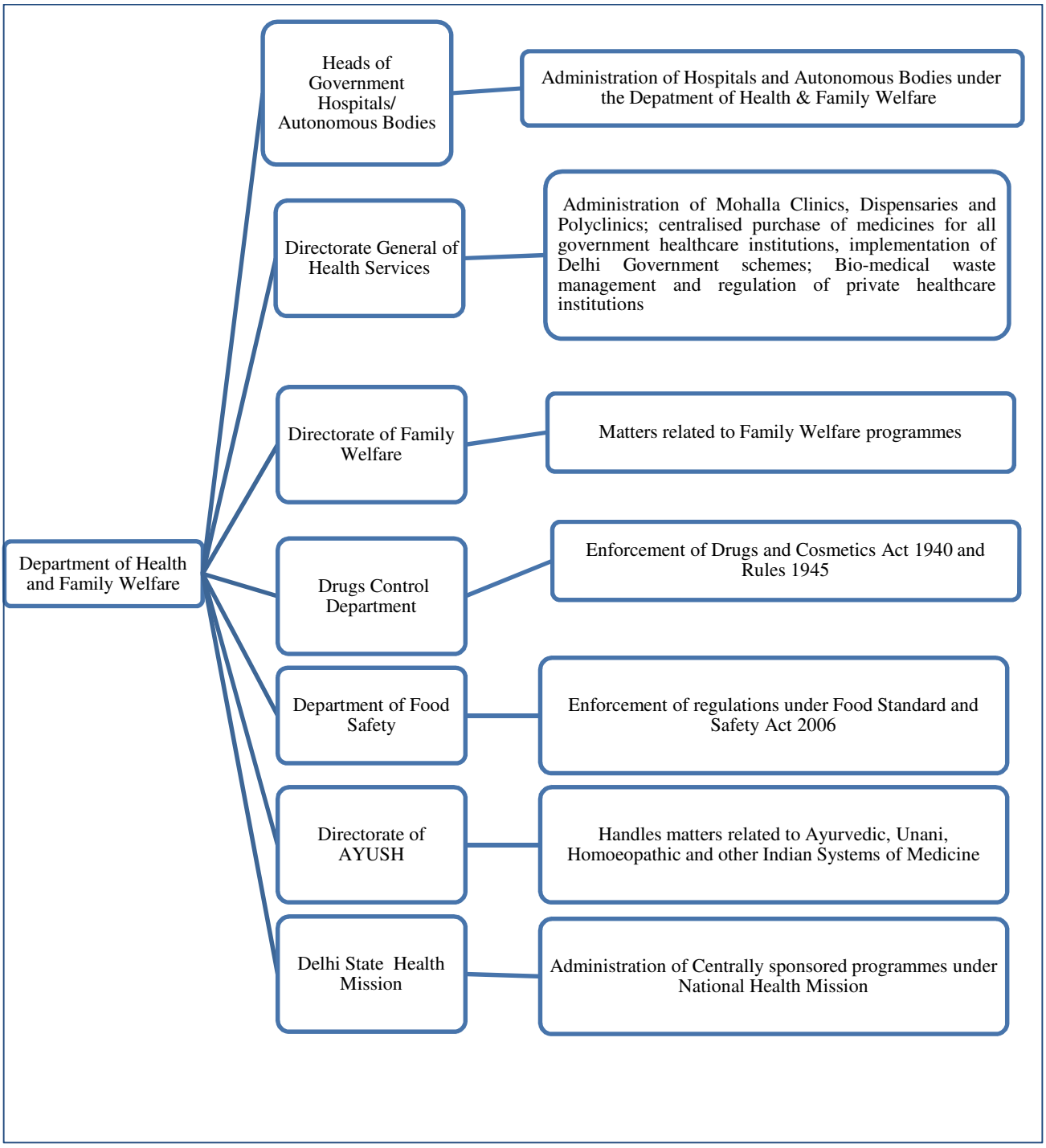
d) Super Speciality Hospital

There are referral and reverse referral mechanism for patients in all the four tiers of the Healthcare System.

1.3 Organisational Set-Up

Functions of various Directorates/Departments/branches under the Department of Health and Family Welfare, GNCTD are as indicated in **Chart 1.2**.

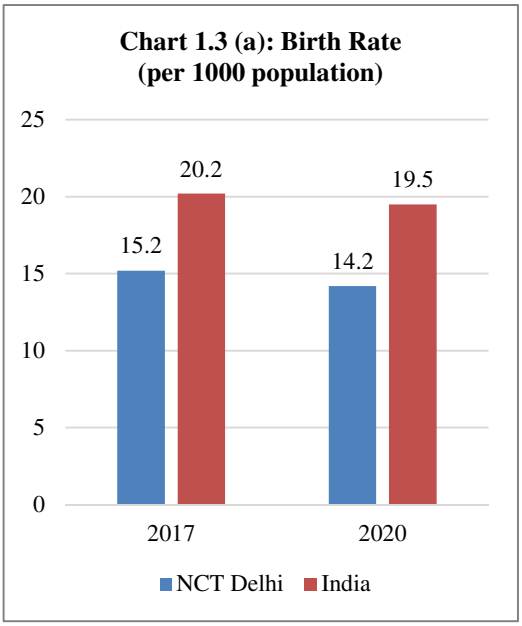
Chart 1.2: Functions of various Directorates/Departments under the Department of Health and Family Welfare

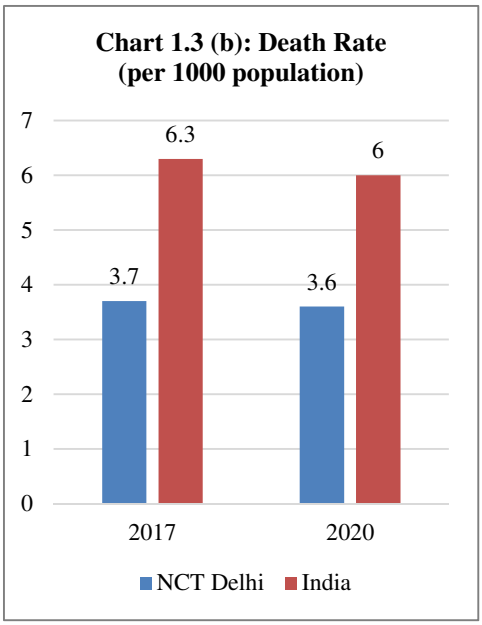


1.4 Status of Health Indicators in the State

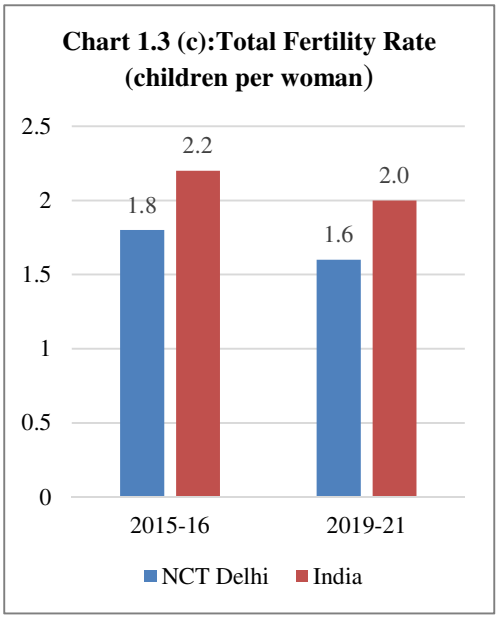
The healthcare services in a State can be evaluated on the basis of the achievement against benchmark of health indicators. The status of a few important health indicators of NCT Delhi vis-à-vis National average are given in **Charts 1.3**.

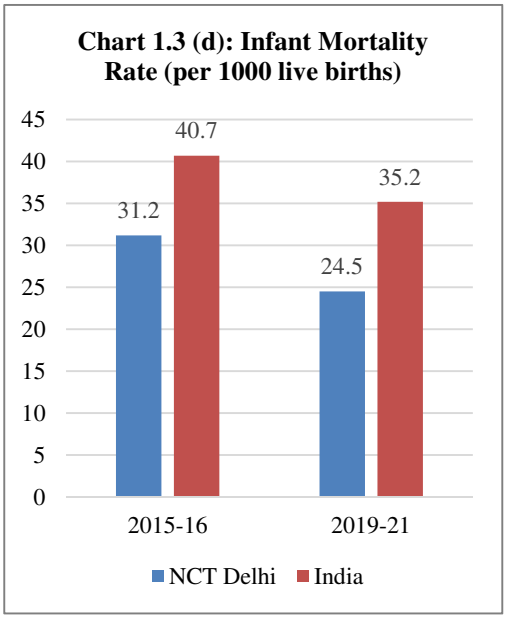
Charts 1.3: Health Indicators in the State





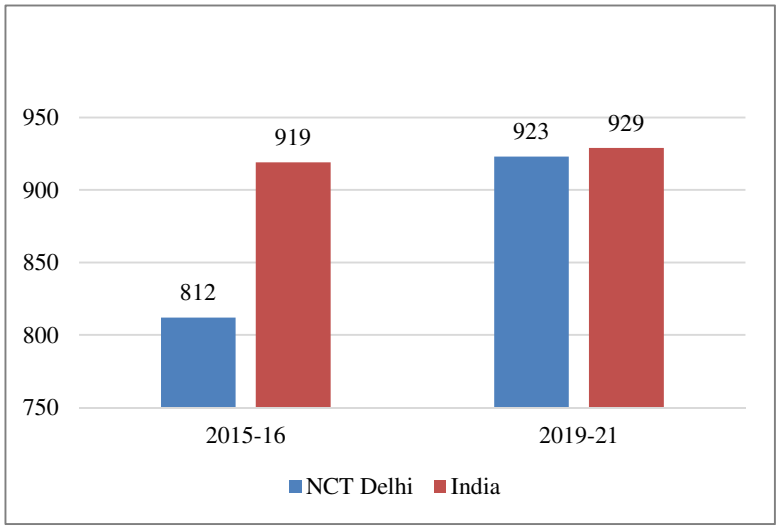
Source: Sample Registration Bulletin May 2019 (for 2017) and May 2022 (for 2020 figures)





Source: NFHS-4 (2015-16) and NFHS-5 (2019-21)

Chart 1.3 (e): Sex ratio at the birth for children born in the last five years (females per 1000 males)



Source: NFHS-4 (2015-16) & NFHS-5 (2019-21) Child Sex Ratio

It can be observed from **charts 1.3 (a)** to **1.3 (e)** that NCT of Delhi was placed better as compared to national averages in respect of all important indicators except sex ratio at the birth for children born in last five years (Females per 1000 Males) which increased from 812 (2015-16) to 923 (2019-20) but was still below the national average.

1.4.1 NCT Delhi Health Indicators compared with National Health Indicators as per National Family Health Survey-5 (NFHS-5)

The National Family Health Survey conducted in 2015-16 (NFHS-4) and NFHS-5 conducted in 2019-21, provide information on population, health and nutrition for India and each state/union territory (UT). Some of the important health indicators of NCT of Delhi are given in **Table 1.1**.

Table 1.1: Delhi Health Indicators as per NFHS-5

Indicator	NFHS -4 (2015-16)		NFHS-5 (2019-21)	
	Delhi	India	Delhi	India
Sex ratio of the total population (females per 1,000 males)	854	991	913	1020
Sex ratio at birth for children born in the last five years (females per 1,000 males)	812	919	923	929
Total fertility rate (children per woman)	1.8	2.2	1.6	2.0
Neonatal mortality rate (NNMR)	17.8	29.5	17.5	24.9
Infant mortality rate (IMR)	31.2	40.7	24.5	35.2
Under-five mortality rate (U5MR)	42.2	49.7	30.6	41.9
Mothers who had an antenatal check-up in the first trimester (%)	63.0	58.6	76.4	70.0
Mothers who had at least 4 antenatal care visits (%)	67.9	51.2	77.2	58.1
Mothers whose last birth was protected against neonatal tetanus[1] (%)	90.6	89.0	93.4	92.0
Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	53.8	30.3	69.1	44.1
Mothers who consumed iron folic acid for 180 days or more when they were pregnant (%)	29.9	14.4	49.0	26.0
Registered pregnancies for which the mother received a Mother and Child Protection (MCP) card (%)	86.6	89.3	94.0	95.9
Mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	62.3	62.4	85.4	78.0
Average out-of-pocket expenditure per delivery in a public health facility (₹)	8518	3197	2548	2916
Children born at home who were taken to a health facility for a check-up within 24 hours of birth (%)	2.3	2.5	4.5	4.2
Children who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	NA	NA	86.7	79.1
Institutional births (%)	84.4	78.9	91.8	88.6
Institutional births in public facility (%)	55.5	52.1	62.4	61.9
Home births that were conducted by skilled health personnel[2] (%)	3.6	4.3	2.3	3.2
Births attended by skilled health personnel (%)	86.6	81.4	93.4	89.4
Births delivered by caesarean section (%)	26.7	17.2	23.6	21.5
Births in a private health facility that were delivered by caesarean section (%)	41.5	40.9	42.8	47.4
Births in a public health facility that were delivered by caesarean section (%)	26.5	11.9	17.7	14.3

State health indicators, which have been shaded green above have improved, those which have deteriorated are shaded red.

Health indicators (2019-21) of Delhi are better than national indicators except sex ratio. Sex ratio of total population has improved from 854 (2015-16) to

[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.

913 (2019-21) but it remains below the national average of 1020. Sex ratio at birth for children born in the last five years at 923, however, is below the national average of 929.

There has been improvement in – Total fertility rate (children per woman), Neonatal mortality rate (NNMR), Under-five mortality Rate (U5MR), antenatal check-ups, use of iron and folic acid by pregnant women, registered pregnancies for which the mother received a Mother and Child Protection (MCP) Card, postnatal care and institutional births in public facilities in Delhi.

There has been decline in home births that were conducted by skilled health personnel. Births delivered by caesarean section have declined from 26.7 *per cent* to 23.6 *per cent* but it remains above national average of 21.5 *per cent* in NFHS-5 (2019-21).

1.5 Audit Objectives

Considering the goals laid down in NHP 2017 and the experience in COVID-19 Pandemic, it has become crucial to assess the adequacy of financial resources, availability of health infrastructure, manpower, machinery and equipment in the health institutions as well as efficacy in the management of health services in the State through existing policy interventions and scope for further improvement. Thus, to ensure timely and systematic corrections, performance audit on Public Health Infrastructure and Management of Health Services in the state of Delhi was taken up with the objective to provide a holistic view of the HealthCare Sector in the State i.e., a macro picture using State level information and data and a micro picture arising from detailed audit analysis/ findings on maintenance of infrastructure and delivery of health care services.

The objectives of the Performance Audit (PA) were to:
• assess the adequacy of funding for Health care; • assess the availability and management of health care infrastructure; • assess the availability of drugs, medicines, equipment and other consumables; • assess the availability of necessary human resource at all levels e.g. doctors, nursing, para medics etc. • examine the adequacy and effectiveness of the Regulatory mechanisms for ensuring that quality health care services are provided by public/ private health care institutions/ practitioners; • assess whether State spending on health has improved the health and wellbeing of the people as per SDG3; • examine the funding and spending under various schemes of the Government of India.

1.6 Scope of Audit

Audit has been conducted in respect of secondary Hospitals and tertiary healthcare facilities/Hospitals under GNCTD covering the period from April 2016 to March 2021. Wherever feasible, the data have been updated up to 2021-22. Audit included test check of records of the following units during the period from December 2021 to August 2022.

Selected Units/Schemes

- Department of Health and Family Welfare (Department),
- Directorate General of Health Services (DGHS),
- Central Procurement Agency (CPA),
- Directorate of Family Welfare (DFW),
- Delhi State Health Mission (DSHM),
- Delhi Medical Council,
- Delhi Nursing Council,
- Delhi Pharmacy Council,
- Delhi Arogya Kosh,
- Scheme of free treatment to Economically Weaker Sections,
- Drugs Control Department of Delhi,
- Four hospitals of GNCTD (out of 39 hospitals#),
- Maulana Azad Medical College (linked to Lok Nayak Hospital),
- Centralised Accident and Trauma Services (CATS) and
- Three out of 11 Integrated District Health Societies (IDHSs).

includes 27 district level hospitals spread across ten districts, seven super specialty hospitals, one central jail hospital and four AYUSH hospitals

Sample selection of field units

In the selected four hospitals, Audit had selected specific departments viz. Medicine and Gynecology in Lok Nayak Hospital (LNH); Cardiology in Rajiv Gandhi Super Specialty Hospital (RGSSH) and Janakpuri Super Specialty Hospital (JSSH); and Pediatric Medicine in Chacha Nehru Bal Chikitsalaya (CNBC) for detailed examination. Radiology Branch was selected in all the four hospitals. One month's record in each year for the period 2016-17 to 2020-21 was also selected for in-depth examination in respect of all programmes under the schemes Ayushman Bharat Health Insurance and National Health Mission in the three selected IDHSs. Besides, certain information[3] in the Report is based on data collection. Information in respect

[3] District-wise availability of Doctors vis-à-vis sanctioned strength and Availability of line/support services and availability of OPD services in 27 GNCTD district level hospitals.

of Manpower and Line Services for all districts were collected from the DGHS, GNCTD and respective District Level Hospitals of GNCTD.

Similarly, Line Services (IPD, OPD and Emergency/ICU/CCU); Support Services (Oxygen services, Biomedical Waste Management and Ambulance services); and Auxiliary Services (Patient safety services and Grievance/complaint redressal) were also examined in the selected hospitals.

For the purpose of the audit of AYUSH, records for the period from 2016-17 to 2022-23 of four [4] Autonomous bodies of the Directorate, two Ayurveda/Unani/Homoeopathic Medical Colleges with attached hospitals[5], Directorate of AYUSH and Drug Control Cell (Ayurvedic & Unani Medicines) were examined.

An Entry Conference was held (3 February 2022) with the Department wherein Audit Objectives, Criteria, Scope and Methodology were discussed. After conclusion of audit, an Exit Conference was also held to discuss the audit findings with the stake holders on 13 December 2022. The final draft report was also issued to the Government in October 2023 and replies of the Department wherever received have been suitably incorporated in the report.

1.7 Doctor/patient Survey

The Audit Methodology involved scrutiny of records and documents of auditee units, response to audit queries, collection of information through questionnaires/proforma and Doctor and Patient Survey of selected service users/beneficiaries for end-user satisfaction. Apart from that, Joint Physical Inspection of hospital assets, substores and civil works was also conducted. A survey among 149 Out-patients and 109 In-patients was also conducted to understand the patient satisfaction. Likewise, 54 Doctors were selected by random sampling for survey. Analysis of database of a Web-application (Nirantar) was also conducted through iDEA.

1.8 Audit Criteria

Audit criteria adopted to achieve the audit objectives were:

- National Health Policy, 2017;
- Sustainable Development Goal -3;
- MCI Act 1956 replaced by National Medical Commission in 2019;
- Indian Public Health Standards, 2012;
- Indian Medical Degrees Act, 1916;
- Professional Conduct, Etiquette and Ethics Regulation 2002;

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[4] Board of Homoeopathic System of Medicine, Delhi Bhartiya Chikitsa Parishad (DBCP), Examining Body for Para Medical Training for Bhartiya Chikitsa Delhi, and Delhi Homoeopathic Anusandhan Parishad (DHAP)

[5] (i) Ayurvedic & Unani Tibbia College and Hospitals (Tibbia College and hospital), (ii) Dr. B.R. Sur Homoeopathic medical College Hospital and research centre (SHMC)

- Clinical Establishment Act, 2010;
- Drugs & Cosmetics Act, 1940;
- Pharmacy Act, 1948 and Pharmacy Practice Regulations, 2015;
- Indian Nursing Council Act, 1947;
- Bio Medical Waste Management Rules;
- National Accreditation Board for Testing and Calibration Laboratories Accreditation programmes for Testing Laboratories as per ISO/IEC 17025, Calibration Laboratories as per ISO/IEC 17025, Medical Laboratories as per ISO 15189 etc.;
- National Accreditation Board for Hospitals and Healthcare Providers accreditation programmes for various Health care providers such as Hospitals, Blood Banks and Allopathic Clinics etc.;
- Atomic Energy (Radiation Protection) Rules, 2004;
- Assessors' Guidebook for Quality Assurance in Government Healthcare Centres published by MoH&FW in 2013 and 2014;
- Manual, Orders, circulars and scheme guidelines issued by Government of India and GNCTD from time to time;
- Policies of the Department of Health and Family Welfare, GNCTD and Delhi Government Health Scheme as reflected in their Annual Plans and Master Plan-2021;
- National Disaster Management Guidelines, 2014 and National Disaster Management Guidelines for Hospital Safety, 2016;
- Framework for implementation of schemes issued by GoI ;
- State Programme Implementation Plans (PIP) and Approved Record of Proceedings (ROP) under National Health Mission;
- Operational Guidelines issued by GoI for disease control programmes under National Health Mission;
- Decisions/Orders issued by Health and Family Welfare Department of GNCTD and Directorate of AYUSH;
- Delhi Bhartiya Chikitsa Parishad Act,1998;
- Minimum Standard Requirements for Medical Colleges and Hospitals;
- National Ayush Mission guidelines.

However, it was observed that the Delhi Government does not follow Indian Public Health Standards, 2012 as it has not adopted the same.

1.9 Consideration of Ayushman Bharat in this report

The Government of India launched Ayushman Bharat Health Insurance Scheme for all States of India in September 2018. Ayushman Bharat Yojana subsumes the Senior Citizen Health Insurance Scheme (SCHIS) and

Rashtriya Swasthya BimaYojna (RSBY) and is also known as Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY). Ayushman Bharat Yojana caters to poor families of rural and urban areas. The PMJAY scheme aims to provide healthcare to 10 crore families (50 crore people), mostly belonging to poor and lower middle income groups. The purpose of the Scheme is to increase access to quality health and medication. Under the Ayushman Bharat - National Health Protection Mission, targeted family will have a benefit cover of ₹ 5 lakh per year. As per PMJAY Scheme, the expenditure incurred on premium payment is shared between Central and State Governments in specified ratio as per Ministry of Finance guidelines.

Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) for the benefit of common people has not been implemented by the State Government till date (December 2023). Thus, people of Delhi could not get the benefit of the scheme.

1.10 Acknowledgement

Audit acknowledges the cooperation of the Departments concerned as well as its field functionaries in providing assistance for smooth conduct of Audit.

1.11 Structure of the report

This report has been structured keeping in mind the major components of health care i.e., sufficiency of funding in health sector; availability of infrastructure, drugs & equipment, and human resources; functioning of regulatory bodies in respect of relevant Acts and Rules; performance of the GNCTD in management of Covid-19 pandemic; implementation of Centrally Sponsored Schemes; and achievements of targets identified under Sustainable Development Goals (SDG-3).

Audit findings relating to the identified components and the factors that contributed towards their achievement have been discussed in various chapters as given below:

Chapter II	Human Resource
Chapter III	Healthcare services
Chapter IV	Availability of Drugs, Medicines, Equipment and other Consumables
Chapter V	Healthcare infrastructure
Chapter VI	Financial Management
Chapter VII	Implementation of Centrally Sponsored Schemes
Chapter VIII	Adequacy and effectiveness of the regulatory mechanisms
Chapter IX	Sustainable Development Goal-3
Chapter X	Implementation of Programmes, schemes/projects/services of GNCTD
Chapter XI	AYUSH