HEALTH@KANNUR

KERALA.HEALTH

Department of Health and Family Welfare
Government of Kerala
Annexe II, Secretariat
Thiruvananthapuram
Kerala-695001

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HEALTH@KANNUR

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Index

CHAPTER 1DISTRICT OVERVIEW **11**

1.1 Introduction 11

1.2 Administrative Division 11

1.3: Demographic Profile of Kannur 13

1.4 Population Size and Density 14

1.5: Age and Sex distribution 18

1.6 Literacy Rate 20

1.7 Vulnerable Population 20

CHAPTER 2 KANNUR HEALTH DASHBOARD **21**

CHAPTER 3 HEALTH INFRASTRUCTURE PROFILE OF THE DISTRICT **27**

3.1 Details of Health Facilities in Kannur district 27

3.2 Availability of Specialised Centres 29

3.3 Bed Strength in Different Health Facilities 30

3.4 Health Facilities in Rural and Urban Areas 31

3.5 Health Facilities Converted to FHC 32

3.6 Delivery Points in the District 33

3.7 Other Specialised Care Centres 33

3.8 NQAS Accredited facilities 34

CHAPTER 4 HEALTH HUMAN RESOURCE PROFILE OF THE DISTRICT **36**

4.1 Health Human Resource – Major Indicators 36

4.2 Availability of Medical Officers 37

4.3 Sanctioned Strength of Health Personnel under DHS 39

4.4 Health Human Resource under NHM 40

4.5 Accredited Social Health Activist (ASHA) 43

CHAPTER 5 MATERNAL AND CHILD HEALTH **44**

5.1 Pregnant Women Registration 44

5.2 Early Initiation of Antenatal Care 45

5.3 Immunization Status of Pregnant Women 45

5.4 Abortion 46

5.5 Family Planning 47

5.6 Delivery 50
5.7 Caesarean Section Deliveries 51
5.8 Maternal Deaths 52
5.9 Childbirth 53
5.10 Infant Mortality 54
5.11 Child immunization 57
CHAPTER 6 COMMUNICABLE AND NON-COMMUNICABLE DISEASES 60
6.1 Disease burden overview: Common communicable diseases 60
6.2 Burden of Non-Communicable diseases in the district 67
6.3 District-Specific Outbreaks and Health Concerns 69
CHAPTER 7 NFHS 5 OBSERVATIONS 71
7.1: Comparison of NFHS-4 and NFHS-5 Data 71
CHAPTER 8 MENTAL HEALTH 83
8.1 District Mental Health Programme 83
8.2 Post Flood activities & Training programmes 85
8.3 DMHP Targeted Intervention 85
CHAPTER 9 TRIBAL HEALTH AND SOCIAL ISSUES 89
9.1 Tribal Health programmes 89
9.2 Malnutrition 91
9.3 Detail of Patients Availed Services in Cancer Unit 92
9.4 Sustainable Livelihood Issues 93
CHAPTER 10 FINANCIAL ALLOCATION AND UTILIZATION 95
10.1 Financial allocation and utilization for the last four years (FY) (in lakhs) 95
CHAPTER 11 NHM ACTIVITIES 97
11.1 NHM Activities in the District 97
11.2 Accredited Social Health Activist (ASHA) 108
11.3 Quality Assurance in Public Health Care 110
11.4 National Programme for Palliative Care (NPPC) 119
CHAPTER 12 NATIONAL URBAN HEALTH MISSION (NUHM) 126
12.1 National Urban Health Mission (NUHM) 126

CHAPTER 13 NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME **128**
13.1 National Tuberculosis Elimination Programme (NTEP) 128
13.2 Components of NTEP 128
13.3 Progress in the Tuberculosis Eradication in the District 129
13.4 Fund allocation for NTEP 130
CHAPTER 14 NATIONAL AIDS CONTROL PROGRAMME **132**
14.1 National AIDS Control Programme (NACP) implementation 132
14.2 Targeted Intervention projects in (Kannur) 134
14.3 Testing of General Clients (at ICTCs in district) - SIMS Data 135
14.4 Prevention of Parent to Child Transmission of HIV 136
14.5 Blood Collection 137
ANNEXURE1 **141**
ANNEXURE 2 **160**

Message

GOVERNMENT OF KERALA

Pinarayi Vijayan

CHIEF MINISTER

No. 1319/Press/CMO/25 24 December, 2025.

MESSAGE

The health and well-being of the people of Kerala remain the foremost priority of the Government of Kerala. Over the years, our State has achieved notable improvements in health outcomes through a strong public health system, a committed health workforce, and sustained community participation. Conscious investments across primary, secondary, and tertiary healthcare have been undertaken with the clear objective of reducing out-of-pocket expenditure and ensuring equitable access to quality health services for all.

At a time when emerging health challenges and changing disease patterns demand renewed focus, continuous strengthening of health planning and effective implementation of various programmes at the district level assume critical importance. In this context, district-specific strategies are essential to respond effectively to local needs while enhancing efficiency, equity, and responsiveness in service delivery.

The District Health Document stands as a comprehensive compilation of the district's health status, service delivery mechanisms, achievements, and priority areas. It reflects the collective efforts of the Health Department, local self-government institutions, and line departments in addressing social determinants of health. I am pleased to note that the Department is publishing all fourteen Health@District document series, providing valuable insights into programme implementation and developments in hospital infrastructure.

I appreciate the dedicated efforts of the Health Department in preparing this document. I am confident that this initiative will serve as a valuable guide for policymakers, administrators, researchers, and frontline health workers, and will contribute significantly to strengthening the district health system and advancing our goal of accessible, affordable, and quality healthcare for all. I wish every success to the endeavours of the Health Department.

Pinarayi Vijayan

The Addl. Chief Secretary (Health)
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Smt. Veena George
Minister for Health &
Family Welfare
and Woman & Child Welfare
Development
Government of Kerala

Message

The Government has taken decision to undertake strategic investment in primary, secondary and tertiary health care under the Aardram Mission and Navakerala Karma Padhathi.2. The department is taking various initiatives to improve health care services to people by improving infrastructure and by launching specific health service programs for all segments.

I am delighted to see that the Department has brought out a comprehensive compendium to give information regarding the various health initiatives undertaken in the district of Kannur. The book gives complete information about the various projects undertaken to improve infrastructure as well as the different programs under implementation to ensure efficient health care services to people.

It is informed to me that the department is taking steps to publish such books of all the districts annually. This initiative of documenting all the activities in the districts will give everyone information not only to health functionaries but also to people. I urge the health functionaries to use the data to study, analyse and based on the evidence take various interventions to improve the health care delivery in Kannur.

I appreciate the works done by the District Medical Officer, District Project Manager and health functionaries of Kannur and efforts taken by Directorate of Health Services and National Health Mission Kerala.

I wish a grand success to this initiative.

Veena George

Foreword

The Department of Health and Family Welfare has been taking various initiatives in Health Sector. They are ably supported by the line departments like Local Self Government Department, Revenue Department and others by working on social determinants of health. Health Science always demands well documented data regarding the outputs and outcomes. The foundation of Health Science is an evidence-based practice. In this back ground, the need for documenting a concise compilation of the efforts taken by all health functionaries and our partners was realized.

We have developed a template for the district health documentation and shared it with all the district functionaries to collate the information. It was a difficult task, but with continuous follow ups and coordination, the information was collected. The draft went through series of discussions including aesthetics of presentation and the draft was finalized.

The book **Health@Kannur** gives information regarding various initiatives such as infrastructure development, state plan and various State and Centrally sponsored schemes, national and state health programs. The book extensively covers the demographic data as well as the vital health statistics of the district. The output and outcome indicators will give all information regarding the efficacy of various programs and schemes implemented in the district.

The Department is in the process to publish Books of all the districts and it will be a Health@District encyclopaedia 2025 edition as a part of Nav Kerala Karma Padhati.2
We will focus on involving people at all levels and the officials of all departments to promote “Our Health is Our Responsibility” with the objective of improving preventive and promotive health to reduce morbidity and mortality and to build a healthy productive society.

I am confident that the book **Health@Kannur** will be a resource book for health functionaries, researchers, students as well as to people to understand the developments in health sector in Kannur. It will help to assess the progress against the benchmarks set and encourage all to strive to excel.

I take this opportunity to recognise the efforts taken by Smt. Prabha George, State Demographer and her team. All the data tables were validated and appropriate infographics were done properly. These set of documents, hopefully would encourage institutions to publish such informative books in future too. Dr Peeyush M, DMO Kannur, Dr Anil Kumar P K, DPM Kannur and others have followed up to compile the

information through a series of discussions and feedback. I appreciate the guidance given to the teams by Dr Vinay Goyal SMD NHM, and Dr Reena Director Health Services. I especially appreciate the work of many colleagues who tirelessly work in the field to achieve the result.

I would urge all the colleagues to study the information and to do data analysis for taking further actions to ensure progress in achieving the results. With shared vision and collective actions involving people at the grass roots, we will improve the health care delivery in Kannur district and all across the state.

Dr Rajan Khobragade IAS

Additional Chief Secretary
Health & Family Welfare and
AYUSH Department
Govt of Kerala.

Message

Department of Health and Family Welfare is publishing a book on Health @District encyclopedia, a comprehensive document that captures the current health landscape, priorities, and programmatic achievements across the district. This book reflects the continued commitment of State Health Department towards strengthening public health systems, ensuring equitable access, and advancing Kerala's long-standing legacy of excellence in health care. These strides have been made possible by the dedication of our health workforce, the support of local self-governments, and the active involvement of other line departments and communities.

The chapters highlight essential aspects of the district health system—including demographic and epidemiological patterns, health infrastructure, human resources, maternal and child health indicators, the burden of communicable and non-communicable diseases, tribal health challenges, and programmatic progress under National Health Mission.

This document is intended to serve not only as a repository of information, but as a strategic tool for planners, administrators, and public health professionals. It will support decision-making, foster inter-sectoral collaboration, and help monitor progress towards achieving the Sustainable Development Goals and Kerala's health sector priorities.

I extend my sincere appreciation to the district health team, programme officers, and all stakeholders, whose dedicated efforts have contributed to the preparation of this document. Their collective efforts continue to strengthen Team Kerala Health and propel us toward achieving the state's health priorities and the broader national vision.

Dr. Vinay Goyal IAS
State Mission Director
National Health Mission
Kerala

Message

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സന്ദേശം

സംസ്ഥാന ആരോഗ്യ വകുപ്പ് ജില്ലാ അടിസ്ഥാനത്തിൽ 2024 -25 വർഷത്തെ പ്രവർത്തനങ്ങൾ ക്രോഡീകരിച്ച പ്രസിദ്ധീകരിക്കുന്ന പ്രവർത്തനം പൂർത്തിയായിരിക്കുകയാണ്. 2024-25 വർഷം ജില്ലകൾ നടപ്പാക്കിയ പകർച്ചവ്യാധി പ്രതിരോധ നിയന്ത്രണ പ്രവർത്തനങ്ങൾ, ജീവിതശൈലി രോഗ നിയന്ത്രണ പദ്ധതി, മാതൃശിശു ആരോഗ്യ സംരക്ഷണം, മറ്റ് ദേശീയ പദ്ധതികൾ എന്നിവയുമായി ബന്ധപ്പെട്ട നടത്തിയ പ്രവർത്തനങ്ങൾ, ധന വിനിയോഗം, ജില്ലകളുടെ അടിസ്ഥാന വിവരങ്ങൾ,നിലവിലുള്ള ആരോഗ്യ സംവിധാനങ്ങൾ, ആരോഗ്യപ്രവർത്തകരുടെ എണ്ണം, അടിസ്ഥാന സൗകര്യങ്ങൾ എന്നിവ ഉൾപ്പെടുത്തി എല്ലാ ജില്ലകളും തയ്യാറാക്കി സംസ്ഥാനതലത്തിൽ പ്രസിദ്ധീകരിക്കുന്നത് അഭിനന്ദനാർഹമാണ്.

വിവിധ പദ്ധതികളുമായി ബന്ധപ്പെട്ട് ജില്ലകളുടെ പ്രവർത്തന പുരോഗതി വിലയിരുത്തുന്നതിനും വരും വർഷങ്ങളിലെ കർമ്മപദ്ധതി തയ്യാറാക്കുന്നതിനും ഇത് പ്രയോജനപ്രദമാകുന്നതാണ്. ഇതിനു പിന്നിൽ പ്രവർത്തിച്ച എല്ലാവരെയും അഭിനന്ദിക്കുന്നതോടൊപ്പം ഉദ്യമത്തിന് എല്ലാ ആശംസകളും നേരുന്നു.

ആത്മാർത്ഥതയോടെ,

ഡോ. റീന. കെ. ജെ

CHAPTER 1

DISTRICT OVERVIEW

1.1 Introduction

Kannur district, located in the northern part of Kerala, is one of the state's most historically rich and culturally vibrant regions. Bordered by the Arabian Sea to the west and the Western Ghats to the east, Kannur spans an area of approximately 2,961 square kilometres. It shares its boundaries with Kasaragod to the north, Kozhikode to the south, and Wayanad to the southeast.

Often referred to as the "Land of Looms and Lores," Kannur is renowned for its handloom industry, the traditional ritualistic art of Theyyam, and its colonial-era forts and ports. The district headquarters is in Kannur town, which also houses the Kannur International Airport, a key gateway connecting the region to domestic and international destinations.

Kannur features a unique blend of urban infrastructure and rural beauty, with a predominantly agrarian and service-based economy. It is a significant centre for education, trade, tourism, and healthcare in North Kerala.

1.2 Administrative Division

Figure 1.2.1: Kannur District Map

Source:https://censusindia.gov.in/census.website/data/handbooks(Census Handbook)

Figure 1.2.2: Administrative Division

source: Census handbook

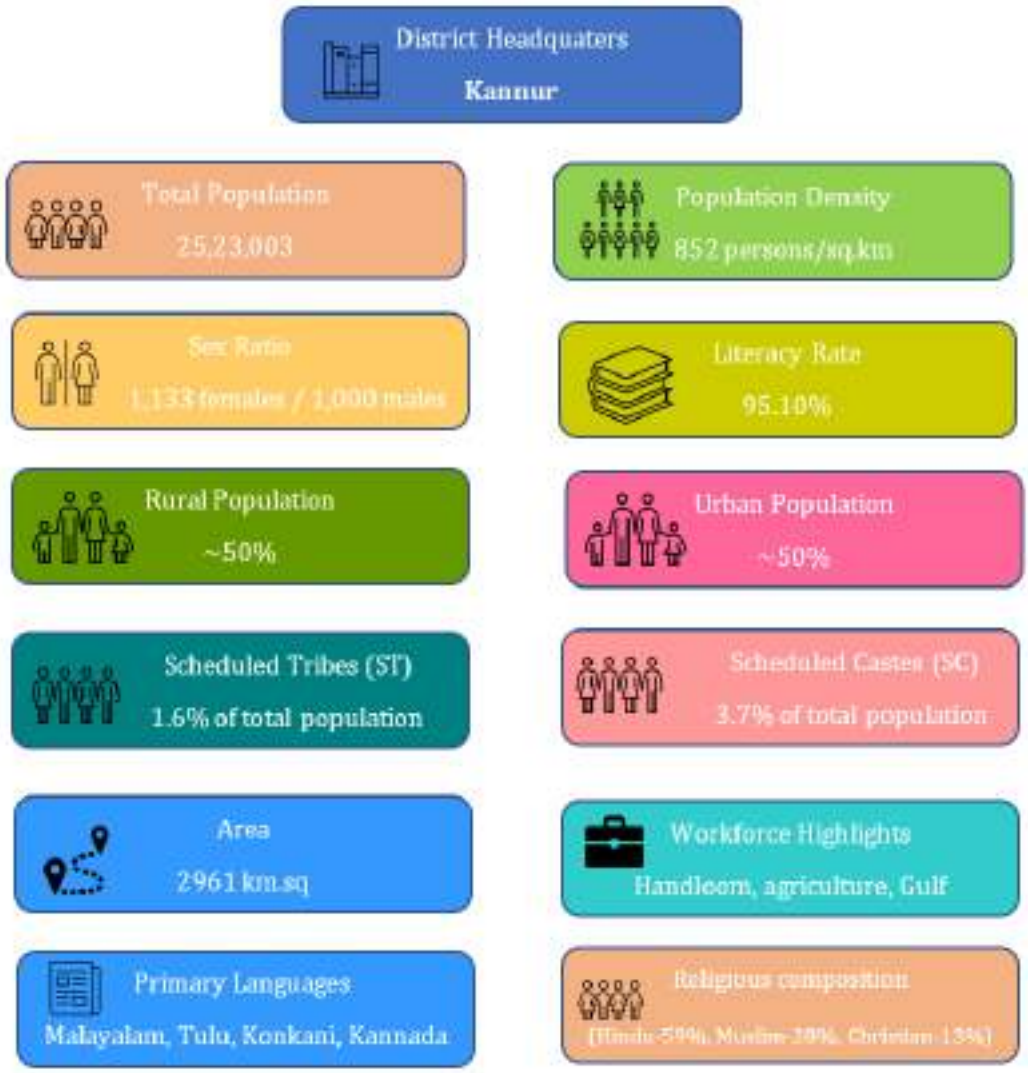
Kannur district is governed through a well-structured administrative framework that ensures effective coordination and implementation of developmental and welfare programmes. The District Collector serves as the administrative head, overseeing the overall functioning of the district and facilitating interdepartmental coordination. The district is divided into three revenue divisions — Kannur, Taliparamba, and Thalassery — and five taluks, namely Kannur, Taliparamba, Thalassery, Payyannur, and Iritty.

At the local governance level, the district comprises 71 Grama Panchayats, 9 Municipalities, and the Kannur Municipal Corporation. In addition, all major government departments – including Health, Education, Agriculture, and Social Justice have district-level offices to facilitate efficient service delivery. The District Medical Officer (DMO) heads the Health Department, overseeing the implementation of government health schemes, the management of public health infrastructure, and coordination with Local

Self-Governments (LSGs) to ensure effective execution of health programmes at the community level.

1.3: Demographic Profile of Kannur

Figure 1.3.1: Demographics of Kannur



source: Census handbook

As per the 2011 Census of India, Kannur has a population of approximately 2.52 million, making it one of the more densely populated districts in the state.

The region under study has a total population of 2,523,003 with a population density of 852 persons per square kilometre, indicating a relatively concentrated settlement pattern. The sex ratio is notably favourable, with 1,133 females for every 1,000 males, and the literacy rate stands at an impressive 95.10%, reflecting strong educational attainment. The population is evenly divided between urban and rural areas, each comprising approximately 50%, suggesting balanced development across both sectors. Socially, Scheduled Castes constitute 3.7% and Scheduled Tribes 1.6% of the population. The religious composition is diverse, with Hindus accounting for 59%, Muslims 28%, and Christians 13%, highlighting the region's pluralistic character. Linguistically, Kannur is rich in diversity, with Malayalam, Tulu, Konkani, and Kannada being the principal languages spoken. Economically, the workforce is engaged in traditional sectors such as handloom and agriculture, while a significant portion of the population migrates to Gulf countries, contributing substantially to the local economy through remittances and transnational connections.

1.4 Population Size and Density

Table: 1.4.1: Population Distribution of the District (1911-2011)

Year	Total	Male	Female
1901	529,623	257,078	272,545
1911	565,261	271,947	293,314
1921	578,680	272,795	305,885
1931	662,715	314,678	348,037
1941	743,322	352,213	391,109
1951	904,470	436,154	468,316
1961	1,177,948	575,192	602,756

1971	1,552,809	763,868	788,941
1981	1,930,726	946,553	984,173
1991	2,251,727	1,098,838	1,152,889
2001	2,408,956	1,152,817	1,256,139
2011	2,523,003	1,181,446	1,341,557

source: Census handbook

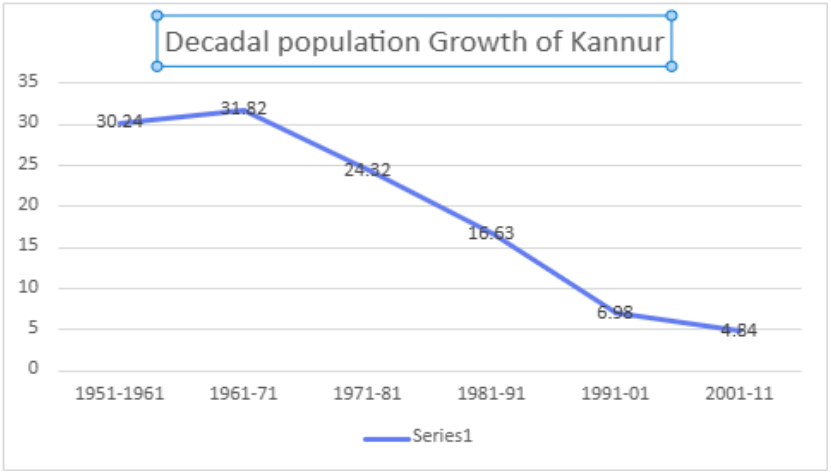
Kannur's population is characterised by its ethnic, linguistic, and cultural diversity. The people are predominantly Malayali, speaking Malayalam as their mother tongue, with significant communities of Tulu, Konkani, and Kannada speakers in the border regions.

Key features of the population:

- Workforce Participation: A large proportion of the population is employed in sectors such as textiles, agriculture, construction, education, and overseas employment (particularly in the Gulf countries).
- Migration Trends: High rates of emigration, especially to the Middle East, have resulted in a substantial inflow of remittances and have influenced local lifestyles and health needs.
- Age Distribution: The proportion of elderly persons (aged 60 years and above) is increasing, owing to improved life expectancy. This demographic shift has contributed to a transition in health priorities from communicable to non-communicable diseases.
- Scheduled Castes/Scheduled Tribes: SC population is around 3.7%, and ST population is about 1.6%, with focused welfare schemes in place for these communities.

This demographic composition necessitates a nuanced approach to public health, with targeted programmes for women, children, the elderly, and marginalised groups.

Graph: 1.4.1 Decadal population growth of Kannur



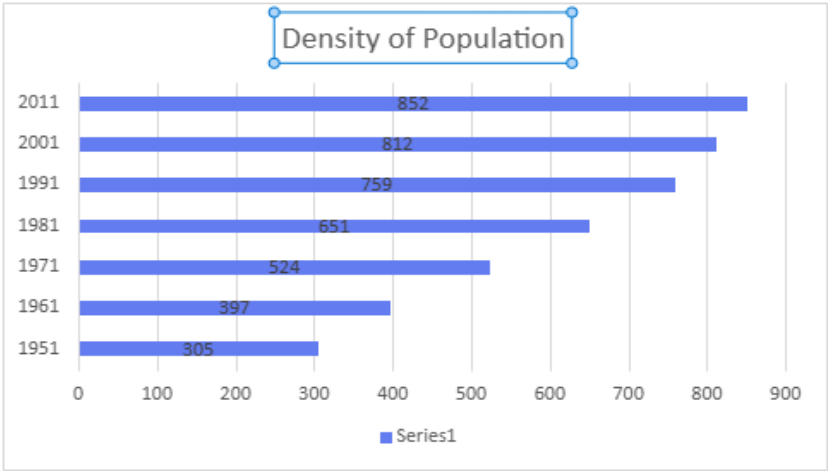
source: Census handbook

Kannur district has exhibited a steady decline in population growth rate over the decades. Between 1951 and 1961, the district recorded a high growth rate of 30.24%, which gradually decreased to 4.84% during 2001–2011.

This consistent decline reflects the broader demographic transition seen across Kerala - marked by falling fertility rates, improved literacy, better access to healthcare, and increased urbanisation. Migration, both within India and to Gulf countries, has also influenced population dynamics, as many working-age individuals have moved out of the district in search of employment.

Overall, Kannur's population growth trend indicates a shift toward population stabilisation, improved socio-economic development, and changing family and health patterns that align with Kerala's wider demographic profile.

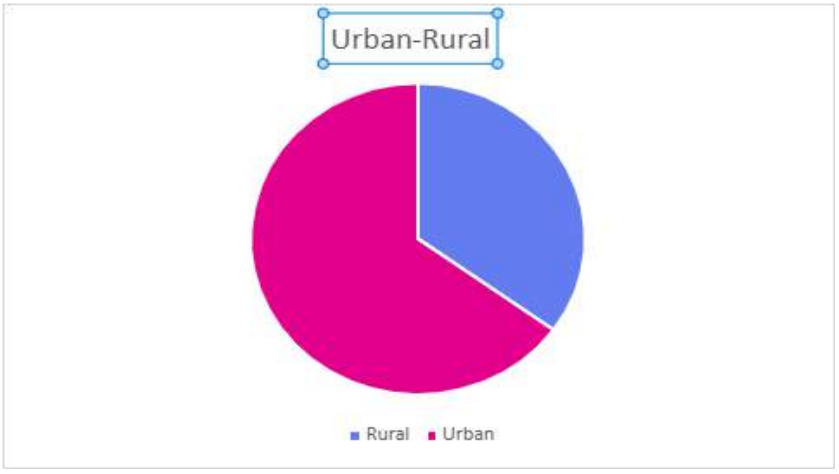
Graph: 1.4.2 Density of Population per Sq.km (1951-2011)



source: Census handbook

Kannur's population density has shown a steady increase over the past six decades, rising from 305 persons per sq. km in 1951 to 852 persons per sq. km in 2011. This sustained growth reflects a continuing concentration of population resulting from urbanisation, improved living standards, and enhanced infrastructure. However, the rate of increase has gradually slowed down in recent decades, aligning with the district's declining population growth rate and Kerala's overall demographic stabilisation trend.

Graph: 1.4.3 Rural - Urban population Kannur

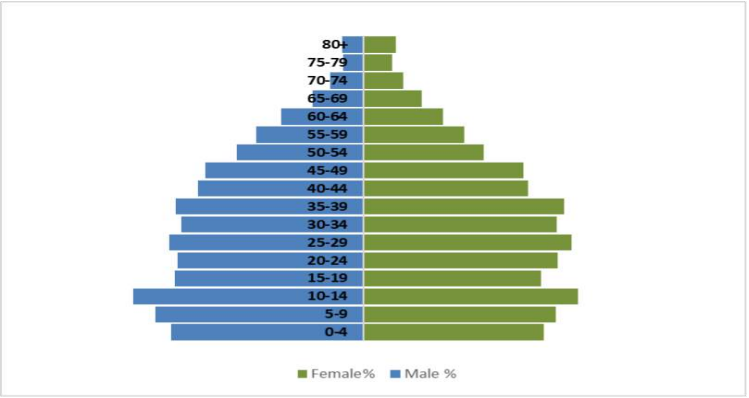


source: Census handbook

According to the 2011 Census, Kannur had a total population of 25,23,003, of which 8,82,017 (35%) resided in rural areas and 16,40,986 (65%) lived in urban areas. This shows that Kannur is a predominantly urban district, reflecting its high level of urbanisation, advanced infrastructure, and expanding service and industrial sectors.

1.5: Age and Sex distribution

Graph: 1.5.1 Age and sex distribution of population based on Census 2011 population



source: Census data

The population pyramid of Kannur displays a **narrow base and a broader middle section**, indicating a **declining birth rate and an ageing population**. The younger age groups (0–14 years) are smaller in proportion compared to the working-age population (25–54 years), reflecting **low fertility and demographic transition**.

Females (represented by green bars) outnumber males (represented by blue bars) in most age groups, particularly among the elderly, consistent with Kannur's **high sex ratio and higher female life expectancy**. The overall shape suggests a **mature population structure**, characteristic of a developed district with improved healthcare facilities and slower population growth

Table: 1.5.1: Sex ratio at Birth

Year	2020-21	2021-22	2022-23	2023-24	2024-25
Sex ratio at birth	947	983	967	974	1008

source: Census data

Kannur has shown a positive improvement in the sex ratio at birth over the last five years. It increased from 947 girls per 1,000 boys in 2020–21 to 1,008 in 2024–25, crossing the parity mark. Although there were minor fluctuations in between (983 in 2021–22, 967 in 2022–23, and 974 in 2023–24), the overall trend indicates progress toward gender balance. This improvement reflects better awareness, health interventions, and declining gender bias in childbirth outcomes in the district.

Table: 1.5.2 sex ratio

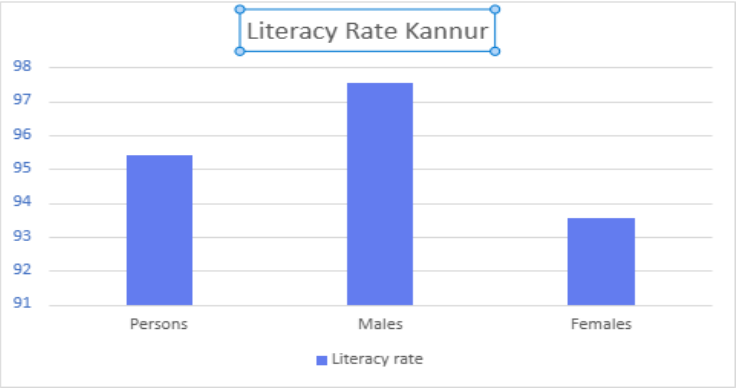
Year	1991	2001	2011
Sex ratio	1049	1090	1136

source: Census data

Kannur has consistently maintained a favourable sex ratio, showing steady improvement over the decades — from 1,049 females per 1,000 males in 1991 to 1,136 in 2011. This upward trend reflects higher female survival rates, improved healthcare access, and enhanced social status of women in the district. Kannur's sex ratio is among the highest in Kerala, highlighting its progressive demographic and social indicators.

1.6 Literacy Rate

Graph1.6.1: Literacy Rate



source: Census handbook

Kannur has one of the highest literacy rates in Kerala, with an overall literacy rate of 95.41%. Male literacy stands at 97.54%, while female literacy is 93.57%, showing a

narrow gender gap. The high literacy levels reflect strong educational infrastructure, effective literacy programs, and widespread awareness in the district.

1.7: Vulnerable Population

Table 1.7.1 SC/ST population of the district based on the census 2011 population

General			Sch.castes			Sch.tribes		
Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
1181446	1341557	2523003	40260	43090	83350	20141	21230	41371
Source: District wise Population 2011 census								

Kannur district had a total population of 25,23,003, comprising 11,81,446 males and 13,41,557 females. Of this, Scheduled Castes (SC) accounted for 83,350 persons (40,260 males and 43,090 females), while Scheduled Tribes (ST) made up 41,371 persons (20,141 males and 21,230 females).

The figures indicate a higher number of females than males across all groups, consistent with Kannur's favourable sex ratio and balanced demographic structure.

Summary

The district has a population of 2.52 million, a literacy rate of 95.1%, and a favourable sex ratio of 1,133 females per 1,000 males. The population is evenly divided between urban and rural areas, with diverse communities of Hindus, Muslims, and Christians. The district's economy is primarily agrarian and service-oriented, with significant contributions from trade, education, healthcare, and tourism. Administratively, Kannur comprises three revenue divisions, five taluks, 71 Grama Panchayats, nine Municipalities, and one Municipal Corporation, providing an efficient governance framework and effective service delivery. Migration, especially to Gulf countries, plays a significant role in Kannur's socio-economic profile, contributing to lifestyle changes and economic growth through remittances. The district also faces a growing elderly population, necessitating a shift in public health priorities towards non-communicable diseases.

CHAPTER 2

KANNUR HEALTH DASHBOARD

Figure 2.1 District Health Dashboard- KANNUR

District AT A GLANCE					
Administrative Divisions		**Population**		**Area**	
Thaluks – 5 **Villages – 132** **Municipalities – 9** **Corporations –1** **Block Panchayath-** **Grama Panchayath - 71**		**Population As per Census 2011 – 25,23,003** **Male – 1181446** **Female – 1341557**		**Total Area (Sq. K) –2961** **Population Density (No per Sq. Km) - 852** **Decadal Population Growth Rate - 4.84**	

Healthcare Infrastructure under DHS					
District Level Hospitals		**Sub District Level Hospitals**		**Community Health Centres**	
DH – 1 **GH – 1** **W&C – 1**	**3**	**THQH – 1** **TH – 8**	**9**	**Total CHC – 8** **Converted to FHC - 2**	**10**

Primary Health Centres	Janakeeya Arogya Kendram	Other Institutions	
Total PHC – 80 Converted to FHC – 74	849	Janakeeya Arogya Kendram - 417	5415
School of Nursing – 1 Training Center – 9 PH Lab – 1 DVC Units – 1 Offset Press - 0		Blood Bank – 14 Public – 4 Private -10 Blood Storage Unit – 14	

Reproductive, Maternal, and Child Health Services 2024-25

Pregnant Women Registration: 2024-25

The number of pregnant women in the district shows a sharp decline post-COVID

26130

Pregnant Women- Anaemia 2024-25

33% pregnant women were identified as anaemic through VIVA testing.

33%

Rising C-Section Rates in the District 2024-25

Kerala continues to maintain a high C-section rate in both public and private sectors

48.3 %

Maternal Deaths 2024-25

Total Maternal Deaths Reported in the District -

6

Preterm Births 2024-25

The proportion of preterm births in the district -

8.69 %

Underweight Newborns 2024-25

The proportion of newborns weighing less than 2.5 kg in the district -

12.9 %

Delivery 2024-25	Home Delivery 2024-25	Live Birth 2024-25
Institutional Deliver in the district –	**Home Delivery Reported in the district – 16**	**Total Live Birth Reported – 27015**
Public – 6943		**Male – 13649**
Private – 19755	**No. of Migrant Home Delivery - 3**	**Female – 13366**
		Sex Ratio at Birth - 1008

Child Immunisation 2024-25

% Birth Dose	6 Weeks Vaccines Coverage (%)	10 Weeks Vaccines Coverage (%)
Hep B0 – 28001	OPV1 - 28155	OPV2 - 27883
OPV 0 – 28784	Pentavalent 1 - 28173	Pentavalent 2 - 27884
BCG - 28868	Rotavirus 1 - 28149	Rotavirus 2 - 27776
	PCV1 -26518	
	IPV 1 - 28086	

% 14 Week Vaccines	% Children Fully Immunised	MR 2 Coverage (%)

OPV3 - 27649

Pentaval ent 3 - 27652

Rotaviru s 3 - 27569

IPV 2 - 27607

PCV2- 26829

MR1 - 31482

FULLY IMMUNISED -

(children aged between 9 and <12 months)

27290

MR2 - 30246

Communicable diseases reported in the District 2024

Cases Reported

Dengue- 796

Malaria- 64

Chikungun ya- 2

West Nile- 1

Zika- 0

JE- 0

7

Dengue Death

Cases Reported

Kala Azar- 3

Scrub Typhus - 18

Leptospir osis-216

3

Leptospiros is Death

Cases Reported

Cholera - 0

Typhoid- 1

Acute Diarrheal Disease - 50354

0

ADD Death

Communicable diseases reported in the district 2024

Chicken Pox Cases-2096 MPox Cases-1	0 Chicken Pox Death 	Rabies Cases Reported-1 Shigella cases-0 Amoebic Meningo Encephalitis - 2	1 Rabies Death 	Cases Reported Hepatitis A - 303 Hepatitis B-10 Hepatitis C-12 Hepatitis E - 0	0 Hepatitis A Death 

Source: https://dhs.kerala.gov.in/en/data-on-communicable-diseases/

This chapter provides a comprehensive overview of the health profile of Kannur, highlighting key indicators that reflect the overall wellbeing of its population. This helps to assess the district's progress in maternal and child health, nutrition, disease prevention, and healthcare utilisation. Comparing district-level data with state averages, helps to identify strengths, gaps, and emerging public health priorities.

This chapter presents a snapshot of Kannur's health scenario through selected indicators such as maternal health care coverage, institutional deliveries, immunisation, nutritional status, and infant mortality. It also outlines the administrative structure of health service delivery across the district's various health blocks. Together, these insights form the foundation for planning targeted interventions and strengthening healthcare systems at the local level.

Summary

Kannur district demonstrates strong health system performance comparable to the state average, with notable strengths and specific areas for improvement. The district shows better acceptance of family planning services and effective fertility regulation. However, antenatal care coverage remains slightly lower. Most deliveries in Kannur take place in private health facilities, reflecting the population's reliance on private healthcare services. Child health indicators are generally positive, with widespread immunisation coverage and strong utilisation of public health infrastructure for vaccination services.

Nutritional challenges persist, as both women and children continue to face issues related to anaemia and malnutrition, even as overweight and obesity are becoming more common-highlighting the district's dual burden of nutrition-related problems. Infant and child health outcomes are largely consistent with the state's performance. The district's public health services are organized through multiple health blocks that ensure comprehensive healthcare delivery and support the implementation of community-level health programmes across Kannur.

CHAPTER 3

HEALTH INFRASTRUCTURE PROFILE OF THE DISTRICT

This chapter presents a comprehensive overview of the public health infrastructure in Kannur district, highlighting the range, capacity, and geographic distribution of health institutions and services. As a district known for its progressive health indicators, Kannur has developed a multi-tiered healthcare system that spans primary, secondary, and tertiary levels of care. The facilities are strategically located across urban and rural areas to ensure equitable access, and they cater to diverse health needs—from general medicine and maternal care to tuberculosis treatment and rehabilitation services. Understanding the institutional landscape is essential for evaluating service delivery, identifying gaps, and planning future health interventions.

3.1 Details of Health Facilities in Kannur district

Kannur district has a well-structured network of government health facilities providing comprehensive healthcare services. This includes Primary Health Centres (PHCs) and Urban PHCs, many of which have been upgraded to Family Health Centres (FHCs) to offer people-friendly, round-the-clock services. Higher-level facilities include Community Health Centres (CHCs), Taluk Hospitals, a Taluk Headquarters Hospital, District and General Hospitals, and Women & Children Hospitals. In addition, the district has specialised units such as TB and leprosy centres, mobile health units, and other speciality services, ensuring accessible and quality care across both urban and rural areas.

Table 3.1.1: Number of Health Facilities in Kannur

Type of Facility	Numbers
24X7 PHC	0
24x7 PHC Converted to FHC	0
PHC	36
PHC Converted to FHC	44

UPHC	8
CHC	8
CHC Converted to FHC	2
UCHC	0
TH	8
THQH	1
DH	1
GH	1
W&C	1
W&C (Speciality)	0
DTBC	1
General Dispensary	2
Health Clinic	0
Leprosy	0
MHC	0
Mobile Unit	3
Speciality (Leprosy)	0
Speciality (Others)	2
Speciality (TB)	0
TBC	0

Grand Total	118
JAK	417
UHWC	26
Source: *District Report*	

The table provides an overview of health facilities in Kannur district. There is a total of 111 facilities, including 6 PHCs converted to Family Health Centres (FHCs) and 74 PHCs converted to FHCs, reflecting the district's focus on people-friendly primary care. The district also has 8 Community Health Centres (CHCs), with 2 converted to FHCs, 8 Taluk Hospitals (TH), 1 Taluk Headquarters Hospital (THQH), 1 District Hospital (DH), 1 General Hospital (GH), and 1 Women & Children (W&C) Hospital, among other specialised units. Additionally, mobile units (4) and speciality centres (e.g., TB, Leprosy) provide outreach and specialised care, demonstrating a comprehensive network of government health services across the district.

3.2 Availability of Specialised Centres

E. K. Nayanar Memorial Government Women and Children Hospital, Kannur

Located at Mangattuparamba near Parassinikadavu, this hospital is a major government institution dedicated to women's and children's healthcare in Kannur district. It began as an outpatient centre in 2007 and later expanded into a full-fledged hospital with around 100 beds. The hospital provides specialised services in obstetrics, gynaecology, neonatology, and paediatrics. It plays a key role in promoting maternal and child health and functions under Kerala's Directorate of Health Services. The hospital is also empanelled under government health insurance schemes like Ayushman Bharat (PM-JAY).

District TB Centre, Kannur

The District TB Centre in Kannur located near Pallikkunnu, functions as the nodal office for implementing the National Tuberculosis Elimination Programme (NTEP) in the district. It coordinates TB diagnosis, treatment, and monitoring across government and private health facilities. The centre ensures availability of free TB testing, medications, and DOTS (Directly Observed Treatment) support. It also oversees data collection, drug

supply, and training of health workers for TB control. The centre is crucial for reducing TB incidence and ensuring proper treatment and follow-up of patients in Kannur district.

3.3 Bed Strength in Different Health Facilities

Government health facilities in Kannur district include a wide network of hospitals and primary care centres with varying bed strengths. The District Hospital in Kannur serves as the main referral centre with around 500 beds. Taluk Hospitals generally have 100–250 beds each, while Community Health Centres (CHCs) have about 30 beds. Primary Health Centres (PHCs) and Family Health Centres (FHCs) usually have 6 to 10 beds. The E. K. Nayanar Memorial Government Women and Children Hospital has around 100 beds, and other specialty centres like the District TB Centre function mainly as outpatient and diagnostic units with limited or no inpatient beds.

Table 3.3.1 Bed Strength in Different Levels of Facilities

Name of District	**KNR**	
Row Labels	**Sum of Functional Bed**	**Sum of Sanctioned bed**
CHC	139	292
DH	742	1157
DH(W&C)	135	100
PHC	63	529
SDH	543	744
Others	70	126
Grand Total	1692	2948
Source: HMIS		

The table (3.3.1) shows the distribution of functional and sanctioned beds across different healthcare facilities in the Kannur district. Among all facility types, District Hospitals (DH) have the highest number of both functional (742) and sanctioned (1,157) beds, followed by Sub-District Hospitals (SDH). Primary Health Centres (PHC) has the lowest number of functional beds (63), while Community Health Centres (CHC) shows moderate capacity. Overall, there are 1,692 functional beds out of 2,948 sanctioned beds in the district, indicating that a significant portion of beds are not yet functional.

3.4 Health Facilities in Rural and Urban Areas

In Kannur district, government health facilities in rural and urban areas differ mainly in their level of care and infrastructure. Rural areas have Sub Centres, PHCs, FHCs, and CHCs that focus on primary healthcare, disease prevention, and maternal and child health, with limited bed strength and basic staff. Urban areas have District and Taluk Hospitals, the Women and Children Hospital, and Urban Health Centres that offer specialised and referral care with better facilities, more staff, and higher bed capacity. Together, they ensure comprehensive healthcare coverage for the entire district.

Table 3.4.1 Distribution of Health Facilities in Rural and Urban Areas

Name of District – Kannur			
Institutions	**R**	**U**	**Grand Total**
CHC	9	1	10
DH	0	2	2
DH(W&C)	0	1	1
PHC	69	11	80
SDH	4	5	9
Others	3	6	9
Grand Total	**85**	**26**	**111**

SC	Rural	Urban	Grand Total
Count of Rural/Urban SC	344	73	417
Source: HMIS			

The table (Table 3.4.1) presents the distribution of facilities in Kannur district by location type - Rural (R) and Urban (U). Out of a total of 111 facilities**,** 85 are in rural areas and 26 in urban areas, showing that most healthcare services in Kannur are concentrated in rural regions. Out of a total of 417 SCs**,** 344 are situated in rural areas and 73 in urban areas, indicating that most Sub-Centres serve rural communities.

3.5 Health Facilities Converted to FHC

In Kannur district, several Primary Health Centres have been upgraded to Family Health Centres (FHCs) under the Aardram Mission of the Government of Kerala. These include facilities such as FHC Cheruthazham, Kottiyoor, Mattool, Kadirur, Thillenkery, and Vallithode**,** among others. The conversion aims to provide people-friendly, comprehensive primary health care services with extended outpatient hours, improved infrastructure, and enhanced laboratory and pharmacy facilities.

Table 3.5.1 Total Number of Facilities Converted to FHC

Row Labels	PHC	CHC Converted to FHC	PHC Converted to FHC	Grand Total
KNR	36	2	44	82
Source: District Report				

In Kannur district, a total of 82 healthcare facilities have been converted to Family Health Centres (FHCs) under the *Aardram Mission*. This includes 6 PHCs functioning 24x7**,** 2 Community Health Centres (CHCs), and 74 Primary Health Centres (PHCs) that have been upgraded to FHCs. The conversion reflects the district's progress in strengthening

primary healthcare services and improving accessibility and quality of care at the community level.

3.6 Delivery Points in the District

In Kannur district, institutional deliveries are mainly conducted at government facilities such as the District Hospital Kannur**,** General Hospital Thalassery, and Taluk Headquarters Hospital Taliparamba. These hospitals function as designated delivery points providing comprehensive maternal and new born care, including antenatal check-ups, safe delivery, postnatal care, and emergency obstetric services.

Table 3.6.1 Number of Delivery Points in the District

Row Labels	CHC	DH	DH(W&C)	SDH	Grand Total
KNR	0	2	1	4	7
Source: HMIS					

In Kannur district, there are a total of seven delivery points functioning in government health facilities. These include two District Hospitals**,** one Women & Children District Hospital**,** and four Sub-District Hospitals. No delivery points are available at the CHC level. These institutions provide essential maternal and newborn care services, ensuring safe institutional deliveries across the district.

3.7 Other Specialised Care Centres

In Kannur district, several specialised healthcare centres operate under the government health system to provide advanced and comprehensive medical services. These include facilities such as Special New born Care Units (SNCUs) and New born Stabilisation Units (NBSUs) for neonatal care, a District Early Intervention Centre (DEIC) for child development support, and Physiotherapy Units for rehabilitation services. The district also has Dialysis Units catering to patients with kidney diseases, along with a Cath Lab and a Stroke Unit offering specialised cardiac and neurological care. Together, these centres enhance the quality and accessibility of specialised healthcare in Kannur.

Table 3.7.1 Number of Other Specialised Care Centres

Type of Health Facility	No .of Facilities (31st March 2025)
NRC	0
DEIC	1
SNCU	3
NBSU	4
Physiotherapy Units	12
Dialysis Units	11
Cath Lab	1
Stroke Unit	1
Source: District Report	

The district has one District Early Intervention Centre (DEIC), three Special New born Care Units (SNCUs), and four New born Stabilisation Units (NBSUs) to support maternal and child health services. In addition, there are 12 Physiotherapy Units providing rehabilitation care, 11 Dialysis Units offering renal care services, and one Cath Lab and one Stroke Unit for advanced cardiac and neurological care. No Nutritional Rehabilitation Centre (NRC) is currently functional in the district.

3.8 NQAS Accredited facilities

NQAS (National Quality Assurance Standards) accreditation is awarded to government health facilities that meet defined quality benchmarks for patient care, safety, infrastructure, and service delivery. Facilities like District Hospitals, PHCs/UPHCs, and Janakeeya Arogya Kendrams with NQAS certification ensure safe, effective, and patient-friendly healthcare services, with accreditation at either the state or national level.

Table 3.8.1 NQAS Accredited facilities

Type of Health Institution/ Facility	Total No. of Institution/Facility	State Certified	Nationally Certified
DH	1	0	1
TH	9	0	0
CHC	8	0	0
PHC/ UPHC	88	2	28
JAK	417	8	4
Source: District Report			

In Kannur district, several health facilities have achieved NQAS accreditation reflecting efforts to improve service quality. One District Hospital and 28 PHCs/UPHCs are nationally certified, while 2 PHCs/UPHCs and 8 Jagratha Arogya Kendras hold state-level certification. Although no Taluk or Community Health Centres are yet certified, the district shows significant progress in strengthening quality standards, especially at the primary healthcare level.

CHAPTER 4

HEALTH HUMAN RESOURCE PROFILE OF THE DISTRICT

The availability and effective utilization of human resources are vital for ensuring quality healthcare delivery at all levels of the health system. A well-balanced mix of doctors, nurses, paramedical staff, and support personnel determines the efficiency of service provision and the accessibility of health care to the community. This section presents an overview of the human resource status in Kannur district under both the Directorate of Health Services (DHS) and the National Health Mission (NHM). It includes an analysis of key indicators such as the Bed–Population Ratio, Doctor–Bed Ratio, and Doctor–Population Ratio, followed by a detailed account of the availability of Medical Officers and specialty/super-specialty doctors. The section also outlines the sanctioned strength of health personnel under DHS and the human resource engaged under NHM. Together, these data provide a comprehensive picture of the health workforce structure, distribution, and capacity within Kannur district.

4.1 Health Human Resource – Major Indicators

Table 4.1.1: Bed–Population, Doctor–Bed, and Doctor–Population Ratios in the District (Based on Census 2011 Population)

Indicator	Ratio
The bed population ratio (based on Census 2011 population)	1:856
The average Doctor bed ratio	1:6
Doctor population ratio (based on Census 2011 population)	1:4716

source: District Data

The district has a Bed–Population Ratio of 1:856, a doctor–Bed Ratio of 1:6, and a doctor–Population Ratio of 1:4,716 (based on Census 2011). The data indicates moderate bed availability.

4.2 Availability of Medical Officers

Table 4.2.1: Details of Medical Officers sanctioned under DHS in the District

(As on 31/03/2025)

Category	Sanctioned
Administrative	
Additional Director	1
Deputy Director	2
Assistant Director	11
JAMO	4
General	
Assistant Surgeon	311
Assistant Surgeon Dental	12
Civil Surgeon	14
Civil Surgeon Dental	0
MO All	**355**

source: District Data

In Kannur district, a total of 355 Medical Officer posts are sanctioned under the General category, including 311 Assistant Surgeons, 12 Assistant Surgeon (Dental), and 14 Civil Surgeons. Under the Administrative category, there are 1 Additional Director, 2 Deputy Directors, 11 Assistant Directors, and 4 JAMOs. The data reflects an adequate administrative structure supporting a large pool of medical officers to manage healthcare services effectively in the district.

Table 4.2.2: Number of Specialty and Super Specialty Doctors under DHS

Type	Sanctioned
Speciality	
Anaesthesia	12
Blood Bank	1
Blood Bank/Clinical Lab/PH Lab	1
Dental	12
Dermatology & Venerology	5
ENT	14
Forensic Medicine	1
General Medicine	17
General Surgery	14
Microbiology	
Obstetrics & Gynaecology	39
Ophthalmology	12
Orthopaedic Surgery	12
Paediatrics	31
PH Lab	1
Physical Medicine & Rehabilitation	3
Psychiatry	4

Radio Diagnosis/Radio Therapy	3
TB & Chest (Resp. Medicine)	7

source: District Data

Kannur district has a diverse range of specialist posts sanctioned across key medical disciplines. The highest number of posts are in Obstetrics & Gynaecology (39), followed by Paediatrics (31), General Medicine (17), and General Surgery (14). Other major specialties include ENT (14), Anaesthesia (12), Dental (12), Ophthalmology (12), and Orthopaedics (12). Limited positions are sanctioned in specialized fields such as Psychiatry (4), Radiodiagnosis/Radiotherapy (3), and TB & Chest (7). The distribution reflects a balanced emphasis on maternal, child, and general healthcare services within the district.

4.3 Sanctioned Strength of Health Personnel under DHS

Table 4.3.1: Category-wise Sanctioned Strength of Health Personnel under DHS

Category/Division	Sanctioned
Doctors (Administrative Cadre)	18
Doctors (General Cadre)	337
Doctors (Speciality)	180
Doctors (Super Speciality)	
Nursing service	826
JPHN to MCH Officer	520
JPHN/Nursing School	9
Dental	12
LAB (General)	124

Pharmacy & Medical Supply	186
Leprosy	4
Public Health	451
TB	6
Ophthalmology	24
Transport	1
Others	1420
Grand Total	4118

source: District Data

Kannur district has a total sanctioned strength of 4,118 posts across various categories. This includes 18 Doctors (Administrative Cadre), 337 Doctors (General Cadre), and 180 Specialists. Among supporting staff, major divisions include Nursing Service (826), Public Health (451), Pharmacy & Medical Supply (186), and Laboratory (124). Additionally, 1,420 posts fall under the 'Others' category. The distribution indicates a well-structured workforce supporting both clinical and public health functions in the district.

4.4 Health Human Resource under NHM

Table 4.4.1 Number of Health Personnel Working under NHM (As on 31/03/2025)

Category	In-position
Obstetricians and Gynaecologists	
Paediatric	1
Physician/Consultant Medicine	
ENT	
Psychiatrist	

Pathologist	
Microbiologists	1
General Medicine	
Paediatric	1
Obstetricians and Gynaecologists	
ENT	
Psychiatrist	1
Dermatology	
Medical officer	44
JC Orthodontics	1
Dental Surgeons	
Dental Technician	1
Homeo Medical Officers	50
ISM Medical officer	34
Staff nurse	126
Mid-Level Service Provider LSP)	332
Lab Technician	38
Cytotechnician	
Pharmacist	24
ANMs	37

Radiographer/ X-ray Technician	
Physiotherapist	16
Occupational Therapist	
Development Therapist	1
RBSK Nurse	69
Audiologist &speech Therapist	1
Audiometric Assistant	5
Instructor for Hearing impaired	1
Clinical Psychologist	1
Optometrist	2
Early interventionist cum special educator	
JHI	1
Dietician	2
GBVM Coordinator	1
AH Counsellor	6
CMHP Counsellor	1
TB HV	8
Sr Dots Plus TB HIV Supervisor	1
STLS	
PROs	24

Accountant	6
others	95
Grand Total	**932**

source: District Data

As on 31 March 2025, a total of 932 personnel was in position across various health categories in Kannur district. This includes Medical Officers (44), Homeo Medical Officers (50), and Indian System of Medicine (ISM) Medical Officers (34). Key paramedical and support staff include 126 Staff Nurses, 332 Mid-Level Service Providers (LSPs), 38 Lab Technicians, 24 Pharmacists, and 37 ANMs. Specialists are available in limited numbers across disciplines such as Paediatrics (1), Microbiology (1), Psychiatry (1), and Orthodontics (1). Additionally, various technical and support roles such as Physiotherapists (16), RBSK Nurses (69), and PROs (24) contribute to service delivery. The data reflects a broad-based workforce with a higher concentration of general and field-level health staff ensuring primary healthcare coverage in the district.

4.5 Accredited Social Health Activist (ASHA)

ASHA's the female healthcare activists trained to work as an interface between the community and the public health system, has now become the key drivers of community-based care introduced with the key objective of bridging the gap between health services and community. They function as a healthcare facilitator, a service provider, and a health activist at the community level. The total number of ASHA workers in Kannur district is 1,890**,** comprising 1,381 in rural areas and 509 in urban areas.

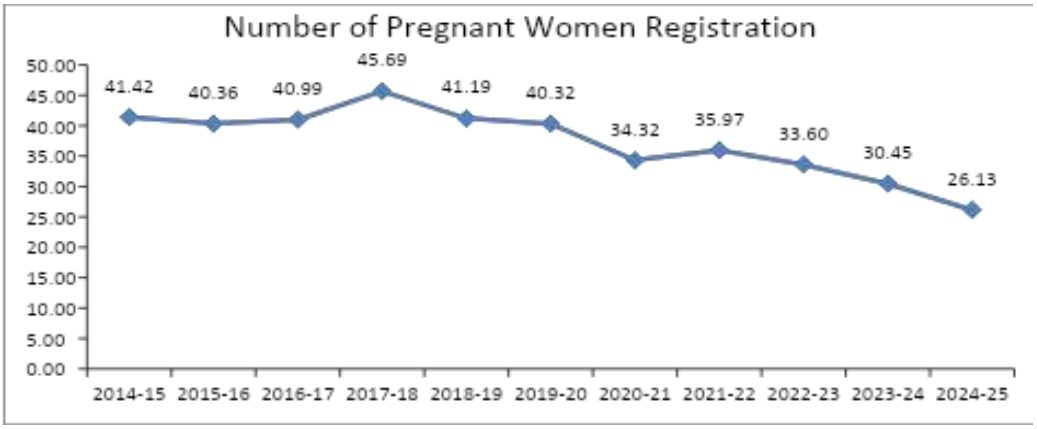
ASHA's are getting performance-based incentives from different programmes and fixed incentive as approved by GOI. In addition to this, Government of Kerala is giving Rs. 7000 as monthly honorarium. Honorarium & incentives distributed till May 2024. ASHA's are now given an honorarium of INR 7000/-, a fixed incentive of INR 3000/- and an incentive that is part of daily work based on performance. All the ASHAs were completed three round computer training and completed 9 rounds of ASHA modules & the draft ASHA 10th Module was prepared. This year we have enrolled 836 ASHAs for plus two exams.

CHAPTER 5

MATERNAL AND CHILD HEALTH

5.1 Pregnant Women Registration

Graph 5.1.1: Trend in Pregnant Women Registration in the District (2014-15 to 2024-25)



Source : HMIS

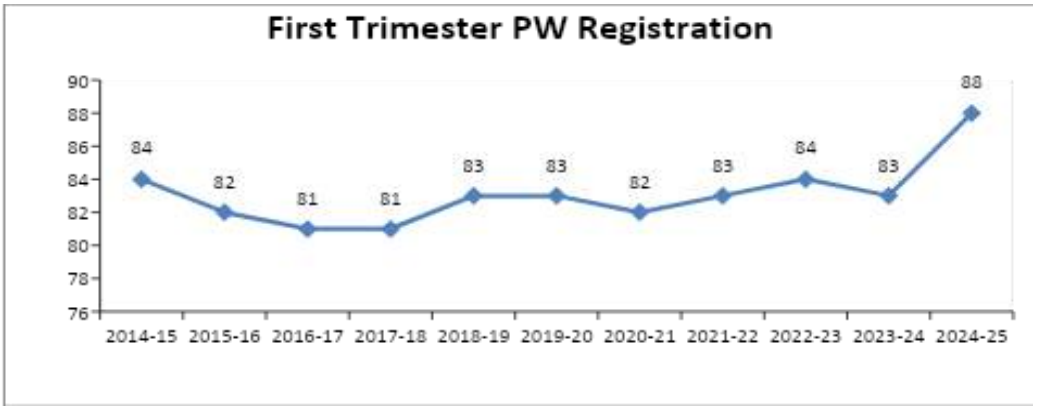
The data for Kannur district from 2014–15 to 2024–25 shows a noticeable change in trend over the decade. Between 2014–15 and 2019–20, the values remain consistent, fluctuating slightly between 40.32 and 45.69. The highest figure during this period is 45.69 in 2017–18, suggesting a peak in performance or activity that year. This six-year span represents a phase of stability, where Kannur maintained steady levels without major deviations.

From 2020–21 onward, however, the district experiences a sharp and consistent decline. The value drops from 34.32 in 2020–21 to 26.13 in 2024–25, indicating a continuous downward trend. Even though there is a slight improvement in 2021–22 (35.97), it is short-lived, as the values continue to fall in the following years.

Overall, the data highlights two distinct phases — a period of stability and moderate fluctuations up to 2019–20, followed by a significant decline from 2020–21 onwards. This downward trend in recent years could reflect emerging challenges, reduced performance, or other external factors affecting Kannur during this period.

5.2 Early Initiation of Antenatal Care

Graph 5.2.1: Trend in Percentage of First Trimester ANC Registration (2014-15 to 2024-25)



Source : HMIS

In Kannur district, the percentage of first-trimester registrations among pregnant women remained stable between 81% and 84% from 2014–15 to 2023–24. This shows consistent awareness and timely access to antenatal care services over the years. In 2024–25, the rate rose sharply to 88%, the highest in the decade. This improvement suggests better health education, stronger outreach, and improved maternal health services. Overall, Kannur shows a positive trend toward early registration and better maternal care awareness.

5.3 Immunization Status of Pregnant Women

Table 5.3.1: Td Immunization Status of Pregnant Women – 2024-25

Td Immunization Status of Pregnant Women –2024-25				
District	**No of PW registered for ANC**	**No of PW given Td1**	**No of PW given Td2**	**No of PW given Td Booster**
Kannur	26130	25469	25079	2432
Source : HMIS				

In 2024–25, a total of 26,130 pregnant women were registered for antenatal care (ANC) in Kannur district. Among them, 25,469 women received the first Td dose (Td1), and 25,079 women received the second dose (Td2) — showing good immunization coverage.

However, only 2,432 women received the Td booster dose, which is much lower compared to Td1 and Td2. This means that while most pregnant women are getting their main Td vaccines, only a small number are completing the booster dose. More efforts are needed to improve booster dose coverage to ensure full protection for mothers and babies.

5.4 Abortion

Table 5.4.1: Trends in Spontaneous and Induced Abortions (2014-15 to 2024-25)

Abortion				
District	**PW**	**Total Abortion**	**Spontaneous**	**Induced**
2014-15	41423	958	933	25
2015-16	40360	914	886	28
2016-17	40985	850	833	17
2017-18	45689	1062	467	595
2018-19	41188	1506	682	824
2019-20	40324	1723	959	764
2020-21	34321	1319	632	687
2021-22	35971	1873	814	1059
2022-23	33597	2001	912	1089
2023-24	30453	1974	602	1372
2024-25	26130	2557	698	1859
Source: HMIS				

In Kannur district, the number of pregnant women has gone down from 41,423 in 2014–15 to 26,130 in 2024–25. The number of natural miscarriages, called spontaneous abortions, changed a bit over the years but stayed mostly between 467 and 959 cases. Induced abortions, which are medically done, have increased a lot. They went up from only 25 cases in 2014–15 to 1,859 cases in 2024–25. This shows more women are using safe abortion services or other factors have changed. Overall, there are fewer pregnancies, steady natural miscarriages, and many more induced abortions in Kannur over time.

5.5 Family Planning

Table 5.5.1: Male and Female Sterilizations Reported in HMIS

(2020-21 to 2024-25)

Period	NSV	Laparoscopic sterilizations	Mini-lap sterilizations	PPS	PAS
2020-21	5	360	110	3308	5
2021-22	26	297	366	3482	39
2022-23	37	353	49	2807	4
2023-24	25	735	109	2433	100
2024-25	29	698	233	2054	64
Source : HMIS					

From 2020–21 to 2024–25 in Kannur, family planning procedures show varied trends. NSV cases increased gradually but remain low. Laparoscopic sterilizations fluctuated, peaking in 2023–24. Mini-lap sterilizations varied without a clear trend. Postpartum sterilizations (PPS) steadily declined over the years. Post-abortion sterilizations (PAS) were generally low but spiked in 2023–24. Overall, the data reflects changing patterns in sterilization methods with a decrease in postpartum procedures and some growth in others.

Table 5.5.2: IUCD Insertions Reported in HMIS ((2020-21 to 2024-25))

Period	FP elements	Kannur
2020-21	IUCD	1528
	PPIUCD	35
	PAIUCD	13
2021-22	IUCD	1635
	PPIUCD	34
	PAIUCD	3
2022-23	IUCD	2112
	PPIUCD	86
	PAIUCD	0
2023-24	IUCD	1751
	PPIUCD	54
	PAIUCD	48
2024-25	IUCD	1937
	PPIUCD	57
	PAIUCD	33
Source: HMIS		

From 2020–21 to 2024–25 in Kannur, the use of IUCDs (Intrauterine Contraceptive Devices) showed a steady increase, reaching a peak of 2,112 in 2022–23 before slightly dropping to 1,937 in 2024–25. This indicates a strong and consistent preference for IUCDs as a family planning method. Postpartum IUCDs (PPIUCDs) remained relatively

low throughout the period but showed a gradual rise from 35 in 2020–21 to 57 in 2024–25. The use of post-abortion IUCDs (PAIUCDs) was minimal in the early years, even reaching zero in 2022–23, but saw a notable increase to 48 in 2023–24 before decreasing slightly to 33 in 2024–25. This variation suggests fluctuating awareness or access to PAIUCD services. Overall, while IUCDs are widely used, postpartum and post-abortion IUCDs are less common but show signs of increasing adoption

Table 5.5.3: Distribution of Family Planning Commodities Reported in HMIS ((2020-21 to 2024-25))

Period	Number of Combined Oral Pill cycles distributed	Number of Condom pieces distributed	Number of Centchroman (weekly) pill strips distributed	Number of Emergency Contraceptive Pills (ECP) given
2020-21	10046	72354	3400	1237
2021-22	13517	61165	2905	869
2022-23	7712	100212	333	515
2023-24	6593	185836	1413	754
2024-25	9162	199450	2066	920
Source: HMIS				

From 2020–21 to 2024–25 in Kannur, the distribution of family planning supplies shows mixed trends. The number of combined oral pill cycles distributed fluctuated, peaking at 13,517 in 2021–22 and dropping to 6,593 in 2023–24 before rising again to 9,162 in 2024–25. Condom distribution increased significantly, rising from 72,354 pieces in 2020–21 to nearly 200,000 pieces in 2024–25, showing growing use. Distribution of Centchroman (weekly) pill strips varied, starting at 3,400 in 2020–21, dropping sharply in 2022–23, and then increasing again to 2,066 in 2024–25. Emergency Contraceptive Pills (ECP) given showed a general decline from 1,237 in 2020–21 to 515 in 2022–23, but

later increased to 920 in 2024–25. Overall, condom use is clearly rising, while other contraceptive supplies fluctuate over the years.

5.6 Delivery

Table 5.6.1: Trend in Total Deliveries (2020-21 to 2024-25)

Period	Kannur			
	Public	Private	Home Delivery	All
2020-21	9075	27299	15	36389
2021-22	10019	26379	14	36412
2022-23	8878	25789	23	34690
2023-24	8719	21486	16	30221
2024-25	6943	19755	16	26714
Source: HMIS				

Between 2020–21 and 2024–25 in Kannur, the total number of deliveries showed a steady decline from 36,389 to 26,714. Deliveries in public health facilities decreased from 9,075 to 6,943 over this period. Similarly, private facility deliveries also dropped significantly from 27,299 to 19,755. The number of home deliveries remained very low and stable, fluctuating between 14 and 23 cases each year. Overall, there is a clear downward trend in total deliveries, with both public and private facility births declining. This may reflect changes in population, healthcare access, or reporting.

Table 5.6.2: Trends in Home and Institutional Deliveries (2020-21 to 2024-25)

Period	Kannur				
	Pub	Pvt	Home Delivery	All	%
2020-21	9075	27299	15	36389	0.04

2021-22	10019	26379	14	36412	0.03
2022-23	8878	25789	23	34690	0.06
2023-24	8719	21486	16	30221	0.05
2024-25	6943	19755	16	26714	0.06
Source : HMIS					

From 2020–21 to 2024–25 in Kannur, the total number of deliveries declined from 36,389 to 26,714. Deliveries in public health facilities decreased from 9,075 to 6,943, while deliveries in private facilities dropped from 27,299 to 19,755. The number of home deliveries remained very low, ranging from 14 to 23 each year. The percentage of home deliveries stayed consistently low, between 0.03% and 0.06% throughout the period. Overall, both public and private facility deliveries showed a downward trend, while home deliveries stayed minimal. This suggests improved institutional deliveries but a general decline in the total number of births reported.

5.7 Caesarean Section Deliveries

Table 5.7.1: C-Section Rate in Public and Private Hospitals (2020-21 to 2024-25)

Period	C-section		
	Public	Private	All
2020-21	43.7	43.7	43.7
2021-22	42.4	45.7	44.8
2022-23	45.2	46.5	46.1
2023-24	46.1	46.8	46.6
2024-25	48.7	48.2	48.4
Source: HMIS			

From 2020–21 to 2024–25 in Kannur, the percentage of C-section deliveries steadily increased. In 2020–21, both public and private facilities reported a C-section rate of 43.7%. Over the years, this rate gradually rose, reaching 48.7% in public hospitals and 48.2% in private hospitals by 2024–25. The overall C-section rate increased from 43.7% to 48.4% during this period. This trend indicates a growing number of births being delivered by C-section in both public and private sectors. The increase may reflect changes in medical practices or patient preferences over time.

5.8 Maternal Deaths

Table 5.8.1: Trend of Maternal Deaths (2014-15 to 2024-25)

Maternal death 2014-15 to 2024-25	
Period	**Number**
2014-15	11
2015-16	6
2016-17	14
2017-18	10
2018-19	8
2019-20	6
2020-21	7
2021-22	10
2022-23	10
2023-24	11
2024-25	6
**Source: HMIS*	

From 2014–15 to 2024–25, maternal deaths in Kannur district show some fluctuation but generally remain low. The number of maternal deaths started at 11 in 2014–15, dropped to 6 in 2015–16, and then peaked at 14 in 2016–17. After that, the figures mostly stayed between 6 and 11 deaths per year. In recent years, maternal deaths have stabilized around 10 to 11, but in 2024–25, the number decreased again to 6. Overall, Kannur has maintained relatively low maternal mortality with some ups and downs during this period.

5.9 Childbirth

Table 5.9.1: Trend of Live Births by Gender (Male, Female & Total)

2014-15 to 2024-25

Period	Live births		
	Male	Female	Total
2014-15	22,853	21,808	44,661
2015-16	22,305	21,383	43,688
2016-17	21,288	20,196	41,484
2017-18	19,393	18,485	37,878
2018-19	22,201	21,230	43,431
2019-20	21,303	20,272	41,575
2020-21	18,787	17,784	36,571
2021-22	18,543	18,225	36,768
2022-23	17,786	17,193	34,979
2023-24	15,557	15,158	30,715
2024-25	13,649	13,366	27,015
Source: HMIS			

From 2014–15 to 2024–25 in Kannur, the total number of live births has steadily decreased from 44,661 to 27,015. Both male and female live births followed this declining trend, with male births dropping from 22,853 to 13,649 and female births from 21,808 to 13,366 during this period. The data shows a consistent reduction in births each year, reflecting changes in population growth or fertility rates. Despite the decline, the number of male births remains slightly higher than female births every year. This trend highlights a shrinking birth rate in Kannur over the decade. Overall, the district is experiencing fewer live births, both male and female, year after year.

5.10 Infant Mortality

Table 5.10.1: Number of Neonatal Deaths Reported (2014-15 to 2024-25)

Neonatal Death	
Period	Number
2014-15	128
2015-16	118
2016-17	111
2017-18	140
2018-19	112
2019-20	111
2020-21	122
2021-22	98
2022-23	123
2023-24	91
2024-25	91
Source: District Reporting	

From 2014–15 to 2024–25 in Kannur, neonatal deaths have generally decreased over the years. The number started at **128** in 2014–15 and showed some fluctuations, including a peak of **140** in 2017–18. After that, neonatal deaths mostly declined, reaching **91** in both

2023–24 and 2024–25. This downward trend indicates improvements in newborn care and health services in the district. Despite some ups and downs, the overall number of neonatal deaths has reduced significantly over the decade. Kannur is making progress in reducing deaths among newborns.

Table 5.10.2: Number of Infant Deaths Reported (2014-15 to 2024-25)

Infant Deaths	
Period	Number
2014-15	203
2015-16	187
2016-17	181
2017-18	211
2018-19	183
2019-20	195
2020-21	175
2021-22	130
2022-23	196
2023-24	154
2024-25	151
Source: District Reporting	

From 2014–15 to 2024–25, infant deaths in Kannur district showed some ups and downs but generally decreased over time. The number started at 203 in 2014–15 and fluctuated in the following years, reaching a peak of 211 in 2017–18. After that, there was a noticeable decline, with infant deaths dropping to 130 in 2021–22. Although the number

increased again to 196 in 2022–23, it decreased afterwards to 151 in 2024–25. Overall, despite some fluctuations, Kannur has made progress in reducing infant mortality during this period.

Table 5.10.3: Number of Child Deaths (Under 5) Reported (2020-21 to 2024-25)

Child Deaths (Under 5)				
District	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Kannur	145	222	177	178
**Source : District Reporting*				

In Kannur district, child deaths under the age of 5 showed some variation between 2021-22 and 2024-25. The number of deaths was 145 in 2021-22 and then increased sharply to 222 in 2022-23. After that, it decreased to 177 in 2023-24 and remained almost the same at 178 in 2024-25. This indicates some fluctuations in child mortality, with a notable peak in 2022-23 followed by improvement in the following years. Overall, while the numbers vary, efforts to reduce under-five child deaths seem to have had some impact recently.

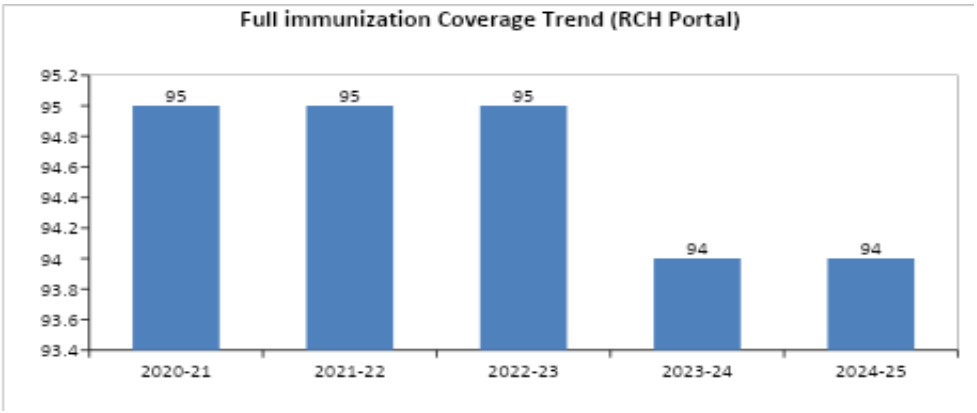
Table 5.10.4: Infant and Neonatal Mortality Rates in Kerala (2019-20 to 2024-25)

District	IMR/NMR	Rates
2019-20	IMR	5
	NMR	3
2020-21	IMR	5
	NMR	3
2021-22	IMR	4
	NMR	3
2022-23	IMR	6
	NMR	4
2023-24	IMR	5

	NMR	3
2024-25	IMR	6
	NMR	3
Source: District Reporting		

5.11 Child Immunization

Graph 5.11.1: Trend in Percentage of Children Fully Immunized



**Source : RCH portal*

In Kannur district, full immunization coverage has remained consistently high from 2020–21 to 2024–25. The coverage was steady at 95% from 2020–21 to 2022–23 and slightly decreased to 94% in both 2023–24 and 2024–25. This shows strong and stable immunization efforts in the district over the years. Maintaining coverage above 90% indicates good access to vaccines and effective public health programs. Overall, Kannur has achieved and sustained excellent immunization coverage.

Table 5.11.1: Antigen-wise Immunization Coverage (Based on RCH Data)

Antigen-wise Immunization Coverage	
Antigen	**Immunization Coverage (%)**
BCG	100

OPV	99
HEP0	97
OPV1	97
OPV2	96
OPV3	95
MR1	95
Full IMMN	94
PENTA1	97
PENTA2	96
PENTA	95
Rota1	97
Rota2	96
Rota3	95
IPV1	97
IPV2	95
PCV1	97
PCV2	95
PCBB	92
MR2	92
**Source : RCH portal*	

In Kannur district, immunization coverage for various vaccines is very high, showing strong public health efforts. The coverage for BCG is at a full 100%, indicating every child received this vaccine. Polio vaccines also have excellent coverage, with OPV0 at 99% and subsequent doses ranging from 95% to 97%. Other vaccines like Hepatitis (HEP0), PENTA, Rota, IPV, and PCV also show coverage mostly between 92% and 97%. The second dose of Measles-Rubella (MR2) and PCV booster (PCBB) are slightly lower but still high, at 92%. Overall, Kannur maintains excellent immunization rates across all key antigens, ensuring strong protection for children against preventable diseases.

CHAPTER 6

COMMUNICABLE AND NON-COMMUNICABLE DISEASES

6.1 Disease burden overview: Common communicable diseases

Kannur district's communicable disease landscape is defined by a high burden of water-borne and vector-borne illnesses, indicating persistent environmental health challenges. By volume, the most prevalent issue is Acute Diarrheal Disease (ADD), with over 50,000 cases reported, alongside significant confirmed cases of Hepatitis A, pointing to critical sanitation and water quality needs. Simultaneously, the district faces a substantial threat from Dengue Fever (the main mosquito-borne viral threat) and Leptospirosis (Rat Fever), which carries a high fatality rate. Public health officials have recently issued critical alerts for rare, deadly infections like Primary Amoebic Meningoencephalitis (PAM), which has been linked to contaminated freshwater bodies, underscoring the necessity of stringent environmental surveillance and control measures against diverse pathogens.

6.1.1: Communicable Diseases- Case Reported

Table 6.1.1.1: Profile of communicable diseases (Direct reporting)

Sl No	Name of Diseases	2024	2023	2022
1	Dengue Fever: Confirmed	796	306	110
2	Malaria	64	40	40
3	Chikungunya	2	0	0
4	Acute Encephalitis Syndrome	1	4	0
5	Japanese Encephalitis (JE)	0	0	0
6	Leptospirosis: Confirmed	216	74	50

7	Hepatitis - A: Confirmed	303	61	9
8	Hepatitis - B	10	17	17
9	Hepatitis - C	12	12	7
10	Hepatitis - E	0	0	0
11	Cholera	0	0	0
12	Typhoid	1	2	0
13	Acute Diarrheal Disease	50354	52402	53267
14	Shigella	0	7	0
15	Scrub Typhus	18	15	18
16	Kala Azar	0	1	0
17	Kysanur Forest Disease	0	0	0
18	Influenza (H1N1, H3N2, Infl A, Infl B)	117	18	0
19	Rabies: Confirmed	1	1	1
20	Zika	0	5	0
21	West Nile	1	2	0
22	Nipah	0	0	0
23	Chicken Pox	2096	2490	900

source: District Data

The communicable disease trend in Kannur District and Kerala generally shows a persistent and escalating challenge, particularly with **water-borne** and certain **vector-borne diseases**.

Water-borne Diseases (ADD & Hepatitis A):

Acute Diarrheal Disease (ADD): This disease category exhibits a continuously rising trend in Kerala, with the high number of cases (over 50,000 reported in Kannur) being the primary driver of water-borne morbidity. This trend underscores chronic issues with drinking water quality and sanitation in the region, with seasonal peaks often linked to the pre-monsoon and monsoon periods.

Hepatitis A: Kannur has experienced a significant outbreak in confirmed Hepatitis A cases recently. Data from 2024 showed a major spike in Kerala compared to the previous two years, with specific outbreaks reported in Kannur areas like Malur and Pariyaram. This dramatic increase signals an urgent breakdown in controlling the faecal-oral route of transmission.

Vector-borne and Zoonotic Diseases (Dengue & Leptospirosis):

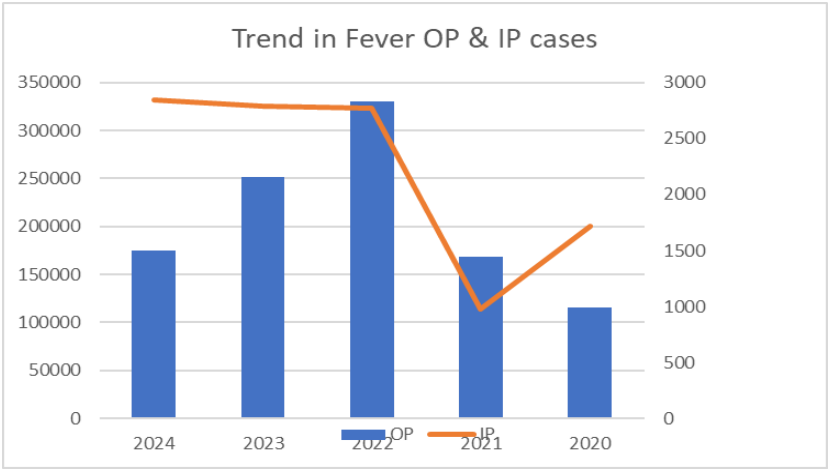
Dengue Fever: Dengue remains an endemic and serious threat across Kerala, with significant year-on-year fluctuations common. While the exact yearly trend for Kannur specifically requires more granular data, the overall state trend indicates it as the most common vector-borne viral infection.

Leptospirosis (Rat Fever): This is a critical concern due to its high Case Fatality Rate (CFR), despite having a lower volume of cases compared to ADD or Dengue. The number of both confirmed cases and associated deaths has shown an upward trend across Kerala in recent years (2022 to 2024), indicating a growing occupational and environmental risk, often associated with water-logged areas.

Emerging Threats: The district has recently dealt with alerts for Primary Amoebic Meningoencephalitis (PAM), a rare but almost universally fatal brain infection linked to contaminated freshwater. The reporting of these rare, severe cases signals the need for continuous, vigilant environmental surveillance to identify and manage new or re-emerging pathogens.

6.1.2: Trend in fever Outpatient and Inpatient Cases

Graph 6.1.2.1: Trend in fever Outpatient and Inpatient Cases



**Source: District reporting*

Overall OP Trend: OP fever cases increased steadily from 2020 (112,945) to a peak in 2022 (293,071).

Thereafter, they showed a declining trend falling to 276,356 in 2023 and further down to 105,758 in 2024.

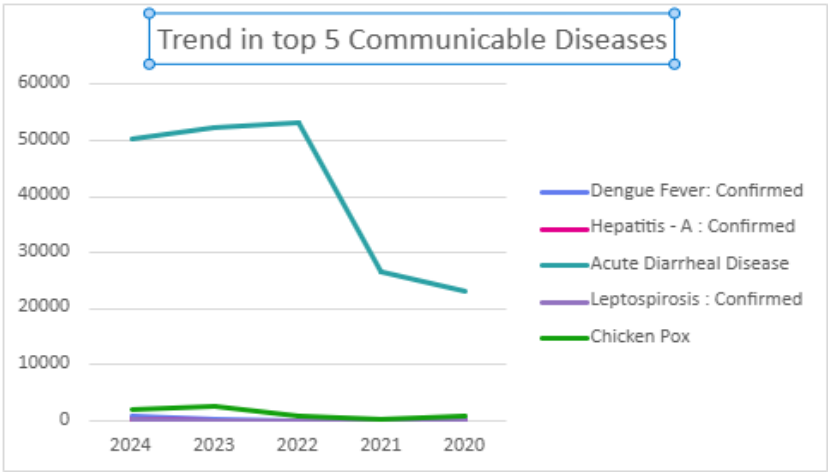
This suggests a significant rise in outpatient fever visits during the post-pandemic period (possibly due to delayed treatments during COVID-19) followed by a gradual decline, possibly as healthcare utilization normalized.

Overall IP Trend: IP fever cases fluctuated over the years. They declined from 2020 (1,507) to 2022 (629), then rose sharply in 2023 (5,592) before dropping again to 3,070 in 2024.

This indicates varying hospitalization patterns possibly reflecting pandemic effects, changes in hospital admissions policies, or shifts in fever burden

6.1.3 Trend in Top five Reported Communicable Diseases in Kannur (2020-2024)

Graph 6.1.3.1 Trend in Top five Reported Communicable Diseases in Kannur (2020-2024)



Source: District reporting

From 2020 to 2024, Kannur district showed a clear post-pandemic resurgence of communicable diseases. Acute Diarrheal Disease remains the most prevalent, while Dengue Fever, Hepatitis A, and Leptospirosis show rising trends, reflecting environmental and sanitation challenges. Periodic outbreaks like Chickenpox continue to occur, emphasizing the need for sustained surveillance, vector control, vaccination, and improved water quality initiatives.

6.1.4 Major Communicable Diseases – Death Reported

Table 6.1.4.1: Disease-wise distribution of Deaths due to Communicable Diseases

Name of Disease	Deaths
Dengue Fever: Confirmed	7
Dengue Fever: Probable	1
Malaria	0
Chikungunya	0

Acute Encephalitis Syndrome	1
Japanese Encephalitis (JE)	0
Leptospirosis: Confirmed	14
Leptospirosis: Probable	3
Hepatitis - A: Confirmed	8
Hepatitis - A: Probable	0
Hepatitis - B	0
Hepatitis - C	0
Hepatitis - E	0
Cholera	0
Diphtheria	0
Typhoid	0
Acute Diarrheal Disease	0
Food Poisoning	0
Shigella	0
Scrub Typhus	4
Kala Azar	0
Kysanur Forest Disease	0
Influenza (H1N1, H3N2, Infl A, Infl B)	4

Rabies : Confirmed		1
Rabies : Probable		1
Zika		0
West Nile		0
Prob West Nile		0
M Pox		0
Nipah		0
Amoebic Meningoencephalitis		2
Prob Amoebic Meningoencephalitis		0
Chicken Pox		0
Fever (Undifferentiated)	OP	0
	IP	
**Source: District report*		

The mortality profile of Kannur district indicates that preventable infectious diseases like Leptospirosis, Dengue, and Hepatitis A remain major public health challenges. Strengthening early diagnosis, vector control, and public awareness-especially during monsoon months-remains essential to reduce future deaths.

6.2 Burden of Non-Communicable diseases in the district

Table 6.2.1: Major Non-Communicable Diseases in the district

Disease	2022		2023		2024		2025 (Jan-March)	
	Case	Death	Case	Death	Case	Death	Case	Death
Accidental injuries			32233	0	28659	0	6125	0
Cancers								
• Cancer Cervix			34	0	97	0	0	0
• Breast Cancer			255	0	107	0	2	0
• Lung Cancer			130	3	104	1	40	1
• Oral Cancer			79	2	182	0	2	0
Cardiovascular disease								
• Rheumatic fever			531	0	4	0	0	0
• Hypertension			64409	2	33234	0	4626	0
• Ischemic Heart disease			3224	1	1836	11	1259	10
• Congenital Heart disease			373	4	195	0	23	0
Others								
Diabetes								

• Type 1			1384	0	3687	0	1732	0
• Type 2			19008	9	28166	1	8460	0
Neurological disorders								
• Cerebrovascular disorders			1350	33	1521	8	293	2
• Chronic neurological disorders			64	0	125	0	14	0
Others								
• Obesity			635	0	773	0	160	0
• Common Mental disorders			10131	0	8961	0	2966	0
• Severe mental disorders			182	0	1743	0	326	0
Renal Failure								
• Acute			477	1	1148	0	41	0
• Chronic			2113	10	2154	0	367	5
Road Traffic Accident			4385	0	3181	0	1114	0
Snake bite			261	0	689	0	143	0
**Source: District report*								

In Kannur, non-communicable diseases (NCDs) continue to pose a major public health challenge, with cardiovascular diseases, diabetes, cancers, and mental health disorders being the most prominent. From 2022 to early 2025, hypertension and Type 2 diabetes showed the highest number of reported cases, though deaths remained very low, indicating effective management and treatment. Ischemic heart disease accounted for a small but consistent number of deaths, while rheumatic fever and congenital heart disease showed a marked decline over the years. Cancer cases, particularly of the breast, cervix, lung, and oral cavity, fluctuated, with minimal mortality recorded. Mental health conditions, especially severe disorders, saw a notable increase in 2023, likely due to improved screening and reporting. Neurological disorders, renal failure, and obesity also contributed to the NCD burden, though their fatality rates were low. Accidental injuries, road traffic accidents, and snake bites continued to add to the overall morbidity, but no deaths were reported. Overall, the data reflect both the persistent burden of lifestyle-related diseases and the positive impact of healthcare interventions in reducing mortality in Kannur.

6.3 District-Specific Outbreaks and Health Concerns

The communicable and non-communicable disease trends in Kannur district indicate a mixed pattern of infectious disease resurgence alongside a rising burden of chronic lifestyle-related illnesses. Among communicable diseases, Dengue fever showed a sharp increase in 2024 with 796 confirmed cases, compared to 306 in 2023, indicating a significant outbreak. Leptospirosis also showed a marked rise during the same year, suggesting increased risk associated with monsoon and environmental factors. Hepatitis A recorded an alarming spike to 303 cases in 2024, reflecting possible lapses in water quality and sanitation. Acute Diarrhoeal Disease continues to contribute the highest morbidity with over fifty thousand cases reported annually, while Chickenpox and Influenza exhibited periodic surges. The emergence of Zika and West Nile infections highlights the importance of ongoing surveillance and vector control.

In contrast, non-communicable diseases (NCDs) remain the predominant cause of morbidity and mortality in the district. Hypertension and Diabetes constitute the largest disease burden, with 64,409 and 28,166 reported cases respectively in 2023. Cardiovascular diseases, particularly ischemic heart disease and Cerebrovascular disorders, account for substantial mortality, while chronic kidney disease and cancers

such as oral, lung, and breast contribute significantly to the overall disease load. Mental health disorders are increasingly reported, with more than ten thousand common mental disorder cases in 2022 and a rise in severe cases in subsequent years. Accidental injuries and road traffic accidents remain frequent but are associated with minimal mortality due to improved trauma care.

Overall, the health scenario in Kannur reflects a dual burden of diseases—with infectious disease outbreaks such as dengue and hepatitis coexisting with a steady rise in chronic non-communicable conditions. This necessitates a comprehensive public health response focusing on vector control, water sanitation, early NCD screening, lifestyle modification, and mental health support. Sustained surveillance and intersectoral coordination are essential to prevent outbreaks and reduce the long-term disease burden in the district.

CHAPTER 7

NFHS 5 OBSERVATIONS

7.1: Comparison of NFHS-4 and NFHS-5 Data

Table 7.1.1 Comparison of NFHS-4 and NFHS-5 Data

Indicators	NFHS-5 (2019-20)	NFHS-4 (2015-16)
Population and Household Profile	**Total**	**Total**
1. Female population age 6 years and above who ever attended school (%)	96.7	96.3
2. Population below age 15 years (%)	23.9	21
3. Sex ratio of the total population (females per 1,000 males)	1,203	1,092
4. Sex ratio at birth for children born in the last five years (females per 1,000 males)	880	1,066
5. Children under age 5 years whose birth was registered with the civil authority (%)	99.6	95.3
6. Deaths in the last 3 years registered with the civil authority (%)	98.5	NA
7. Population living in households with electricity (%)	99.7	98.7
8. Population living in households with an improved drinking-water source[1] (%)	93.9	92.8
9. Population living in households that use an improved sanitation facility[2] (%)	99.5	99
10. Households using clean fuel for cooking[3] (%)	70.4	55.5
11. Households using iodized salt (%)	99.2	98

12. Households with any usual member covered under a health insurance/financing scheme (%)	47.9	38.1
13. Children age 5 years who attended pre-primary school during the school year 2019-20 (%)	32.3	NA
Characteristics of Women (age 15-49 years)		
14. Women who are literate[4] (%)	99.1	NA
15. Women with 10 or more years of schooling (%)	74.1	70.7
Marriage and Fertility		
16. Women age 20-24 years married before age 18 years (%)	5.4	10.2
17. Births in the 5 years preceding the survey that are third or higher order (%)	0.4	0.7
18. Women age 15-19 years who were already mothers or pregnant at the time of the survey (%)	2.4	3.4
19. Women age 15-24 years who use hygienic methods of protection during their menstrual period[5] (%)	96.8	89.1
Current Use of Family Planning Methods (currently married women age 15–49 years)		
20. Any method[6] (%)	61.9	49.2
21. Any modern method[6] (%)	54.2	47.8
22. Female sterilization (%)	47.7	44.1
23. Male sterilization (%)	0	0
24. IUD/PPIUD (%)	1.3	1.4
25. Pill (%)	0.7	0

26. Condom (%)	4.3	2.3
27. Injectables (%)	0	0
Unmet Need for Family Planning (currently married women age 15–49 years)		
28. Total unmet need[7] (%)	12.7	13.9
29. Unmet need for spacing[7] (%)	9.2	8.6
Quality of Family Planning Services		
30. Health worker ever talked to female non-users about family planning (%)	16.8	22.6
31. Current users ever told about side effects of current method[8] (%)	77	70.9
Indicators	**NFHS-5 (2019-20)**	**NFHS-4 (2015-16)**
Maternal and Child Health	**Total**	**Total**
Maternity Care (for last birth in the 5 years before the survey)		
32. Mothers who had an antenatal check-up in the first trimester (%)	94.8	96.7
33. Mothers who had at least 4 antenatal care visits (%)	78.3	93.2
34. Mothers whose last birth was protected against neonatal tetanus[9] (%)	97.7	99.5
35. Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	78	75.4
36. Mothers who consumed iron folic acid for 180 days or more when they were pregnant (%)	58.8	50.7
37. Registered pregnancies for which the mother received a Mother and Child Protection (MCP) card (%)	95.3	90.1

38. Mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	93.4	96.8
39. Average out-of-pocket expenditure per delivery in a public health facility (Rs.)	6,125	-7,044
40. Children born at home who were taken to a health facility for a check-up within 24 hours of birth (%)	*	*
41. Children who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	90	NA
Delivery Care (for births in the 5 years before the survey)		
42. Institutional births (%)	100	100
43. Institutional births in public facility (%)	33.6	40.2
44. Home births that were conducted by skilled health personnel[10] (%)	0	0
45. Births attended by skilled health personnel[10] (%)	100	100
46. Births delivered by caesarean section (%)	39.7	33.6
47. Births in a private health facility that were delivered by caesarean section (%)	40	32.1
48. Births in a public health facility that were delivered by caesarean section (%)	39.1	35.8
Child Vaccinations and Vitamin A Supplementation		
49. Children age 12-23 months fully vaccinated based on information from either vaccination card or mother's recall[11] (%)	77.7	-87.1

50. Children age 12-23 months fully vaccinated based on information from vaccination card only[12] (%)	88.4	94.8
51. Children age 12-23 months who have received BCG (%)	98	98.5
52. Children age 12-23 months who have received 3 doses of polio vaccine[13] (%)	79.5	88.7
53. Children age 12-23 months who have received 3 doses of penta or DPT vaccine (%)	87.5	94.3
54. Children age 12-23 months who have received the first dose of measles-containing vaccine (MCV) (%)	83.7	97
55. Children age 24-35 months who have received a second dose of measles-containing vaccine (MCV) (%)	9.8	NA
56. Children age 12-23 months who have received 3 doses of rotavirus vaccine[14] (%)	3.9	NA
57. Children age 12-23 months who have received 3 doses of penta or hepatitis B vaccine (%)	87.5	80.6
58. Children age 9-35 months who received a vitamin A dose in the last 6 months (%)	80.2	72
59. Children age 12-23 months who received most of their vaccinations in a public health facility (%)	91.6	82.3
60. Children age 12-23 months who received most of their vaccinations in a private health facility (%)	8.4	17.7
Treatment of Childhood Diseases (children under age 5 years)		
61. Prevalence of diarrhoea in the 2 weeks preceding the survey (%)	0.7	3.6

62. Children with diarrhoea in the 2 weeks preceding the survey who received oral rehydration salts (ORS) (%)	*	*
63. Children with diarrhoea in the 2 weeks preceding the survey who received zinc (%)	*	*
64. Children with diarrhoea in the 2 weeks preceding the survey taken to a health facility or health provider (%)	*	*
65. Prevalence of symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey (%)	3.3	0.6
66. Children with fever or symptoms of ARI in the 2 weeks preceding the survey taken to a health facility or health provider (%)	81.2	*
Indicators	**NFHS-5 (2019-20)**	**NFHS-4 (2015-16)**
Child Feeding Practices and Nutritional Status of Children	**Total**	**Total**
67. Children under age 3 years breastfed within one hour of birth[15] (%)	63.8	74.9
68. Children under age 6 months exclusively breastfed[16] (%)	*	*
69. Children age 6-8 months receiving solid or semi-solid food and breastmilk[16] (%)	*	*
70. Breastfeeding children age 6-23 months receiving an adequate diet[16, 17] (%)	39.9	20.4
71. Non-breastfeeding children age 6-23 months receiving an adequate diet[16, 17] (%)	*	*
72. Total children age 6-23 months receiving an adequate diet[16, 17] (%)	38.4	20.1
73. Children under 5 years who are stunted (height-for-age)[18] (%)	19.4	25.3

74. Children under 5 years who are wasted (weight-for-height)[18] (%)	14	10.2
75. Children under 5 years who are severely wasted (weight-for-height)[19] (%)	6.9	3.5
76. Children under 5 years who are underweight (weight-for-age)[18] (%)	17.9	10.5
77. Children under 5 years who are overweight (weight-for-height)[20] (%)	3	6.7
Nutritional Status of Women (age 15-49 years)		
78. Women whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m^2)[21] (%)	8.7	9.7
79. Women who are overweight or obese (BMI ≥25.0 kg/m^2)[21] (%)	32.4	30.1
80. Women who have high risk waist-to-hip ratio (≥0.85) (%)	72.9	NA
Anaemia among Children and Women		
81. Children age 6-59 months who are anaemic (<11.0 g/dl)[22] (%)	37.2	44.1
82. Non-pregnant women age 15-49 years who are anaemic (<12.0 g/dl)[22] (%)	39.7	38.1
83. Pregnant women age 15-49 years who are anaemic (<11.0 g/dl)[22] (%)	39.7	20.3
84. All women age 15-49 years who are anaemic[22] (%)	39.7	37.3
85. All women age 15-19 years who are anaemic[22] (%)	30.4	39.9
Blood Sugar Level among Adults (age 15 years and above)		
Women		
86. Blood sugar level - high (141-160 mg/dl)[23] (%)	10.5	NA
87. Blood sugar level - very high (>160 mg/dl)[23] (%)	11.1	NA

88. Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level[23] (%)	23.8	NA
Men		
89. Blood sugar level - high (141-160 mg/dl)[23] (%)	10.2	NA
90. Blood sugar level - very high (>160 mg/dl)[23] (%)	11.6	NA
91. Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level[23] (%)	25	NA
Hypertension among Adults (age 15 years and above)		
Women		
92. Mildly elevated blood pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	17.2	NA
93. Moderately or severely elevated blood pressure (Systolic ≥160mm of Hg and/or Diastolic ≥100mm of Hg) (%)	7.6	NA
94. Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	31	NA
Men		
95. Mildly elevated blood pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	23.3	NA
96. Moderately or severely elevated blood pressure (Systolic ≥160mm of Hg and/or Diastolic ≥100mm of Hg) (%)	5.8	NA
97. Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	34.8	NA
Screening for Cancer among Women (age 30-49 years)		

98. Ever undergone a screening test for cervical cancer (%)	2.9	NA
99. Ever undergone a breast examination for breast cancer (%)	2.1	NA
100. Ever undergone an oral cavity examination for oral cancer (%)	0.3	NA
Tobacco Use and Alcohol Consumption among Adults (age 15 years and above)		
101. Women age 15 years and above who use any kind of tobacco (%)	1.7	NA
102. Men age 15 years and above who use any kind of tobacco (%)	12.9	NA
103. Women age 15 years and above who consume alcohol (%)	0.1	NA
104. Men age 15 years and above who consume alcohol (%)	14.1	NA
Source NFHS 4 & 5 report		

7.1.1: Population and Household Profile

- **Female Education & Literacy**: Female attendance in school and literacy levels are very high (96–99%). Kannur continues to perform well in female education, a long-standing strength. Slight improvement in women with ≥10 years of schooling (70.7% → 74.1%) indicates sustained educational attainment. **Observation**: The district shows strong human capital in women, which can positively impact maternal and child health outcomes.
- **Demographics & Sex Ratio**:
  - Overall sex ratio improved dramatically (1,092 → 1,203), reflecting a higher proportion of females in the population.
  - **Concern**: Sex ratio at birth plummeted from 1,066 → 880. This is alarming and may reflect persistent gender bias at birth or reporting issues. Despite the overall female advantage in population, birth practices indicate a potential socio-cultural preference for male children.
- **Household Amenities**: Kannur shows nearly universal access to electricity, sanitation, and safe water. Clean fuel usage rose (55.5% → 70.4%), reflecting improved household environment and reduced indoor air pollution risk. Health

insurance coverage improved from 38% → 48%, but over half the population remains uninsured.

Observation: Household-level determinants are largely favourable, supporting better health outcomes, though insurance coverage could be expanded.

7.1.2. Maternal Health and Family Planning

- **Antenatal Care (ANC)**:
    - First trimester ANC remains high (~95%), but ≥4 ANC visits fell sharply (93.2%→78.3%).

      Critical Insight: Although women are accessing early ANC, the drop in complete ANC coverage is concerning. It may indicate service delivery gaps, poor follow-up, or quality issues at the facility level.
- **Iron-Folic Acid Supplementation**: 100+ days usage increased slightly, and 180+ days consumption improved more substantially. This is positive and can help reduce maternal anaemia, though moderate gains suggest room for stronger counselling and adherence programs.
- **Delivery Care & Caesarean Sections**:
    - Institutional deliveries are universal, which is excellent.
    - Caesarean rates increased from 33.6% → 39.7%, particularly in private facilities. (32.1%→40%).

      Observation: While institutional births are ideal, rising C-section rates, especially in private settings, may indicate unnecessary interventions or medicalization, requiring monitoring and policy guidance.
- **Postnatal Care (PNC)**: Slight decline in mothers receiving PNC within 2 days (96.8% → 93.4%) is concerning, as the postnatal period is critical for maternal and newborn survival.
- **Family Planning**:
    - Overall contraceptive use improved (49.2% → 61.9%) and modern method adoption increased. Condom use doubled (2.3% → 4.3%), though male sterilization remains absent.

- **Observation**: Positive trend in FP uptake, but continued reliance on female sterilization indicates gender skew in responsibility. Lower outreach by health workers to non-users (16.8%) suggests potential gaps in counselling and service delivery.

7.1. 3. Child Health and Nutrition

- **Vaccination**:
  - Most indicators improved (Vitamin A coverage 72% → 80.2%, full immunization ~78%). Public facilities dominate service provision (91.6%), showing strength in government outreach.

    Observation: Immunization program is performing well, but some gaps remain for full coverage and second doses of vaccines.

- **Breastfeeding and Diet**:
  - Early initiation within 1 hour decreased (74.9% → 63.8%).
  - Adequate diet for 6–23 months improved substantially (20.1% → 38.4%). **Critical Insight**: While complementary feeding is improving, the decline in early breastfeeding initiation may increase neonatal vulnerability. There is a mixed picture: nutrition interventions are improving diet diversity, but initial feeding practices need reinforcement.

- **Malnutrition**:
  - **Stunting** improved (25.3% → 19.4%)—reflecting long-term nutritional improvements.
  - **Wasting** increased (10.2% → 14%), **underweight** worsened (10.5% → 17.9%), while overweight decreased.

    Observation: The rise in acute malnutrition (wasting) and underweight children is concerning despite reduced stunting, indicating recent shocks (illness, inadequate diet, or seasonal factors) affecting child growth.

- **Anaemia**:
  - Among children: decreased (44.1% → 37.2%)—a positive trend.

- Among women: increased slightly (37.3% → 39.7%). **Observation**: Maternal anaemia remains a concern despite supplementation programs.

7.1. 4. Adult Health and NCDs

- **Overweight & Obesity**: Women overweight/obese rose from 30.1% → 32.4%; underweight declined slightly. High-risk waist-to-hip ratio is 72.9%, indicating high NCD risk.
- **Blood Sugar & Hypertension**: Around 24–25% of adults have high or very high blood sugar; elevated BP affects 31% of women and 34.8% of men. **Observation**: NCDs are emerging as a major public health challenge in a district traditionally strong in maternal-child indicators. Lifestyle interventions, screening, and early management need focus.
- **Cancer Screening**: Coverage remains extremely low (cervical 2.9%, breast 2.1%, oral-0.3%).
  Observation: Preventive screening programs are underutilized, reflecting awareness gaps or accessibility issues.
- **Tobacco and Alcohol**: Low among women (tobacco 1.7%, alcohol 0.1%), moderate among men (tobacco 12.9%, alcohol 14.1%), showing relatively favourable behavioural health trends.

7.1. 5. Critical findings and insights

Kannur demonstrates strong performance in several health indicators, with universal female literacy and school attendance reflecting a highly educated population. The district has achieved universal institutional deliveries, high immunization coverage, and notable improvements in household amenities such as electricity, sanitation, safe water, and clean cooking fuel. Maternal supplementation programs, particularly iron-folic acid and Vitamin A coverage, have strengthened over time. Additionally, there has been a decline in stunting and child anaemia, along.

CHAPTER 8

MENTAL HEALTH

8.1 District Mental Health Programme

The District Mental Health Programme (DMHP) in Kannur district under the National Mental Health Programme (NMHP), has made significant progress over the last five years in improving mental health care accessibility, reducing stigma, and integrating mental health services into the general healthcare system. The programme primarily targets underserved areas, ensuring that mental health care is available at the district level.

Key Achievements (2019-2024)

1. Expansion of Mental Health Services

Clinics Established: Over the past five years, 23 mental health clinics have been set up across community health centres (CHCs) and taluk hospitals in Kannur. These clinics provide a range of services, including consultations, therapy, and follow-up care.

Service Accessibility: These clinics have significantly increased the reach of mental health services, making care more accessible for both urban and rural populations in the district.

2. High Patient Volume

Monthly Patient Reach: On average, the programme treats approximately 2,000 patients per month across these clinics. This includes a wide range of services from outpatient consultations, follow-up care, and crisis management.

Patient Diversity: The patient base includes individuals suffering from various mental health issues such as depression, anxiety, substance use disorders, and more severe conditions like schizophrenia and bipolar disorder.

Services Provided

Psychiatric Consultations: Mental health evaluations and treatment provided by Psychiatrist and a trained Medical Officer.

Medication Management: Monitoring and administration of psychiatric medications under the guidance of a Nursing Officer.

Psychotherapy/Counselling: Specialized therapeutic care by Clinical Psychologist and Psychiatric Social Worker.

Awareness Programmes: Training for health professionals and public outreach to improve mental health literacy and reduce stigma.

Table 8.1.1: Mental Health Clinics conducted under DMHP

Year	No of clinics conducted	No of beneficiaries
2019-20	228	18485
2020-21	228	18452
2021-22	228	19158
2022-23	228	20974
2023-24	228	23145
2024-25	276	22996
Source: District report		

Under the District Mental Health Programme (DMHP), mental health clinics have been consistently conducted across the district to ensure the availability of mental health services at the community level. During the five-year period from 2019–20 to 2023–24, a steady number of 228 clinics were conducted each year, reflecting a sustained effort to provide regular mental health care. Over these years, the number of beneficiaries attending the clinics showed a gradual increase from around eighteen thousand in 2019–20 to over twenty-three thousand in 2023–24 indicating growing community awareness and utilization of mental health services. In 2024–25, there was a notable increase in the number of clinics conducted, rising to 276, which allowed the programme to reach nearly twenty-three thousand beneficiaries within the year. This expansion demonstrates the

strengthening of the mental health service delivery system and the continuous efforts to make mental health care more accessible and comprehensive under DMHP.

8.2 Post Flood activities & Training programmes

Post-Flood Activities:

Psychosocial Support: Provided immediate mental health support to flood-affected individuals, including counselling and psychological first aid.

Crisis Intervention: Established help lines and mental health clinics to address increased mental health needs during and after the floods.

Community Outreach: Conducted awareness and psychoeducation sessions in affected communities to address trauma and stress-related conditions.

Rehabilitation: Offers ongoing counselling services to survivors of the floods, focusing on grief, loss, and post-traumatic stress.

Training Programmes:

Mental Health First Aid: Trained health professionals, including doctors and nurses, on basic mental health support and emergency interventions.

Counselling Techniques: Provided specialised training for counsellors and social workers to handle post-disaster trauma and stress.

Capacity Building for Frontline Workers: Conducted workshops for community leaders and volunteers on identifying and supporting individuals with mental health issues in disaster settings.

Stress Management: Organised workshops for flood-affected communities to help them manage stress, anxiety, and other emotional responses post-disaster.

8.3 DMHP Targeted Intervention

- Awareness & Education: Conducted community and school programmes to reduce stigma and promote early mental health intervention.
- Integration into Primary Healthcare: Trained healthcare providers and integrated mental health screenings into general healthcare services.
- Outreach Services: Provided services through Sampoorna Manasika Aarogyam community health camps in remote areas.

- Support for vulnerable groups: Targeted mental health services for children, adolescents, women, and the elderly.
- Post-disaster support: Offered psychological support in flood-affected areas and trained professionals in crisis management.
- Telemedicine: Expanded online consultations and virtual support groups, especially during the COVID-19 pandemic.
- Capacity Building: Trained health professionals through workshops and skill development programmes.
- Prevention programmes: Focused on substance abuse prevention and stress management for at-risk groups.

8.3.1 Sampoorna Manasika Aarogyam (SMA):

Sampoorna Manasika Aarogyam (SMA) aims to make mental health services more accessible by integrating them into the community, particularly through Primary Health Centres (PHCs), and by training health staff to provide mental health care. The initiative has been supported by the District Mental Health Programme (DMHP) and has shown significant progress over the last five years.

Key Achievements:

Mental Health Camps: 128 camps were conducted over the past five years, serving 2,945 patients across remote and underserved areas. These camps provided essential mental health services, including consultations, counselling, medication, and follow-up support.

Increased Access: The camps significantly improved access to mental health services for people who otherwise would not have received care, especially in rural regions (Tribal, Urban, and Coastal).

Comprehensive Care: Each camp was designed to address both immediate mental health needs and provide information about long-term care options, including referral to local PHCs and clinics for follow-up.

Table 8.3.1.1: SMA camps conducted from 2019-2025

Year	No. of SMA Camps	No. of Beneficiaries
2019-20	28	687
2020-21	3	81
2021-22	13	378
2022-23	46	1177
2023-24	38	622
2024-25	64	987
Source: District report		

The implementation of the Sampoorna Manasika Aarogyam (SMA) initiative in Kannur district has shown a commendable upward trajectory in recent years, reflecting a growing emphasis on community-based mental health care. Beginning with 28 camps in 2019–20 that reached 687 beneficiaries, the program faced a temporary setback during the pandemic year 2020–21, conducting only 3 camps with 81 beneficiaries. However, the resilience of the initiative became evident in the following years.

By 2021–22, the number of camps rose to 13, benefiting 378 individuals. A significant leap occurred in 2022–23, with 46 camps reaching 1,177 people, indicating a renewed focus on mental health outreach. Although there was a slight dip in 2023–24 with 38 camps and 622 beneficiaries, the program rebounded strongly in 2024–25, organizing 64 camps and extending services to 987 individuals. This steady expansion highlights the district's commitment to destigmatizing mental health and ensuring accessible psychological support at the grassroots level. Through regular camps, early identification, and timely intervention, Sampoorna Manasika Arogyam continues to bridge the mental health gap and promote holistic well-being across communities.

8.3.2 Amma Manas:

Amma Manas is a comprehensive mental health initiative focused on ensuring perinatal mental health services for women, addressing the mental health needs during pregnancy and postpartum periods. Over the past five years, the programmes have made significant

strides in providing mental health care through health centres, mental health camps, training programmes, tele-counselling and psychosocial management including home visits.

Key Achievements:

Increased Awareness: Raised awareness about the importance of mental health during pregnancy and after childbirth, breaking down stigma and encouraging more women to seek help.

Improved Access to Care: Mental health services have become more accessible, especially through tele-counselling and home visits, ensuring care for women in remote areas.

Holistic Care: Integrated psychosocial support into maternal care, addressing not just physical health but also emotional and mental well-being.

Capacity Building: Healthcare providers are now better equipped to screen, diagnose, and manage perinatal mental health conditions, improving early intervention rates.

Summary

Over the past five years, the District Mental Health Programme (DMHP) in Kannur has made remarkable strides in integrating mental health into the broader public health system. With 23 mental health clinics established across CHCs and taluk hospitals, the district now provides consistent psychiatric consultations, medication management, and counselling services, reaching an average of 2,000 patients monthly. These clinics have significantly improved access to care for individuals with conditions ranging from anxiety and depression to severe psychiatric disorders.

The district has also demonstrated strong responsiveness in times of crisis. Post-flood interventions included psychosocial support, crisis helplines, and community outreach, while training programs equipped health workers and volunteers with skills in mental health first aid and trauma counselling. Targeted interventions have further strengthened the program's reach, with awareness campaigns, school-based education, and telemedicine services ensuring continuity of care, especially during the COVID-19 pandemic.

CHAPTER 9

TRIBAL HEALTH AND SOCIAL ISSUES

9.1 Tribal Health programmes

Tribal communities in Kannur district face unique health and socio-economic challenges that require focused and inclusive interventions. This chapter highlights the district's comprehensive approach to addressing these challenges through targeted health programs, nutritional support, and socio-economic development initiatives. Key measures include the deployment of three Tribal Mobile Units at Peravoor, Aralam Farm, and through HLL, which strengthen outreach and service delivery in remote areas. Emphasis is placed on improving maternal and child health, managing communicable diseases such as tuberculosis, expanding access to specialized care like cancer treatment, and promoting sustainable livelihoods. By integrating health services with social welfare measures, the district aims to enhance equity, reduce vulnerabilities, and ensure that marginalized populations benefit from timely, quality interventions. The following sections detail key achievements, service delivery outcomes, and ongoing efforts to strengthen the well-being of tribal communities and vulnerable populations across the district.

Nutritional kit for Tribal TB & DR-TB patients 2023-24 – by Dist. Panchayat

Table 9.1.1: Nutritional kit for Tribal TB & DR-TB patients 2023-24

Month	Tribal TB	DR-TB
Jun-23		28
Jul-23	37	30
Aug-23	41	29
Sep-23	35	27
Oct-23	39	25
Nov-23	32	31
Dec-23	36	35

Jan-24	37	35
Feb-24	37	38
Mar-24	34	37
Total no. of kits distributed	328	315
Source: District report		

Nutritional kit for Tribal TB & DR-TB patients 2024-25 by Dist. Panchayat

Table 9.1.2: Nutritional kit for Tribal TB & DR-TB patients 2024-25

Month	Tribal TB	DR-TB
Jun-24	31	40
Jul-24	31	39
Aug-24	33	42
Sep-24	36	36
Oct-24	40	40
Nov-24	39	40
Dec-24	48	46
Jan-25	45	46
Feb-25	Kits not distributed from Panchayat	
Mar-25		
Total no. of kits distributed	303	329

source: District Data

Between 2023 and 2025, the district demonstrated a sustained and strategic effort in combating both Tribal TB and Drug-Resistant TB (DR-TB), marked by consistent case detection and robust kit distribution. Tribal TB cases remained relatively stable

throughout the period, with a slight upward trend observed in the latter months, while DR-TB cases showed a gradual increase, reflecting improved diagnostic reach and surveillance. The total number of kits distributed—631 for Tribal TB and 644 for DR-TB, underscores the government's balanced and responsive approach to tackling both forms of TB.

Despite logistical challenges in early 2025, such as the temporary halt in kit distribution from the Panchayat, the overall data reflects a health system that is vigilant, adaptive, and committed to early detection and treatment. These efforts highlight the district's proactive public health strategy and the government's dedication to safeguarding vulnerable communities through timely interventions and equitable resource allocation.

9.2 Malnutrition

The indices for children having birth weight below 2.5kg in the district are detailed below.

Table 9.2.1: Annual distribution of children having low birth weight

Year	No. of live births	No. of children having weight <2.5kg	Percentage
2020-21	36559	4	0.01
2021-22	36758	2	0.01
2022-23	34956	7	0.02
2023-24	30700	3	0.01
2024-25	26697	8	0.03

source: District Data

Low birth weight (defined as less than 2.5 kg) is a key indicator of neonatal health and maternal nutrition. It is closely linked to risks of infant mortality, developmental delays, and long-term health complications.

The trend of low birth weight among children in Kannur district over the past five years reflects a consistently positive picture of maternal and child health. From 2020–21 to 2024–25, the proportion of infants born weighing less than 2.5 kg remained very low,

ranging between 0.01% and 0.03%. The number of live births declined steadily from 36,559 in 2020–21 to 26,697 in 2024–25, and the occurrence of low birth weight cases remained very low overall, with minor year-to-year variations and a modest increase to eight cases in 2024–25.This sustained low incidence highlights the effectiveness of antenatal care services, nutritional interventions, and institutional delivery coverage across the district. The consistent performance indicates strong maternal nutrition programs, timely health monitoring, and well-coordinated healthcare delivery systems ensuring better birth outcomes and improved neonatal health.

9.3 Detail of Patients Availed Services in Cancer Unit

Cancer care Units-2 (DH Kannur, GH Thalassery)

Table 9.3.1: Availed services in cancer unit:

Year	Total OP	Total ST	Total CHEMO	New Cancer Patient	Total RT
2024-25	1221	NA	750	89	NIL, no RT provided

source: District Data

In FY 2024–25, Kannur district successfully operated two dedicated cancer care units under the public health system - one at the District Hospital (DH) Kannur and another at the General Hospital (GH) Thalassery—providing essential services such as outpatient consultations, chemotherapy, and diagnostic support. During the year, the units recorded 1,221 outpatient visits, reflecting strong community engagement and demand for cancer care services. A total of 750 chemotherapy sessions were administered, demonstrating active and ongoing treatment support, while 89 new cancer patients were registered, highlighting the effectiveness of early detection and referral efforts. While surgical treatment data and radiotherapy services are areas identified for further strengthening, the district has laid a solid foundation for comprehensive cancer care. Continued focus on expanding referral pathways, enhancing data tracking, and promoting early detection will further improve service delivery and patient outcomes, ensuring holistic and accessible cancer care across the district.

9.4 Sustainable Livelihood Issues

Table:9.4.1 Panchayats declared EP free

Panchayats declared Extreme Poverty (EP) free		
Pappinissery	Pattuvam	Munderi
Kalliassery	Muzhappilangadu	Anjarakandy
Ezhome	Kolachery	Pattiam
Kuttiattoor	Pariyaram	Mayyil
Kankol Alapadamba	Ulikkal	Kadanappaly Panappuzha
Chokli	Pinarayi	Valapattanam
Malappattam	Panniyannur	Peringom Vayakkara
Kurumathur	Eranholi	Narath
Mokeri	Chirakkal	Kannapuram
Vengad	Eramam Kuttur	Udayagiri
Source: District report		

The district has made significant progress in promoting sustainable livelihoods through the successful elimination of extreme poverty (EP) across 30 grama panchayats. This achievement reflects the effectiveness of targeted interventions, inclusive development strategies, and community-driven initiatives aimed at uplifting vulnerable populations. Grama panchayats such as Pappinissery, Kalliassery, Kuttiattoor, and Udayagiri, among others, have been officially declared EP-free, marking a major milestone in the region's socio-economic transformation. The declaration underscores the government's commitment to equity, empowerment, and long-term resilience, ensuring that every

household has access to basic needs, livelihood opportunities, and a dignified standard of living.

Summary

This chapter highlights the district's focused and compassionate approach to improving tribal health, addressing malnutrition, enhancing cancer care, and promoting sustainable livelihoods. Through the Tribal Health Program, nutritional support was provided to TB and DR-TB patients with the help of the District Panchayat, resulting in the distribution of 631 kits for Tribal TB and 644 for DR-TB over two years. The deployment of three Tribal Mobile Units in Peravoor, Aralam Farm, and through HLL further strengthened outreach and accessibility in remote areas.

Malnutrition indicators remained impressively low, with less than 0.02% of children born with a birth weight below 2.5 kg across all years, reflecting effective maternal and child health interventions. Cancer care services, delivered through two dedicated units at DH Kannur and GH Thalassery, supported 1,221 outpatient visits and administered 750 chemotherapy sessions in 2024–25, ensuring continued treatment despite the absence of radiotherapy facilities.

CHAPTER 10

FINANCIAL ALLOCATION AND UTILIZATION

10.1 Financial allocation and utilization for the last four years (FY) (in lakhs)

Table 10.1.1: Annual trends in fund allocation and utilization

Source	2021-22		2022-23		2023-24		2024-25		TOTAL	
	Allocation	Utilisation	Allocation	Utilisation	Allocation	Utilisation	Allocation	Utilisation	Allocation	Utilisation
DHS-Plan	128	118.28	147.33	132.96	172.54	169.32	158.32	152.81	606.2	573.37
NHM	4256.9	4136.6	5672.3	4421.6	5933.3	3459.6	7760.9	4795.6	23623	16813
LSGD	172.74	170.44	159.1	150.06	136.19	125.17	217.41	203.17	210.2	202.2
Tribal Fund	79.05	36.83	50.81	50.81	NIL	NIL	70	54.994	199.86	142.63

source: District Data

FY 2021–22 to 2024–25

This report outlines the financial performance of major health funding streams in Kannur district, including DHS-Plan, NHM, LSGD, and Tribal Fund. It highlights the allocation of resources and their actual utilization over four fiscal years, reflecting the district's efficiency in managing public health budgets.

The DHS-Plan achieved an impressive overall utilization of 94.6%, reflecting strong planning and effective execution of health initiatives. Similarly, LSGD funds recorded over 96% utilization, highlighting the efficiency and responsiveness of local governance in implementing health programs. Although NHM utilization stood at 71.2% of the total allocation, the steady inflow of resources under this scheme underscores the district's

capacity to absorb and manage large-scale public health investments. The Tribal Fund showed variable performance, with notable progress in later years despite early shortfalls, suggesting opportunities for further strengthening targeted interventions for tribal populations. Overall, the financial trends reflect Kannur district's commitment to optimizing available resources and continuously improving the efficiency and equity of health service delivery.

CHAPTER 11
NHM ACTIVITIES

11.1 NHM Activities in the District

This chapter presents a detailed account of the multifaceted initiatives undertaken under the National Health Mission (NHM) in Kannur district, aimed at strengthening public health infrastructure, enhancing service delivery, and promoting inclusive care. The district has made notable progress through programs like Rashtriya Bal Swasthya Karyakram (RBSK) and Arogya Kiranam (AK), which together ensure comprehensive treatment coverage for children. Adolescent health is further addressed through innovative programs like the Peer Educators Programme (Student Doctor Cadet), which fosters awareness and mental well-being. Newborn screening and the District Early Intervention Centre (DEIC) play a pivotal role in identifying and managing birth defects and developmental delays, while Hridyam provides a robust framework for treating congenital heart diseases.

Mobile health interventions such as the Mobile Intervention Unit (MIU) and Mobile Health Team (MHT) extend services to remote and tribal areas, ensuring no child is left behind. ASHA remain the backbone of community health, supported through regular training, incentives, and review mechanisms, with 100% success in educational advancement initiatives.

Quality assurance is a cornerstone of NHM in Kannur, with the district leading Kerala in NQAS-accredited institutions and actively implementing programs like KAYAKALP, LAQSHYA, MusQan, SUMAN, and MBFHI. Palliative care services, both at primary and secondary levels, are delivered through a coordinated network of government institutions and community-based organizations, ensuring dignified care for bedridden patients. With a strong governance structure and community engagement, Kannur's NHM activities exemplify a holistic, inclusive, and quality-driven approach to public health.

11.1.1 Rashtriya Bal Swasthya Karyakram (RBSK) & Arogya Kiranam (AK):

Treatment expenditure of RBSK-AK

Table 11.1.1: Annual trends in treatments expenditure for RBSK, RKSK and AK

Year	RBSK	RKSK	AK	Total
2022-23	34582984	580192	4153610	39316786
2023-24	12944791	336382	0	13281173
2024-25	20700000	89000	0	20789000
Total	68227775	1005574	4153610	73386959

Source: District reporting

The financial data reflects the district's focused investment in child and adolescent health through key national programs—RBSK (Rashtriya Bal Swasthya Karyakram), RKSK (Rashtriya Kishor Swasthya Karyakram), and Arogya Kiranam (AK). Over the three-year period from 2022–23 to 2024–25, a total expenditure of Rs. 7.33 crore was recorded, with RBSK accounting for Rs.6.82 crore, RKSK Rs.1.00 crore, and AK Rs.0.41 crore. These figures underscore the government's commitment to preventive and promotive healthcare, ensuring that children and adolescents across the district benefit from timely screenings, interventions, and wellness initiatives.

11.1.2 Newborn Screening (Visible Birth Defect-VBD Screening)

Newborn screening activities are done by the assigned delivery point nurses of all Government Delivery Point Hospitals.

Table 11.1.2.1:Annual trends in new-born screening

Year	Total no. of deliveries	Total no. of Newborn Screened	No. of Conditions identified
2021-22	7456	7243	34
2022-23	7824	7526	22

2023-24	6784	6590	18
2024-25	46353	6240	12
Source: RCH portal			

New born screening for visible birth defects is conducted by the delivery point nurses assigned to all government delivery point hospitals in the district. Over the past four years, a significant number of new-borns have been screened as part of this routine program, ensuring early detection and timely intervention for congenital conditions. In 2021–22, out of 7,456 deliveries, 7,243 new-borns were screened, resulting in the identification of 34 cases with detectable conditions. The following year, 7,526 new-borns were screened from 7,824 deliveries, and 22 conditions were detected. In 2023–24, 6,590 new-borns were screened from 6,784 deliveries, with 18 conditions identified. In 2024–25, although the number of deliveries recorded appears unusually high at 46,353, a total of 6,240 new-borns were screened, and 12 conditions were identified. Overall, the data reflects a steady commitment to early screening, with a gradual decline in the number of conditions detected, suggesting the effectiveness of preventive measures, and improved maternal and child health practices over time.

Figure 11.1.2.1: Navjaat Shishu Suraksha Karyakram (NSSK) & (KMC)

Screening under RBSK

Table 11.1.2.2: Screening under RBSK

Indicators	2020-21	2021-22	2022-23	2023-24	2024-25
0-6 YRS	147385	265395	157323	177725	284025
6-18 YRS	138764	187432	264358	245508	316277
Source: District Reporting					

Under the **Rashtriya Bal Swasthya Karyakram (RBSK)**, systematic health screening is conducted for children aged 0–18 years to identify health conditions at an early stage and ensure timely intervention. The screening data from 2020–21 to 2024–25 indicates a substantial and sustained effort in reaching children across the district. For the 0–6 years age group, the number of children screened increased from 1,47,385 in 2020–21 to 2,84,025 in 2024–25, reflecting enhanced outreach and growing program coverage. Similarly, for children aged 6–18 years, screening expanded from 1,38,764 in 2020–21 to 3,16,277 in 2024–25, demonstrating the program's ability to scale up and cover school-aged populations effectively. These trends highlight the district's proactive approach in strengthening child health surveillance, ensuring early detection of developmental delays, nutritional deficiencies, and other health conditions, and reinforcing the overall objectives of preventive and promotive child health care.

11.1.3 District Early Intervention Centre (DEIC):

The District Early Intervention Centre (DEIC), established in 2014 at the District Hospital Kannur, serves as the central hub for the Hridyam and Shalabham programmes, with a primary focus on managing birth defects, developmental delays, and disabilities. The centre provides comprehensive referral support and a range of specialized services. All infants discharged from Sick Newborn Care Units (SNCUs) who are at risk of developmental delays or neuromotor impairments are systematically screened, and their development is closely monitored up to the age of two years to ensure normal growth trajectories. DEIC also confirms diagnoses for children referred for birth defects, nutritional deficiencies, diseases, and developmental delays, including disabilities, through collaboration with RBSK nurses, delivery point staff, public and private medical

practitioners, and self-referrals. Additionally, the centre coordinates tertiary-level treatments for conditions covered under Hridyam as well as cleft lip and palate, clubfoot, etc while providing targeted assessments, interventions, and parental counselling to support the overall well-being and development of affected children.

Table 11.1.3.1:Services under DEIC

Services	Person Involved
Medical Services	MO/Paediatrician
Dental Services	Dental Surgeon & Dental Hygienist
Physiotherapy	Physiotherapist
Psychological/Cognition Services & Social Support	Clinical Psychologist
Audiology – Speech Language Pathology	Audiologist Cum Speech Therapist
Vision Services	Optometrist
Psychosocial Services	Special Educator
Hridyam & Other Service Coordination & Referrals	DEIC Manager

source: District Data

The DEIC offers a multidisciplinary approach to child health and development, involving specialists across medical, dental, physiotherapy, psychological, audiology, vision, and psychosocial services. Each service is provided by trained professionals, ensuring comprehensive assessment, intervention, and support for children with developmental delays, birth defects, and disabilities. Coordination of tertiary-level treatments and referrals, including Hridyam and other specialized services, is managed by the DEIC manager to streamline care and ensure timely interventions.

11.1.4 Hridyam:

Hridyam is a pioneering initiative by the Government of Kerala designed to provide comprehensive support for children diagnosed with Congenital Heart Disease (CHD). At its core, Hridyam functions as a robust web-based registry that enables real-time tracking of CHD cases across the state. This digital platform not only facilitates seamless monitoring of each child's treatment journey but also serves as a strategic tool to evaluate the effectiveness of established clinical protocols. By identifying implementation bottlenecks, assessing system responsiveness, and analyzing outcomes, Hridyam empowers healthcare providers and administrators to continuously refine service delivery. Ultimately, the program exemplifies Kerala's commitment to leveraging technology for equitable, timely, and life-saving care for children with critical health needs.

Table 11.1.4.1: Annual trends in registration in the Hridyam initiative

Year	Total Registration
2020	154
2021	189
2022	246
2023	266
2024	195
2025	78
Source: District report	

The registration data over the six-year period reflects encouraging trends in community engagement and service outreach. From 2020 to 2023, there was a steady rise in registrations, peaking at 266, which highlights growing public trust and awareness of the program. While the numbers dipped slightly in the following years, this shift presents an opportunity to recalibrate strategies and expand outreach efforts. Overall, the data

showcases the program's ability to connect with the population and lays a strong foundation for future growth and impact.

11.1.5 Mobile Intervention Unit (MIU)

The Mobile Intervention Unit (MIU), launched in 2017 as a collaborative initiative between the National Health Mission (NHM) and Kerala Social Security Mission (KSSM) under the Anuyathra scheme, represents a significant stride in bringing specialized healthcare services to children residing in rural and underserved areas. Functioning as an outreach extension of the District Early Intervention Centre (DEIC), the MIU is designed to ensure that children with developmental delays, disabilities, and other health concerns receive timely assessments, interventions, and follow-up care. To date, an impressive 29,595 children have benefitted from the services provided by the MIU, underscoring its vital role in bridging the healthcare gap for vulnerable populations and reinforcing the district's commitment to inclusive child health.

11.1.6 Mobile Health Team (MHT):

In the fiscal year 2022–23, the Kannur district introduced the Mobile Health Team (MHT) initiative, specifically tailored to serve tribal communities and remote regions with limited access to conventional healthcare facilities. The MHT was composed of a dedicated team including a Medical Officer, an RBSK Nurse, and a pharmacist, and operated in key tribal pockets such as Oduvallithattu, Iritty, and Keezhpally. The team provided essential services including initial medical consultations, referrals for specialized care, and on-the-spot distribution of medicines. This initiative played a crucial role in improving health outcomes among tribal populations by delivering doorstep healthcare. However, due to logistical challenges—primarily the unavailability of a medical officer and vehicle—the program was temporarily halted. Despite this, the MHT stands as a testament to the district's innovative and inclusive approach to healthcare delivery, with potential for revival and expansion in the future.

11.1.7 Rashtriya Kishor Swasthya Karyakram (RKSK):

The cases attended by counsellors in different centres are as follows:

Table 11.1.7.1: Services provided under RKSK

Financial Year (FY)	2023-24	2024-25
Outreach programmes	412	534
Club meeting	52	92
Girls	4715	5634
Boys	2718	3694
Total Cases	7430	9328
Follow Up cases	361	639
Source: District reporting		

Under the Rashtriya Kishor Swasthya Karyakram (RKSK), counsellors across various centres in the district have actively engaged with adolescents through a range of outreach and support activities. In FY 2023–24, a total of 412 outreach programmes and 52 club meetings were conducted, reaching 4,715 girls and 2,718 boys, with 361 follow-up cases managed. The following year, the programme expanded further, with 534 outreach activities and 92 club meetings, covering 5,634 girls and 3,694 boys, and 639 follow-up cases, resulting in a total of 9,328 cases attended. These figures reflect a steady increase in engagement, highlighting the programme's growing reach and effectiveness in addressing adolescent health, providing counselling, and promoting awareness on physical, mental, and social well-being. The increasing number of follow-up cases also indicates a strengthened mechanism for continuous support and monitoring of adolescent health concerns.

11.1.8 Peer Educators Programme - SDC (Student Doctor Cadet)

The Student Doctor Cadet (SDC) initiative, under the Rashtriya Kishor Swasthya Karyakram (RKSK), is designed to nurture a generation of informed, health-conscious, and socially responsible adolescents. The programme envisions creating peer leaders who act as catalysts of change within their schools and communities by promoting healthy behaviours, emotional resilience, and scientific curiosity among their peers. Its

primary objectives are to nurture a scientific understanding of health, enhance awareness of diverse health issues such as nutrition, hygiene, substance abuse prevention, mental health, and reproductive health, and to promote positive mental well-being among adolescents. In 2023–24, a total of 200 Peer Educators were selected across educational institutions in Kannur district. These cadets represent a diverse cross-section of adolescent learners chosen for their leadership qualities and commitment to promoting health awareness. Moving forward, the SDC initiative holds immense potential to strengthen the district's adolescent health framework by empowering young voices and fostering peer-led advocacy that cultivates a sustainable culture of health literacy, empathy, and proactive well-being among Kannur's youth.

Table 11.8.1: Selected Peer Educators

Year	Total Peer Educators selected	Trained
2023-2024	200	no

source: District Data

11.1.9 Family Planning

The Family Planning Programme aims to promote reproductive health and ensure that individuals and couples are able to make informed choices regarding contraception and birth spacing. It provides a range of permanent and temporary methods through government health facilities, community outreach, and ASHA-led initiatives. The key objectives are to support maternal and child health, reduce unintended pregnancies, and ensure equitable access to contraceptive services for all eligible couples.

Table 11.1.9.1: Distribution of cases under various family planning services

Year	No. of Lapro Cases	No. of NSV Cases	CC	OP	IUCD
2020-21	360	4	71184	3416	1528
2021-22	157	26	61140	13347	1509

2022-23	353	37	100212	7712	2112
2023-24	735	25	185836	6593	1751
2024-25	681	29	198069	9140	1915
Source: RCH portal					

In Kannur district, data from 2020 to 2025 show that the number of laparoscopic sterilization (Lapro) cases ranged from a minimum of 157 in 2021–22 to a maximum of 735 in 2023–24. Non-Scalpel Vasectomy (NSV) cases ranged between 4 in 2020–21 and 37 in 2022–23. The number of condom (CC) users varied from 61,140 in 2021–22 to 198,069 in 2024–25, while oral pill (OP) users ranged between 3,416 in 2020–21 and 13,347 in 2021–22. The number of IUCD insertions ranged from 1,509 in 2021–22 to 2,112 in 2022–23.

The Family Planning Programme continues to be implemented across all service delivery points in the district, ensuring a steady supply of contraceptives and promoting awareness through sustained community-level activities and counselling by frontline workers.

11.1.10 Biomedical Equipment Maintenance programme (BEMP) (FY 24-25)

Table 11.1.10.1:Details of services provided under BEMP

Description	Total Call Registered	Total Call rectified	Pending calls	Percentage of rectified calls
Total Institution under BEMP - 121 **Total Asset - 12952**	6200	5902	128	95%
Source: District report				

During FY 2024–25, the Biomedical Equipment Maintenance Programme (BEMP) in Kannur district oversaw the maintenance of 12,952 biomedical assets across 121 healthcare institutions. A total of 6,200 service calls were registered during the year to address technical issues and ensure proper functioning of the equipment. Of these, 5,902

calls were successfully rectified, resulting in a high-resolution rate of 95%, while 128 calls remained pending at the end of the reporting period. These figures reflect the programme's effectiveness in maintaining operational readiness of medical equipment, minimizing downtime, and supporting uninterrupted delivery of quality healthcare services across the district.

11.1.10.1 Compliance to the norms of AERB for equipment under Radiology department

The Atomic Energy Regulatory Board (AERB) is the apex body in India responsible for ensuring the safe use of ionizing radiation and nuclear energy across various sectors, including medical, industrial, and research applications. Established under the Atomic Energy Act of 1962, AERB formulates safety standards, monitors compliance, and grants licenses for radiation-emitting equipment and facilities. It plays a critical role in safeguarding public health and environmental safety by enforcing rigorous protocols for radiation protection, waste management, and operational safety. Through regular inspections, audits, and capacity-building initiatives, AERB ensures that institutions adhere to national and international safety norms, fostering a culture of accountability and excellence in radiation practices.

11.1.10.2 Procurement of Equipment at State level through KMSCL – NHM

In FY 2024–25, equipment procurement for healthcare institutions in Kannur district was facilitated through the Kerala Medical Services Corporation Limited (KMSCL) under the National Health Mission (NHM) ROP 24-25. A total fund of Rs.59,04,913/- was sanctioned by the State NHM to support the purchase of essential biomedical and medical equipment. While a significant portion of the equipment has been successfully supplied to the respective facilities, some items are still pending delivery, reflecting ongoing procurement processes. This initiative highlights the state's continued commitment to strengthening infrastructure, enhancing service delivery, and ensuring that healthcare institutions are equipped to meet the needs of patients effectively.

Table 11.1.10.2.1: Fund allocated for equipment procurement

Year	Details	Sanctioned Amount (Rs)	Status
24-25	NHM ROP 24-25	5904913	Funding from State NHM, some equipment supplies still pending

source: District Data

11.2 Accredited Social Health Activist (ASHA)

ASHA (Accredited Social Health Activist) are the cornerstone of community health outreach, especially for vulnerable populations such as women and children. Initially deployed at a ratio of one per thousand population, their placement has evolved to a more localized model—one ASHA per ward—ensuring deeper community engagement and accessibility. Their core responsibilities include promoting maternal and child health, delivering primary healthcare services, preventing infectious diseases, and facilitating access to essential services for marginalized groups in coordination with relevant institutions.

Recognizing Kerala's unique public health landscape, the role of ASHA has been significantly expanded to encompass the prevention and management of infectious and lifestyle diseases, promotion of self-care, and participation in community-based mental health initiatives. One such initiative is the Lifestyle Disease Detection Program, where ASHA lead the collection of health data for individuals above 30 years of age using the Shaili application. To enhance digital literacy and operational efficiency, 1,936 ASHA in the district received basic computer training, with certificates awarded upon successful completion. Their monthly honorarium and performance-based incentives are processed through the ECMAN software. For those unable to enter data due to technical issues, ASHA Adalats were conducted at health institutions, resulting in certified payments totalling Rs.2,16,600/- in honorarium and Rs.45,305/- in incentives.

ASHA have also demonstrated a strong commitment to personal growth, with all 62 candidates who appeared for the 10th standard equivalency exam passing successfully, and 52 more registered for the higher secondary equivalency examination. Additional

support measures include the distribution of HBNC/HBYC kits, training sessions, and issuance of new ID cards to all ASHAs.

To ensure timely communication and coordination, monthly district-level review meetings are held with representatives from local self-governments. Currently, ASHA workers receive a monthly honorarium of Rs. 7,000/- a fixed incentive of Rs. 3,000/- and additional performance-based incentives. Kannur district is served by a dedicated workforce of 1,888 ASHA's-1,369 in rural areas, 509 in urban settings, and 10 designated as Hamlet ASHA's playing a vital role in advancing public health at the grassroots level.

Table 11.2.1:Summary of ASHA payment

Asha Payment Details				
	FY 2021-22	**FY 2022-23**	**FY 2023-24**	**FY 2024-25**
Asha Honorarium	133387800	110062200	132081000	142000390
Asha Incentive	70191895	76171616	76314652	81069713
Covid Incentive	21745000	0	0	0
Festival Allowance	22212000	22284000	2214000	2196000

source: District Data

The ASHA payment data over four financial years reflects the district's consistent commitment to supporting frontline health workers. From FY 2021–22 to FY 2024–25, ASHA received steadily increasing honorariums and performance-based incentives, with the honorarium rising from Rs.13.33 crore to Rs. 14.20 crore and incentives from Rs. 7.01 crore to Rs. 8.10 crore. A one-time COVID incentive of Rs. 2.17 crore was provided in FY 2021–22, acknowledging their critical role during the pandemic. Additionally, festival allowances were disbursed annually, ensuring recognition of their service and well-being. These figures highlight the district's proactive approach to valuing and empowering its ASHA workforce.

11.3 Quality Assurance in Public Health Care

Quality in healthcare in India gained prominence with the launch of the Reproductive and Child Health (RCH) programme in 1997, followed by the National Rural Health Mission in 2005, which emphasized strengthening service delivery. The same year, the Honourable Supreme Court directed all states to establish Quality Assurance Committees (QAC) at the state and district levels for family planning services, marking the beginning of systematic quality improvement initiatives. In 2007, the Indian Public Health Standards (IPHS) guidelines were introduced and later revised in 2012 to cover District Hospitals, Community Health Centres, Primary Health Centres, and Sub-Centres, providing a standardized framework for healthcare delivery. Further, the National Quality Assurance Framework was launched in November 2013 with the release of "Operational Guidelines for Quality Assurance in Public Health Facilities" and assessors' guidebooks for district hospitals, bridging the gap between quality vision and practical implementation. To address cleanliness, infection control, biomedical waste management, and overall environmental sanitation in public health facilities, the Kayakalp Award Scheme was initiated in May 2015, reinforcing the government's commitment to safe, efficient, and patient-centric healthcare services.

Presently Running Quality Assurance programmes:

1. NQAS (National Quality Assurance Standards)
2. KAYAKALP (Award programme for the best PHCs in the district and best CHCs, THs, DH in the state)
3. KASH (Kerala Accreditation Standards for Hospitals)- programme of Kerala
4. LAQSHYA (Labour room Quality improvement initiative)
5. MusQan (ensuring child friendly services)
6. SUMAN (Surakshit Matritva Aashwasan)
7. MBFHI (Mother and Baby Friendly Hospital Initiative)- programme of Kerala

Quality Assurance:

Quality Assurance (QA) focuses on preventing defects by monitoring and verifying that healthcare processes are properly implemented and operational. It is a proactive, preventive approach that identifies and addresses flaws in healthcare delivery systems.

Structure of Quality Assurance at District Level

District Level Quality Assurance Committee (DQAC):

Composition:

1. District Collector/Dy. Commissioner, Chairperson
2. Chief Medical Officer/Deputy Director/CDMO/District Health Officer/Equivalent (Convener)
3. District Family Welfare Officer/RCHO/ACMO/equivalent (member secretary)
4. 2021 | Operational Guidelines for Improving Quality in Public Healthcare Facilities 39
5. Deputy Superintendent/Civil Surgeon/Chief Medical Superintendent of District Hospital(s) or equivalent
6. In-charge of CHC & PHC (one each, by rotation)
7. Nodal Officers of Programme Divisions at districts (viz. Maternal Health, Child Health, Family Planning, Adolescent Health, Vector Borne Diseases, TB, Leprosy, Urban Health, NCD, CPHC, etc.)
8. One empanelled gynaecologist (from public institutions)
9. One empanelled surgeon (from public institutions)
10. One Medical Specialist (from public institutions)
11. One anesthetist (from public institutions)
12. One pediatrician (from public institutions)
13. One representative from the nursing cadre
14. One representative from the legal cell
15. One member from an accredited private sector hospital/NGO (health care sector)
16. One representative from medical professional bodies, e.g., FOGSI/IMA/IAP/IAPSM/Association of Public Health

District Quality Assurance Unit

The DQAU serves as the operational arm of the DQAC, responsible for carrying out activities outlined in the committee's Terms of Reference, as well as additional tasks assigned by the DQAC from time to time

Composition:

1. District Family Welfare Officer/RCHO/ACMO/equivalent (Head of DQAU)

2. One Clinician (Surgical/Medical/any other Speciality)

3. District Consultants (Quality Assurance)

4. District Consultant (Public Health)

5. District Consultant (Quality Monitoring)

6. Administrative cum Programme Assistant

The DQAU is headed by the Member Secretary of the DQAC, who, along with the district programme officers, provides support to the DQAC for the implementation of QA activities in the district.

The key responsibilities of the DQAU include:

- Ensuring the implementation of standard protocols across all hospital services, including RMNCH-A and Disease Control Programmes, under quality frameworks such as NQAS, Kayakalp, and LaQshya.
- Developing phased quality improvement plans for each level of healthcare facility.
- Disseminating quality improvement guidelines, tools, and methodologies to be followed across all public health facilities.
- Planning and conducting field visits—both independently and jointly with state teams—to provide on-site support to underperforming facilities.
- Preparing draft reports and recommendations following these visits.
- Mentoring and guiding facility in-charges to implement quality improvement measures effectively.
- Compiling and analysing monthly outcome-level data from facilities, particularly on adverse events, maternal, neonatal, and child health outcomes, and disease control programmes, and sharing these insights with the DQAC.

- Reporting sterilization-related indicators, including deaths, complications, and failures, to the State after approval from the DQAC Chairperson.
- Reviewing the implementation of the National Family Planning Indemnity Scheme and related compensation based on facility reports and field assessments.
- Promoting a culture of learning and quality within facilities by supporting quality teams and champions, documenting best practices, and sharing innovations with NHSRC or uploading them to the National Healthcare Innovation Portal.

Accreditation Status of Kannur District

Kannur district has achieved a total of **28 NQAS accreditations**, including 22 FHCs, 5 UPHCs, and 1 W&C facility. Block Quality Mentoring Teams have been formed across all blocks, with their training nearly completed over three sessions. District-level training for the Block HWC mentoring teams has also been completed, and an annual support of Rs.15,000 /-has been allocated to each block. Training has been provided to all HWC teams in 9 blocks, and the Kayakalp district assessment is currently in progress, reflecting ongoing efforts to strengthen quality, cleanliness, and infection control in public healthcare facilities.

Table 11.3.1: Details of fund utilization

Sl. No	Head	Approved Amount	Expenditure	% of Utilization
1	Quality (175)	76.17	76.17	100
2	Kayakalp (176)	92.55	83.99	91
3	Quality- NUHM (139)	8.00	9.59	120
4	Kayakalp -NUHM (140)	8.84	7.34	83
TOTAL		185.56	177.09	95.43

source: District Data

The fund utilization data for quality improvement and Kayakalp initiatives in the district reflects effective financial management and strategic deployment of resources. For the Quality programme, the entire approved amount of Rs. 76.17 lakh was fully utilized, achieving 100% expenditure. Under the Kayakalp programme Rs.83.99 lakh was spent out of the approved Rs. 92.55 lakh, resulting in 91% utilization. The Quality-NUHM component saw an expenditure of Rs. 9.59 lakh against the approved Rs. 8.00 lakh, indicating slightly higher utilization at 120%, while Kayakalp-NUHM utilized Rs. 7.34 lakh out of Rs. 8.84 lakh sanctioned, achieving 83% utilization. Overall, out of a total sanctioned fund of Rs.185.56 lakh, Rs. 177.09 lakh was expended, reflecting an overall utilization rate of **95.43%**, demonstrating efficient planning and implementation of quality and sanitation improvement initiatives across healthcare facilities in the district.

ACHIEVEMENTS & ACCOLADES RECEIVED

Kannur district leads Kerala in the number of NQAS-accredited institutions, having achieved a total of 28 accreditations to date. The details are as follows:

Table 11.3.2: List of NQAS accredited institutions in Kannur

Sl.No	Institution	Score
1	UPHC Maithanappally	95
2	FHC Therthally	95
3	FHC Valapattanam	95
4	FHC Kottiyoor	92
5	FHC Malappattam	97
6	FHC Kadiroor	93
7	FHC Kankol Alappadamba	97
8	FHC Cheruthazham	98
9	FHC Pattiyam	92

10	UPHC Kolassery	94.3
11	FHC Thillankery	93
12	UPHC Koovodu	88.9
13	FHC Pulingome	90
14	FHC Aralam Farm	84
15	FHC Cherukunnuthara	89
16	FHC Munderi	88
17	FHC Kalliassery	91.8
18	FHC Eramom Kuttur	92.6
19	FHC Chirakkal	90.14
20	FHC Pattuvam	91.60
21	UPHC Porora	93.72
22	UPHC Panoor	93.34
23	FHC Newmahe	87.6
24	FHC Mattool	95
25	FHC Udayagiri	94
26	W&C Mangattuparamba	94
27	FHC Kottayam Malabar	95
28	FHC Morazha	94.97

source: District Data

LaQshya

W & C Mangattuparamba accredited under LaQshya standards

KASH

Total 26 facilities are KASH accredited

Table 11.3.3: List of KASH accredited centres

1	UPHC Maithanappally
2	FHC Therthally
3	FHC Valapattanam
4	FHC Kottiyoor
5	FHC Malappattam
6	FHC Kadiroor
7	FHC Kankol Alappadamba
8	FHC Cheruthazham
9	UPHC Kolassery
10	FHC Thillankery
11	UPHC Koovodu
12	FHC Pulingome
13	FHC Aralam Farm
14	FHC Cherukunnuthara
15	FHC Munderi
16	FHC Kalliassery

17	FHC Eramom Kuttur
18	FHC Chirakkal
19	FHC Pattuvam
20	UPHC Porora
21	UPHC Panoor
22	FHC New Mahe
23	FHC Mattool
24	FHC Udayagiri
25	W&C Mangattuparamba
26	FHC Kottayam Malabar
27	CHC Pattiyam

source: District Data

Figure 11.1:NQAS & KASH Accredited Institutions

FHC Munderi (NQAS & KASH)

UPHC Porora (NQAS & KASH)

FHC Therthally (NQAS & KASH)

FHC Kottayam Malabar (NQAS &KASH& KAYAKALP)

W&C Mangattuparamba (KAYAKALP&MBFHI)

FHC Kallyasseri (NQAS&KASH)

Figure 11.2:NQAS Service Provider Training

Figure 11.3:AAM Block Mentoring Team Training

11.4 National Programme for Palliative Care (NPPC)

The National Programme for Palliative Care (NPPC) in Kannur district exemplifies a compassionate and community-driven approach to healthcare, focusing on the dignity and comfort of patients with chronic and life-limiting conditions. A cornerstone of this initiative is the “One Volunteer for One Bedbound Patient” scheme, which ensures personalized care and emotional support through trained community volunteers. These

volunteers have undergone comprehensive training to deliver home-based care, making palliative services more accessible and humane.

To streamline and coordinate services, a palliative care grid has been successfully implemented, enabling efficient tracking, referral, and follow-up of patients across the district. Currently, 88 primary home care units are operational within 86 government health facilities, offering essential services such as nursing care, medication support, and psychosocial assistance. At the secondary level, 15 specialized palliative care units are functioning in Community Health Centres (CHCs) and Taluk Hospitals, providing advanced interventions including physiotherapy, pain management, and inpatient care for referred cases.

A notable innovation within the NPPC framework is "Naatu Nanma," a collaborative initiative with Kudumbasree, Kerala's renowned women-led self-help network. This partnership strengthens the community base of palliative care by integrating local resources, enhancing volunteer engagement, and fostering social responsibility. Together, these efforts reflect the district's unwavering commitment to ensuring that every patient receives care that is not only clinically sound but also deeply empathetic and culturally rooted.

PALLIATIVE CARE

Primary Level Palliative Care Services in Kannur district are a testament to the compassionate and community-centric approach adopted under the National Health Mission. These services are delivered through Local Self-Government Institutions (LSGIs) in collaboration with government health facilities, ensuring that care reaches the most vulnerable-particularly bedridden patients—within the comfort of their homes. At the heart of this system is a dedicated team led by community palliative care nurses, supported by field staff and trained volunteers, who provide consistent and empathetic home-based care.

The Palliative Care Management Committee (PMC) serves as the statutory body responsible for coordinating and monitoring the program at the LSGI level, ensuring accountability and quality in service delivery. To strengthen the grassroots network, three-day intensive training sessions were conducted for community volunteers, equipping them with the skills needed to support patients and families effectively. In

addition, awareness programs were held across schools and colleges, sensitizing over 840 students to the importance of palliative care and fostering a culture of empathy and social responsibility.

Currently, 86 primary palliative home care units are operational across the district, collectively managing follow-up care for 17,439 registered patients. On average, these units conduct 1,659 home visits per month, reflecting the scale and consistency of outreach. This model not only alleviates the burden on institutional healthcare but also ensures that patients receive dignified, personalized care-anchored in community support and guided by a commitment to holistic well-being.

Figure 11.4.1: Home visit as part of palliative care project

Table 11.4.1: Details of Primary Palliative Care services

No. of units running Primary Palliative Home Care	No. of patients registered for follow up care at home	Average No. of home Care per month
86	17439	1659

source: District Data

Secondary Level Palliative Care Services

Secondary Level Palliative Care Services in Kannur district serve as a vital extension of the primary care framework, offering specialized and comprehensive support to patients with advanced or complex needs. These services are delivered through 15 dedicated units located in major hospitals and Community Health Centres (CHCs), catering to patients referred from Local Self-Government Institution (LSGI)-assigned primary units. Each unit provides home-based care led by a multidisciplinary team comprising doctors, staff nurses, and physiotherapists, ensuring that patients receive expert attention in the comfort of their homes. On average, 1,221 patients benefit from these services monthly, which include specialized medical care, job-based rehabilitation, and a range of supportive interventions tailored to individual needs.

Table 11.4.2: Details of secondary Palliative Care services

No. of units presently providing secondary level services	Average No. of Patients caring at home per month	Services
15	1221	1. Specialized Doctors/Staff Nurse/ Physiotherapist Home Care. 2. Job based Rehabilitation. 3. Other support services

source: District Data

In addition to clinical services, secondary palliative units play a pivotal role in capacity building and program coordination. Monthly Continuous Nursing Education (CNE) sessions are conducted for community palliative care nurses to enhance their skills and knowledge. Training programs for health workers have been organized across 13 block-level institutions, while hospital staff at CHCs and major hospitals have also received targeted instruction. Furthermore, vocational rehabilitation training for paraplegia patients has been successfully implemented in collaboration with LSGIs and community volunteer groups, promoting independence and quality of life. These efforts reflect a holistic and integrated approach to palliative care, rooted in compassion, professionalism, and community empowerment.

Tertiary Level Palliative Care Services

Tertiary Level Palliative Care Services in Kannur district serve as the strategic backbone of the region's palliative care ecosystem, ensuring seamless coordination, capacity building, and quality enhancement across all levels of service delivery. The Department of Palliative Care at the District Hospital, Kannur, functions as the designated Tertiary Level Care Centre, overseeing the implementation and integration of palliative care activities within the government health sector. This centre plays a pivotal role in standardizing care protocols, monitoring program outcomes, and fostering professional development among healthcare providers.

As a hub for advanced training and education, the District Palliative Training Centre at DH Kannur conducts specialized courses for doctors, nurses, paramedical staff, and ASHA's, equipping them with the knowledge and skills required to deliver compassionate and competent care. Notably, a six-day district-level refresher course was organized for community palliative nurses, reinforcing best practices and clinical acumen. In addition, targeted training sessions have been held for hospital staff, ensuring that institutional care aligns with the broader goals of the palliative care program. Through its multifaceted initiatives, the tertiary centre not only strengthens the operational framework of palliative services but also nurtures a culture of empathy, excellence, and continuous learning across the district.

Community Based Organizations

Community-Based Organizations (CBOs) play a vital and compassionate role in the delivery of palliative care services across Kannur district, particularly for bedridden patients who require consistent and personalized support. In alignment with the National Health Mission's Palliative Care Project, these organizations are being actively supported through structured training programs, development of customized modules and syllabi, and provision of essential background materials to enhance their caregiving capacity. This collaborative model ensures that patient care is seamlessly coordinated between government health institutions and non-governmental service providers, fostering a unified and efficient system of support.

The overarching intent of the palliative care program is to guarantee primary-level care for every bedridden patient in the district, with a strong emphasis on improving the quality and reach of services. To complement this, the district is committed to expanding full-fledged secondary-level palliative care centres within General, District, Taluk Hospitals, and Community Health Centers, thereby strengthening the continuum of care. The developmental objective remains clear and ambitious: to ensure that palliative care services are available to all, in every corner of the district, leaving no patient without access to comfort, dignity, and holistic support.

Summary note

This chapter highlights the extensive initiatives undertaken under the National Health Mission (NHM) in Kannur district, reflecting a comprehensive approach to public health and inclusive care. Key child health programs such as Rashtriya Bal Swasthya Karyakram (RBSK) and Arogya Kiranam (AK) have ensured systematic screening and treatment for children, while the District Early Intervention Centre (DEIC) provides specialized services for birth defects, developmental delays, and disabilities. Adolescent health also strengthened through the Rashtriya Kishor Swasthya Karyakram (RKSK) and the Peer Educators Programme, promoting awareness, mental well-being, and life skills. The Hridyam initiative effectively monitors congenital heart disease cases through a digital registry, and mobile health interventions like the Mobile Intervention Unit (MIU) and Mobile Health Team (MHT) extend healthcare access to remote and tribal areas. Nutritional and reproductive health programs, including Weekly Iron Folic Supplementation (WIFS) and family planning services, demonstrate sustained outreach

and growing uptake. The Biomedical Equipment Maintenance Programme (BEMP) ensures operational readiness of healthcare infrastructure, while strict compliance with quality standards through NQAS, Kayakalp, KASH, LaQshya, MusQan, SUMAN, and MBFHI reflects a strong commitment to patient safety and service excellence. Accredited Social Health Activists (ASHAs) remain the backbone of community health, supported through training, incentives, and capacity-building initiatives. Palliative care services, delivered across primary, secondary, and tertiary levels with active involvement of community volunteers and organizations, ensure dignified, compassionate, and home-based care for bedridden patients. Overall, NHM activities in Kannur district exemplify a holistic, quality-driven, and community-centered approach, though sustaining staffing and resource stability remains essential for continued outreach and impact.

CHAPTER 12

NATIONAL URBAN HEALTH MISSION (NUHM)

12.1 National Urban Health Mission (NUHM)

The National Urban Health Mission (NUHM) is a flagship initiative aimed at addressing the health needs of the urban poor, particularly those residing in slum areas, by ensuring access to essential primary healthcare services. In Kannur district, NUHM has made significant strides in strengthening urban health infrastructure, community engagement, and institutional service delivery. This chapter highlights the key components of NUHM implementation, including community-level processes, outreach activities, and institutional performance metrics for the year 2024–25.

Table 12.1.1:Community process under NUHM

Community process	Approved	In position	Remarks
No. of Mahila Arogya Samithi (MAS) constituted	112	91	
No. of MAS Accounts opened		89	
No. of MAS trainings/ orientations held	NA	NA	
No. of ASHAs		92	
No. of UHNDs held in 2024-25 with frequency (Weekly, Monthly, Quarterly)		768 (Monthly)	
No. of special outreach medical camps			
2023-24		24	
2024-25		NIL	
Population and households assigned per ASHA		2050	
Population and households assigned per JPHN		6300	
NGO Support in Community process if any	NA	NA	

source: District Data

The community engagement framework under NUHM is anchored by Mahila Arogya Samithis (MAS) and ASHA, who serve as vital links between urban populations and health services. Out of 112 approved MAS groups, 91 have been successfully constituted, with 89 having operational bank accounts to facilitate programmatic activities. A total of 92 ASHAs are currently deployed, each covering approximately 2,050 individuals, while Junior Public Health Nurses (JPHNs) serve around 6,300 people each. Special outreach medical camps, which numbered 24, were conducted in 2023–24. The existing community structure continues to play a pivotal role in urban health delivery.

12.1.1 Institutional level activities under NUHM:

Institutional performance under NUHM reflects a robust service delivery model. In 2024–25, urban health facilities recorded a total of 198,574 outpatient visits, averaging 71 patients per day. Laboratory services were equally active, with 84,083 tests conducted-an average of 32 per day. The burden of non-communicable diseases (NCDs) continues to rise, with 13,804 cases managed during the year, underscoring the growing need for chronic disease surveillance and management. Additionally, 12 outreach labour camps were organized to extend services to underserved urban populations.

Table 121.1.1: Institutional Level activities under NUHM

ITEMS	2024-25
Total OP	198574
Total NCD	13804
Total Lab	84083
Total Outreach labour camps	12

source: District Data

CHAPTER 13

NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME

13.1 National Tuberculosis Elimination Programme (NTEP)

The National Tuberculosis Elimination Programme (NTEP) is a flagship program by the Government of India aimed at eliminating tuberculosis (TB) by 2025. It builds upon the Revised National Tuberculosis Control Programme (RNTCP) and focuses on early detection, prompt treatment, and preventing the spread of TB. The NTEP is implemented under the aegis of the National Health Mission (NHM), with a shared responsibility between the state and central governments.

13.2 Components of NTEP

- Organizational Structure: The programme is structured at the national, state, and district levels, with specialized teams and networks for TB care.
- Diagnosis and Treatment: The programme provides free diagnosis and treatment for all TB patients, including services for drug-resistant TB (DR-TB).
- Case Finding: Active case finding strategies are used to identify TB patients, including community engagement and awareness campaigns.
- Drug Supply and Logistics: Ensuring a continuous supply of quality anti-TB drugs is crucial, along with the use of fixed-dose combinations (FDCs) to simplify treatment.
- Private Sector Engagement: Involving private healthcare providers in TB care is a key strategy to reach more patients and improve treatment adherence.
- Surveillance and Information Systems: The programme uses IT-enabled systems like Nikshay to monitor TB cases, track treatment, and manage patient data.
- Community Engagement: Engaging communities through advocacy, communication, and social mobilization is important for TB awareness, prevention, and patient support.

- National Strategic Plan: The NTEP follows the National Strategic Plan (2017-2025) with a focus on Detect – Treat – Prevent – Build (DTPB) to control and eliminate TB.

13.3 Progress in the Tuberculosis Eradication in the District

CB-NAAT Testing

Table 13.3.1: Progress in the Tuberculosis Eradication

Year	No. of tests conducted	Positive cases	Percentage
2020-21	6261	857	14%
2021-22	5651	690	12%
2022-23	5417	486	9%
2023-24	8110	703	9%
2024-25	6719	534	8%

source: District Data

The district has shown commendable progress in tuberculosis (TB) eradication through consistent testing and surveillance efforts under the CB-NAAT (Cartridge-Based Nucleic Acid Amplification Test) programme. Over the past five years, Kannur has maintained a strong focus on early detection and case confirmation using molecular diagnostics. In 2020–21, a total of 6,261 tests were conducted, identifying 857 positive cases, with a positivity rate of 14%. Although the number of tests slightly declined in 2021–22 and 2022–23, with 5,651 and 5,417 tests respectively, the positivity rate showed a steady decrease to 12% and 9%, indicating an improvement in control measures and reduction in disease burden. In 2023–24, the district significantly enhanced testing efforts, conducting 8,110 tests—the highest in the five-year period—while maintaining a stable positivity rate of 9%. During 2024–25 (up to the reporting period), 6,719 tests have already been conducted, yielding 534 positive cases with a positivity rate of 8%. The gradual decline in positivity percentage over the years reflects the impact of sustained

awareness campaigns, timely diagnosis, improved treatment adherence, and community-based interventions aimed at breaking the chain of TB transmission.

13.4 Fund allocation for NTEP

Table 13.4.1: Fund allocation for NTEP

Sl. No	Year	Amount (in lakhs)
1	2020-21	109.55
2	2021-22	150.00
3	2022-23	149.83
4	2023-24	162.62
5	2024-25	147.36

source: District Data

The financial allocation for the National Tuberculosis Elimination Programme (NTEP) in Kannur district has shown consistent support over the past five years, reflecting the district's continued commitment to eradicating tuberculosis. In 2020–21, an amount of Rs. 109.55 lakh was allocated, marking the foundation for strengthening diagnostic and treatment services. This was followed by a significant increase to Rs. 150.00 lakh in 2021–22, underscoring the intensified efforts to expand programmatic activities and improve case detection. The allocation remained steady at Rs. 149.83 lakh in 2022–23, ensuring the continuity of interventions and operational activities at various levels. In 2023–24, the district received Rs. 162.62 lakh, the highest allocation during the period, aimed at scaling up testing facilities, community outreach, and digital surveillance mechanisms. For the financial year 2024–25, a fund of Rs. 147.36 lakh has been sanctioned, signifying sustained financial commitment to achieving the national goal of tuberculosis elimination through enhanced diagnostic coverage, treatment adherence, and strengthened public health infrastructure.

Summary

The National Tuberculosis Elimination Programme (NTEP) aims to eliminate TB by 2025 through early detection, effective treatment, and prevention strategies. In Kannur district, the programme has been implemented with strong emphasis on diagnostic expansion, quality treatment, and community engagement. Key components include free diagnostic and treatment services, private sector collaboration, continuous drug supply, and digital surveillance using the Nikshay platform.

Kannur has made notable progress in TB eradication through the CB-NAAT testing initiative. Over the past five years, the district conducted increasing numbers of molecular tests while achieving a steady reduction in positivity rates—from 14% in 2020-21 to 8% in 2024-25, reflecting improved control measures and awareness efforts. Financially, Kannur has received consistent support under NTEP, with allocations rising from Rs. 109.55 lakh in 2020-21 to Rs. 162.62 lakh in 2023-24, and Rs. 147.36 lakh in 2024-25. These funds have been directed towards strengthening diagnostic infrastructure, supporting community-based interventions, and enhancing surveillance systems. Overall, the district's progress demonstrates a systematic and sustained approach toward achieving the national goal of TB elimination.

CHAPTER 14

NATIONAL AIDS CONTROL PROGRAMME

14.1 National AIDS Control Programme (NACP) implementation

The National AIDS Control Programme (NACP) in Kannur district is a comprehensive public health initiative aimed at preventing the spread of HIV/AIDS, ensuring early diagnosis, and providing accessible treatment and care for affected individuals. The program operates through a well-structured network of service facilities, including Integrated Counselling and Testing Centres (ICTCs), Antiretroviral Therapy (ART) Centres, STI/RTI clinics, and both government and private blood banks. These facilities are strategically positioned to serve high-risk groups (HRGs), general clients, and vulnerable populations such as pregnant women, migrants, and transgender individuals.

Targeted Intervention (TI) projects form the backbone of outreach efforts, focusing on key populations including Female Sex Workers (FSWs), Migrants, Men who have Sex with Men (MSM), Transgender (TG) individuals, and Injecting Drug Users (IDUs). These projects facilitate registration, regular screening for HIV, syphilis, and STIs, and ensure linkage to ART services for those diagnosed. The district also implements the Prevention of Parent-to-Child Transmission (PPTCT) program, which integrates HIV screening into antenatal care to safeguard new-borns from vertical transmission. Additionally, blood safety is rigorously maintained through regulated collection and screening across 13 blood banks. The PALS data further reflects the district's commitment to inclusive care by documenting service uptake across gender identities.

NACP has the following service facilities operational in Kannur district

Table 14.1.1: Services provided under NACP

Name of HIV service centres	No. of HIV Service centres
Targeted interventions	4
Integrated counselling and testing centres	5

Designated STI & RTI clinic	2
ART Centre	2
Link ART	0
Blood Banks (Government)	4
Blood Banks (Private)	9

source: District Data

Under the National AIDS Control Programme (NACP), Kannur district has established a well-structured network of service centres to ensure effective prevention, diagnosis, treatment, and management of HIV/AIDS. There are four **Targeted Intervention (TI) centres** functioning in the district, focusing on high-risk populations to promote awareness, safe practices, and behaviour change communication. Five **Integrated Counselling and Testing Centres (ICTCs)** are operational to provide counselling, voluntary testing, and referral services for individuals seeking HIV-related assistance. Additionally, two **Designated STI/RTI clinics** are providing services for the prevention and management of sexually transmitted and reproductive tract infections, which play a vital role in reducing HIV vulnerability. The district also has two **Anti-Retroviral Therapy (ART) centres**, ensuring continuous and accessible treatment for people living with HIV. Although there are currently **no Link ART centres** functioning in Kannur, ART services are being effectively managed through the existing facilities. To maintain blood safety and prevent transfusion-transmitted infections, the district has a strong network of thirteen **blood banks**, including four **government-run** and nine **private blood banks**, all operating under NACP guidelines. This comprehensive network of services reflects the district's sustained efforts toward HIV prevention, care, and control.

14.2 Targeted Intervention projects in (Kannur)

Table 14.2.1: Targeted interventions under NACP

Indicator	FSW	Migrant	MSM	TG	IDU
Total No. of TI Projects	1	1	1	1 (composite TI with FSW)	1
Total registration till March 2025	1204	1377	285	166	9703
New registration 2024-25	337	86	28	109	9703
New registration for the 1st quarter	51	24	9	12	2077
Total HIV Screening during 2014-25	1779 (including repeat test)	2116 (including repeat test)	525 (including repeat test)	211 (including repeat test)	3027
HIV Positive found	0	1	0	0	6
Total HIV Screening during 2024-25	6	11	5	0	30
Total no. of alive HRG Currently registered at ART Centres	6	11	5	0	28
Total HRG Positive currently on ART	3755 (including RMC)	3668 (including RMC)	886 (including RMC)	283 (including RMC)	6822

Total STI Screening during 2024- 25.	11	3	6	0	6
STI Cases diagnosed and treated	1194 (including repeat test)	2116 (including repeat test)	536 (including repeat test)	163 (including repeat test)	398
Total STI Screening during 2024-25	0	0	0	0	0
STI Cases diagnosed and treated	1	1	1	1 (composite TI with FSW)	1
Total syphilis screening during 2024-25	1204	1377	285	166	9703
Syphilis positive cases	337	86	28	109	9703
Total syphilis screening during 2024-25	51	24	9	12	2077
Syphilis positive cases	1779 (including repeat test)	2116 (including repeat test)	525 (including repeat test)	211 (including repeat test)	3027

source: District Data

14.3 Testing of General Clients (at ICTCs in district) - SIMS Data

As per the SIMS data, HIV testing of general clients under the National AIDS Control Programme (NACP) in Kannur district demonstrates the extensive reach of Integrated

Counselling and Testing Centres (ICTCs) and associated facilities. During the reporting period, a total of **91,285 general clients** were tested across different types of centres.

Table 14.3.1: Testing of General Clients at ICTCs

ICTC	FICTC	CBS	PPP	TOTAL	General clients positive	% positive
42966	4805	4569	38945	91285	61	0.067%

source: District Data

Of these, **42,966 individuals** were tested at ICTCs**,** 4,805 at Facility-Integrated Counselling and Testing Centres (FICTCs), 4,569 under the Community-Based Screening (CBS) initiative, and 38,945 through Public-Private Partnership (PPP) centres. These diverse testing platforms ensure that HIV testing services are accessible to all sections of the population, including those in remote and high-risk areas. Among the total tested, **61 clients** were found positive, accounting for a **positivity rate of 0.067%**. The low positivity rate reflects effective awareness campaigns, preventive interventions, and improved access to counselling and diagnostic services, highlighting the district's ongoing efforts to control HIV transmission and promote early diagnosis and treatment.

14.4 Prevention of Parent to Child Transmission of HIV

In Kannur district, the Prevention of Parent-to-Child Transmission (PPTCT) programme under the National AIDS Control Programme has demonstrated strong outreach and screening efforts. A total of 22,191 antenatal cases were tested for HIV across various service platforms, including 8,412 at Integrated Counselling and Testing Centres (ICTCs), 6,093 at Facility-based ICTCs (FICTCs), and 7,686 through Public-Private Partnerships (PPP). Among these, only one case was found to be HIV positive, reflecting both the effectiveness of early screening and the low prevalence rate among pregnant women in the district. This proactive approach plays a critical role in safeguarding new-borns from vertical transmission and ensuring timely intervention for affected mothers.

Table 14.4.1Parent to Child Transmission of HIV

District	ICTC	FICTC	PPP	Total	ANC positive
Kannur	8412	6093	7686	22191	1

source: District Data

PLHIV ART Linkage System (PALS)

The PALS (People Living with HIV/AIDS Linkage Services) data for Kannur district reflects ongoing efforts to ensure inclusive and gender-sensitive outreach under the National AIDS Control Program. In the year 2024–25, a total of 61 individuals were registered, comprising 47 males and 14 females, with no registrations under the 'Others' category. Cumulatively, the district has reached 1,260 individuals-743 males, 511 females, and 6 individuals identifying as 'Others'. This data underscores the program's commitment to equitable service delivery and its responsiveness to diverse gender identities, while also highlighting the need for continued engagement with underrepresented groups to ensure comprehensive coverage.

Table 14.4.2: PALS data

Year	Male	Female	Others	Total
2024-25	47	14	0	61
Cumulative	743	511	6	1260

source: District Data

14.5 Blood Collection

In the year 2024–25, Kannur district demonstrated strong performance in maintaining blood safety and availability through its network of blood banks. A total of 44,169 units of blood were collected, with government facilities contributing 21,613 units and private institutions collecting 22,556 units. This balanced contribution from both sectors highlights the district's commitment to ensuring a reliable and sufficient blood supply for medical emergencies, surgeries, and routine healthcare needs. The robust collection

figures reflect effective donor mobilization, public awareness, and coordinated efforts between public and private healthcare providers

Table 14.5.2: Details of blood units collected

Year (2024-25)	No of Blood Units Collected
Govt	21613
Private	22556
Total	44169

source: District Data

Summary

Kannur district's implementation of the National AIDS Control Program (NACP) reflects a proactive, inclusive, and well-coordinated approach to HIV prevention, care, and support. With 4 Targeted Intervention (TI) projects and 5 Integrated Counselling and Testing Centres (ICTCs) in operation, the district has successfully facilitated over 91,000 HIV tests among general clients, maintaining a low positivity rate of just 0.067%. TI projects have made remarkable progress in reaching high-risk groups, ensuring regular screening and timely treatment for HIV, sexually transmitted infections (STIs), and syphilis.

The Prevention of Parent-to-Child Transmission (PPTCT) program has been a standout success, screening over 22,000 pregnant women and identifying only one positive case-demonstrating the strength of early intervention and maternal health integration. Blood safety continues to be a top priority, with 44,169 units collected in 2024–25 through a robust network of government and private blood banks. While opportunities remain to further strengthen community awareness and integrate services with primary healthcare, Kannur's efforts showcase a strong foundation and a forward-looking commitment to equitable, stigma-free HIV care for all.

Annexures

ANNEXURE 1

Details of PHC

	NAME OF INSTITUTION	NO OF BED	OT	ICU/CCU	VENTILATOR	CT SCANNER	MRI SCANNER	USS CANNER	TMT	ECHO	EEG	ECG	ANGIOGRAM	ANGIOPLASTY	XRAY	LASER RAY	BLOOD BANK	CLINICAL LAB	PHARMACY	AMBULANCE	ICU AMBULANCE
1	PARASSINI KADAVU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	CHENGALAYI	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
3	NARATH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	KELAKAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	VALLITHODE	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
6	MUZHAKKUNNU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	DHARMADAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	PERALASSERY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
9	VENGAD	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
10	KADACHIRA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0

11	KUTTIATTOOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	PUDIYANGADI FSHARIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
13	PHC CHERUKUNNU PUNNACHERY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	ERANCHOLI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	CHOKLI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
16	PHC-CHELORA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	PHC PERUVA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	MANGATTIDAM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
19	MALOOR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	CHAPPARAPADAVU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	KURUMATHUR	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
22	PARIYARAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	EDAKKAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	KUNNOTHUPARMBA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	TRIPANGAOTTUR	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		

26	PHC PERINGALAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	MEKKUNNU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
28	CHITTARIPARAMBA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	KODIYERI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	1	0	
30	URATHUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
31	KEEZHALLUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	CHALIL	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
33	CHANDANAKKAMPARA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
34	PAMPURUTHI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
35	KOLACHERY	0	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO
36	PANNIANNOOR	2	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO
37	KANNAPURAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
38	PHC ALAKODE MANAKKADAVU	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
39	KUDIYANMALA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
40	NADUVIL	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
41	CHUZHALI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

42	PALLIKUNNU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
43	PUZHATHI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
44	KARIKKOTTAKARI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	PHC KANICHAR	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
46	ANGADAIKADAVU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	MUTTOM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
48	ERUVESSY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
49	ALAKKAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
50	EZHOME	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
51	CHITTARIPARAMBA	OBSERVATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Details of CHC

Sl no.	Name of Institution	No of bed	OT	ICU/CCU	Ventilator	CT scanner	MRI scanner	USS canner	TMT	ECHO	EEG	ECG	Angiogram	Angioplasty	Xray	Laserray	Bloodbank	clincallab	pharmacy	ambulance	ICU ambulance
1	KARIVELLORE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	MAYYIL	24	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0
3	PANOOR	18	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0
4	KOOTUMUGAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	IRIKUR																				
6	PINARAYI	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
7	ODUVALLITHATTU	30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1 (108)	0
8	MATTANUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	AZHIKODE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	IRIVERI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

11	PAPPINISSERI	10	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	1	1	0
12	KEEZHPALLY	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0
13	PATIYAM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
14	MATTOOL	21	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0

Details of FHC, DH, GH, THQH

SL NO.	NAME OF INSTITUTION	NO OF BED	OT	ICU/CCU	VENTILATOR	CT SCAN NNER	MRI SCAN NNER	USS CAN NER	TMT	ECHO	EEG	ECG	ANGIOGRAM	ANGIOPLASTY	XRAY	LASER RAY	BLOOD BANK	CLINICAL LAB	PHARMACY	AMBULANCE	ICU AMBULANCE
	DISTRICT HOSPITALS																				
1	DH KANNUR	475	4	2	32	YES	NO	YES(PORTABLE)	YES	YES	NO	YES	YES	YES	YES	NO	YES	YES	YES	YES	NO
2	GH THLASSERY	372	7	2	13	NO	NO	YES(PORTABLE)	NO	NO	NO	YES	NO	NO	YES	NO	YES	YES	YES	YES	YES
	TALUK HOSPITALS																				
1	TH QH TALIPARAMBA	171	1	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	,NO	YES	YES	YES	NO
2	TH KUTHUPARAMBA	153	YES	NO	1	NO	NO	YES	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES	YES	YES	NO

3	TH PAYYANNUR	299	YES	YES	10	YES	NO	YES(PORTABLE)	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES	YES	YES	NO
4	TH IRITTY																				
5	TH PERAVOOR	100	YES	NO	YES	NO	NO	YES	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES	YES	YES	NO
6	TH PAYANGADI																				
7	TH PERINGOME	24	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
	WOMEN AND CHILD HOSPITAL	NO	NO	NO																	
1	W & C H MANGATTUPARAMBA	100	YES	YES	4	NO	NO	3	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES	YES	YES	NO
	FAMILY HEALTH CENTERS																				
1	MALAPATTAM																				
2	KADIRUR																				
3	KANKOL ALAPADAMBA	0	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO

4	ALAKKOD THERTHAL LY	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
5	CHERUTHA ZHAM	10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
6	VALAPTTN AM																					
7	THILLANKE RY	2	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	
8	MUZHAPPIL ANGAD																					
9	MUNDERI	2	0	NO	0	0	0	0	0	0	0	0	0	0	0	0	0	YES	YES	NO	NO	
10	KOTTIYOOR																					
11	KOTTAYAM MALABAR	0	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	YES	NO
12	CHERUKUN NU(THARA)	3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
13	ARALAM FARM	3	MINOROT-1	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	YES	NO
14	PATTUVAM																					
15	KALLIASSE RY	3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
16	PULINGOM E	OBSER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO

		VATIONBEDS3																			
17	KOODALI																				
18	UDAYAGIRI	10	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
19	CHIRAKKAL																				
20	ANJARAKANDY																				
21	ERAMAM KUTTOOR	2	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
22	KUNNHIMANGALAM	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
23	ELAYVOOR	0	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
24	KADANNAPALLY	OBSERVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
25	ETTIKKULAM	2	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO

26	RAMANTHALI	OBSERVATION BED 3	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
27	MOKERI	OBSERVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
28	NEW MAHE	0	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO
29	ULIKKAL	0	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO
30	PHC MORAZHA		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
31	PHC PANNIYANNUR	2	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO

32	FHC PARASSINI KKADAVU	3 BEDS INOBSERVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
33	KURUMATHUR	3 INOR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NA	NA	NO	NA	NA	YES	YES	NO	NO

Health Institutions

PHC Kanichar

UHWC Vellur

UPHC Koovode

AAM-SC Chirakkal

AAM-SC Koodali

BLOCK FHC Karivellur

FHC Chokli

FHC Edakkad

FHC Koodali

FHC Kunnothuparamba

HWC Naravoor

Isolation Ward CHC Oduvallithattu

UHWC Peringathoor

UHWC Vembadi

ANNEXURE 2
Health Initiatives

The following are the major programmes under NHM:

Rashtriya Bal Swasthya Karyakram (RBSK)

Activities & Achievements under RBSK

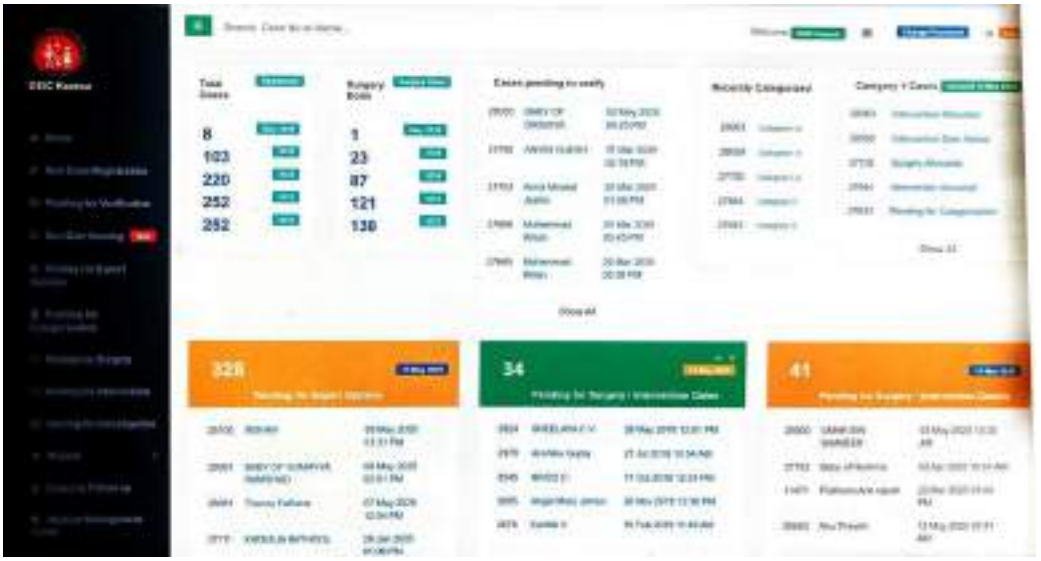
1. **Shalabham -** Mobile Health Unit: unavailability of MOs and vehicles, service stopped

   Shalabham corner

Block Level RBSK Training:

All 13 health-blocks conducting block level RBSK training for JPHN, MLSP and ASHA

2. Hridyam



3. **Anuyatra-Mobile Intervention Unit (MIU)**

4. District Early Intervention Centres (DEIC)

5. Palliative Care Grid: Training for Staff

6. ASHA Training

List of Contributors - District Health Intiative

Name of Officer/Staff	Designation	Office (DMO/NHM)	Role in Preparation (Data Compilation / Analysis / Drafting / Review / Coordination etc.)	Mobile Number	Email ID
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