ISSUES IN THE DISTRICT GOVERNMENT HOSPITALS IN ANDHRA PRADESH - EXPLORING THE ROLE OF PPP.

A Dissertation submitted to the Indian Institute of Public Administration (IIPA), New Delhi for the award of Post-Graduate Diploma in Public Administration in partial fulfilment of the requirement for the Advanced Professional Program in Public Administration (2021-22)

by

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Under the guidance and supervision of

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Certificate

I have the pleasure to certify that Vusarthi Nagamani has pursued her research work and prepared the present dissertation titled 'Issues In The District Government Hospitals In Andhra Pradesh - Exploring The Role of PPP' Under My Guidance And Supervision. The dissertation is the result of her own research and to the best of my knowledge, no part of it has earlier comprised any other monograph, dissertation or book. This is being submitted to the Indian Institute of Public Administration (IIPA), New Delhi for the purpose of Post-Graduate Diploma in Public Administration in partial fulfilment of the requirement for the Advanced Professional Programme in Public Administration of the Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of Vusarthi Nagamani is worthy of the award of Post Graduate Diploma in Public Administration.

11/4/22

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(Vusarthi. Nagamani)

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Abbreviations

All India Institute of Medical Sciences (AIIMS)

Catastrophic Health Expenditure (CHE)

Cardiovascular Diseases (CVDs)

Community Health Centers (CHC)

District Hospital (DH)

Department of Health, Medical and Family Welfare (DoHMFW)

Disease Adjusted Life Years (DALYs)

Emergency Management and Research Institute (EMRI)

Epidemiological Transition Level (ETL)

First Referral Unit (FRU)

Gross Domestic Product (GDP)

Healthy Life Expectancy (HALE)

Indian Public Health Standards (IPHS)

Infant Mortality Rate (IMR)

Insurance Regulatory and Development Authority of India (IRDAI)

Non-Communicable Diseases (NCDs)

National Health Mission (NHM)

National Health Policy-2017(NHP-2017)

National Institute of Public Finance and Policy (NIPFP)

National Non-communicable Diseases Monitoring Survey-2017 (NNCDMS)

National Sample Survey (NSS)

National Programme for Communicable Diseases (NPCDs)

National Urban Health Mission (NUHM)

Obstructive Pulmonary Disease (COPD)

Out-Of-Pocket Expenditures (OOPE)

Primary Health Center (PHC)

Public-Private Partnership (PPP)

Rashtriya Swasthy Bhima Yojana (RSBY)

Rural Medical Practitioners (RMPs)

Sample Registration System (SRS)

Service Coverage Index (SCI)

Sustainable Development Goal (SDG)

Universal Health Coverage (UHC)

World Health Organization (WHO)

Years of Life Lost (YLL)

Years Lived with Disability (YLD)

Executive Summary

Public health care is the most critical and complex endeavour for a Government as it influences the quality and existence of life of individuals. Public health has a direct influence on a country's socio-economic development. There have been efforts from international to national to state-level authorities to improve the public health system and make available an efficient and effective health care service delivery system that could eliminate pain and reduce the cost of health care service in the country.

India has made significant progress in improving its health outcomes over the last two decades. In the three tire health care service delivery system in the Country, the District hospital is a valuable resource providing a secondary level of health care, which includes comprehensive preventive, promotive, and curative services. Currently, there are more than 800 District Hospitals across the country for providing crucial services to the population, and the State of Andhra Pradesh has a share of 1.98%.

Governments at the National and State levels have been taking many efforts for strengthening and improving the District Hospitals under various flagship programs from time to time like the National Health Mission (NHM). Understanding the increasing burden of the Non-communicable Diseases(NCDs) on the Secondary Public Health Care in the Country, and to prevent and control major NCDs, The Government of India had launched in the year 2010 the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS). The World Health Organization's Global Action Plan (2013–2020) had also called for the prevention and control of non-communicable diseases (NCDs)

through strengthening and reorienting health systems that could address four major NCDs - cardiovascular disease, cancer, chronic respiratory disease, and diabetes by increasing access to affordable and effective medicines as well as technologies and improving availability of skilled workforce. National Health Policy 2017 is another major effort of the Government of India in the direction of achieving universal health care, an efficient and effective public health care service delivery system in the country. Despite these efforts, much is required to efficiently and effectively address the new challenges being posed by increasing new diseases in the country.

An attempt is made through this research to understand the District Hospitals in terms of services and facilities available in the District Hospitals in the Country in general, and in Andhra Pradesh in particular amid raising Non-communicable Diseases and Out-of-Pocket expenditure on health care, etc. A wide spectrum of literature has been developed on Indian health care. It has studied the public health system in the country, and its problems and has come out with rich solutions and strategies for establishing a sound public health system. The literature has been continuously enriching by expanding itself into more accurate and specialized aspects and components of the health care system and public health service delivery through conducting scientific way of research, explaining, and analyzing the issues through inter-disciplinary perspectives. Official data on the health policies and outcomes of the various government efforts in health care service delivery has also slowly been developing in India.

Research methodology provides a systematic collection of information; converts the raw information into useful data and makes possible informed analysis and interpretation of the data. The secondary source data introduces the researcher to the existing knowledge and provides a foundation of understanding of the issues and

to continue the research further to fully and comprehensively understand that particular.

Data has a gap in respect of what is the district-wise demand for the health resources to meet the rising secondary and tertiary care diseases in the State of Andhra Pradesh. Updated and real-time Data on Hospital wise and service wise details is not available in the public domain in the State of Andhra Pradesh. The Study period is very short and a sample size of 159 is taken for the survey. Questions are broad and limited nature to understand general perceptions of the participants about the Government General Hospitals. Participants' level of understanding of the terms used in the questionnaire and their preoccupied opinions and general perceptions about the system also act as limitation in the research. Due to time limitation, and the Covid-19 situation, discussions with Department officials could not be conducted to collect more insights into the study topic.

This research work is covered under the seven chapters of Introduction, Literature Review, Research Methodology, Public Health Service Delivery - District Hospitals, Data Analysis & Interpretation, and Recommendations & Conclusions. Though more research and insight always help and enhance the depth of understanding, Literature has generated sufficient evidence that the Indian Public Health System has been continuing under problems, and has required more efforts by the Government for improvement in delivering health care for 1.35 Billion people of the country.

The Indian society in the last past 3 decades of economic reforms experienced inequalities in income with direct implications on health condition of poor and marginalized people[5]. Significant concern is the maternal mortality ratio and infant mortality rate (IMR). The IMR, which was 81 in 1990, according to the World Health

Organization (WHO), declined to 41.4 per 1,000 live births in 2013[7]. However, it still is much higher than the global average for the same period of 33.6 per 1,000 live births (World Health Statistics 2015). According to the sample registration system (SRS) report of Oct 2015, the IMR is now 40 per 1,000 live births[7]. Studies shows that mortality rate of the poorest 20% of Indians are double that of the richest 20%[5].

The Indian Public Health Standards (IPHS) 2012 guidelines recommend District Hospitals maintain at least 22 beds per 1 lakh population (based on the district population average of the 2001 Census). But, District Hospitals in India have a range of 1 to 408 beds per 1 lakh population. 217 District Hospitals were found to have at least 22 beds for every 1 lakh population. This indicates that the Country has functional beds only 51% which indicates the lower level of service delivery in the District Hospitals in the Country. The District Hospitals have still been suffering from the shortage of all health care delivery infrastructure, facilities, technology, etc.

The sample survey conducted for the present study indicates similar kinds of findings regarding the shortages in the health facilities in the Government General Hospitals in Andhra Pradesh. The majority of the sample population has disclosed that lack of facilities and resources is the main reason to opt the private health care. This has resulted in the condition that not only the middle-class people but also the poor and disadvantaged sections of the people are no choice but to opt for private health care in the hope of saving their and their beloved family members. Further, a significant portion of the popular is not coming to Government General Hospitals not because they are rich, but because the services and facilities are inadequate in the District Hospitals. In the sample study, 24% of the participants have revealed that they never visited the Government Hospital which reflects not-so-favorable public perception about the functioning of the Government General Hospital in the Country

and Andhra Pradesh. Even if the public uses the services of the Public Hospitals, that is due to the main reason of lack of sufficient financial resources with them for taking private health care. The majority of 45% of the Sample study participants have indicated this reason.

Despite many efforts, the place the public health delivery system in India in general and the District Hospitals in Andhra Pradesh have been yet to establish a sound and efficient health care delivery system that suits the needs and preferences of the public. The Government of India and the Andhra Pradesh have no Public-Private Partnership Model Health Service Delivery Policy so far. District Hospitals are mainly meant for poor and disadvantaged sections of society to provide health care free of cost. But they don't have any mechanism to claim charges for their services from the other sections of the people who utilized the services of these health facilities. These hospitals even could not provide choice-based and demand-based services to those individuals who expect private hospital kinds of services in the public hospital set-up and are willing to pay reasonable charges towards the cost of the health care received. Choice Based Public-Private Partnership Health care service delivery could enhance public choice at least for some sections of the people, and relieve public resources for primary health care. Further, the health care in the country and the state of Andhra Pradesh has required policies like universal diagnostic policy, central medical reports system, public health counselling centres etc.

The present study contributes to the existing literature in terms of people's perceptions about public health care and their preferences for health services. This paper would also contribute to the policy discussion on diversifying public health care service delivery structure that could give scope for people to exercise choice-based utilization of health care services.

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CHAPTER-1

INTRODUCTION

World Health Organization (WHO) defines health as a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." Many define Health as a dynamic condition that enables the human body not only perform functions, but also to adjust, and adapt to environmental stimulations. Acheson, (1988) has defined that Health Care refers to the maintenance or improvement of health via a range of interventions like prevention, diagnosis, treatment, cure of disease, illness, injury, and other physical and mental impairments in people. Public health is an organized effort of modern government to prevent disease, prolong life, and promote the health of their people acting against all possible limitations imposed by human action, social, economic, geographical, political, and cultural phenomena.

Health includes all aspects of care i.e. preventive care and curative care as well. Health care is categorized into primary, secondary, tertiary, and quaternary care, and covers both public and private health systems. Secondary and tertiary care mainly contribute to curative care and is also supposed to cater to a more selected set of patients who require more specialized services not available at the lower public health facilities at the village and block level. In India, Public Health Care at the Secondary and Tertiary levels mainly refers to non-communicable diseases and specialized health care. District Hospital plays a very important role in curative care. Indian Public Health Standards(IPHS) Guidelines for District Hospitals s (101 to 500 Bedded) 2012 envision that District Hospitals should be in a position to provide all services including basic specialty services and should aim to develop super-specialty services gradually.

It is obvious for a Government to provide health care to its entire people, but public health care poses greater challenges for the Countries, especially India wherein lives over 1.30 billion people with 6.7% belonging to Below Poverty Line. It is estimated that life expectancy and healthy life expectancy (HALE) have both increased by over 8% globally between 2000 and 2016, and remain profoundly influenced by income levels. Despite impressive achievements in reducing child mortality and fighting infectious diseases, it is found that low-income and lower-middle-income countries continue to suffer from the poorest overall health outcomes, lagging far behind the global average. It is evident from the World Health Organization's report that in 2019, at a global level, 7 of the 10 leading causes of death were non-communicable diseases. The seven causes accounted for 44% of all deaths or 80% of the top 10, and all non-communicable diseases together accounted for 74% of deaths globally in 2019. The top global causes of death, in order of the total number of lives lost, are associated with three broad topics: cardiovascular (ischaemic heart disease, stroke), respiratory (chronic obstructive pulmonary disease, lower respiratory infections), and neonatal conditions – which include birth asphyxia and birth trauma, neonatal sepsis and infections, and preterm birth complications. This state of condition demands serious and urgent actions by any Government whether in Development Countries or Developing countries.

Today, India is suffering from the triple burden imposed by infectious diseases; the challenge of non-communicable diseases (NCDs), linked with lifestyle changes; and the emergence of new pathogens causing epidemics and pandemics. Reports indicate that the Indian society in the last past 3 decades of economic reforms experienced inequalities in income with direct implications on the health condition of poor and marginalized people. The IMR, which was 81 in 1990, according to the World Health Organization (WHO), declined to 41.4 per 1,000 live births in 2013. It still is much higher than the

global average for the same period of 33.6 per 1,000 live births (World Health Statistics 2015). According to the sample registration system (SRS) report of Oct 2015, the IMR is now 40 per 1,000 live births.

The mortality rate of the poorest 20% of Indians is double that of the richest 20%. State of Andhra Pradesh with 4.94 Crore population with 41% of the People living under Poverty requires strengthening of these Government Hospitals. COVID-19 Pandemic shows the need to strengthen Government General Hospitals to withstand conditions like national health emergencies. Below Poverty Line and Low-Income group are the main beneficiaries of Public health care. According to some reports, the infant mortality rate among the poorest 20% is 2.5 times higher than that among the richest 20%8. Non-communicable diseases or NCDs leading cause of death in the country, contributing to 60% of deaths. Four major NCDs account for nearly 60% of all mortality and impose a high fiscal cost. The functionality of NCD clinics at CHC/DH was found variable. Reports suggest that besides communicable diseases, the non-communicable diseases related to heart, cancer, diabetes, and chronic pulmonary account for nearly 80% of all deaths.

Public Health System in the Country is criticized for being left with selective disease control and control of a lucrative curative sector for private providers. An opinion has prevailed that instead of creating a more efficient system of healthcare delivery, market forces are instrumental in the marginalization of the subaltern sections of the population. World Health Organization tracks through the Sustainable Development Goal of monitoring universal health coverage (UHC) through twin lens of a Service coverage index which measures coverage of selected essential health services on a scale of 0 to 100; and the proportion of the population with large out-of-pocket expenditures on health care. Reports suggest that the increasing cost of healthcare that is paid from ‘out-of-

pocket' payments is making healthcare unaffordable for an increasing number of people and a large unmet demand for healthcare due to an increase in costs. One for every 3 people who need hospitalization are paying out-of-pocket and inevitably forced to borrow money or sell assets to cover these expenses. It is reported that over 20 million Indians are pushed below the poverty line every year because of out-of-pocket spending on health care. District Hospitals is criticized for putting a large number of people to untold pain in the form of inadequate medical services, and out-of-pocket expenditure on private medical treatment.

Patient-Centered and Quality of Care are one of the avowed objectives of the National Health Policy-2017 of the Government of India. The Policy, 2017 envisions attainment of the highest possible level of health and well-being for all people of all ages, and universal access to good quality health care services through increasing access, improving quality, and lowering the cost of healthcare delivery in the Country. Besides, this Policy has also emphasized that the catastrophic household health care expenditure which is defined as health expenditure exceeding 10% of its total monthly consumption expenditure or 40% of its monthly non-food consumption expenditure, is unacceptable. Household spending of about 927 million people on Health care increased from 9.4% in 2000 to more than 12.7% in 2015. The proportion of the population spending more than 25% of household budgets on health care reached almost 3% in 2015, up from 1.7% in 2000. Except for America, increases occurred in all regions in the world including India since 2010. It is estimated that the vast majority of people (87%) suffering on account of large out-of-pocket health payments in 2015 were living in middle-income countries. On current trends, approximately 1 billion (12.9%) people will be spending at least 10% of their household budgets on health care by 2020.

Under the Privatization Model of primary health care in Croatia, primary health care centers offered appointments at precise times, honored scheduled appointments, and increased access to practitioners after working hours with an overall shorter waiting time. Evidence from Canada also supports improved access after privatization. Some studies argue that Privatization of hospitals like in Germany resulted in increased efficiency, although which affected the quality of care coupled with reduced revenues and increased monitoring and administrative costs accompanying privatization. In a national survey study, 74% of the 90 surveyed urologists perceived privatization increased access and reduced waiting times. The privatization of health care systems in Europe had the different experience of raising unequal access to the health system given the increased cost-sharing. It has failed to provide equity in health services provision and to improve quality. The strong belief of participants that they hold a competitive advantage over private hospitals was supported by a perceived legitimacy of public hospitals from the community.

Further, the World Health Organization (WHO) indicates that a sound health care system requires a well defined and structured financing mechanism, well-trained and adequately paid human resources, reliable data for making decisions and policies, and well-maintained health facilities to deliver quality medicines and technologies around which are concentrated efforts of almost all Governments in the world, and India is one among those countries.

In the above context, this study aims at understanding the District Hospitals in terms of secondary and tertiary services being provided by these Hospitals in the Country with specific reference to Andhra Pradesh.

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CHAPTER-2

LITERATURE REVIEW

2.1 Introduction

Health impacts the lives and living standards of an individual thereby influencing a Country's socio-economic development. Health is not the mere absence of disease. Good health condition ensures that the person is free from any disease and this gives him/ her the ability to work and realize his/ her full potential. Health is best understood as the indispensable basis for defining a person's sense of well-being. In ensuring good health, a country's health care plays a major role. Health care covers not merely medical care but all aspects like preventive and curative and rehabilitative care. It includes both public and private sector health care institutions; health promotion-prevention of disease-curative rehabilitative elements are given representation in an ideal health care system.

The Public Health-care system in India is an integrated system covering primary, secondary, and tertiary health care institutions manned by medical and paramedical personnel; medical colleges and paraprofessional training institutions to train the needed manpower and give the required academic input; Governance systems and structures managing ongoing programs at central, state and district levels; and health management information system consisting of a two-way system of data collection, collation, analysis, and response.

India aims at achieving Universal Health Coverage by 2030. Homing about 1.38 billion, India has an ever-increasing need for healthcare services. NITI Ayog has noted that although multiple efforts across different areas are initiated and implemented at the Central and State levels for achieving universal health, statistics available in the public domain reveal a significant gap in the accessibility and availability of healthcare across

all segments of the population. This condition calls for a further study and analysis of the Health Care System in the Country, specifically the Public Health System. An attempt is made in this paper to study and analyze the public health care at the District Hospital level, taking samples of District Hospitals in Andhra Pradesh.

2.2. Amit Sengupta (2005) has argued that India found a place among the first 20 of the world's countries with spending 4.2% of GDP on private health care. He assessed that an individual spends from his funds 82% of private health care, and employers and health insurance contribute a mere 9%, 5-10% respectively. As a result, more than 40% of total patients admitted to the hospital had to borrow money or sell assets to bear the medical expenses. He has found that 25% of farmers slipped below the poverty line due to their very high spending on private health care. The author has observed that in 1947 the private health sector accounts for only 5-10% of total patient care later this was increased to 82% of outpatient visits, 58% of inpatient expenditure, and 40% of institutional births since there was no sufficient budget for the counterpart of the public health facilities.

2.3. Mike English (2006) has maintained that the district hospital has crucial links with many other aspects of the health system therefore, the choices made to hospitals are likely to affect the whole health system and vice versa. Collection of higher-quality routine data from district hospitals regarding costs and health consequences of different service provision portfolios, marginal benefits of incremental additions, and their implications would help planning required infrastructure, human resources, and technologies. A thorough investigation into the hospital administration and clinical management at the district hospital level, managerial and clinical interventions such as clinical guidelines, supervision and feedback; audit and continuing professional development; quality improvement strategies and accreditation; and improvements in

referral and integration with PHC were proposed to improve district hospital performance and to be relatively cost-effective.

2.4 Dasgupta Rajib et.al (2010) made a critical analysis of the National Health Mission from the perspective of the Urban Health System, and highlighted certain structural constraints that are acting public Urban Health System and against the efforts of strengthening the public health institutions. The authors had concluded that Governments have neglected the urban public health system.

2.5. Vikas Bajpai(2014) has analyzed the social, economic, and political origins of the major challenges facing public hospitals in India. The class nature of the ruling classes in the country and the development paradigm pursued by them were considered the root of the present problems being faced by public hospitals. Curative care has become unaffordable to many common people due to the policy framework governing the health sector in the country. The sorry state of affairs of public healthcare in the country was not for want of policies or managerial skills or want of latest technologies but due to the pursuit of the interests of the dominant classes in the society. He emphasized that health was a social phenomenon and a public hospital was a social institution that cannot be studied in isolation from the societal conditions in which it operates. The theory must develop the language to articulate people's struggles for an alternative development paradigm.

2.6. Anand Zachariah(2012) said the tertiary care plays a very important role in determining the structure of the health system and universal access to this care and should made it available at district-level hospitals instead in super-specialty and medical colleges. The profit motive of the Private hospitals resulted in high cost of health care. An argument was made that it was possible to provide tertiary care in a cost-effective, accessible, and appropriate to an Indian setting. Focus of medical colleges were thought

of usually on medical education and training, and reluctant to take up the responsibility of improving the health system. Public-Private Partnership Model could make gap filling in this area of concern. Standardization of processes and effective management of specialist were found lacking at the district level. The Public-Private Partnership (PPP) was considered as an instrument to improve or reform the health status of the population. A relative sense of equality between the partners, mutual commitment to agreed objectives, and mutual benefit for the stakeholders involved in the partnership were given emphasis for successful functioning of the PPP model and reducing the intended gaps in the public health care service delivery.

2.7. Srinivisan(2011) had observed that though the tertiary hospitals in the private sector were granted many concessions in the form of allocation of land at very nominal costs, exemption from customs duties, and liberal tax breaks, these hospitals had not kept their commitment of reserving a certain number of beds for poor patients at free of cost. No procedures exist to monitor these practices, and even the disclosure systems in the private health care facilities are far from transparent. Further, redressal of patient grievances was poor and allegations of cuts and commissions to promote needless procedure were common. These findings and observations exhibit the fact that private hospitals have their kind of limitations and priorities in promoting health care, and they have not purely endowed with the responsibility of providing affordable treatment for the poor and needy persons in the country.

2.8. Amrita Bagchi (2011) had observed that by not allocating sufficient funds government was allowing the development of private hospitals. Though the role of the private sector in health care provision was allowed by the National Health Policy1981, during the pre-globalization period, these hospitals were catering largely to the primary and secondary sector, and government hospitals were used to take care of critical and

tertiary care services. He had observed that though corporatization helped the development of health facilities, it led to the creation of an atmosphere where sickness medicalized the life of the patients by all possible means. The author had claimed that there were practices of unnecessary, excessive, and dangerous investigations in the Corporate Hospitals in the name of advanced treatment. Consequently, people, especially from the middle-income group increasingly caught in a cleft stick between getting the latest medical care like renal failure, dialysis, etc., and unimaginable high treatment costs.

2.9. Lawton R. Burns (2014) had attempted to describe the Indian health care system in comparison to the United States and China, and their socio, economic and political dynamics. A secondary source of Data, analytical method, data interpretation method was employed for the research purpose. The Author had identified the need to promote access to modern technology and the need to make such technologies affordable, and the role for private equity firms to build India's healthcare infrastructure. The Research gap could be identified as lacking primary source data. He had not discussed how far the improved technologies and systems would improve access and affordability of the secondary and tertiary care for all sections of the people especially the poor and marginalized sections in the Country.

2.10. Richard Downie et. al (2017) had examined how India has been struggling with the twin load of Communicable Diseases as in the case of the poor and marginalized sections, and the Non-Communicable Diseases among the rich and affluent sections in the country. He had observed that the economic prosperity which the Indian Country witnessed between the years 1951 to 2016, with GDP growth averaging 6.1 percent per year, and growth of 7.2 percent during the past decade, had not resulted in the country's improved health scenario. Living 400 million Indians in poverty indicates vast population

was highly vulnerable and more prone to communicable diseases and suffers higher levels of morbidity and mortality linked to poor access to public health care. The inequalities that cut through Indian society add to the national health burden. The government estimates that 63 million people fall into poverty each year due to catastrophic health expenditures. The Rich and affluent sections in the Country face a different set of health challenges, including non-communicable diseases (NCDs) linked to lifestyle choices. In India's largest private health system is that patients assume most of the cost of their treatment. This is damaging to public health because the poor tend to seek medical treatment only when they are very sick. For those who can pay for treatment, the cost of a prolonged illness can be devastating. Though Governments at the National and State Level had been making efforts to reduce the private expenditure on health care, there has been a criticism that Government scheme pushes people into unnecessary treatment in private hospitals, further eroding the weak public sector, and has not led to significant reductions in Out of Pocket expenditure. The problems in India's health system are not only linked to lack of resources but to poor governance, as weak accountability leads to corruption and poor-quality service.

2.11. Antonio Duran et al had done a case study of the All India Institute of Medical Sciences, New Delhi. They found that nearly 60% of patients admitted in AIIMS belong to the income group of below Rs.10, 000/-PM. Total 4500 patients were exempted from all treatment charges in 2012 as per Government of India Guidelines. The results of three patient study satisfaction carried out by AIIMS over 15 years period had reflected an increased level of satisfaction on most dimensions of the health care service delivery, and notable achievements in the light of the increasing workload, more discerning clientele, and availability of private –sector hospitals. The Report had also taken note that there were increased number of patients from outside Delhi which increased nearly 55% in

2012. The Case Study had attributed the performance of the AIIMS largely due to improved managerial and governance arrangements. The Case Study had theorized that hospital performance is substantially influenced by hospital governance which works in a larger environmental context and that the way the service delivery institutions are interconnected and organized internally makes a great deal of difference in making that institution successful.

2.12. Anuradha Katyal (2015) et. al had theorized that poor quality care in public sector hospitals coupled with the costs of care in the private sector had trapped India's poor in a vicious cycle of poverty, ill-health, and debt for many decades. They had made a study to compare the changes in access to, affordability, and efficiency of private and public hospital inpatient treatments between Maharashtra and Andhra Pradesh for the period 2004 to 2012, and assessed whether the health financing innovations in one state resulted in larger or smaller benefits compared with the other. Household surveys were conducted in 2004 and 2012 in the two states and undertook a difference-in-difference (DID) analysis and they focused on the matrix of hospitalization, out-of-pocket expenditure, and length of stay. They found that the average inpatient expenditure for private hospital care had increased in both states, but more so in Maharashtra. They found an increase in both utilization of and expenditure on nephrology treatment in private hospitals in Andhra Pradesh. The duration of stay recorded in days for private hospitals was increased slightly in Maharashtra and declined in Andhra Pradesh. It was found that during this period of study, the utilization of public hospitals was reduced in Andhra Pradesh and increased in Maharashtra. The Authors had concluded that the State of Andhra Pradesh appeared to have benefited more than Maharashtra in terms of improved access to care by involving the private sector. The Aarogyasri scheme was found to have had contributed to the favorable impact in Andhra Pradesh at least in part. They had

suggested continuing the study with repeated evaluations to ascertain the long-term impacts of involving the private sector in providing hospital care.

2.13. Jai Prakash Narain (2016) had studied the public health challenges in India and seized the opportunities and observed that the remarkable economic development in terms of gross domestic product (GDP) growth rate was accompanied by huge disparities between the rich and the poor associated with worse health outcomes. The Author had emphasized the need to adequately address the health sector disparities between and among social and economic classes.

2.14. Rafael Almeida et. al (2017) had made a statement that hospital care in India had received much less attention from the government, non-profits, and international organizations than primary healthcare. They had attempted to explain how market failures impede the provision of high-quality, affordable care throughout the Indian hospital system and to assess the role and impact of insurance in facilitating access to hospital care. Using National Sample Survey data from 1995 through 2014, the report presented new descriptive and econometric analyses of the disparate impacts of out-of-pocket health expenditures across the patient income distribution and of the possibility for greater competition in-hospital care to drive quality improvements while lowering costs. It was estimated that government health expenditures accounted for only 28.6 percent of total health expenditure in 2013-2014, below the average of 36.2 percent in lower-middle-income countries. As a result, households remained the main source of healthcare financing at 67.7 percent of total health expenditure, down only slightly from 71.1 percent ten years earlier. The author had defined catastrophic expenses as a health expenditure of at least 25 or 40 percent of a household's annual consumption expenditure (ACE). They found that the distribution of catastrophic health expenditures across ACE quintiles was worsened over time as in 2014 a majority of households facing catastrophic

health expenditures were in the two poorest ACE quintiles, which was not the case 20 years earlier. The Authors had observed that a one-standard-deviation increase in the perceived quality of public hospitals (from 50 to 38 percent reports of low quality) in states with the mean ratio of public hospital beds to population was associated with a decrease of 21 percent in the out-of-pocket cost of private hospitalization. They have reasoned that the high-quality public hospitals were able to put competitive pressure on private hospitals to maintain care standards while reducing the prices. The gap in out-of-pocket expenses was largest for Indians with monthly consumer expenditures over Rs 10,000, suggesting that adverse selection and moral hazard might be driving up hospital care prices. To address the market failures undermining access to high-quality, affordable hospital care, the report calls for better data collection, including more consistent adoption of performance-based indicators of hospital care outcomes. Among other things, the Report had recommended increased government spending to raise the quality of public hospitals which could enhance competitiveness between public and private health care resulting in enhancement of quality and lowering of prices.

2.15. Margaret E Kruk, Anna D Gage et. al had categorically said saying that providing health services without guaranteeing a minimum level of quality was ineffective, wasteful, and unethical. National governments need to invest in high-quality health systems for their people and make such systems accountable to people through legislation, education about rights, regulation, transparency, and greater public participation. Although health systems will look different in different settings, all people should be able to count on receiving high-quality care that will improve their health and earn their trust. Universal Access to Health-Care could not be achieved without improving quality. Sequencing improvement efforts to first target populations who have

the worst quality of care and health outcomes will also be important to realizing high-quality.

2.16. Dr. Amit Kumar-2018 had maintained that hospitals' role was very crucial for better health of nation's citizens, whether facilities provided by private or government hospitals. The study had concluded that the selection of hospital by a patient for their treatment was dependent upon the facilities provided by the hospital, hospitals' staff, and their behavior regarding patients and most important factor from the patient's side was income because all things depend upon the financial condition of patients. Almost all patients are aware of the facilities provided by the govt. hospital. After applying the t-test on gender the result shows that regarding only one factor (Housekeeping factor) significant difference was found and in rest of the factor result was found insignificant. They had found that in the case of occupation there was no significant result but a significant difference was found because patients want more qualitative service with the increment in income. The research concluded that patients were largely satisfied with the facilities provided by the government hospital. The Author had added that there would always be some chance of improvement in the facilities of hospitals.

2.17. Ravi Duggal and Nitin Jadhav (2018) have argued that health care as a public good should be available to the public free of cost. They identified that there was a decline in public expenditure on healthcare from 1.5% of the gross domestic product in the 1980s to 0.7% of GDP in 1990. It was argued that there was dramatic out-of-pocket healthcare expenditure raised with increased user charges in these public hospitals leading to further inequities. A secondary source of data was mainly used for arriving at these observations and findings. The primary source of data is missing. Data was inadequate to argue that due to user charges leading further inequalities of poor and marginalized people.

2.18. NITI Aayog in it document Health Insurance for India's Missing Middle has discussed that Country's spending on health remains at 1.5% of GDP and it constrained the capacity and quality of healthcare services offered in the public system. Overburdened public hospitals were found often diverting individuals to seek treatment in the costlier private sector. The NSSO's 75th Round on Social Consumption of Health, 2017-18 calculated that almost 60% of all hospitalizations, and 70% of out-patient services were delivered by the private sector. The private sector was causing to high OOPE, leading to low financial protection. Relatively low health insurance coverage and costlier provision of health services in the private sector drive India's high out-of-pocket expenditure (OOPE). Despite the decline in the past few years, India's OOPE was estimated to stand at 63%, significantly above the average for lower-middle income countries and amongst the highest in the world. High OOPE inevitably poses financial risk to individuals, and make them vulnerable to impoverishment from expensive trips to the hospital and other health facilities. Analysis from Brookings India based on NSSO surveys showed that over 7% of India's population was pushed into poverty every year due to healthcare costs. The impoverishing impact of health expenditure is similar in both rural and urban areas. Further, incidence of catastrophic health spending – health expenditure exceeding a certain threshold share of consumption expenditure – has increased. At the 10% threshold level, 24% of households incurred catastrophic health expenditure in 2014, up from 21% in 2004. National Institute of Public Finance and Policy (NIPFP) data analyses showed that that incidence of catastrophic health expenditure at the 10% threshold was 58% for households that accessed any healthcare (2014) – over half the households who accessed any healthcare incurred catastrophic expenditure. The incidence of catastrophic expenditure in the entire population and those

accessing healthcare was similar across expenditure quintiles, indicating the need for financial protection at all income levels.

2.19 Swetha, Shobha, and Sriram (2020) have estimated that government health spending in developed countries accounts to around 5 per cent of GDP or more. Even in Asian developing countries other than India, the average is around 3 per cent of GDP. But in India, government health expenditure amounting to less than 1 per cent of GDP. Due to inadequate public spending for health development and also the high health care costs in private sector, the economic burden of health spending entirely lies on private spending which in India is majorly by out-of pocket expenses. India has one of the highest proportions of household out-of-pocket health expenditures in the world, estimated at 71.1% in 2008-09. Household's share in health spending is almost more than two-thirds in India which was around three times the amount of all government expenditure.

2.20. Hooda had asserted that insurance-based financing had hardly been successful in providing financial protection against the costs of ill health and in reducing the burden imposed on beneficiaries by out-of-pocket health payments. Rathi, Mukherji, and Sen 2012; Devadasan et al. 2013 had maintained that empirical evidence reports families enrolled under the existing nationally representative insurance scheme (RSBY) had continued to incur OOP charges. There has been no statistically significant effect on the probability of incurring outpatient expenses, or on the level of outpatient OOP charges. On the contrary, the likelihood of incurring OOP expenses (inpatient and outpatient) rose by 30% due to the RSBY and was statistically significant. Ghosh and Gupta (2017) reported that the RSBY has had hardly any effect in terms of financial protection. It has increased the utilization of inpatient care (hospitalization rate) by 59%, though there has been no significant impact on the utilization rate for outpatient care. Since the allegedly

progressive insurance-based financing strategies were implemented, OOP expenditures have increased among households, irrespective of their poverty status (poor or well-off) and geographical location (rural or urban). Shailender Kumar Hooda had finally had concluded that Promoting the role of the private sector through insurance does not seem a great idea for achieving the national goal of universal health coverage. This study advocates in favor of comprehensive healthcare provisions that ensure equitable, accessible, and affordable healthcare services and that protect households from the potentially devastating consequences of out-of-pocket payments.

2.21. Culyer(2001) discussed the right financial modal for public health care whether it should be a private or a publicly funded system, and the role of the Government in Service delivery and finance of this system. His work has examined the economic theories of the health care organization and socialized health care. He had questioned the role the user charges play in the health care system and pointed out that many studies were not carried out in the United Kingdom on the implications of the user charges.

2.22. **Andrea Taylor, Erin Escobar, Krishna Udayakumar (2017)** conducted study on the Narayana Health system, India model and its impacts on clinical quality and outcomes, access to care, and costs were documented in the peer-reviewed literature. The study had found that in 2007 this health system was responsible for 12 percent of all cardiac surgical procedures performed in the Country with 25 procedures completed daily, six days per week. Its surgeons were quickly developing expertise resulting in patient outcomes that rival those in the United States. For example, Narayana Health reported a 1.4 percent mortality rate within 30 days of coronary artery bypass graft surgery, compared with 1.9 percent in the United States. It also reported a 1 percent mortality rate for mitral valve replacement, and a door-to-balloon time of fewer than 90 minutes for 91 percent of cases; both rates exceed international benchmarks. Narayana

Health was found as a proven model of what's known as "frugal innovation," providing high-quality outcomes for lower cost and thereby expanding access to critical services. The study had theorized that the combination of several different, focused innovations could lead to dramatic results, without necessarily having to disrupt existing systems.

2.23. Mallipeddi, Pernefeldt, Bergkvist (2009) had taken that collaborations between the private sector and the government in the delivery of health services in the areas of buying and selling health services, contracting out clinical and non-clinical services, facilitating and promotion of partnerships and pure business partnerships (e.g. telemedicine projects). But, this collaboration had encountered the problems and criticism regarding management of the contracts, lack of transparency, etc. Niti Ayog(2020) is working to achieve the Goal (3) of the Sustainable Development Goal (SDG) which aims at " ensuring healthy lives explored the alternative strategies including Public Private partnership in the provision of Non-Communicable Diseases and ensure access to quality NCD Services within the Govt. Hospitals. Scope and objectives of the model includes improving access to the NCD services at the Govt. Hospitals at District level, decongesting tertiary facilities at State level that are stressed beyond capacity to meet the huge demand for NCD service reducing out of pocket expenditure as a guiding principle of the project for those accessing services at NCD services at the NCD care facility in terms of cost of diagnoses treatment and care for NCD services. The scope of services include screening to treatment the service include clinical support services related to oncology, Cardiology and pulmonology and associated non clinical support services.

2.24. Sulakshana Nandi and Deepika Joshi(2021) opined that the NITI Aayog' 2020 proposal to hand over district hospitals to private medical colleges would results in to the most direct and catastrophic impact on patients in the form of increased cost of

treatment. The draft contract allows privatised district hospitals to have a category of 'free patients' (whose cost will be paid by government to private agencies), with the rest having to pay charges based on 'market- competitive rates'. The proportion of 'free' out-patients were felt no-mention and the provisions around charges for the out-patient department were felt confusing. The provision of free patient certification by a district health authority would have negative impact. At present, most of the patients coming to the district hospital were being referred from the lower government facilities such as primary health centers and community health centers for higher level treatment. Under the proposed system, if a woman, referred from her block community health centre for emergency care, had to travel more than 100 kilometres from her village to get herself certified from the district authority to get this treatment for free, otherwise she had to pay market competitive charges. While using publicly-funded health insurance scheme in private hospitals, most patients continue to spend out of their pockets. Further, a scenario prevailed in the country where most of the private hospitals and medical collages failed to follow Human Resource requirements as per Medical Council of India norms. In such conditions, hand-over of Public staff to private agencies would be extremely advantageous for the private college/hospital, and would be a huge loss for the government and for the districts. Instead of the PPP Model for the District Public Health Care Centers, there are successful initiatives in some of the most conflict-affected districts such as in Bijapur in Chhattisgarh has now been replicated by the neighboring Dantewada and Sukma districts. These hospitals were up-graded and services were increased through recruiting and retaining doctors and specialists through innovative methods, and filling other staff, equipment and infrastructure gaps. Promoting Public Private Partnership Model for District Public Health Hospitals negates social logic and public good and alter it with a revenue-generating enterprise model working on the

profit motive. The disastrous implications of this proposal first be felt by the most vulnerable groups — the poor, women, and adivasi, dalit and rural communities besides failing miserably at the global level.

2.25. Maria Luisa Buzelli, Tammy Boyce (2021) found that reduced funding for the public health system had to a large reduction in the capacities of the National Health Service (NHS) in Italy. Consequently, the number of permanent staff decreased to 7% and non-permanent staff was declined by 37.8%. 116 public hospitals were closed, leading to a reduction in public hospital beds from 4.1 to 2.5 for every 1,000 inhabitants. Italy when 1st case of COVID was detected at the beginning of 2020, the regional public health care systems were without the resources needed to adequately care for and treat the large influx of COVID-19-positive patients in emergency departments. Though some regions were able to increase their emergency capacity by taking beds from nonemergency hospital wards or canceling planned care, many regions' had suffered with lack of emergency services, ICU beds, and staff in public hospitals. The ability and preparedness of a health system depend on many factors such as emergency services, public health, and primary health care which were underdeveloped in Italian regions before the COVID-19 outbreak. They were suffered from years of underfunding and increased decentralization of the Italian NHS, which led to great regional differences in the quality and provision of these services. The decrease in funding for primary care and the subsequent reduction in the number of general practitioners had felt negatively affected hospitals' ability to manage population health which led to increased hospitalizations. Underfunding of the Health Services had also affected the Hospital and primary health care services which were crucial during health emergencies to coordinate health systems responses. As a result of years of underfunding, the Italian NHS was

unprepared, at many levels, to adequately respond to the COVID-19 pandemic, leading to overcrowded public hospitals and overstretched capacities.

2.26. Anamika Pandey G. Anil Kumar, Rakhi Dandona, Lalit Dandona (2018) in 2014 found the gap increased between the highest CHE of an individual state and the lowest to 8-fold from 2004 to 2014. By 2014, the CHE which was high among the rich in 2004 for most of India, had distributed equally among the rich and poor States because of the substantial increase in CHE among the poor in those States. OOP payment of an individual state in 2014 was 5.1 times the lowest. From 2004 to 2014, OOP payment increased most in the higher-middle ETL state of Delhi (3.91 times) followed by high ETL state of Goa (2.17 times), low ETL states of Odisha (2.06 times), Chhattisgarh (2.03 times), and Bihar (1.90 times). It was estimated that the share of out-of-pocket (OOP) payments for health care was declining globally, but its spending as a share of income remained constant. According to estimates, worldwide around 80.00 Crore people spend more than 10% of their household budget on health care, and almost 10.00 crore people are pushed into extreme poverty each year because of OOP health expenses. In India, the OOP expenditure as share of total health expenditure has declined from 69% in 2004–05 to 64% in 2013–14. Disturbingly, the proportion of households with OOP payments equaling or exceeding 10% of their consumption expenditure has increased more than two times during the same time period. In spite of the unprecedented economic growth, the nation suffers from tremendous shortfalls in health care financing and OOP payments as proportion of total health expenditure remains much higher than the global average. Achieving significant reductions in OOP payments, CHE and impoverishments due to health expenditure has been envisaged in the National Health Policy 2017.

2.27. Samir Garg, Narayan Tripathi, Alok Ranjan, Kirtti Kumar Bebarta (2021) India has a mixed health system with a sizeable presence of private sector. The formal

and informal private providers together accounted for 69.8% of India's outpatient care, the most common form of healthcare utilization. The average cost per episode of outpatient care was Indian Rupees (INR) 400 for public providers, INR 586 for informal private providers and INR 2643 for formal for-profit providers and they managed 39.3, 37.9 and 22.9% of episodes respectively. The average cost for government and households put together was greater for using formal for-profit providers than the public providers. The disease profile of care handled by different types of providers was similar. Volume of patients and human-resources were key cost drivers in public facilities. Many studies of private providers have reported that over-charging of patients was a common practice in India. Some reviews from HICs have concluded that the charges taken by for-profit providers tend to be much higher than their cost of production. India does not have effective regulation of cost or quality in private healthcare sector. Lack of regulation can result in providers charging excessively. Regulation has been identified as one of the potential cost-drivers at health-systems level. Some have taken the analysis further and attributed the poor regulation in mixed health-systems in LMICs to deepening of power-asymmetries under market based healthcare. A common policy prescription for LMICs including India has been to purchase care from private sector using mechanisms like publicly funded insurance. India has implemented such policies for purchasing inpatient care, but with little success in reducing OOPE. Studies in India and other LMICs have found that public sector tends to under-provide certain services because of being under-funded.

2.28. Kiran Kabtta Somvanshi (2021) had opined that historical public spending of just over a percent of GDP on healthcare has made the country's healthcare needs underserved and left for the private sector to service. Private participation and increased competition have not ensured improved quality and efficiency in healthcare delivery.

Lack of penetration inflated billing, opaqueness in diagnosis and poor quality of service have ensured that most Indians get treated below the standards prescribed by the World Health Organization. Compared to India, the cost of a knee replacement treatment is over twenty times more in the US and double in Malaysia. However, there are millions in India (with a per capita income of less than $4 a day) who cannot afford this procedure in their country. With a health-insurance penetration rate of only about 20%, India has one of the world's highest rates of out-of-pocket spending in healthcare. Healthcare being a state subject, the healthcare outcomes have remained divergent based on the quality of the state administration.

2.29. WHO (2018) in its document of delivering quality health services A global imperative for universal health coverage had maintained that optimal health care could not be delivered by simply ensuring coexistence of infrastructure, medical supplies and health care providers. A deliberate focus was called for on the quality of health services duly premised on providing effective, safe, people-centered care on timely, equitable, integrated and efficient manner. Suboptimal clinical practice was found common in both private and public primary health care facilities in several low and middle-income countries. The Report had claimed that the Poor-quality services – even if made available at an affordable cost would not be trusted, mistrusted and became as an impediment to achieve effective universal health coverage. Mechanisms to assure, monitor and continually improve quality were identified as must to be built into the foundations of health care systems.

2.30. Geetha Lakshmi Sreerama et. al (2015) have made a study on public health care in the Chittoor district in the State of Andhra Pradesh. They reported that majority of members enrolled in the study made it clear that they take treatment in the government

hospital (64%) than private (36%) during emergency. The members had revealed that the cost of treatment was two to three times lesser than the private treatment Further, majority of the people prefer modern medical system for their health requirements.

2.31. The Times of India (December,23rd 2021) reported that to improve the management of the Public hospitals in the State, the Government of Andhra Pradesh has taken a decision to appoint special officers to monitor the internal management of these hospitals. This move was aimed at making available in all public health hospitals the highway standard facilities including safety and hygiene. This indicates existence of problems in hospital management having implications for the quality and efficient delivery of hospital care. But appointing Department officials like Deputy Director and Assistant Directors as monitors for the hospital management possibly takes the move no-where.

2.32. Arisha Dutta (2021) has reported in a daily paper that the Government of Andhra Pradesh draws out a plan to build 80 Super Specialty Hospital and Multi-Facility Hospitals @ 5-10 hospitals within the course of three years in all the 13 districts and three corporations of the state. The plan suggests allotment of 30-50 acres of land to each district and corporation. The scheme intends to prove beneficial for the tertiary health and medical system of the state. Therefore, this plan gives an opportunity for the Government to devise these hospitals in those lines that could attract all sections in the society to utilize these public facilities.

2.33. Amrita Bagchi (2011) discussed that **d**uring the pre-globalization period, private hospitals were catering largely to the primary and secondary sectors, and government hospitals were used to take care of critical and tertiary care services. Subsequently, the Corporatization helped the development of health facilities but also led to the creation of

an atmosphere where sickness medicalized the life of the patients by all possible means. The practices of unnecessary, excessive, and dangerous investigations in the Corporate Hospitals in the name of advanced treatment became a great cause of concern in the health care. People especially from the middle-income group increasingly caught in a cleft stick between getting the latest medical care like renal failure, dialysis, etc., and unimaginable high treatment costs.

2.34. The National Skills Development Corporation, healthcare in India has estimated that the potential to generate an additional 7.5 million direct job opportunities by 2022. NITI Aayog has observed that after starting the liberalization era sine 1990s, India has already experimented with PPP and projects and during the period from 2004 to 2011, it had seen private partnerships scale up significantly. During the eleventh five year plan (2007 – 2012), the private sector has estimated to have contributed 36.6%2 of the total infrastructure investment while the total infrastructure investment as a percentage of GDP increased from 5% to 7%.

Thus, the literature review shows that a paradoxical situation is prevailed in the public health care system in the country and the State of Andhra Pradesh. On one hand, the Governments at the National and State level in India have been taking multiple policy efforts in the form of allocating budgets, creating infrastructure, making available skilled and competent human resources, etc to achieve sustainable development goals, aims and objectives of the National Health Policy 2017 thereby to realize sound and disease free health for its people, but on the other, sufficient evidence is generated that patients are making catastrophic Out Pocket Expenditure on Private Care and being trapped in the catastrophic health expenditure and financial distress thereby thrown into the vicious circle of poverty. On one hand, Primary Health Care has been continue to absorb more and more funds and resources towards containing the Primary health care needs such as

maternal care, neo-natal care, reducing infant mortality rate, arresting communicable diseases etc. On the other hand it has loaded with the increasing burden of Non-communicable Diseases (NCDs) such as cardiovascular diseases, Deaths due to Diabetes, hypertension etc, injuries, kidney diseases which are posing greater challenges to the Secondary and Tertiary care of the public health system. Though some degree of increase is achieved in the creation of several public health care service delivery facilities their quality has became subject for criticism. The promotion of liberalized policies and public choice approaches in the Country have not led to the creation of more health service facilities which suits the needs of individuals, hence they left with the limited choice of either Public health facility or private health facility making the public unable to untangle them from the vicious trap of the high health care expenditure, low quality of care, and improve chances of survival.

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CHAPTER-3

RESEARCH METHODOLOGY

3.0. Research Objectives

Research objectives are defined as the outcomes that aim to achieve by conducting research. They are also said to help narrow in on the focus of research and key variables, guiding the researcher through the research process. The purpose of research objectives is considered to drive the research project, including data collection, analysis, and conclusions. The research objectives of this paper include:

1. To examine medical services and treatment facilities being provided in Government General Hospitals at the District level.
2. To identify issues being confronted by Government General Hospitals concerning standards and services,
3. To explore the role of Public-Private Partnership in transforming these Government General Hospitals in terms of better Services, Infrastructure, and earn revenue for these hospitals.

3.2. Research Questions

1. What type of medical services and treatments are available in Government General Hospitals at the District level in Andhra Pradesh,
2. Whether people coming to District Government General Hospitals are getting standard medical services, if not reasons thereof,
3. Are Government General Hospitals at District Level are patient-centered, and what responsive and accountability system is in place for the redress of their grievances,

4. Whether people are willing to pay reasonable costs towards Non Communicable Diseases if services similar to private Hospitals are provided by Government General Hospitals,
5. Whether there is any scope for Public-Private Participation to play a role in improving health service delivery in Government General Hospitals at District Level.

3.2 Research strategy:

The Research Strategy for this paper mainly includes of the following:

A. Qualitative interviews: As part of these qualitative interviews, structured, semi-structured, unstructured interviews are proposed for data collection. Interviews enables primary source of data.
B. Secondary Data: This data is collected by other people. Since the proposed research topic has been much discussed topic, this source can give much data required for the research questions set for this paper. Collecting data from this source also saves time and money. Annual Reports of Government of India and State of Andhra Pradesh, Articles published in National and International Medical Journals, Research articles, in the field, World Health Organization etc are being used for the purpose.

3.3 Research Design

A research design is a strategy for answering research question using empirical data. Creating a research design means making decisions about:

- Research paper overall aims and approach
- The type of research design put in place
- sampling methods or criteria for selecting subjects

- data collection methods
- The procedures to be followed to collect data
- data analysis methods

A well-planned research design helps to ensure that research methods match research aims and that right kind of analysis is used for the data. For the purpose of the present research paper, mainly the following two research designs are going to be used:

a. Descriptive: To describe characteristics, average, trends, in Government General Hospitals in respect of funds, medical services availability, management etc. and measuring variables without influencing them.
b. Study of Government General Hospital of Guntur and Vijayawada for specific insights. It focuses on gaining a holistic understanding of the case.

3.4 Research Methods and Data sources

A. Primary Sources

- Surveys (Sample Size – Government General Hospitals (GGH) of 2 Districts: Guntur, Vijayawada)

B. Secondary Sources

- Study of Reports
- Documents.
- Books
- Articles from journals like Economic & Political Weekly, Indian Journal of Medical Research,, International Journal of Health Policy and Management, NITI Aayog, National Health Portal of India, Ayushman Bharat Scheme, World

Health Organization, Portals of Government of India, and State of Andhra Pradesh,World Health Organisation etc.

3.6 Scope/Limitations/ Delimitations

The Scope of the study is delimited to understand what medical facilities are available at the selected District Hospitals, standards being followed, what are the reasons for the issues being confronted by these Hospitals and major grievances of the public visiting these hospitals, to know people opinion about paying cost for tertiary services like Non-communicable deceases care if provided by these health institutes. Time, and Covid-19 Pandamic are the major constraint for this paper. Hence, the sample limited to District hospitals (DH)GGHs) located at Vijayawada, Guntur . And sample size is limited to total 159 persons includes of Patients, Public, Medical Practitioners in these 2 GGHs.

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CHAPTER-4

PUBLIC HEALTH SERVICE DELIVERY – DISTRICT HOSPITALS

4.1. Introduction

District Hospital is the crucial link in the public health service delivery chain in India. Though public health meant for all sections, District hospitals have been largely catering to the poor and marginalized sections in the society. District Hospitals are expected to deliver the public health care with diligent, great care, and attention, and to fulfill all health needs of the people lining in the defined area. They serve as an integrative point as they deliver all three levels of health care ie. Primary, Secondary and Tertiary health care. Hence, its requirement for men and material is more and diversified. Governments at National and State Level have been strengthening the District Hospitals to deliver quality and all kinds of specialist services. This chapter will broadly discuss how the District Hospitals are position in the Indian public health system, their role and responsibilities in health care especially secondary and tertiary care, and the current policies and programs that condition the public health care delivery by the District Hospitals in the Country , and the state of Andhra Pradesh.

4.2. Organization of the Indian Public Health System

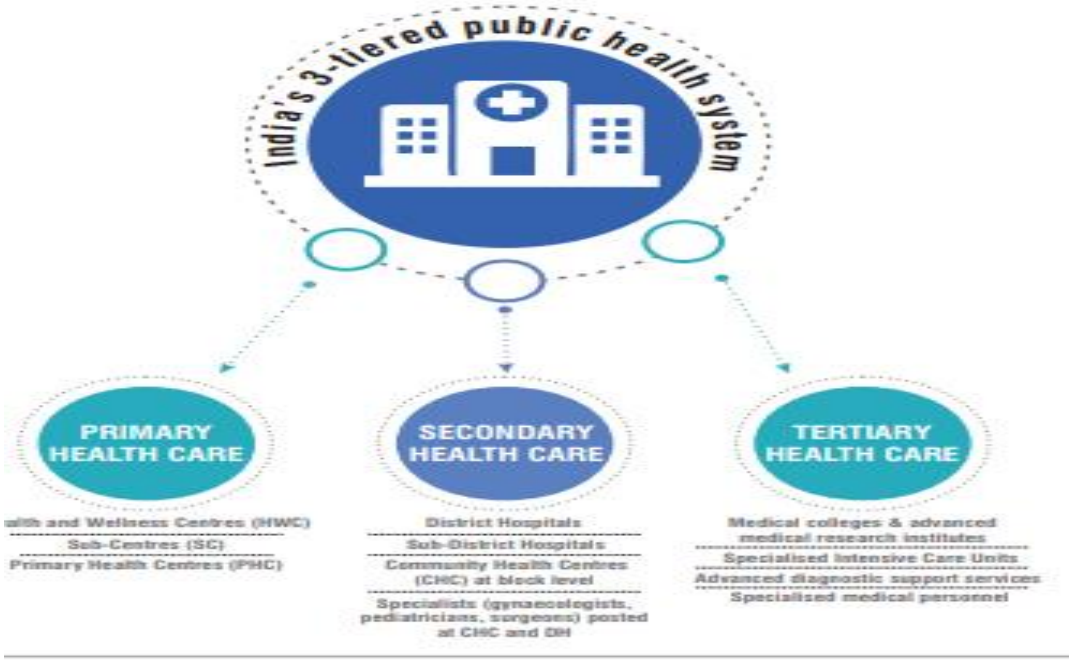
Policy making in the country's health sector is shaped by its federal structure and the Central– State divisions of responsibilities and financing. As per the subjects allotted under the Constitution of India, Public health and sanitation, hospitals and dispensaries are state subject. States have the primary responsibility of management and service delivery public health. The Central Government conducts health services through Centrally Sponsored Schemes such as the National Health Mission (NHM)and National

Health Polices. It plays an important role in vital statistics, medical education, and drugs administration, among others, which are subjects in the Concurrent List. It plays an important role in planning, policy making, and funding for public health at state and national levels.

4.3 Public Health structure in India

As shown in the following figure, the public health care infrastructure in India has been developed as a three-tier system: Primary health care provides the first level of contact between the population and health care providers. It has three types of health care institutions, namely, sub-centre (SC), primary health center (PHC) and, more recently, Health and Wellness Centre (HWC) envisioned under National Health Policy -2017.

Figure 4.1: India's three-tiered public health system[1]



[1] Best Practices in the Performance of District Hospitals in India, 2021, NITI Aayog, Government of India.

4.4 District Hospital:

India's Public Health System developed over the years as a 3-tier system, viz. primary, secondary, and tertiary level of health care. District Health System is the fundamental unit for implementing various health policies, delivery of healthcare, and management of health services for a defined geographic area. The District Hospital is an essential component of the district health system and functions as a secondary level of health care that provides curative, preventive, and primitive healthcare services to the people in the district. It is expected caters to the people living both in urban and rural people in the district. The size of a District Hospital is determined in terms of bed requirement which is decided as per the population of that area. As per Census 2001, the population size of a district varies from 35,000 to 30,00,000 in the Country[2]. Based on the assumptions of the annual rate of admission as 1 per 50 populations and an average length of stay in a hospital as 5 days, the number of beds required for a district having a population of 10 lakhs is estimated to be around 300 beds. Grade I District Hospital is of 500 beds, Grade II District Hospitals - 400 beds; Grade III District Hospitals -300 beds, Grade IV- Hospitals 200 beds and Grade V District Hospitals 100 beds[3].

Based on the type and complexities, the disease prevalence varies widely in a district making it difficult treating all these diseases the District Hospitals. As some diseases require intervention of highly specialist services and some may require additional use of sophisticated expensive medical equipment. Patients with such diseases are referred to tertiary and other specialized hospitals. In general, a District Hospital should however be able to serve 85-95% of the medical needs in the districts, and the bed occupancy rate should be at least 80%[4].

[2] Best Practices in the Performance of District Hospitals in India,2021, NITI Aayog,GoI.
[3] Ibid,ref.2.
[4] Ibid,ref.2

4.4.1. District hospital- secondary care

Secondary health care refers to a second tier of health system, in which, patients from primary health care are referred to higher hospitals for treatment. In India, the institutions for secondary health care include district hospitals, sub-district hospitals, and community health centers at the block level. Tertiary health care is the third level of health system that includes specialized consultative care, provided mostly on referral basis, from primary and secondary health care. Tertiary care service is usually provided by medical colleges and advanced medical research institutes.

Secondary care is understood as a health service performed by specialized medical professionals who are usually the second contract with a patient, often referred from the primary care provider. People often have a secondary care review when a medical condition requires more attention than a primary care provider can give. This referral can be for a specific part or system of the body or a specific disease, illness, or condition of the patient. As per the Indian Public Health Standards[5] guidelines District Hospitals are expected to function as secondary-level referral centers for public health institutions. Besides the OPD, indoor, emergency services, other services include consultation services with a specialist such as general medicine, general surgery, obstetrics and gynecology (obs. & gynaec), pediatrics including neonatology, emergency (accident and other emergencies) critical care (ICU), anesthesia, ophthalmology, ENT, dermatology, and venerology including RTI / STI, orthopedics, nephrology, cardiology, pulmonary medicine, urology, plastic surgery, radiology, dental care, and public health

[5] Indian Public Health Standards (IPHS) Guidelines for District Hospitals (101 to 500 Bedded) Revised 2012 Directorate General of Health Services Ministry of Health & Family Welfare Government of India. In this revised IPHS document, services that a District Hospital is expected to provide have been grouped as Essential (Minimum Assured Services) and Desirable (which we should aspire to achieve). Besides the basic specialty services, but also included Newborn Care, Psychiatric services, Physical Medicine and Rehabilitation services, Accident and Trauma Services, Dialysis services, Anti-retroviral therapy and Patient Safety and Infection control norms etc.

management. Doctors at secondary care can suggest medication and suggest treatment plans[6].

4.4.2. District hospitals - Tertiary care

The tertiary care level indicates need for extremely specialized care over a short or extended period involving complex and advanced equipment, treatment, or procedures, often for severe or life-threatening conditions. It's the third point of contact for some patients, after first seeing a primary care provider then a secondary care specialist. Sometimes tertiary care requires transferring a patient to larger metropolitan medical centers or those that specialize in emergent or advanced treatment and care. Aortic dissections, renal or hemodialysis, coronary artery bypass, neurosurgery, server burn treatments, some plastic surgeries dialysis, etc. are few examples of tertiary care[7]. Depending on the condition or medical situation, a patient may receive tertiary care more than once. Generally, those undergoing tertiary care again and often stay in contact with their primary care provider throughout the process in order to ensure best practices and outcomes for long-term and continued care or self-management for chronic conditions and ailments.

National policy framework – secondary and tertiary care

One can say that the Public Health Care System in India in general and the secondary and tertiary care in the District Hospitals in particular functions under the broad policy objectives of the World Health Organization, National Health Mission, and the National Health Policy-2017 and various programs there-under. The policy objectives and aims and targets in respect of the quantity and quality of service delivery, human resources, infrastructure, finance, partnership with the private or Non-Government Organizations under Secondary and Tertiary care are discussed below.

[6] Best Practices in the Performance of District Hospitals in India,2021,NITI Aayog,GoI.
[7] Ibid, ref.6.

4.5. Sustainable Development Goals- Public Health

The Sustainable Development Goal of the World Health Organization is to 'Ensure healthy lives and promote well-being for all at all ages. The SDG declaration emphasizes that to achieve the overall health goal, 'we must achieve universal health coverage (UHC) and access to quality health care. No one must be left behind. This places UHC at the center of the SDG 3 health goal and SDG 3 as a contributor to and beneficiary of sustainable development, with linkages to all the other SDG targets.

4.6. National Health Mission[8]

The National Health Mission encompasses two sub-missions, National Rural Health Mission (2005) and National Urban Health Mission (2013). This mission intends to guide the States towards ensuring the achievement of universal access to healthcare through strengthening of health systems, institutions and capacity building. The vision of National Health Mission is "Attainment of Universal Access to Equitable, Affordable and Quality health care services, which are accountable and responsive to people's needs, with effective inter-sectoral convergent action to address the wider social determinants of health". The mission aims to bridge the gap, particularly for the poor and vulnerable in urban and rural healthcare services through improved health infrastructure, augmentation of human resources, enhanced service delivery, and decentralization of the program to the district level to facilitate context-specific, need-based interventions, improved intra and inter-sectoral convergence and promote effective utilization of resources. National Urban Health Mission covers all the State capitals, district headquarters, and other cities/towns with a population of 50,000 and above (as per census 2011) in a phased manner. Cities and towns with a population below 50,000 will continue to be covered under National Rural Health Mission. National Health Mission provides support to the

[8] Rural Health Statistics 2019-20, National Health Mission, Government of India, Ministry of Health and Family Welfare, New Delhi.

states in overcoming the shortfalls of secondary care health facilities (DH/SDH/CHC) in the districts as per population norms of Indian Public Health Norms. The Mission also supports the states in the up-gradation of these health facilities in terms of additional infrastructure, human resources, drugs, diagnostics, and equipment as well as provides required technical and financial support to strengthen these healthcare facilities for service delivery. Until 2018, the major programmatic components of National Health Mission included Health system strengthening, communicable, non-communicable diseases, RMNCH+A, immunization, etc.

4.7. National Health Policy: 2017[9] - Secondary and Tertiary Care

The National Health Policy-2017, in continuation of earlier policies of 1983, 2002 and recognition of the pivotal importance of Sustainable Development Goals (SDGs), envisages as its goal the attainment of the highest possible level of health and wellbeing for all at all ages, through a preventive and promotive health care orientation in all developmental policies, and universal access to good quality health care services without anyone having to face financial hardship as a consequence. Increasing access, improving quality, and lowering the cost of healthcare delivery are considered important for achieving the policy targets.

The Policy-2017 aims at *i*ncreased utilization of public health facilities by 50% from current levels by 2025. Increase health expenditure by Government as a percentage of GDP from the existing 1.15% to 2.5 % by 2025 proposed for achieving in a time bound manner while imposing taxes on tobacco etc. It is also planned to increase state sector health spending to > 8% of their budget by 2020 as well. One of the important policy targets is decreasing the proportion of households facing catastrophic health expenditure from the current levels by 25%, by 2025. It has also aimed at ensuring

[9] National Health Policy-2017, Ministry of Health and Family Welfare, Government of India, New Delhi.

availability of paramedics and doctors as per the Indian Public Health Standard norms in high-priority districts by 2020 and establishing primary and secondary care facilities as per norms in high-priority districts (population as well as time to reach norms) by 2025. Corporate Social Responsibility find priority area in leveraging well-focused programs aiming to address health goals.

4.7.1. National Health Policy-Secondary Care Services

This policy aims at making available at the District level most of the services which are at present being provided at a medical college hospital through the measures such as making available in the District Hospital at least two beds per thousand populations in such a way that it is accessible within the golden hour rule, and ten categories of what are currently specialist skills etc. The policy has also proposed purchasing care after due diligence from non-Government hospitals as a short-term strategy till public systems are strengthened and for this purpose is proposed a responsive and strong regulatory framework. This frame work acts as a guide in purchasing of care from the non-government sector so that challenges of quality of care, cost escalations, and impediments to equity are addressed effectively. The policy has recognized the need for closing Infrastructure and Human Resources/Skill Gaps. To this end, the policy recommends a scheme to develop human resources and specialist skills. The policy duly acknowledges the roadmap of the 12th Five Year Plan for managing human resources for health. The policy initiatives aim for measurable improvements in the quality of care. Districts and blocks which have wider gaps for the development of infrastructure and deployment of additional human resources would receive focus. Financing for additional infrastructure or human resources would be based on the needs of outpatient and inpatient attendance and utilization of key services in a measurable manner.

4.7.2. National Health Policy-Non-Communicable Diseases

The policy recognizes the need to halt and reverse the growing incidence of chronic diseases. This would be incorporated into the comprehensive primary health care network with linkages to specialist consultations and follow-up at the primary level. Emphasis on medication and access for select chronic illnesses on a „round the year" basis would be ensured. Screening for oral, breast, and cervical cancer and Chronic Obstructive Pulmonary Disease (COPD) will be focused on in addition to hypertension and diabetes. Further, the policy commits itself to support programs for the prevention of blindness, deafness, oral health, endemic diseases like fluorosis and sickle cell anemia/thalassemia, etc. The policy recognizes the growing need for palliative and rehabilitative care for all geriatric illnesses and advocates the continuity of care across all levels.

4.7.3. National Health Policy-Tertiary Care Services

The policy affirms that the tertiary care services are best organized along lines of regional, zonal, and apex referral centers. It emphasizes the operationalization of mechanisms for a referral from the public health system to charitable hospitals, ensuring that deserving patients can be admitted on designated free/subsidized beds. The policy proposes to consider forms of resource generation, where corporate hospitals and medical tourism earnings are through a high degree of associated hospitality arrangements and on account of certain procedures and services, as a form of resource mobilization towards the health sector. The policy shows the way forward in developing a partnership with the non-government sector through impaneling the socially motivated and committed tertiary care centers into the Government efforts to close the specialist gap. To expand public provisioning of tertiary services, the Government would additionally purchase select tertiary care services from impaneled non-government sector hospitals to assist the poor. Coverage in terms of population and services will expand gradually.

4.8. Public Health – Expenditure

As a result of these efforts taken by the Government, today the public health care in India has achieved notable progress in many parameters of health care including secondary and tertiary care. As of 31st March 2020, 3313 FRUs[10] are functioning in the country. Out of these, 1706, 821, 668, and 118 are at the level of CHC, SDH, DH, and Medical College respectively. A total of 1193 Sub Divisional/Sub District Hospital and 810 District Hospitals (DHs) are functioning as of 31st March 2020 throughout the country. There are 13399 & 22827 doctors and 29937 & 80920 paramedical staff are available at Sub District Hospital and District Hostpital respectively. There are a total of 143538 and 287025 numbers of beds available at the level of SDH and DH[11].

Table 4.1: Allocation To Major Expenditure Heads Under The Ministry OF Health &Family Welfare, Government Of India. (In Rs Crore)[12]

Major Heads	Actuals 2018-19	RE 2019- 20	BE 2020- 21	% Change (RE to BE)
NATIONAL HEALTH MISSION (total)	31,045	33,790	33,400	-1%
-NRHM	25,495	27,834	27,039	-3%
-NUHM	868	950	950	0%
-Others	4,682	5,006	5,411	8%
Autonomous Bodies (AIIMS, PGIMER, ICMR)	8,718	10,095	9,616	-5%
Ayushman Bharat: Pradhan Mantri Jan Arogya	1,998	3,200	6,400	100%
PMSSY	3,797	4,733	6,020	27%
National AIDS & STD Control	1,803	2,956	2,900	-2%

[10] First Referral Units (FRUs): An existing facility (District Hospital, Sub-divisional Hospital, Community Health Centre, etc.) can be declared as a fully operational First Referral Unit (FRU) only if it is equipped to provide round-the-clock services for emergency obstetric and New Born Care, in addition to all emergencies that any hospital is required to provide. Rural Health Statistics,2019. National Rural Health Mission, GoI.

[11] Ibid.,reference 10.

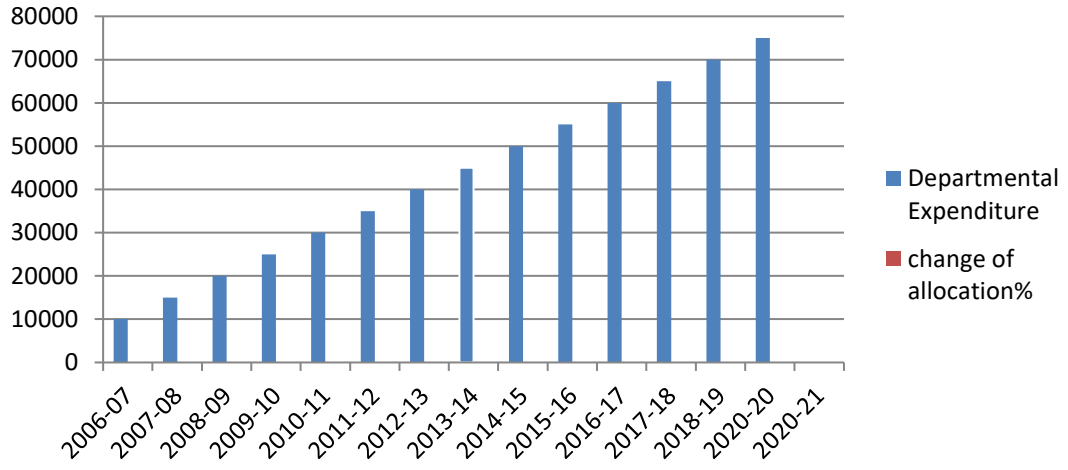
[12] Website of Ministry of Health& Family Welfare, GoI.

Programme				
Family Welfare Schemes	598	776	831	7%
Rashtriya Swasthya Bima Yojana	227	114	29	-75%
Others	6,497	8,946	7,916	-12%
Total	**54,682**	**64,609**	**67,112**	**4%**

Table 4.2: Comparison of Budget Estimates and the Actual Expenditure (2010-20) (in Rs crore)[13]

Year	BE	Actuals	Actuals/BE
2010-11	23,530	22,765	97%
2011-12	26,897	24,355	91%
2012-13	30,702	25,133	82%
2013-14	33,278	27,145	82%
2014-15	35,163	30,626	87%
2015-16	29,653	30,626	103%
2016-17	37,066	37,671	102%
2017-18	48,853	51,382	105%
2018-19	52,800	52,954	103%
2019-20	62,659	62,659*	100%

Figure 4.2: Allocation to the Department of Health and Family Welfare (2006-20) (in Rs Crore)[14]



[13] Ibid,ref.12
[14] Ibid.,

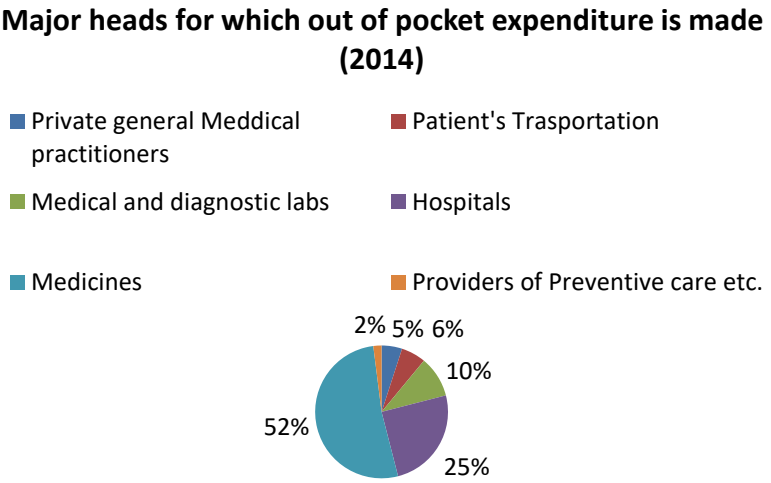
Table 4.3: Targets as per national health mission framework[15]

Targets (2012-17)	Status (as on Dec 2019)
Reduce IMR to 25	IMR has reduced to 35 in 2017.
Reduce MMR to 100/1,00,000 live births	MMR has reduced to 122 in 2017.
Reduce TFR to 2.1	TFR has reduced to 2.3 in 2016.
Annual Malaria Incidence to be < .001	Annual Malaria Incidence is 0.02 in 2019.
Less than 1 % microfilaria prevalence in all districts	Out of 256 endemic districts, 99 have reported incidence less than 1% till 2018.
Kala-Azar elimination by 2015, <1 case per 10,000 population in all blocks	92% endemic blocks have achieved the elimination target in 2019,
Reduce annual prevalence and mortality from Tuberculosis by half	Incidence reduced from 300 per lakh in 1990 to 204 per lakh in 2017. Mortality reduced from 76 per lakh in 1990 to 31 per lakh in 2017.

Table 4.4: Number of Public Health Professionals In India (2014-18)

Profession	2014	2018	% increase
Allopathic Doctors	7,47,109	9,23,749	24%
AYUSH Doctors**	7,36,538	7,99,879	9%
Nurses and Pharmacists	32,86,157	40,91,597	25%

Figure 4.3: Major Heads for Which Out-Of Pocket Expenditure Is Made (2014)



[15] Ibid,

Table 4.5: Status of implementation of Ayushman Bharat (as of January 2020)[16]

Indicators	All India
Beneficiary families covered (in lakhs)	1,363
% claims paid	63%
Number of empanelled hospitals	19,752
Health and Wellness Centres	29,572

4.9 Contribution of the Private Sector to the Public Health in India:

The private sector in India consists largely of sole practitioners or small nursing homes having the bed strength of 1-20, concentrated in urban and semi-urban area and predominantly catering curative care. A survey[17] of the qualified provider markets in eight middle-ranging districts: Khammam (AP), Nadia (WB), Jalna (MH), Kozhikode (Kerala), Ujjain (MP), Udaipur (RJ), Vaishali (BH), and Varanasi (UP) showed that the Private Sector has: 1. A highly skewed distribution of resources — 88% of towns have a facility compared to 24% in rural areas, with 90% of the facilities manned by sole practitioners. 2. 75% of specialists and 85% of technology in their facilities. 3. Accounts for 49% of beds and an occupancy ratio of 44% whereas the occupancy rate is 62% in the public sector. 4. 75% of service delivery for dental health, mental health, orthopedics, vascular, and cancer diseases, and about 40% of communicable diseases and deliveries are provided by the private sector.

Private hospitals are largely divided into “for-profit hospitals,” which account for 23.3% of treated ailments and “not-for-profit hospitals,” which account for only 1.1% of treated ailments, as of June 2018. For-profit hospitals account for 55.3% of in-patients,

[16] Ibid,ref.15
[17] National Commission on Macro Economics and Health; 2005

while the not-for-profit hospitals account for only 2.7% of in-patients in the country, according to the findings of the NSS 75th round survey on Health in India[18].

4.10. Public Health System- Andhra Pradesh Scenario

As documented in the Technical partner paper-7 (2009)[19] , the Department of Health, Medical and Family Welfare (DoHMFW) was set up in 1922 as the nodal agency for delivery of primary and secondary health care to the people of the State. Primary objectives of DoHMFW are (i) to provide quality, accessible, equitable, affordable and guaranteed health services to the poor, both in rural and urban areas and (ii) facilitating, partnering and providing regulatory frameworks for private sector and civil society health services (Price Waterhouse Coopers, 2008). The existing health system in Andhra Pradesh is very complex and has multiple entities coordinating with one another on issues related to health service delivery. The Department Health, Medical and Family Welfare consists of ten organizations namely 1) Andhra Pradesh Vaidya Vidhana Parishad, 2) Andhra Pradesh Health Medical Housing and Infrastructure Development Corporation, 3) Andhra Pradesh State AIDS Control Society, 4) Commissionerate of Family Welfare, 5) Directorate of Health Services, 6) Directorate of Medical Education, 7) Institute of Preventive Medicine, 8) Andhra Pradesh Yogadhyana Parishad, 9) Drugs Control Authority and 10) Ayurveda, Yoga, Naturopathy, Unani, Siddha (AYUSH). (See the annexure for details on each organization) The department also oversees the following autonomous bodies: Sri Venkateswara Institute of Medical Sciences (SVIMS), NTR University of Health Sciences, MNJ Cancer Hospital and Andhra Pradesh Aromatic Plants Board. With the inception of the Andhra Pradesh Health Sector Reform Programme, the Strategic Planning and Innovation Unit (SPIU) and State Program

[18] Study on the Not-for-Profit Hospital Model in India,2021,NITI Ayog.

[19] The Document-7 (2009) Andhra Pradesh Health Sector Reform A Narrative Case Study , The Rockefeller Foundation–Sponsored Initiative on the Role of the Private Sector in Health Systems in Developing Countries

Management Unit (SPMU) have become autonomous bodies overseen by the DoHMFW as well.

There are four types of service delivery units in the State based on the levels of care provided by these units: 1) Sub-Centers, 2) Primary Health Centers, 3) Community Health Centers and 4) District Hospitals.

4.10.1 Sub-Centers

Sub-center, also known as a sub-health center, is the first contact point between the primary health care system and the community. As per the government norms, there is one sub-center for every 5,000 people in plain areas and for every 3,000 people in non-plain areas, e.g. hilly and tribal areas. It is the most peripheral of the service delivery, with referral system linking it to the primary health center, which caters to 20,000 – 30,000 population. A sub-center is the most accessible health care center to the community at the grass-root level and provides all the primary health care services. These health services include: antenatal, natal and postnatal care, immunization, prevention of malnutrition and common childhood diseases, family planning counseling and services. They also provide drugs, free of cost, for minor ailments such as diarrhea, fever, worm infestation etc. The sub-center also carries out community needs assessment. Added to the above, the government implements several programs, both national health and family welfare related, that are being delivered through these sub-center workers (Price Waterhouse Coopers, 2008).

4.10.2 Primary Health Centers (PHC):

The primary health center is a rung above the sub-center in the three-tier health system in the state. It is a basic health care unit that provides integrated curative and preventive health care to the population primarily in the rural areas, with emphasis on

preventive aspects of health care. The primary health center, along with the sub-centers, are designed to provide more effective coverage to the rural population on the basis of one primary health center for every 30,000 people in plain areas and one for every 20,000 people in hilly and tribal areas. Primary health centers are the main service delivery units of rural health services, often the first main stop for health services from a qualified doctor in the public sector for the sick. These health centers act as the first referral unit to those who are directly reported by or referred from sub-centers for curative and preventive health care. Every primary health center has 4–6 indoor beds for patients and it acts as a referral unit for 6 sub-centers. If the services at the primary health center do not meet the needs of the patients, they are referred to community health centers and higher order public hospitals at sub–district and District Hospitals (Price Waterhouse Coopers, 2008).

4.10.3 Community Health Centers (CHC)

These are the First Referral Units (FRUs) and form the secondary level of health care provision. The community health centers are designed to provide referral health care for cases from the primary health centers and for those patients in need of specialist care who approach the center directly. There are four primary health centers under each community health center, whereas each community health center caters to approximately 120,000 people in plain areas and 80,000 people in tribal and hilly areas. The community health centers are 30-bedded hospitals that provide specialist care in surgery and pediatrics, curative medicine, obstetrics and gynecology (Price Waterhouse Coopers, 2008).

4.10.4 District Hospitals and higher referral care units

The District Hospital is the main port of call for the district health system. It functions as a secondary level of health care which provides curative, preventive and promotive healthcare services to the people in the district. It also forms the fundamental basis for implementing various health policies while it delivers healthcare and management of health services for a defined geographic area. Every District Hospital is linked with other health service delivery units such as the sub-district or sub-divisional hospitals, community health centers, primary health centers and sub-centers. The District Hospitals caters to the people living in both urban areas, such as the district headquarters, towns and adjoining areas, as well as the rural areas of the district. The District Hospital works not only as a curative center but also as an interface with the institutions external to it, including referring patients to other tertiary care centers for specialized care, including those controlled by non-government and private voluntary health organization (Price Waterhouse Coopers, 2008).

4.10.5 Public -Private – Participation in Public Health Care Service Delivery

Andhra Pradesh is the first State in India that has envisaged the role of private sector in its Vision 2020 in assisting the State efforts to achieve the health objectives (Rao, 2003). The private sector plays a dominant role in the delivery of health services in Andhra Pradesh and the State house several internationally renowned research institutes. The private sector accounts for over 72 percent of in-patient admissions and over 85 percent of out-patient contacts – both significantly above national averages (National Sample Survey, 52nd Round). The sector is however unregulated and data on quality and coverage is deficient (Rao, 2003). Obstetrics is the single largest specialization in the private sector (Center for Good Governance, 2006). The private health institutions can be broadly classified into for-profit and non-profit institutions: The non-profit or voluntary providers accounts for a very small share of health care services – one percent of

ambulatory care and four percent of hospitalization services. The majority, 92.8 percent, of all voluntary services are situated in urban areas (Mahapatra, 2002). • The for-profit providers are the major contributor to private health care services. These are provided by broadly three categories of persons/institutions (i) non- qualified providers, (ii) qualified proprietary clinics/nursing homes/hospitals and (iii) corporate hospitals.

The non-qualified providers are also referred to as Registered or Rural Medical Practitioners (RMPs). Generally, the rural medical practitioners are unqualified nurses or assistants to doctors, who after gaining substantial experience act as the first contact for health care in villages. This cadre of health workers is widespread in the State and they are the most accessible and affordable sources of treatment for the poor, thus many turn to them for even serious diseases of children and adults. Thus their wide presence and coverage, there is no real evidence on the quality of care they provide. Some of the anecdotal evidence points to harmful practices reported in the State, indicating that there is an extensive use of unnecessary or inappropriate drugs in the care the Rural Medical Practitioners provide. This cadre furthermore plays an important role in the referring system, as links to private hospitals for recruiting patients for surgeries and tertiary care (Center for Good Governance, 2006). 24 Private medical doctors operate out of small clinics and small nursing homes that are mostly small in size with 30 or less bed capacity. The vast majority, 87 percent, of for-profit hospitals fall under this category. The number of doctors and the size of the clinics and nursing homes are also dependent on the economic status of the population. Bed ratio of the public hospitals to private varies from 0.9 to 2.9 based on how economically developed the district is (Mahapatra, 2002). There is however no systematic evidence on the quality of care for these types of providers (Center for Good Governance, 2006).

The Corporate sector in Andhra Pradesh entered health care delivery in 1989 with the establishment of Apollo Hospitals. There is uncertain knowledge of the exact size and nature of the corporate sector but a trend of expansion has been noticed in recent years. The State Government has further encouraged the corporatization of medical care by providing government land, while the central government has offered tax concessions on import of medical equipment (Narayana, 2003). Most of these corporate hospitals are large in size and are located in affluent urban areas of the State (Center for Good Governance, 2006). On April 1st, 2008, the Central Government prescribed a five-year tax holiday for new health care facilities in tier-II and tier-III cities. This was seen as a first step by the government to incentivize investors to strengthen the health care infrastructure through the corporate sector.

Public Private Partnerships Collaborations between the private sector and the government in the delivery of health services are of recent origin in Andhra Pradesh. The collaborations have effectively started during the early nineties, the period of inception of the World Bank projects – India Population Project VIII and Andhra Pradesh First Referral Health Systems Project. Many of the collaborations are continuing and take shape in various forms: buying and selling health services, contracting out clinical and non-clinical services, facilitating and promotion of partnerships and pure business partnerships (e.g. telemedicine projects). The role of each sector in partnerships differs from project to project (Rao, 2003). A project for health care services in urban slums was a first innovative effort to contract private providers, non-profit organizations, to provide primary health care. The Government of Andhra Pradesh has thereafter undertaken major initiatives with the private sector for health care delivery. Emergency Management and Research Institute (EMRI) is a non-profit organization originally providing ambulance services in Hyderabad was in 2006 asked by the government to

scale the services to cover rural areas. EMRI was contracted to provide ambulance services to the entire state and the government has thereafter contracted the sister organization Health Management and Research Institute (HMRI) to provide primary health care services through mobile vans in rural areas and a toll-free health helpline providing standardized medical information, advice and counseling. HMRI is furthermore conducting research for the government, based on the large amount of health data the organization gathers through its services. HMRI also has several education initiatives including training of Rural Medical Practitioners to improve the quality of care and the link to the public sector. These public private partnership contracts are large, whereas HMRI receives government.

4.11. Secondary and Tertiary Care In the District Hospital – Some Key Indicators[20]

Andhra Pradesh (AP) is considered as one of the progressive states in India with achieving demographic goal of reaching replacement fertility levels, with a TFR of less than 2.1 (current level 1.8). It has also almost accomplished MDGs[21] 4, 5, and 6 (NFHS 4, 2015). The State has some significant achievements in improving its key health indicators. The maternal mortality rate (92 per 100,000 live births), and Infant mortality rate (35 per 1000 live births), which are much below the national average of the Country. Full immunization among children aged 12-23 months is higher than the national average, at 65.3 % compared to 62.0%. About 40% of pregnant women received full antenatal care and 76.3% received at least four requisite visits during pregnancy. The

[20] Stastistical Asbstract,Adnrha Pradesh-2019, Government of Andhra Pradesh, Directorate Of Economics & Statistics Government Of Andhra Pradesh Gollapudi, Vijayawada Amaravati.

[21] Millennium Development Goal 4: Reduce Child Mortality: MDG 4.A: Reduce by two thirds, between 1990 and 2015, the under-five mortality rate. MDG- 5: Improve Maternal Health:MDG 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio. MDG 5.B: Achieve, by 2015, universal access to reproductive health. MDG 6: Combat HIV/AIDS, Malaria, and Other DiseasesTarget 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS. MDG 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.MDG 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

state of nutrition[22] among women and children is stood at 52.9% of pregnant women and 58.6% of children were reported to be anemic, and malnutrition among children under five was high, with 31.4% found to be stunted, 31,9% underweight, 17.2% wasted and 4.5% severely wasted .

The Government Medical facilities[23] (Allopathic) as on 31.03.2019 include 276 Government Hospitals, 1,145 Primary Health Centers, 39 Diagnostic Centers and 81 Dispensaries in the State of Andhra Pradesh. Total 6,679 Doctors including 105 Contract Doctors are working and 34,235 beds are available in these Hospitals, Primary Health Centers and Diagnostic Centers.

Table 4.6: ESTIMATED BIRTH RATES, DEATH RATES AND INFANT MORTALITY RATES FOR THE YEARS 2016 AND 2017 IN ANDHRA PRADESH

38	**Particulars**	**2016**			**2017**		
		Rural	Urban	Total	Rural	Urban	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Birth Rate per 1,000 Population	16.7	15.8	16.4	16.5	15.5	16.2
2.	Death Rate per 1,000	7.7	4.9	6.8	8.1	5.3	7.2
3.	Infant Mortality Rate per 1,000 Live Births		24	34	36	23	32

Source: Sample Registration System SRS Bulletin Volume 51 No.1, September, 2017 and volume No.52 No.1, May, 2019 of the Office of the Registrar General of India, Ministry of Home Affairs, Govt. of India, New Delhi.

Table 4.7: Estimated death rates and infant mortality rates by sex and residence for the years 2016 and 2017 in Andhra Pradesh.

38	**Particulars**	**Rural**			**Urban**			**Total**		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	2016									
1.	Death Rate	8.4	6.8	7.7	5.2	4.5	4.9	7.5	6.1	6.8
2.	Infant Mortality Rate	37	38	38	23	26	24	33	35	34

[22] National Family Health Survey-4, 2015.
[23] Statistical Abstract, Andhra Pradesh, 2019, Government of Andhra Pradesh.

	2017									
1.	Death Rate	9.0	7.1	8.1	5.8	4.6	5.3	8.1	6.4	7.2
2.	Infant Mortality Rate	35	36	36	22	25	23	31	33	32

Source: Sample Registration System SRS Bulletin Volume 51 No.1, September, 2017 and volume No.52 No.1, May, 2019 of the Office of the Registrar General of India, Ministry of Home Affairs, Govt. of India, New Delhi.

Table 4.8: PROJECTED LEVELS OF SOME DEMOGRAPHIC INDICATORS FROM 2001-05 TO 2021-25, IN UNITED ANDHRA PRADESH

Sl. No.	Indicator	2001-05	2006-10	2011-15	2016-20	2021-25
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Population Growth Rate	1.2	1.0	0.8	0.7	0.5
2.	Crude Birth Rate (CBR)	19.2	17.4	16.2	15.1	13.7
3.	Crude Death Rate (CDR)	7.4	7.4	7.4	7.7	8.0
4.	Infant Mortality Rate (IMR)	59.1	53.1	47.9	43.3	39.5
5.	Under-5 mortality rate (q5)	67.6	60.7	54.9	49.7	45.4
6.	Total Fertility Rate (TFR)	2.1	1.9	1.8	1.8	1.8
7.	Expectancy of Life at Birth (Without AIDS) for Males	63.4	65.4	66.9	68.4	69.4
8.	Expectancy of Life at Birth (Without AIDS) for Females	67.9	69.4	70.9	72.1	73.3

Note: Projected Levels are four United Andhra Pradesh.

Source: Census of India 2001- Population Projections for India and states 2001-2026. Report of the Technical Group on Population Projections constituted by the National Commission on Population. May 2006, Office of the Registrar General & Census Commissioner, India, New Delhi.

Table 4.9: ESTIMATED AGE SPECIFIC DEATH RATES BY SEX FOR THE YEARS 2016 AND 2017 IN ANDHRA PRADESH

AGE GROUP	MALE				FEMALE				Total			
	2016		2017		2016		2017		2016		2017	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0-4	11.9	6.5	11.0	6.5	10.7	7.9	10.0	6.9	11.3	7.2	10.5	6.7
5-9	0.3	0.0	0.5	0.4	0.7	0.5	0.4	0.5	0.5	0.2	0.5	0.4
10-14	0.3	0.0	0.7	0.0	0.0	0.0	0.3	0.4	0.1	0.0	0.5	0.2
15-19	0.9	1.1	1.0	0.6	0.9	0.8	1.5	0.0	0.9	1.0	1.3	0.3
20-24	1.7	0.3	1.4	1.0	1.3	0.3	1.1	0.3	1.5	0.3	1.3	0.6
25-29	1.6	0.9	1.8	1.5	1.5	0.6	1.8	0.8	1.6	0.7	1.8	1.2

30-34	2.6	1.4	2.7	2.2	1.3	1.4	1.7	1.6	2.0	1.4	2.2	1.9
35-39	3.3	1.4	4.9	3.5	2.0	1.9	2.1	0.3	2.6	1.6	3.5	2.0
40-44	5.2	3.7	4.9	4.0	4.1	3.3	3.4	1.3	4.7	3.6	4.2	2.7
45-49	9.1	6.2	9.7	6.4	4.3	3.5	5.3	3.2	6.8	5.0	7.6	4.9
50-54	13.5	6.2	12.7	9.0	8.3	6.7	6.7	4.8	10.9	6.5	9.6	6.9
55-59	15.9	12.2	17.7	13.5	12.5	9.9	13.9	9.3	14.2	11.1	15.8	11.5
60-64	21.1	17.0	27.0	21.9	18.9	13.7	17.5	18.4	20.0	15.5	22.2	20.2
65-69	31.0	23.2	37.0	28.4	29.5	24.1	32.9	23.8	30.3	23.6	35.2	26.2
70-74	47.7	44.9	55.1	42.0	43.6	34.5	49.2	42.4	45.9	39.9	52.4	42.2
75-79	78.2	64.3	69.1	34.0	68.3	55.6	75.7	91.8	73.6	60.5	72.2	58.9
80-84	93.0	91.0	96.5	90.4	90.1	94.1	107.0	107.0	91.5	92.6	101.9	99.1
85+	120.3	163.8	136.5	227.2	144.1	103.5	141.1	195.4	131.9	128.2	138.7	208.6
All Ages (Crude Death Rate)	8.4	5.2	9.0	5.8	6.8	4.5	7.1	4.6	7.7	4.9	8.1	5.3

Table 4.10: DISTRICT-WISE SOCIO DEMOGRAPHIC INDICATORS

Sl. No	**District**	**Birth Rate 2018**	**Maternal Mortality Rate (MMR), 2018-19**	**Infant Mortality Rate (IMR), 2018-19**
(1)	(2)	(3)	(4)	(5)
1.	Srikakulam	14.4	79	13
2.	Vizianagaram	14.5	93	11
3.	Visakhapatnam	14.2	97	12
4.	East Godavari	14.9	76	13
5.	West Godavari	13.4	65	8
6.	Krishna	13.8	42	7
7	Guntur	16.2	67	11
8.	Prakasam	16.0	41	8
9.	S.P.S Nellore	16.6	37	6
10.	Y.S.R. Kadapa	15.7	59	12
11.	Kurnool	14.5	69	16
12.	Ananthapuram	16.3	42	12
13.	Chittoor	13.9	55	12
ANDHRA PRADESH		14.74	63	11

Note: The above values as per District Reports.

Source: Commissioner of Health & Family Welfare, Andhra Pradesh, Vijayawada.

Table 4.11: GOVERNMENT ALLOPATHIC MEDICAL FACILITIES AS ON 31.03.2019

Sl. No.	**Item**	**Unit**	**Medical Education Department**	**A.P. Vaidhya Vidhana Parishad**	**Public Health & Family Welfare Departmen**	**Insurance Medical Services Departmen t**	**Grand Total**

					t		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Hospitals						
a)	General Hospital	No	11	237		4	252
b)	Hospitals for Special Treatment	No	14	3		-	17
c)	Allied Hospitals #	No	7	-		-	7
Total			32	240		4	276
2.	Primary Health Centers	No	-	-	1,145	-	1,145
3.	Diagnostic Centers	No	36	-	-	3	39
4	Beds Available						
a)	Men	No	4,247	-	-	-	4,247
b)	Women	No	3,060	-	-	46	3,106
c)	Children	No	940	-	-	-	940
d)	Common/General	No	5,323	13,430	6,870	319	25,942
Total			13,570	13,430	6,870	365	34,235
5.	Dispensaries	No	-	3	-	78	81
6.	Doctors						
a)	Regular Doctors	No	2,891	1,579	1,874	230	6,574
b)	Contract Doctors	No	9	57	22	17	105
Total			2,900	1,636	1,896	247	6,679

*- includes Dist. Hospitals, Area Hospitals & Community Health Centers

#- Rural Health Centers

Source: (1). Director of Medical Education, Andhra Pradesh, Vijayawada.
(2). Commissioner of A.P Vaidya Vidhana Parishad, Andhra Pradesh, Vijayawada.
(3). Director of Public Health & Family Welfare, Andhra Pradesh, Vijayawada.
(4). Director of Insurance Medical Services, Andhra Pradesh, Vijayawada.

Table 4.12: DISTRICT-WISE GOVERNMENT MEDICAL FACILITIES-ALLOPATHIC AS ON 31.03.2019

Sl. No	**District**	**No. of General Hospitals***	**T.B**	**Eye, ENT & Dental**	**Mental**	**I.D.C.D and Cancer**					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Srikakulam	19	-	-	-	-	-	-	-	-	19
2.	Vizia-nagaram	13	-	-	-	-	-	-	-	-	13
3.	Visakhapatnam	18	1	2	1	-	1-	1	6	1	25
4.	East Godavari	32	-	-	-	-	-	-	-	1	33
5.	West	18	-	-	-	-	-	-	-	-	18

	Godavari										
6.	Krishna	17		1		-	-	-	1	-	18
7.	Guntur	21	-	-	-	1	-	3	4	1	26
8.	Prakasam	18	-	-	-	-	1		1	-	19
9.	S.P.S. Nellore	18	-	-	-	-	-	-	-	-	18
10.	Y.S.R Kadapa	15	-	1	-	-	-	-	1	-	16
11.	Kurnool	21	-	1	-	-	1	-	2	1	24
12.	Anantha-puramu	19	-		-	-	-	-	-	2	22
13.	Chittoor	23	-	-	-	1	1	-	2	1	25
ANDHRA PRADESH		252	1	5	-	1	2	4	17	7	276

Table 4.13: district wise government medical facilities – allopathic as on 31.03.2019

Sl. No.	**District**	**Diagnostic Centers**	**No. of Primary Health Centres**	**No. of Beds Available (for all)**					**No. of Dispensaries**	**No. of Regular Doctors**	**No. of Contract Doctors**
				Men	Women	Childrен	Common	Total			
(1)	(2)	(13)	(14)	(15)	(16)	(17)	(18)	1(9)	(20)	(21)	(22)
1.	Srikakulam	2	80	150	75	25	1,440	1,690	1	401	9
2.	Vizia-nagaram	1	68	-	-	-	1,168	1,168	4	238	5
3.	Visakha-patnam	8	88	967	778	200	2,383	4,328	9	750	10
4.	East Godavari	2	128	465	418	62	3,183	4,128	8	653	34
5.	West Godavari	-	91	-	-	-	1,796	1,796	7	300	16
6.	Krishna	4	88	200	160	50	2,518	2,928	12	564	4
7.	Guntur	5	87	696	471	110	1,965	3,242	8	632	9
8.	Prakasam	2	90	150	75	25	1,650	1,900	3	393	1
9.	S.P.S. Nellore	3	75	300	100	100	1,500	2,000	6	443	2
10.	Y.S.R Kadapa	2	74	275	225	150	1,414	2,064	4	455	2
11.	Kurnool	4	87	505	338	64	2,130	3,037	7	596	4
12.	Anantha-puramu	3	88	200	130	110	1,998	2,438	5	427	5
13.	Chittoor	3	101	339	336	44	2,797	3,516	7	722	4

ANDHRA PRADESH	39	1,145	4,247	3,106	940	25,942	34,235	81	6,574	105

*- includes Dist. Hospital, Area Hospitals & Community Health Centers
Rural Health Centers. Source: (1) Director of Medical Education, Andhra Pradesh, Vijayawada. (2) Commissioner of A.P Vaidya Vidhana Parishad, Andhra Pradesh, Vijayawada. (3) Director of Public Health & Family Welfare, Andhra Pradesh, Vijayawada. (4) Director of Issuance Medical Services, Andhra Pradesh, Vijayawada.

Table 4.14: death in government hospitals according to causes in Andhra Pradesh for the years 2016, 2017 & 2018

Sl No.	**Disease**	**2016**	**2017**	**2018**
(1)	(2)	(3)	(4)	(5)
1	Acute Diarrheal Diseases (Including Gastro-enteritis and Cholera)	11	55	72
2	Diphtheria	-	2	6
3	Acute Polio Myelitis	-	-	-
4	Tetanus other than Neonatal	-	-	5
5	Neonatal Tetanus	-	-	4
6	Whooping Cough	-	-	-
7	Measles	-	-	-
8	Acute Respirator Infection (Including Influenza and excluding Pneumonia)	95	396	614
9	Pneumonia	25	407	382
10	Enteric Fever	-	19	7
11	Viral Hepatitis	1	82	168
12	Japanese Encephalitis	-	1	2
13	Meningococcal Meningitis	3	85	52
14	Rabies Bite (Including Dog Bites)	-	6	15
15	Syphilis	-	-	-
16	Gonococcal Infection	-	-	-
17	Pulmonary Tuberculosis	304	855	1,223
18	All Other Diseases	6,774	22,706	28,143
Total		7,213	24,614	30,693

4.12. CONCLUSION

Over 1.35 Billion people depend on the health sector in India**.** Indian Public Health System has emerged over the years as an integrated structure involving both Governments at National and state Governments in delivery of the Public Health care. Both Governments have policy initiatives and programs at respective levels for providing sound, efficient, and effective health care to all sections of society. Though the public health service delivery system has the mandate for fulfilling the health care needs of the society, Governments have a contribution to the Private sector in this ever lasted endeavor and form Public-Private Partnerships in appropriate areas of health care. Public

health policy and government programs and projects have been directed towards achieving not only Universal Health care for its people but also enhancing the quality of the services that meet the needs and preferences of the people of India.

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CHAPTER-5

DATA ANALYSIS AND INTERPRETATION

5.1 INTRODUCTION

In order to address the objectives indicated in Chapter 3, the researcher has created a survey questionnaire. It was prepared in English language, and got translated into Telugu language since the Sample questionnaire was circulated among the people mainly residing in the Guntur and Vijayawada cities, and to make the questions and words understandable to all sections of the Sample Population. And, a Sample test was conducted with a small group to check its functionality of the questionnaire before being circulated to the targeted Sample Population. To optimize available technology and reach-out a cross section of the people, the Google form questionnaire was circulated both through email, Whatsapp in addition to serving hard copies. In addition, very informal discussions were held with few Doctors, Hospital Superintendents and Nurses working in the Public Health Care facilities surrounding the Guntur and Vijayawada to understand the Public Health Care service delivery from their perspective and experience. Since, the survey intends to capture general perceptions and experience about Government Hospital services, the Category names of male and female and patient was not used in the question form. Only details of the occupation, education, and area of residence are taken into consideration for the present study purpose. Due to the time limitation, and Covid-19 pandemic conditions, external help had been utilized for taking feedback from the Sample Population including the patients in the Guntur General Hospital and Vijayawada General Hospital. The person who supported the survey has work experience in the Government General Hospital. Further, before starting the survey, the assistant had been explained in detail the context, purpose of the survey, and meaning of the different words used in the questionnaire. Being in the health care profession,

the Assistant had well understood the questionnaire and purpose of the survey. Having satisfied with the level of the understanding the Researcher had given hard copies to the Assistant to collect the information. The Supporter had conducted the physical survey, and obtained information. Total 50 individuals had responded to the physical survey. After the survey completed, these 50 responses were later uploaded into the Google form to generate data. In total, the Survey questionnaire generated total 159 responses both online and offline mode. After the information is collected from the Sample Population, and freezing of receiving the responses by the Google survey form, the questions were revisited. Few repeated questions and similar kind of questions were deleted from the questionnaire to avoid ambiguity and duplication of information. And the Sample Population size remained the same. The Google survey form instrument which is in English, and its translated version, and the final Excel sheet data generated from the Google From are placed at the Appendix. The succeeding paragraphs will discuss the findings of the survey and possible interpretations and analysis etc.

Table 5.1. Socio-economic and demographic profile of the sample population

Sl. No.	**Socio-Economic Demographic profile**	**Number/(%)**
1.	Illiterate	7(4.4%)
2.	10^{th} pass	21(13.3%)
3.	Intermediate	14(8.9%)
4.	Graduation	46(29.1)
5.	Graduation pass	34(21.5%)
6.	Post Graduation pass	22(13.9%)
7.	Ph.D.	12(7.6%)
8.	Professional Courses	2(1.3%)
9.	City/Town	72%
10.	Rural	28%
11.	Employee Category	71.2%
13.	Business	17.1%
14.	Agriculture	9.5%
15.	Student	0.6%
16	House-maker	4.0%

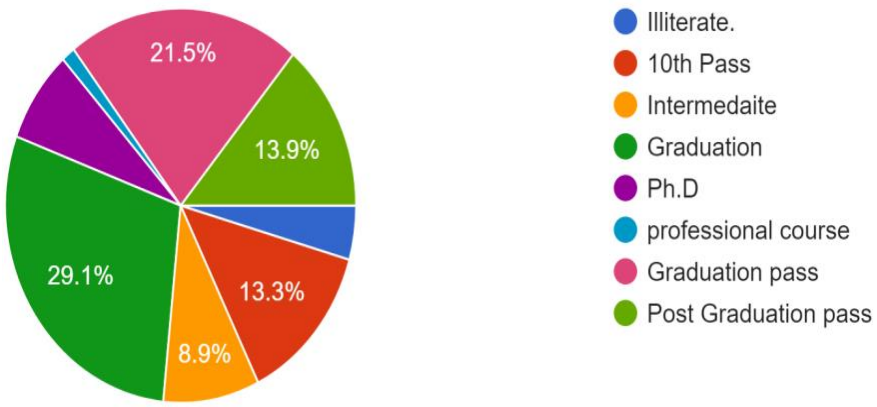
Table 5.2. Occupation wise break up of participants

Sl.No	Occupation	Count of Occupation
1.	Agriculture	15
2.	Business	27
3.	Homemaker	1
4.	House maker	1
5.	House wife	1
6.	House wife	1
7.	Outsourcing	1
8.	Retired Employee	1
9.	Retired executive in Central Public Sector Undertakings.	1
10.	Service in the Bank	1
11.	Student	1
12.	Working in Government	42
13.	Working in Private sector	65
	Grand Total	**158**
Sl.No.	**Considered**	**Count of Occun.**
1.	Agriculture	15
2.	Business	27
3.	Employee	111
4.	Homemaker	4
5.	Student	1
	Grand Total	**158**

SURVEY QUESTIONNAIRE – DATA ANALYSIS

5.2 What **is your educational qualification?**

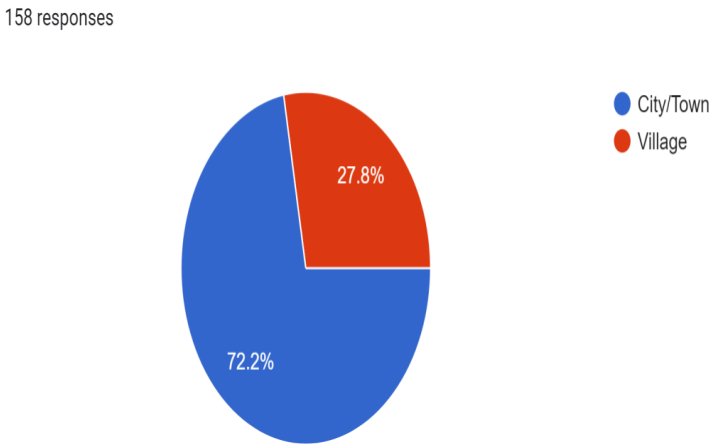
Figure-5.1 Educational Qualification Of Sample Population



Among the Sample Population, it constitutes Illiterate-7 (4.4%), 10th pass 21 (13.3%), intermediate 14(8.9%), Graduation 46 (29.1), Graduation pass 34 (21.5%), Post Graduation pass 22 (13.9%), Ph.D. 12 (7.6%), Professional Courses- 2 (1.3%). Total 158 individuals have responded to this question.

5.3 What is your place of residence?

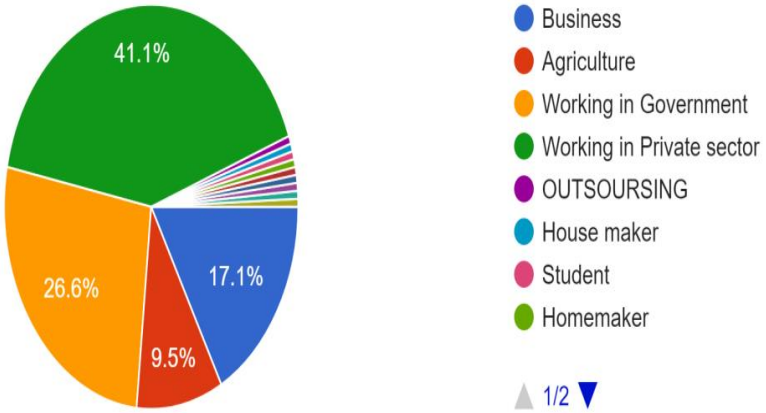
Figure-5.2 Place of Residence of the Sample Population



Against total 158 responses, 72% of Sample Population was living in and around the city/town of the Guntur and Vijayawada, and 28% of the Sample Population was residing in the villages surrounding the two cities.

5.4 What is your occupation?

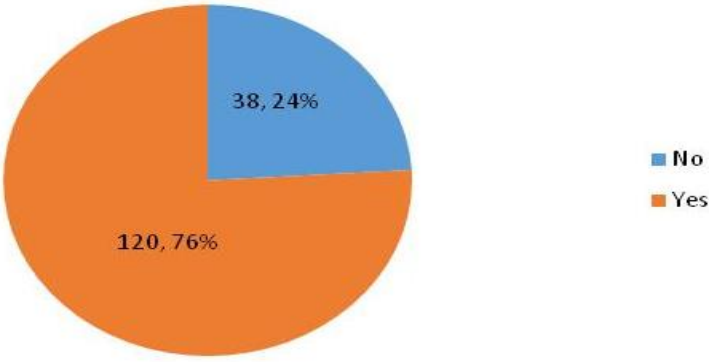
Figure-5.3 Occupation of the Sample Population



As open ended question form was allowed for the Sample Population for assessing diversity in the Participants and they had indicated their occupation and status. This resulted into a situation where the same Category of people described them like different women Participants described themselves differently as Home Maker, House Maker, and House wife. Hence, similar Category/class of the Sample Population was grouped into one Category. After the categorization, distribution of the Sample Population is resulted into the broad classes viz. Agriculture, Business, Home-maker, Employees (Private/Public, Serving and Retired), and Student. Majority of the Participants belong to the Employee Category with 41% from the Private sector, followed by 30.1% from the Public Employment, Business (17.1%), Agriculture (9.5%), Student-(0.6%), and the House-maker constitutes appx. 4.0% of the Sample Population.

5.5. Have you ever taken treatment in a Government General Hospital?

Figure- 5.4 Percentage of participants who taken treatment in Government Hospital



Against the total Sample Population participated, 76% of them have said yes, and 24% have said No that they never taken treatment in a Government Hospital.

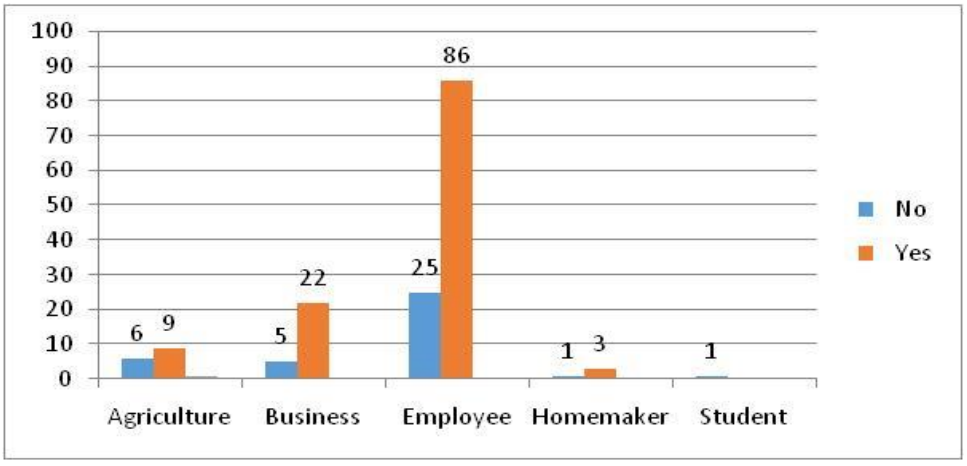
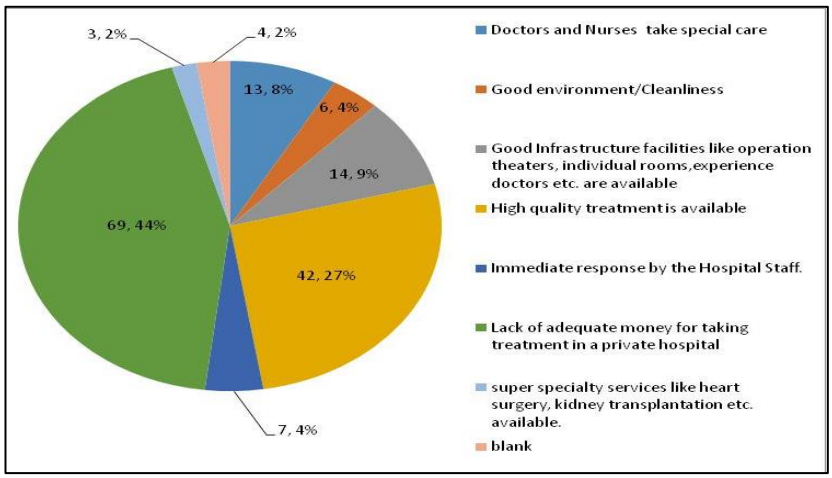


Figure- 5.4.1 Occupation wise participants who taken treatment at Government Hospital

Among the Sample Population who had responded as taken treatment at Governme General Hospital, 9(60%) belongs to the Agriculture Category; 22(81%) belong to t Business Category; 86(77%) belong Employee Category; 3(75%) belong to Home-Mak Category. From the other set of Sample Population who have not taken treatment Government Hospital, 6(40%) of Population belong to Agriculture Category, 5(18% belong to Business Category, 25(22.50%) of Employee Category, 1(25%) of home-mak Category, and 1(100%) of student Category. It can be observed from this Sample da that majority in the Employee Category and Business Category is utilizing t Government General Hospitals, than the Agriculture and Home-maker categorie Though the Employee and Business categories may not belong to high income grou but, they do not fall under Below Poverty Line.

5.6. Why you are taking treatment in Government Hospital? (can tick more than one answer)

Figure- 5.5 Reasons for taking treatment in Government Hospital



Among the total Participants of the question, 13(8%) have opined that

Government General Hospital, high quality treatment is available. 14(9%) opin availability of super specialty services like heart surgery, kidney transplantation etc. (27%) felt availability of high quality services are available in the Government Hospit 3(2%) have opined that the Doctors and Nurses take care; 14(9%) have opined that go infrastructure facilities like operation theaters, ICUs etc. are available; 6(4%) have f that good environment and cleanliness is maintained; 7(5%) of Sample Population ha felt that there was an immediate response by Hospital staff to the patient. But, 69 (45 of Participants have shown the cause of lack of financial resources for taking treatment the private Hospital made them to come to the Government General Hospital.

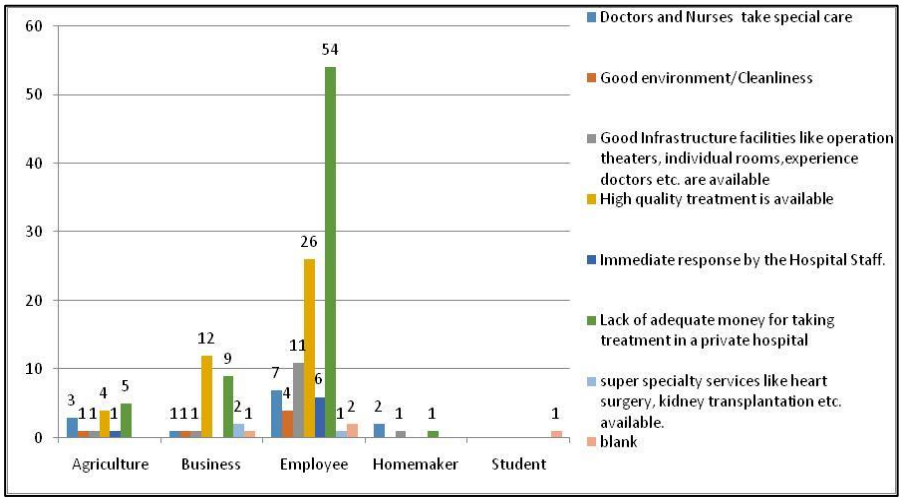


Figure-5.5.1 Occupation wise reasons regarding taking treatment at Government Hospital

In the Agricultural Category who have taken treatment in Government General Hospital, 3(20%) felt Doctors and nurses takes special care; 1(6.7%) felt availability of good infrastructure facilities like operation theaters, ICUs etc, 4(26.6%) felt availability of high quality treatment, 1(6.7%) felt immediate response by the Hospital staff, and 5(33.33%) have told that due to lack of financial resources to take treatment in private Hospital they are taking treatment in Government Hospital. Among the Agriculture Category, lack of financial resources scored higher percentage as a reason for taking treatment in Government Hospitals.

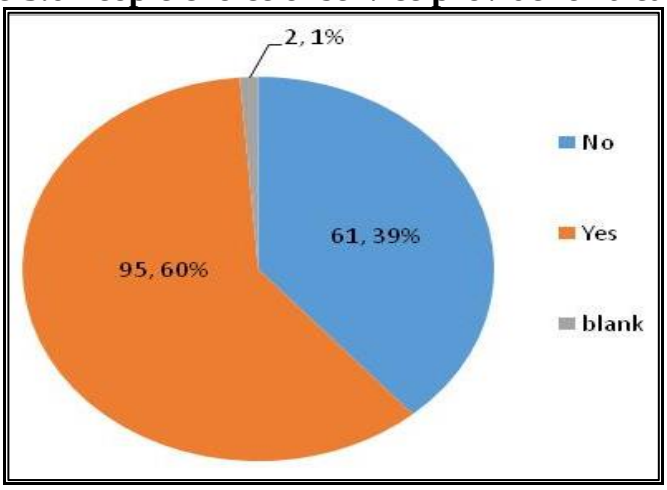
Among the Business Category, 1(3.70%) felt Doctors and nurses take good care, 1(3.70%) felt availability of good infrastructure like operation theaters ICUs etc, 12(44.44%) felt high quality treatment available, 2(13.33%) felt availability of super specialty services like heart surgery, kidney transplantation etc and 9(33.33%) shown lack of adequate financial resources for taking treatment in private Hospitals as the reason for taking treatment in Government General Hospital.

From the Employee Category, 54(48.64%) shows lack of financial resources as reason for taking treatment in Government General Hospital, 26(23.42%) felt availability of high quality treatment, 7(6.30%) felt Doctors and nurses good care, 6(5.40%) felt immediate response by the Hospital staff, 1(0.90%) felt availability of super specialty services like heart surgery, kidney transplantation etc.

This data sows majority percentage of people shown the lack of financial resources are the reason for taking treatment at Government General Hospitals, and the facilities like infrastructure, super specialty services, services have taken the back seat.

5.7. Do you think services in the Government General Hospital are better than the services in the private Hospitals?

Figure-5.6 People choice of service provide for treatment



Against total 156 Participants, 60.9% have opined that the services of the Government General Hospitals are better than that of the Private Hospitals. And 39.1% of Participants

have opined that the services in the Government General Hospitals are not better than the Government Hospitals.

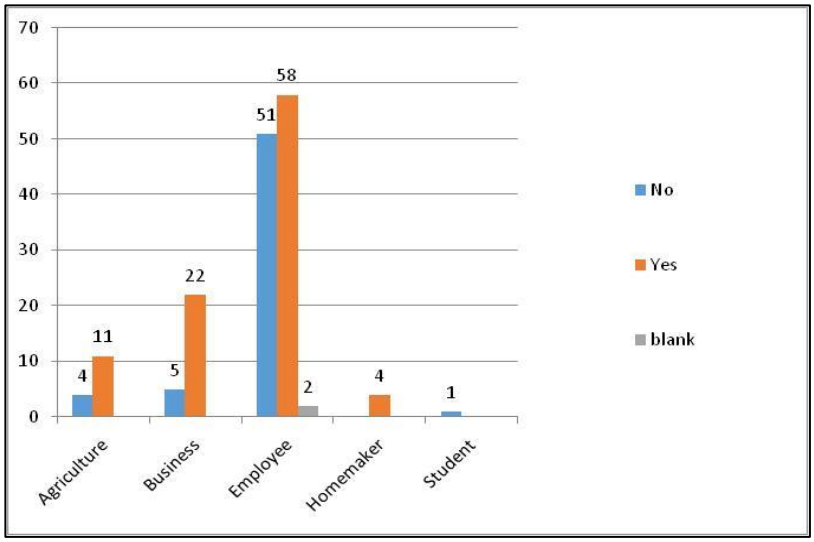
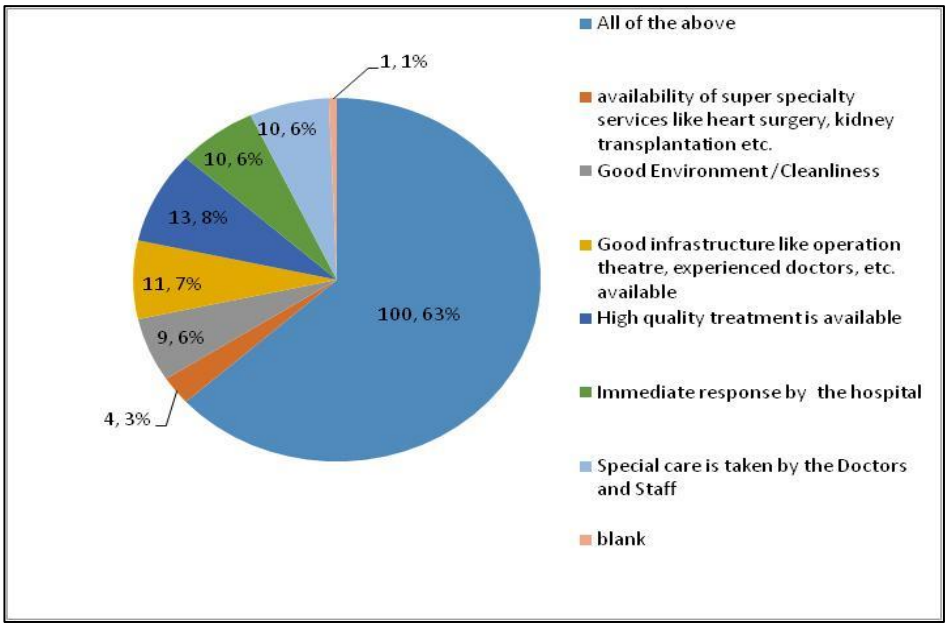


Figure-5.6.1 Occupation wise response about preference of Government General Hospital and Private Hospital.

Among the Participants who have positively responded in favor of Government General Hospitals, 11(73.33%) of Agriculture Category, 22(81.48%) of Business Category, 58(52.25%) of Employee Category, 4(100%) belong to the Home maker Category. Among the Participants who have responded positively towards private Hospitals, 4(26.66%) of the people belong to Agriculture Category, 5(8.51%) belong to Business Category, 51(45.94%) belong to Employee Category, and 1(100%) belongs to the Student Category. Majority of the Sample Population opined that the services in the Government General Hospitals are better than the Private Hospitals. However, the Employee Category has divided in near equal parts in favor of Government and private Hospitals. It is the Agriculture and Business categories, majority of this Sample Population favored the Government health services.

5.8. Why do you like to take treatment in a private Hospital?

Figure- 5.7 Reasons for taking treatment in a private Hospital



Among the Participants, 3% have opined that availability of super specialty services like heart surgery and kidney transplantation etc. in private Hospitals. 8.3% felt high quality services available; 6.4% felt special care is taken by Doctors and nurses, 7 % felt availability of good infrastructure facilities like operation theaters, ICUs etc., 5.7 % felt good environment and cleanliness available , and 6.4% felt immediate response by Hospital staff. 63.7% felt availability of all the above facilities in private Hospitals.

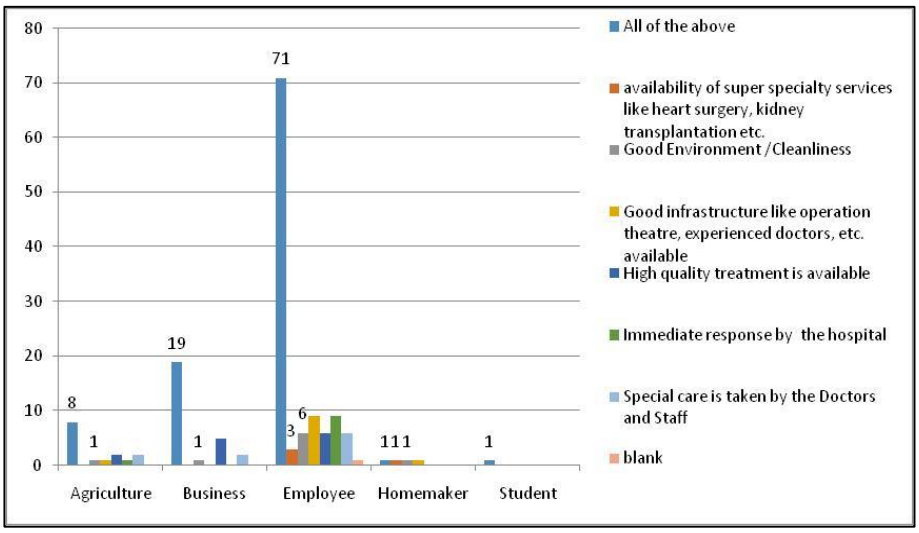


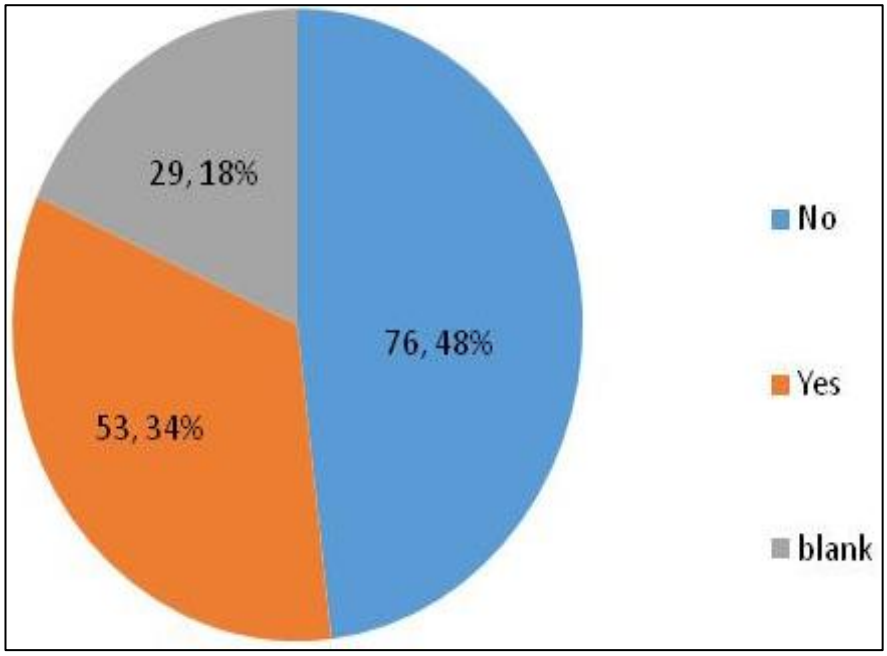
Figure-5.7.1 Occupation wise response regarding reasons for taking treatment in a private Hospital

Among 71(63.96%) of the Employee Category, 19(70.37%) of the Business Category felt that the private Hospitals have all the facilities in the

private Hospitals. From the Agriculture Category 8(53.33%) of the Participants felt the same, and 7(46.66) % of them have opted availability of individual facilities.

5.9. Do you think Government General Hospitals are providing quality and super specialty services similar to private Hospitals

Figure-5.8 Availability of quality and super spatiality services in Government General Hospital similar to Private hospital



Among the Participants, 48% opined that Government General Hospitals are not providing quality and super specialty services similar to private Hospitals; 34% opined that Government General Hospitals are providing quality and more number of super specialty services similar to private Hospitals. 18% population has not opted any answer and was silent to the question.

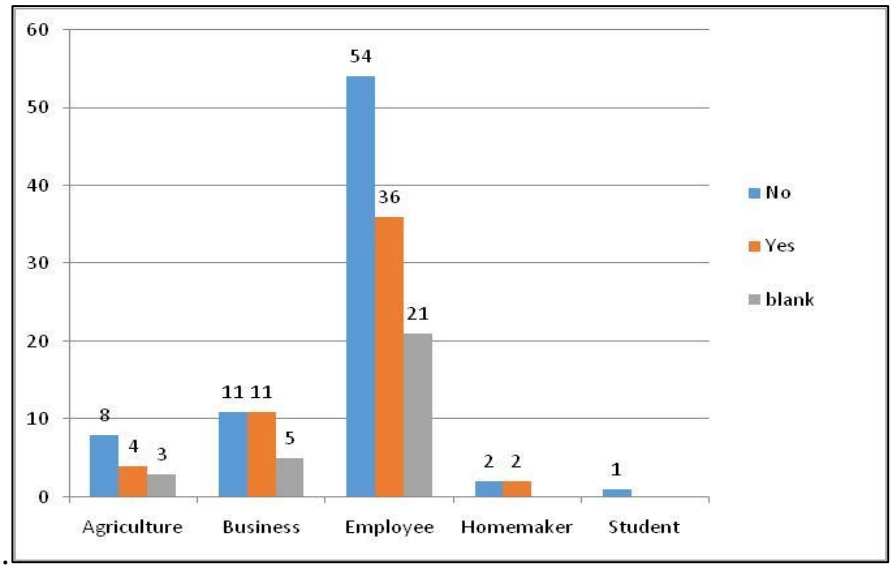
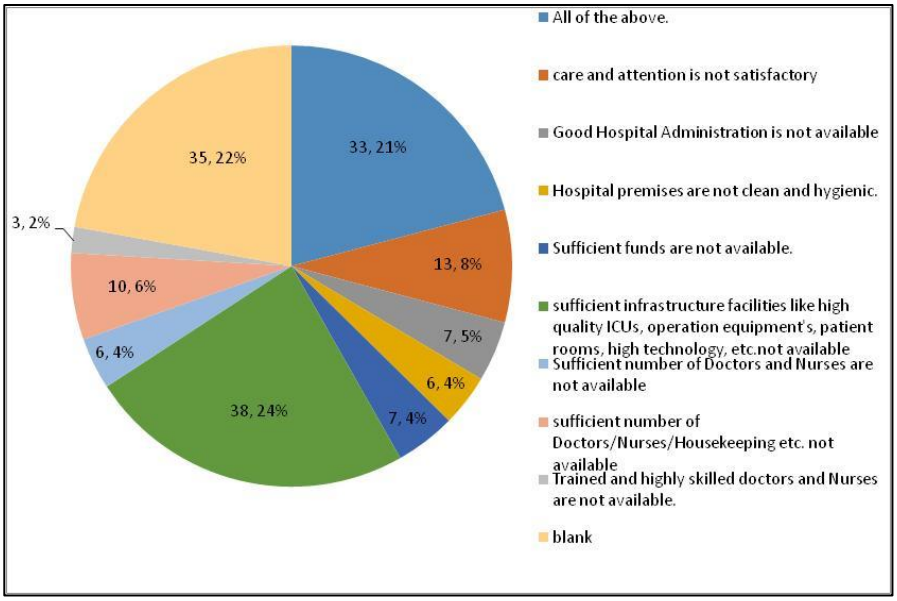


Figure-5.8.1 Occupation wise opinion about quality and no. of super spatiality services in Government general hospital

5.10 If no, reasons thereof?

Figure-5.9 Reasons for low quality, and low number of services in Government General Hospital



Among the Participants who felt that Government General Hospitals are not providing services similar to private Hospitals 24% of them have felt that sufficient infrastructure facilities like high quality ICUs, operation equipments, patient rooms, high technology etc are not available in the Government Hospitals. 5% felt that Trained and highly skilled doctors are not available in these Hospitals. 4% felt that Hospital

premises are not clean and hygiene. 6% felt that sufficient number of Doctors/Nurses/House-keeping staff not available. 8% felt care and attention is not satisfactory. 4% felt that sufficient funds are not available. 2% Good Hospital Administration is not available. 21% felt that all of the above are reasons for the Government Hospitals not providing the services similar to the Private Hospitals. 22% sample population has opted no answer.

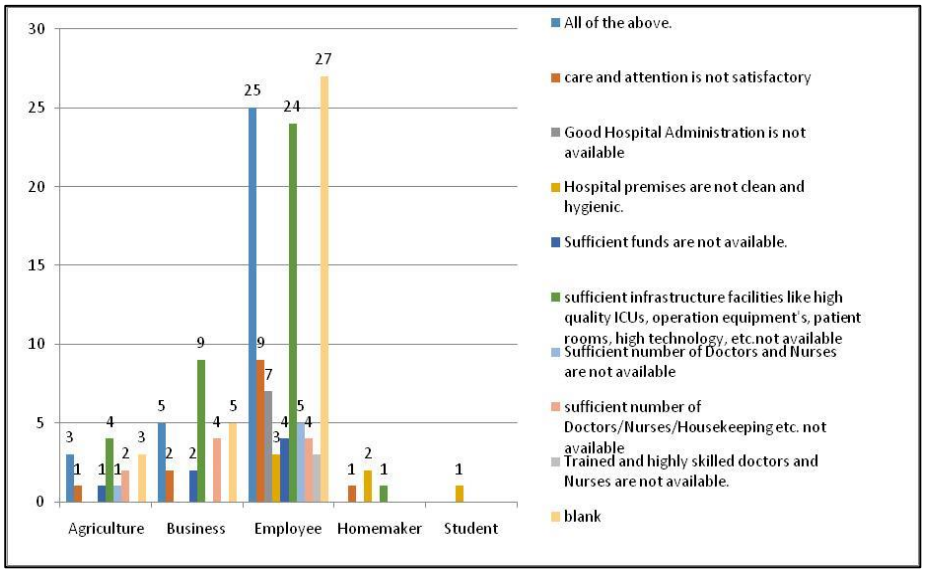


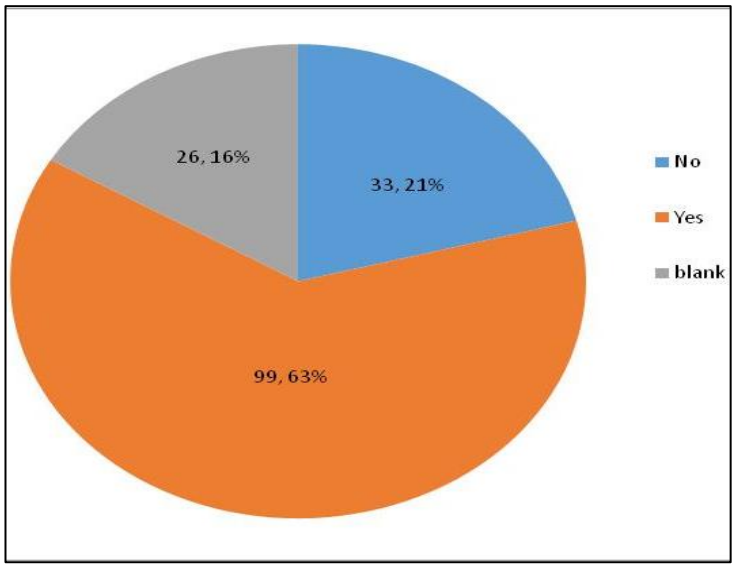
Figure-5.9.1 Occupation wise response regarding distribution of reasons for low quality, and low number of services in Government General Hospitals.

Among the Employees, 25(22.52%) have shown all the reasons for Government General Hospitals not being able to provide sufficient services to the public, and 24(21.62%) felt that sufficient infrastructure is not available in the Government General Hospitals. 9(8.10%) felt that care and attention is not satisfactory. 27(24%) opted no answer. The same reasons were dominated in the Agriculture Category and Business Category also.

5.11 Do you think there is severe shortage of infrastructure like Beds, Oxygen cylinders, critical life saving equipment, operation theaters, ICUs in Government General Hospitals?

Figure-5.10-Opinion about shortage of infrastructure in

Government General Hospitals



Among the Participants, 63% have indicated that there is severe shortage of infrastructure like bed, oxygen, critical life saving equipment, ICUs etc; and, 21% had opined that there was no such shortage in the Government General Hospital. And 16% was neutral.

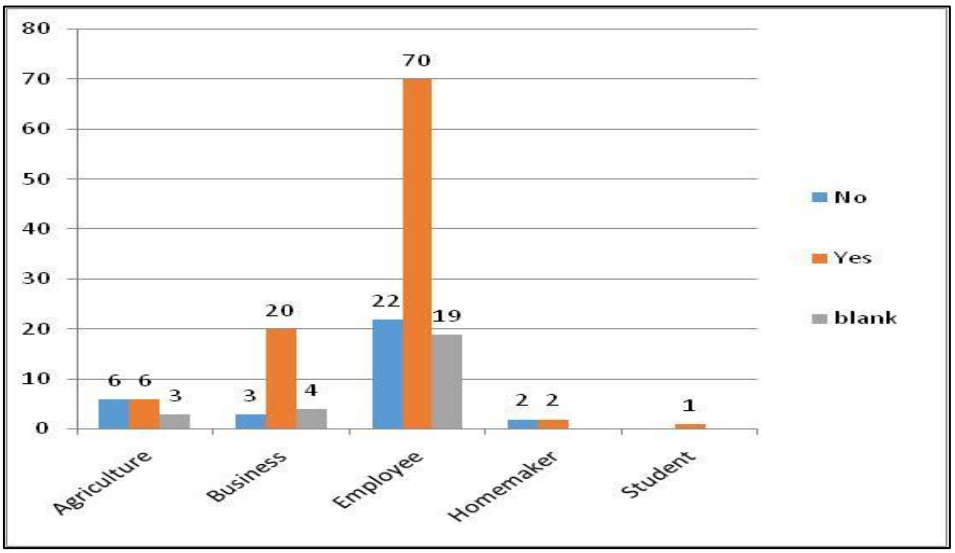


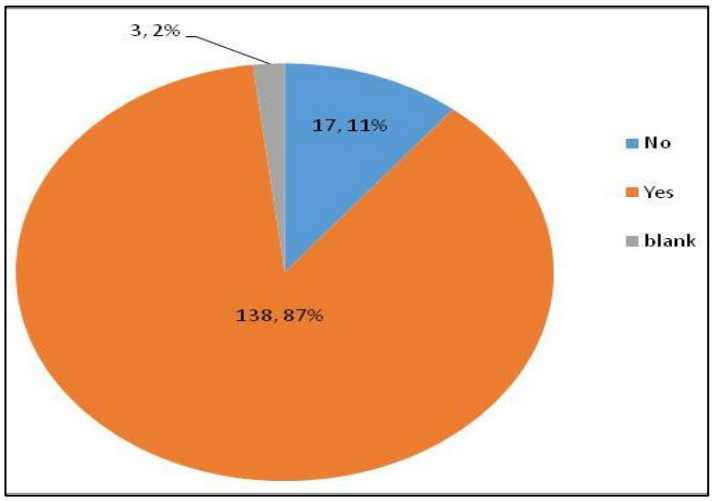
Figure-5.10.1 Occupation wise response regarding shortage of infrastructure in Government and private Hospitals

Among the Participants, 70(63.03%) of the Employee Category has indicated that there is shortage of infrastructure like bed, oxygen, critical life saving equipment, ICUs etc in the Government General Hospitals. 19((1%) was neutral. 20(74.07%) of the

Business Category, and 6(40%) of Agriculture Category felt existence of shortages in the Government General Hospital. 22(19.81%) of Employee Category, 3(11.11%) of Business Category and 6(40%) Agriculture Category has felt no shortage of the said facilities in the Government.

5.12. Are the Government General Hospitals over crowded?

Figure-5.11 Status of over crow in Government General Hospital



Against this question, 87% of Participants felt that the Government Hospitals are over-crowded. Only 11% felt that no over crowd is in the Government General Hospitals.

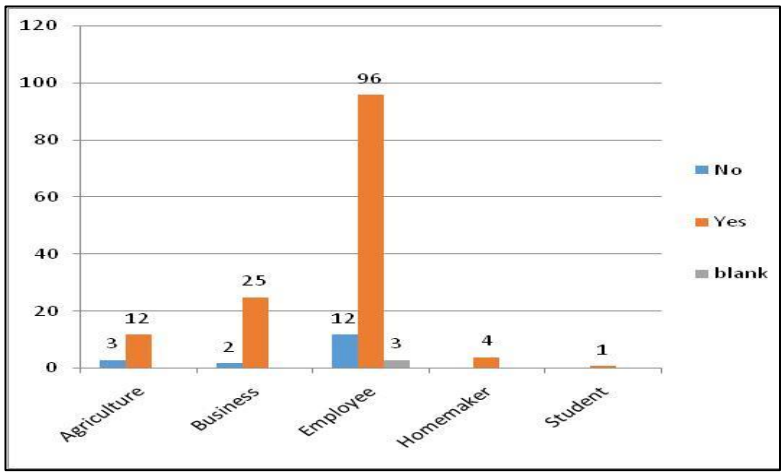
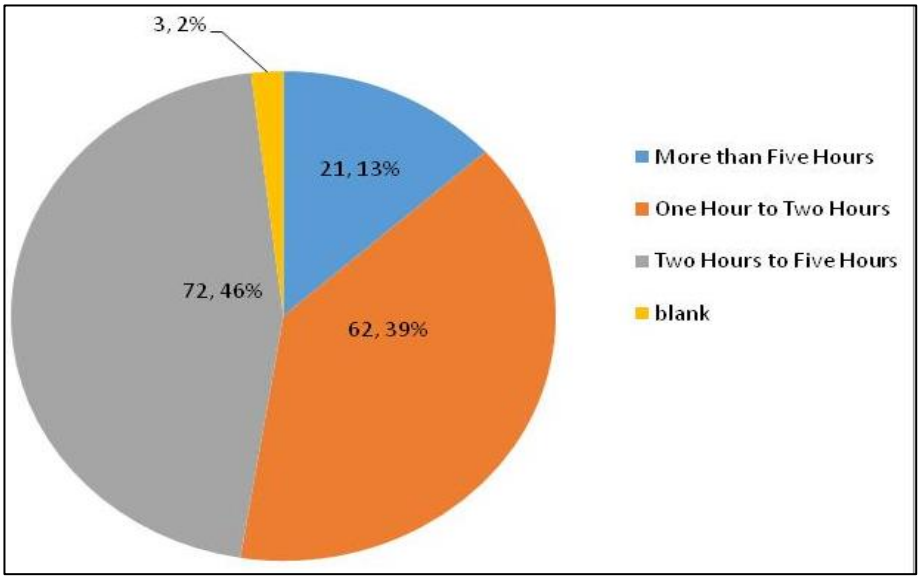


Figure: 5.11.1 Occupation wise response regarding over crowd in Government General Hospital

In Employee Category 96(%86.48) have felt there is over-crowing in Government General Hospitals, and 12(10.81%) have felt no overcrowding in the Government General Hospitals. 25(92.59%) of the Business Category, 12% of Agriculture Category felt overcrowding in these Hospitals.

5.13. Usually, what is waiting time at O.P.D. in Government General Hospitals?

Figure: 5.12 General Waiting time at O.P.D. in Government General Hospitals



Among the Participants, 13% felt that more than five hours are taken at Out Patient Department; 39% felt that it is one hour to two hours. 46% felt that two hours to five hours are taken for O.P.D.

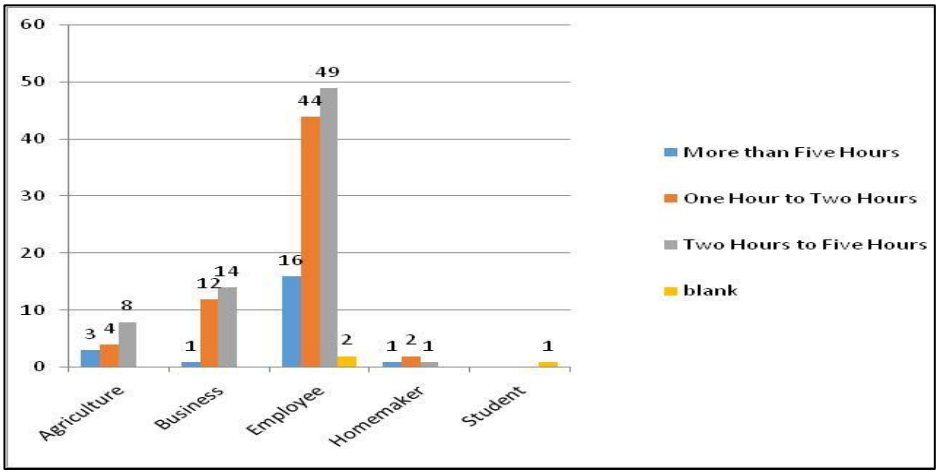
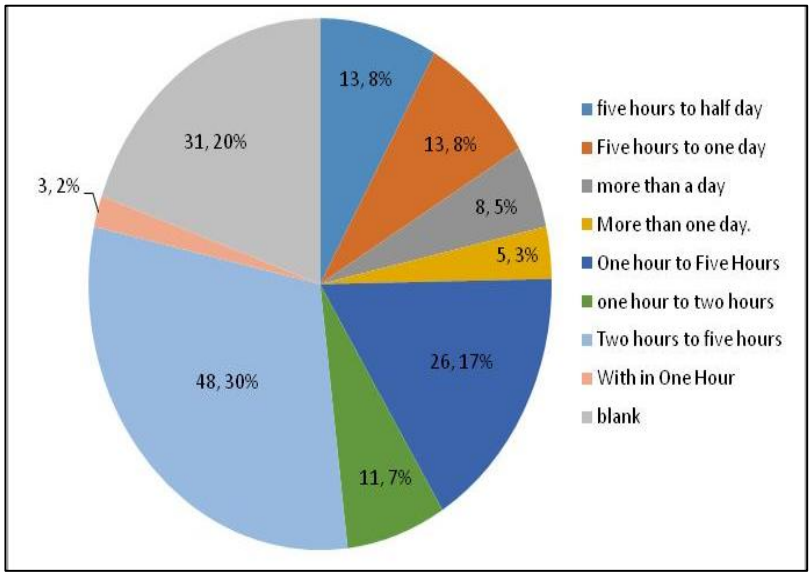


Figure: 5.12.1 Occupation wise response regarding waiting period at OPD in Government Hospitals

Among employee category 49(44%) indicated the time as two to five hours, 44(39.63%) indicated it as one hour to two hours. Majority from the Agriculture and Business category also have indicated the similar timings at O.P.D. in Government General Hospitals.

5.14. How much time is usually taken for allotment of a Bed in the Government General Hospital?

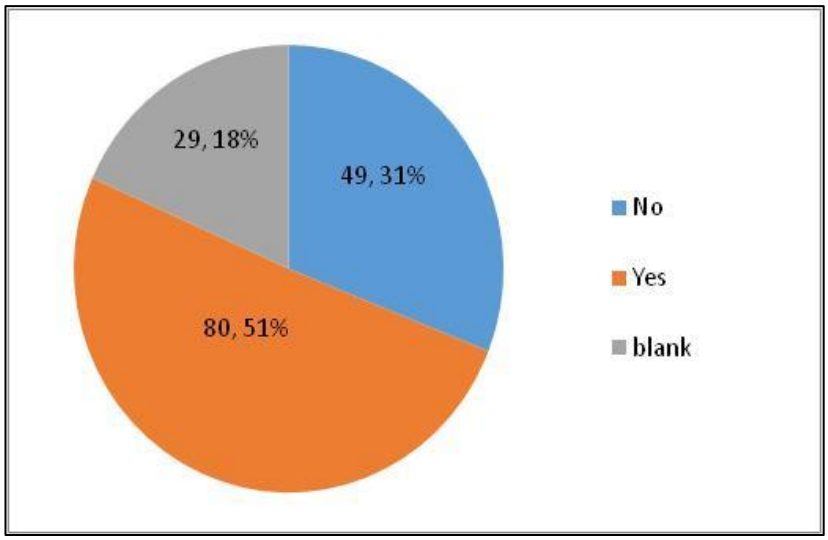
Figure: 5.13 Time taken for allotment of a Bed in Government General Hospital?



Among the Participants, 24% have indicated that more than five hours are taken for allotment of bed and sometime it is more than a day. But, 5% of Participants stated that more than a day is taken for allotment of the Bed. 56% indicated it is within hour to five hours 20% remain neutral without giving any answer.

5.15. Are you satisfied with the treatment of the Doctor who treated you in the Government Hospital?

Figure: 5.14 satisfaction with the treatment of the Doctor working In the Government Hospital?



Among the Participants, 51% have opined that they have satisfied with the treatment of the Doctors, and 31% have felt not satisfaction with the treatment of them in the Government General Hospital. And, 18% remain silent to the question.

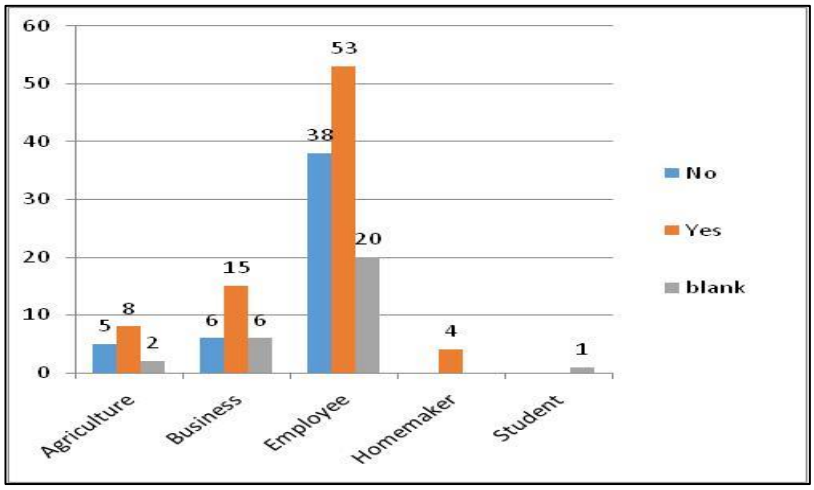
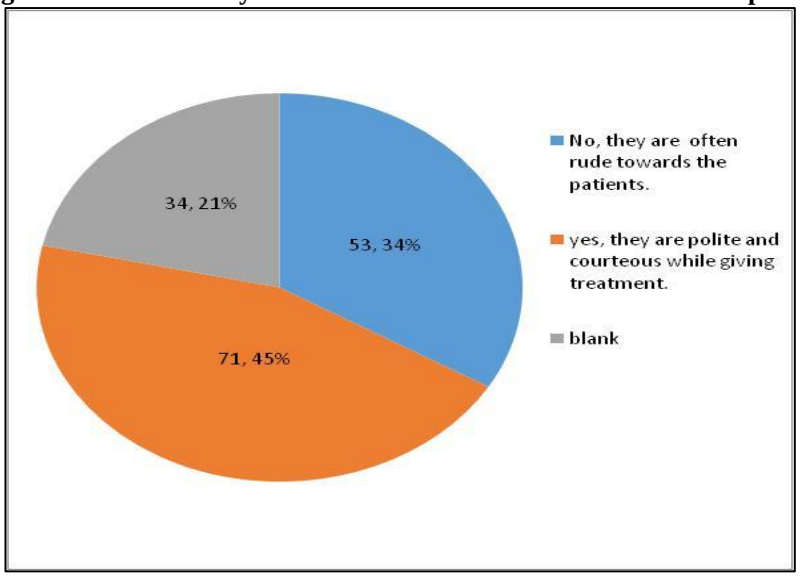


Figure: 5.14.1 Occupation wise satisfaction with the treatment of the Doctor Working In the Government Hospital

Among the Participants, 53% Employee Category has satisfied and 38% have not satisfied with the treatment of Doctors in the Government Hospital, 20(18%) remain scilent. In the Business Category, 55.6% have satisfied, 6(22%) have not satisfied and, (22%) remain silent. And in the Agriculture Category, 8(53.3)% have satisfied, and 5(33.33%)have not satisfied with treatment of the Doctors in the Government General Hospitals, and 3(13.33%) remain silent.

5.16. Are the medical staff including Nurses in the Government Hospital show sufficient patience and interest in you/patient while giving treatment?

Figure: 5.15 Patience by Medical Staff in Government General Hospital



Among the Participants, 45% have stated yes, and 34% said no that medical staff including the nurses in the Government General Hospital show sufficient patience and interest in the patient while giving treatment. And 21% remained silent.

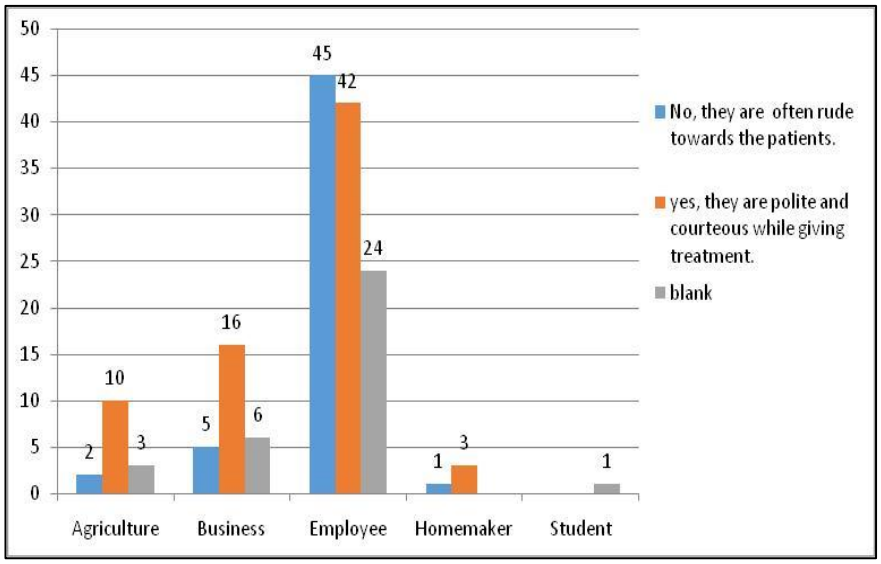


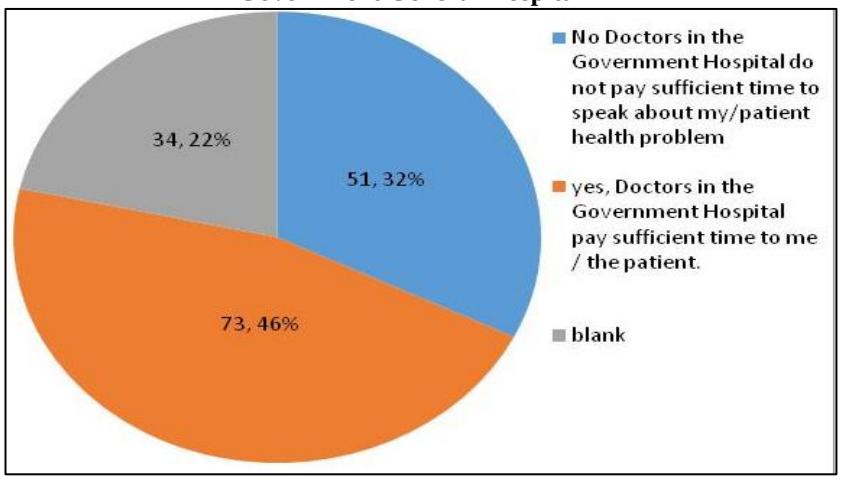
Figure-5.15.1 Patience by Medical Staff in Government General Hospital

From the Employees Category 45(40.55%) felt negatively, and 42(38.83%) felt positively responded to the statement, and 24 (21.62%) remain silent. From the Business Category, 16(59.25%) felt positively, 5 felt negatively, 6(22.22%) were silent. From the

Agriculture Category, 10(66.5%) felt positively, 2(13.3%) felt negatively, and 3(20%) were silent.

5.17. Are the Doctors in the Government Hospital pay sufficient time to speak about your / Patient health problem?

Figure: 5.16 Time taken to discuss patient health problem in Government General Hospital



Total 46(%) had expressed that Doctors in the Government Hospital spend sufficient time to speak about health of the patient. And, 32(%) felt negatively, and 22% remain silent to the question.

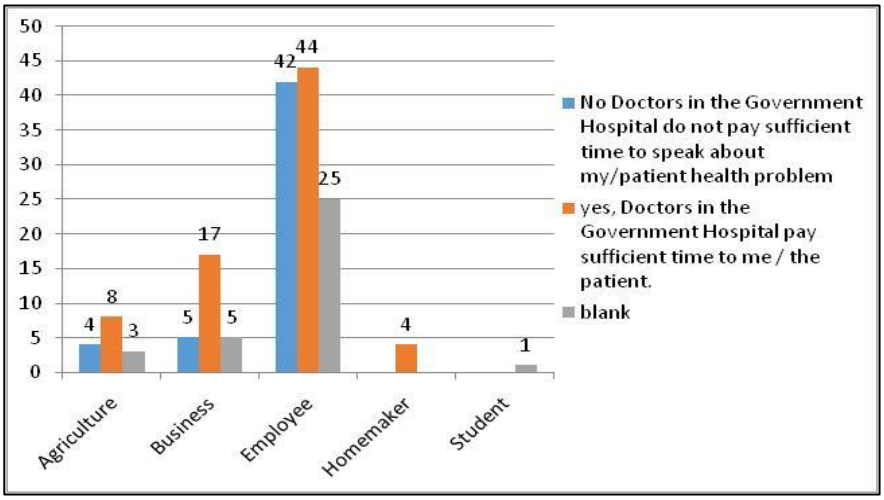


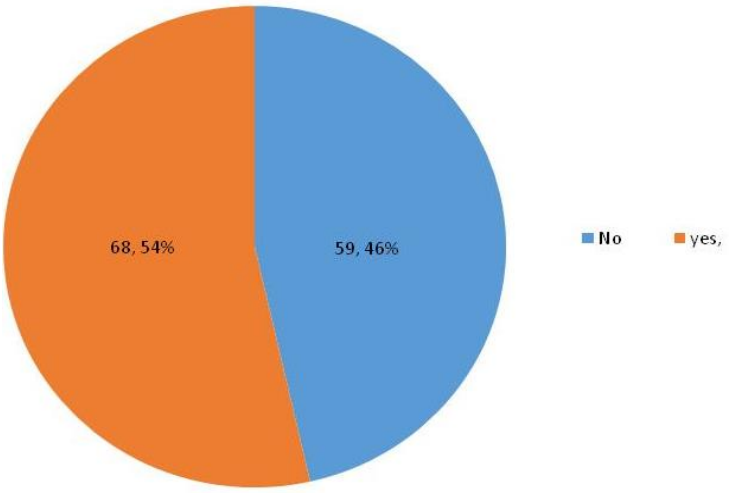
Figure-5.16.1 Time taken to discuss patient health problem in Government General Hospital

From Employee category, 44(39.63%) opined positively, 42(37.83) felt

negatively, and 25(22.52%) were silent to the question. From Business category, 17(62.96%) positively, 18.51 negatively, and 5(18.51%) was silent to the question. From Agriculture Category, 8(53.33%) positively, 26.6% negatively and 3(20%) was silent to the question.

5.18. Are the Medical Staff in Government Hospitals polite while giving treatment to you/your family member?

Figure: 5.17 politeness of medical Staff in Government Hospitals while giving treatment



Among the Participants, 54(%) people has expressed that medical staff in Government Hospital are polite while giving treatment, and 46% expressed that the they are not polite while giving treatment to the patients.

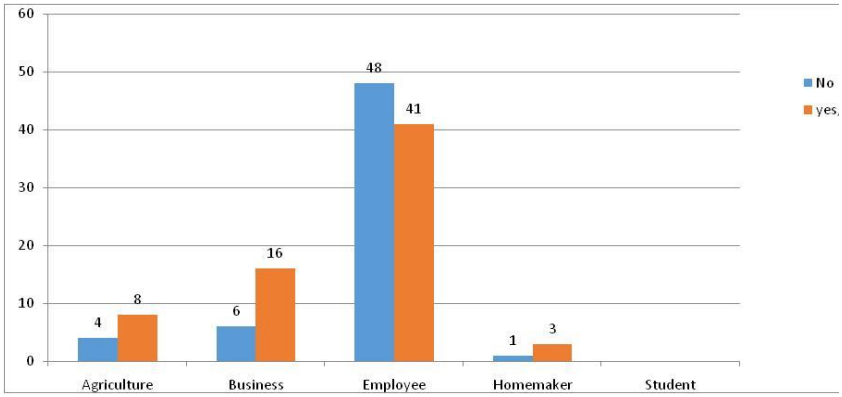


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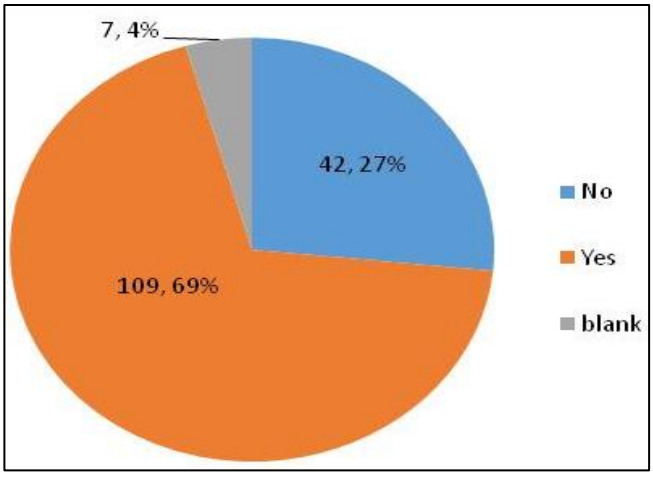
Figure: 5.17.1 Politeness of medical Staff in Government Hospitals

In the Employee Category, 48(43.24%) felt medical staff in Government Hospital are polite, and 41(36.93%) felt medical staff are not polite to the patients while giving treatment. In the Business Category 16(59.25%) felt positively, and 6(22.22%) felt negatively, and in the Agriculture Category, 7(46.66%) felt positively and 4(26.66%) felt negatively towards the medical staff politeness while treatment. Majority indicates that medical staff is not polite towards the patients while giving treatment.

5.19. Is the Government Hospital maintaining its own ambulance?

Figure-5.18 Own Ambulance facility for Government General Hospital



Total 69% Participants had observed that Government Hospital maintaining its own ambulance. And 27% had said that the Government Hospital have no ambulance facility. 4% remain silent to the question.

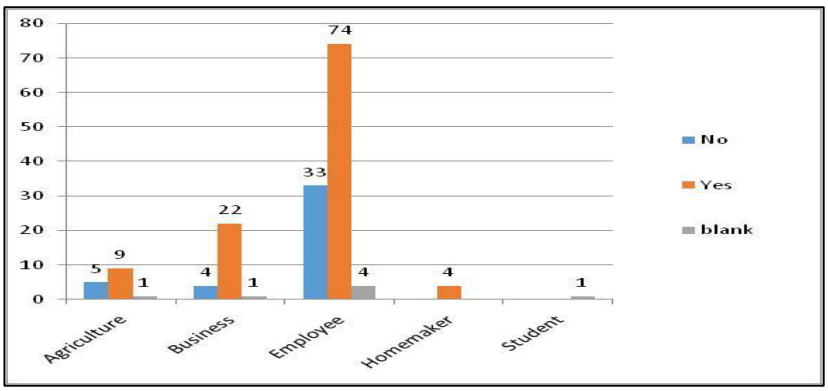
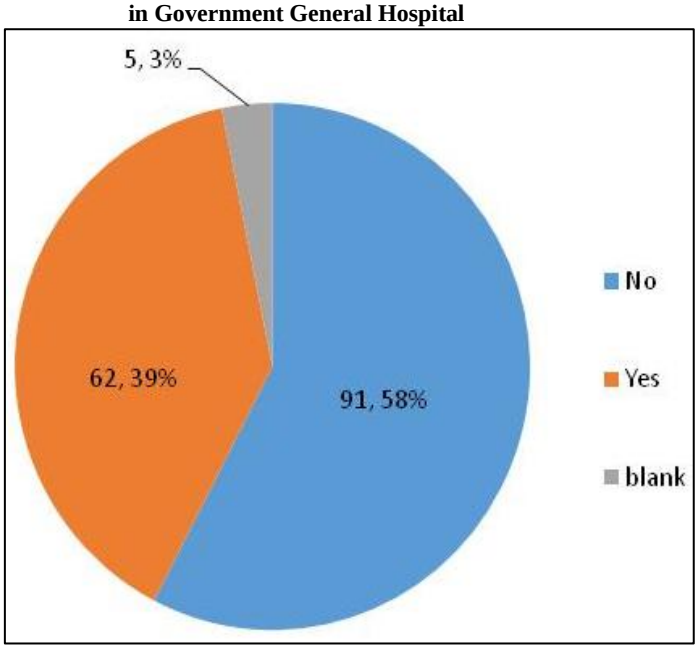


Figure-5.18.1 Occupation wise opinion about own Ambulance Facility for Government General Hospital

5.20. Have you ever paid for ambulance service while you/your family member were being admitted in the Government General Hospital in emergency condition?

Figure-5.19 Payment for Ambulance Service while admitting in Government General Hospital



Among the Participants, 39% people have paid , and 58% have not paid for the ambulance services while being admitted into the Government General Hospital in emergency condition.

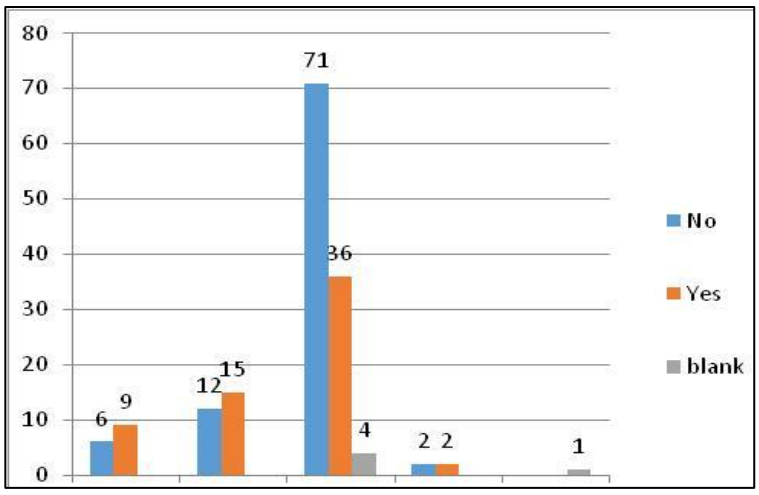
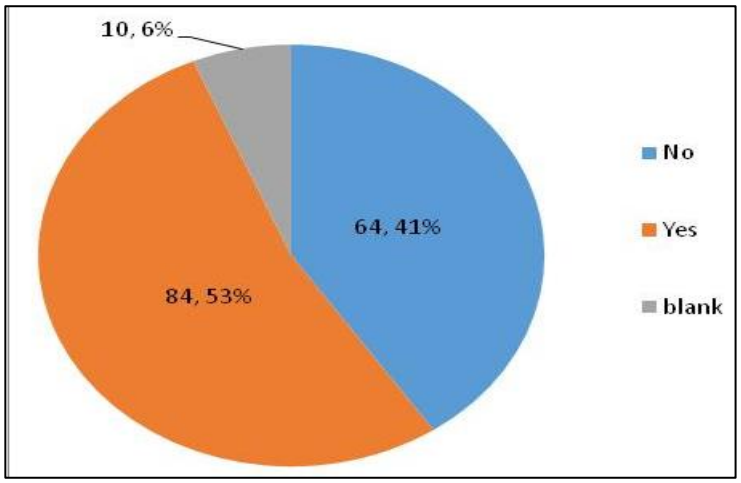


Figure- 5.19.1 Occupation wise response regarding payment for Ambulance Service while admitting in Government General Hospital

Total 36(42.43%) of Employee Category has paid and 71(63.96%) have not paid for the ambulance service while admitting his/her family member in the Government Hospital in emergency condition. 15(55.55%) of the Business Category has paid, and 12(44.44%) has not paid for the services, and from the Agriculture Category, 9(60%) paid and 6(40%) have not paid for the ambulance services.

5.21. Are you satisfied with the Administration in the Government General Hospital?

Figure-5.20 Administration in Government General Hospital



Among the Participants, 53% satisfied with and 41% felt negatively about the administration in the Government General Hospitals with 6% remain silent.

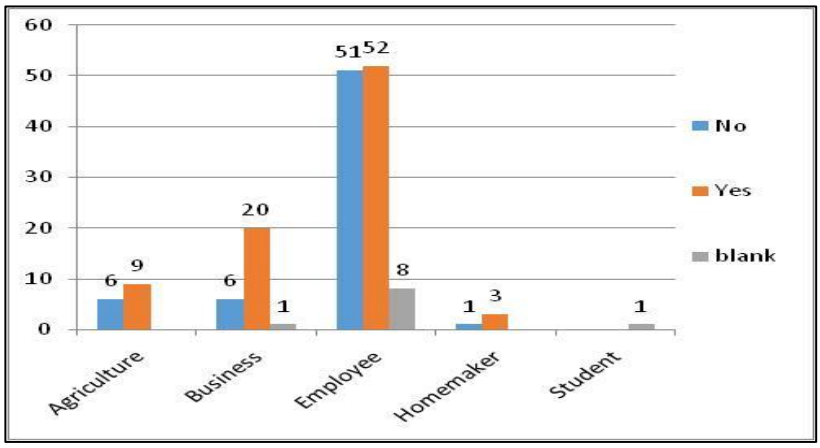


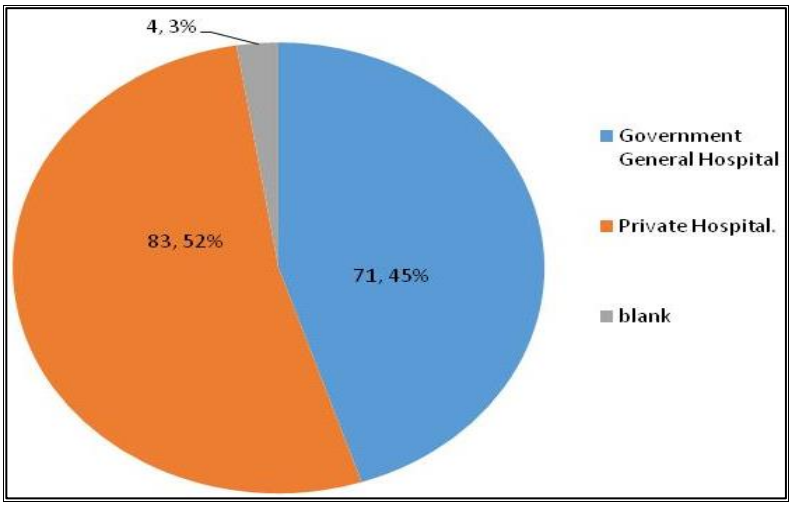
Figure-5.20.1 Occupation wise response about the Administration in Government General Hospital

From the **Agriculture** Category, 9(60%) felt positively, 6(40%) felt negatively about the Hospital administration. From the Business Category 20(74%) felt positively,

6(22%) felt negatively about it. From the Employee Category 51(46%) felt negatively, 52(47%) felt positively about the Hospital administration in the Government Hospital.

5.22. If an emergency operation is required, do you prefer Government General Hospital or Private Hospital to undergo the operation?

Figure-5.21 Preference for a service provider for an emergency operation



Among the Participants, 53.9% preferred private Hospital, and 46.1% preferred Government Hospital to join in case of emergency situation arise.

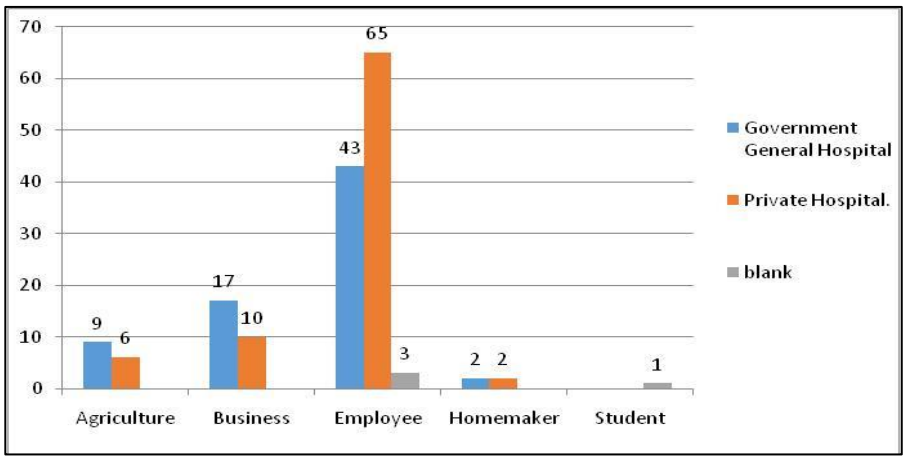


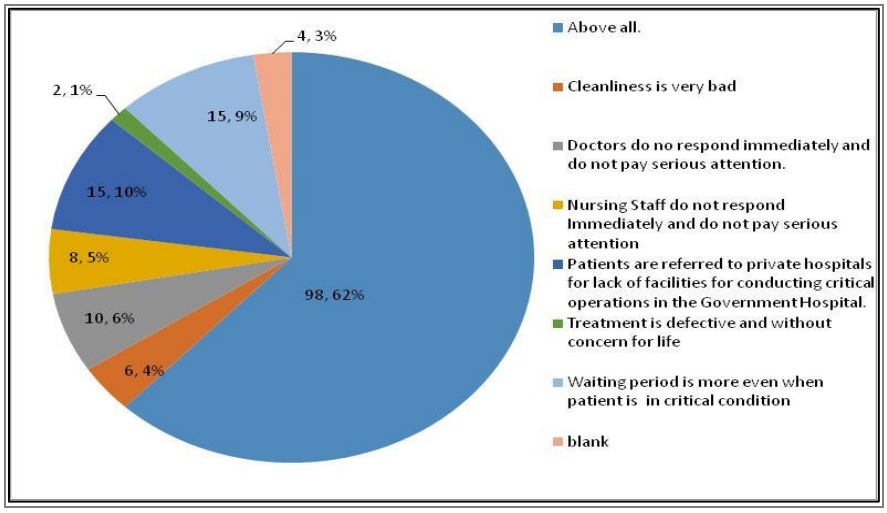
Figure: 5.21.1 occupation wise response regarding Preference for a service provider for an emergency operation

From the Agriculture Category 9(60%) preferred Government General Hospital, 6(40%) preferred Private Hospital. From the Business Category, 17(63%) Government

Hospital, 10(37%) preferred Private Hospital for emergency care. From the Employee Category, 43(39%) favored Government and 65(58%) favored private Hospital in case of emergency.

5.23. What are the reasons for your dissatisfaction with the Government General Hospitals?

Figure-5.22 Reasons for dissatisfaction on Government General Hospitals?



Among the Participants, 6% consider that doctors do not respond immediately and do not pay serious attention. 5% consider Nursing Staff do not respond immediately and do not pay serious attention; 1% considers treatment is defective and without concern for life; 9% consider waiting period is more even when patient is in critical condition; 3.9% consider cleanliness is very bad; 10% consider patients are referred to private Hospitals. Total 62% consider all of the above reasons for dissatisfaction in Government General Hospitals.

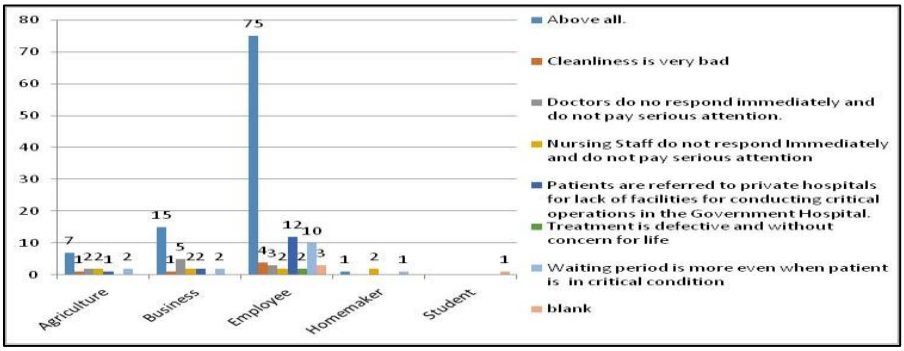
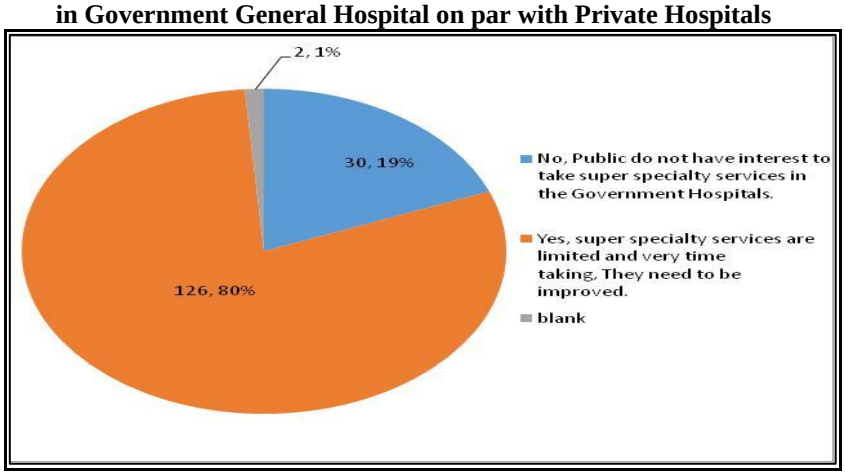


Figure-5.22.1 Occupation wise response for reasons for dissatisfaction against Government Hospitals

Among the Participants, 75(67%) Employee Category has indicated all the reasons for their dissatisfaction and 15(13%) has cited the reasons that patients are referred to private Hospitals for lack of facilities for conducting critical operations in the Hospitals. 15(13%) felt that waiting period is more even when patient is in critical condition.

5.24. Do you feel that the quality of services and the number of super specialty services in Government Hospital need to be improved on par with the Private Hospitals?

Figure-5.23 Availability of quality and more number of super specialty services in Government General Hospital on par with Private Hospitals



Among the Participants, 126(81%) felt that the super specialty services are limited and very time taking and they need to be improved. And 30(19%) felt that the public do not interest to take super specialty services in the Government Hospitals.

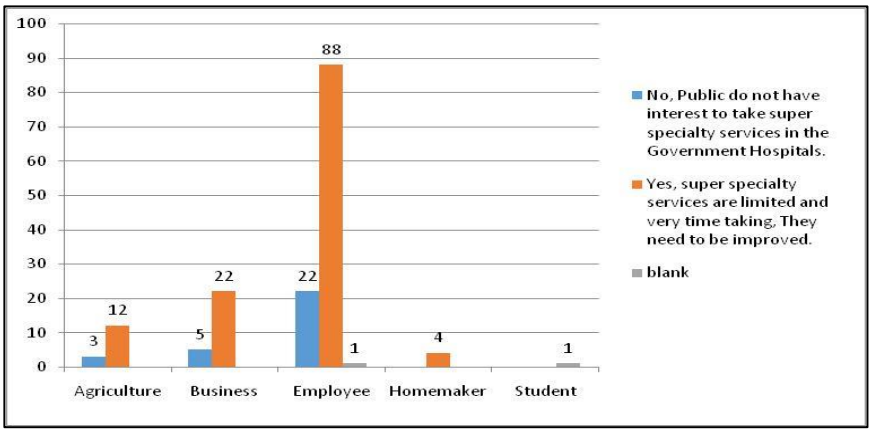
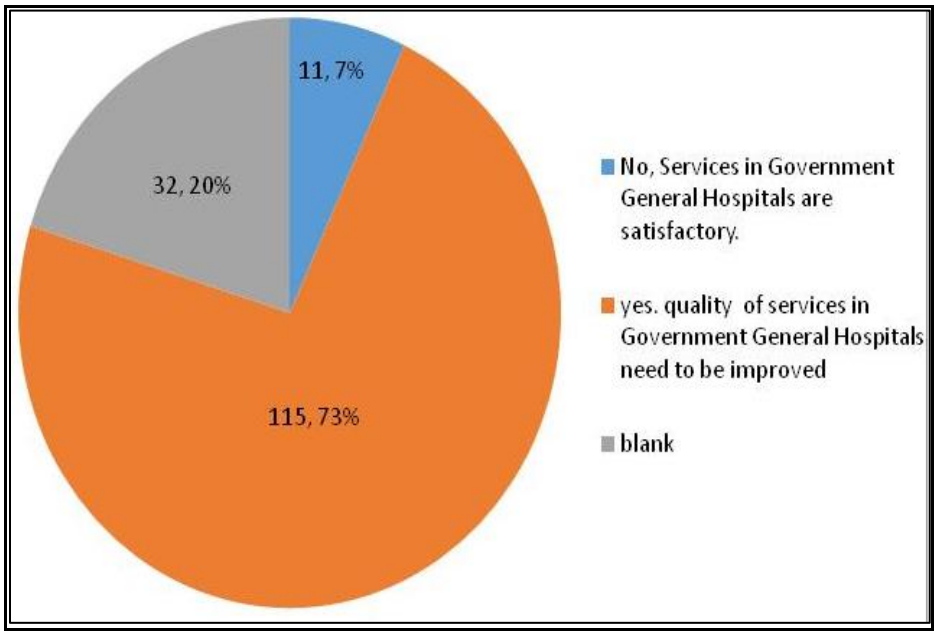


Figure-5.23.1 Availability of quality and more number of super specialty services in Government General Hospital on par with Private Hospitals

From the Employee Category, 88(79%) felt that super specialty services are limited and time taking, need to be improved. 22(20%) felt that public do not have interest to take super specialty services in the Government Hospitals. Majority of the Participants from all categories felt the need for improving the Government General Hospitals.

5.25. If Government provides quality services and Super Specialty Services like in Private Hospitals, are you willing to take treatment at a Government Hospital?

Figure-5.24 Willingness to take treatment if quality and number of super specialty services made available in Government General Hospital on par with Private hospital



Total 73% participants consider to prefer Government Hospital care if quality services and super specialty services are provided. Only 11.7 % people opined that Government cannot provide quality and super specialty services. 20% remain silent.

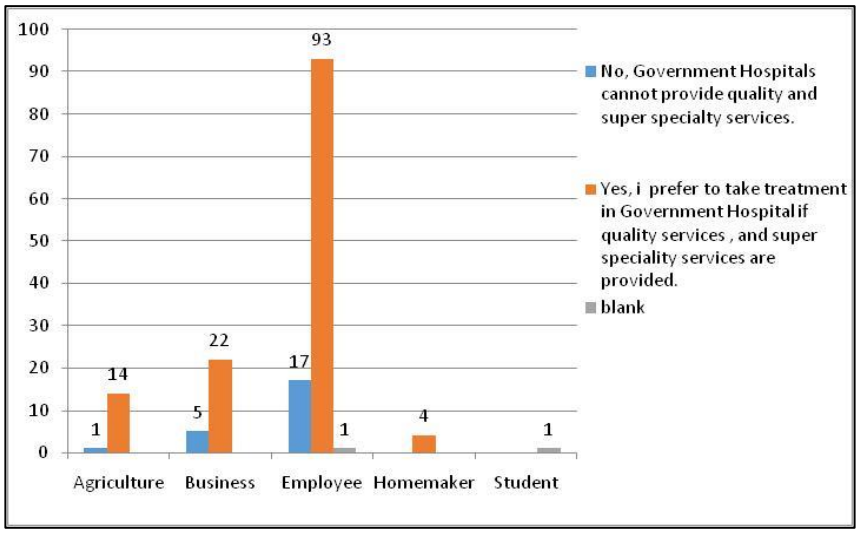
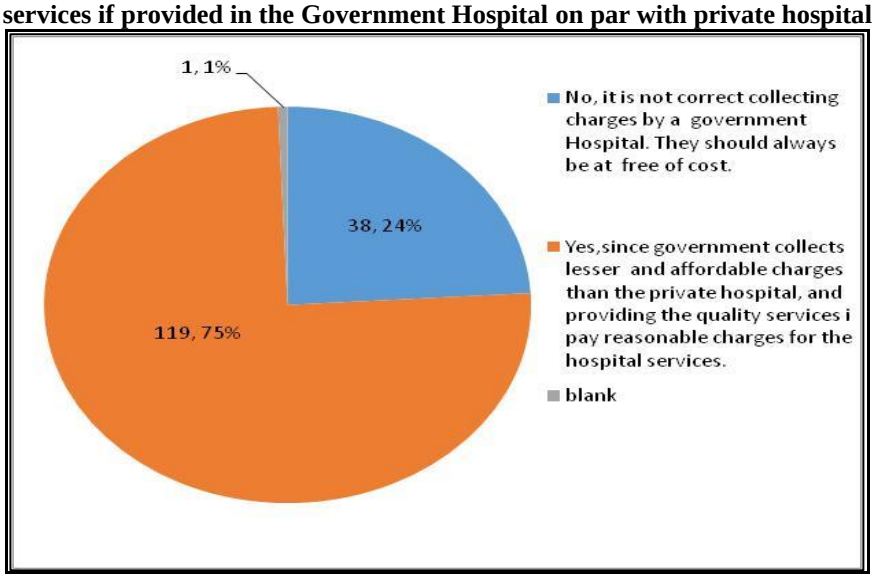


Figure-5.24.1 occupation wise response about Willingness to take treatment if quality and number of super specialty services made available in Government General Hospital on par with Private hospital

Among the categories 93(84%) from Employee Category, 22(81%) from Business Category, and 14(93%) from agricultural Category preferred Government treatment if quality services and super specialty services are provided.

5.26. If yes, are you willing to pay reasonable charges for the quality and special services provided in the Government Hospital?

Figure-5.25 willing to pay reasonable charges for the quality and special services if provided in the Government Hospital on par with private hospital



Total 119(75.8%) Participants said they are willing to pay charges since Government collects lesser and affordable charges than the private Hospital, and

providing the quality services. And, 38(24.2%) have considered that Government collecting charges is not correct, and services should be on free of cost.

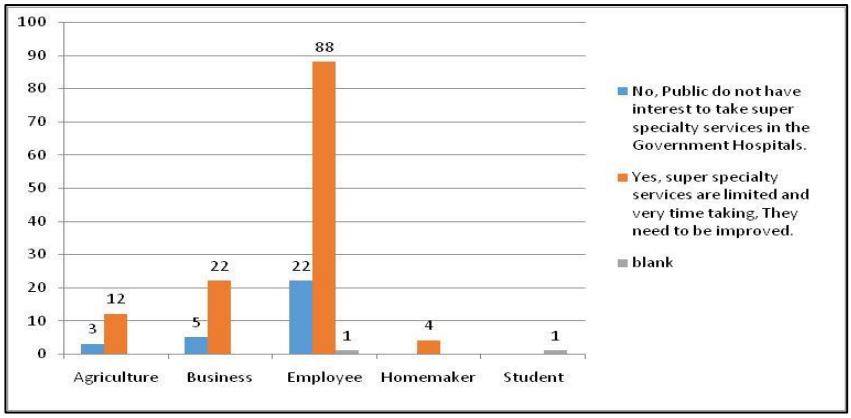
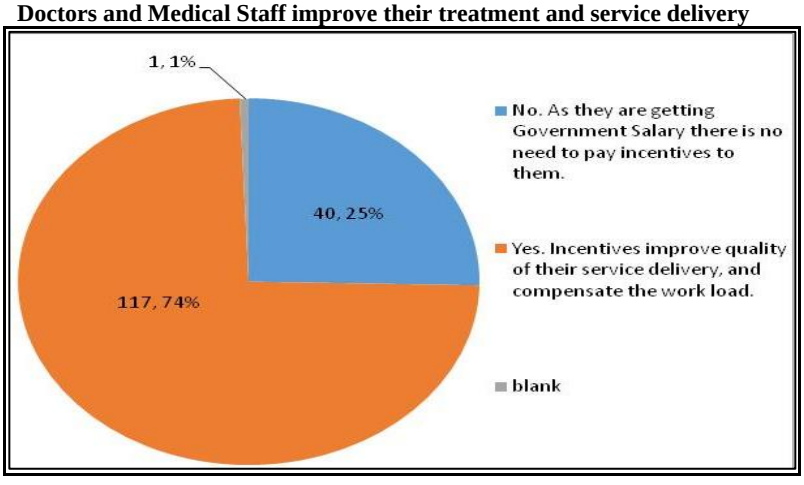


Figure-5.25.1 Occupation wise response regarding willing to pay reasonable charges for the quality and special services if provided in the Government Hospital

Among the Participants, 88(79.27%) Employees said yes, and 22(19.81%) felt that it is not correct collecting charges by Government, and services should be free of cost. From Business Category 22(81.48%) positively, and 5(18.51%) negatively responded. From Agriculture Category, 12(80%) positively 3(20%) negatively responded favorable to pay affordable charges to Government to get quality and Supers Specialty Services.

5.27. Do you think Doctors and Medical Staff require incentives to improve their treatment and service delivery?

Figure-5.26 Opinion about incentives to Doctors and Medical Staff improve their treatment and service delivery



Among the Participants, 75% consider that incentives improve quality of their service delivery, and compensate the work load of the medical staff in Government General Hospitals. 25% of the people consider that as the medical staff are getting salaries no incentives are required for them.

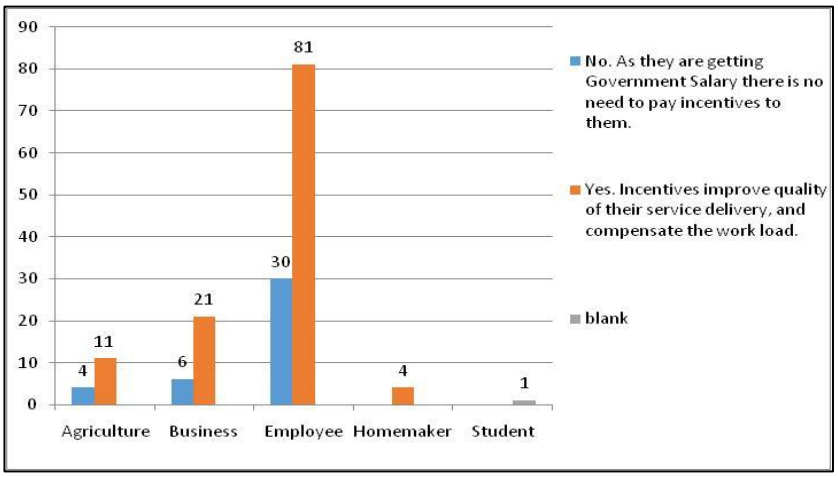
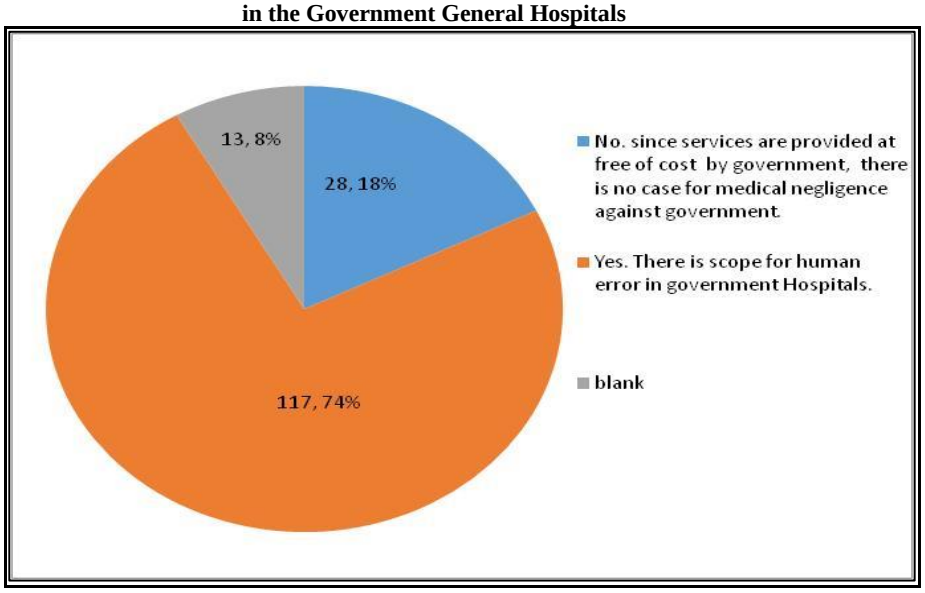


Figure-5.26.1 Occupation wise response regarding Opinion about Incentives to Doctors and Medical Staff improve their treatment and service delivery

5.28. Do you think there are chances for Medical negligence in the Government General Hospitals?

Figure-5.27 Opinion about chances of Medical negligence in the Government General Hospitals



Total 74% people consider Government Hospitals also prone to medical negligence. And, 18% consider that medical negligence does not happen in Government Hospitals. And 8% remain silent.

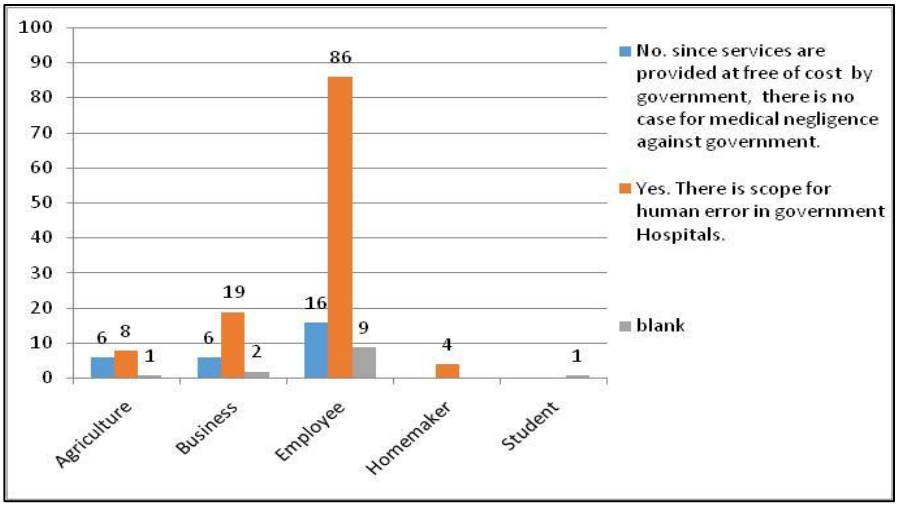
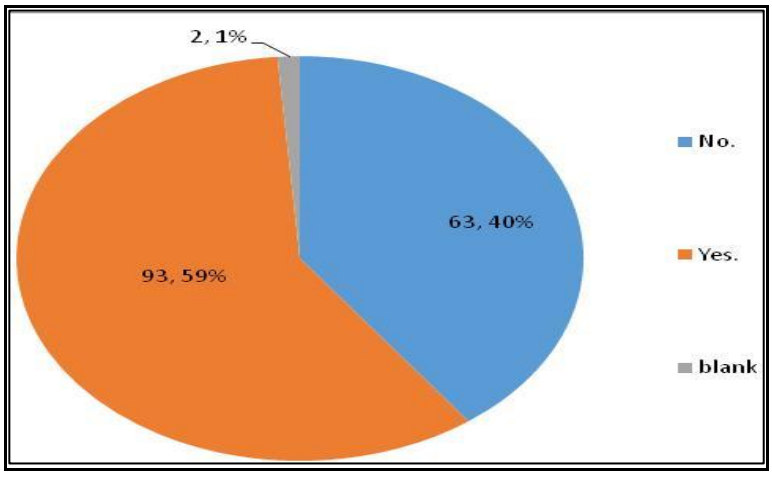


Figure-5.27.1 Occupation wise response regarding chances of Medical negligence in the Government General Hospitals

Total 86(77%) of Employee Category, 19(70%) of Business Category, and 8(53%) of Agriculture Category expressed that there is scope for medical negligence in the Government General Hospitals. 9(8.10%) of employee category remain silent.

5.29. Do you think those who do not pay charges/fees for their treatment don't have any right to demand for compensation for the medical negligence caused by the Government Hospitals?

Figure-5.28 Opinion about compensation payment for Medical negligence by the Government General Hospital



Total 59.6% of the participants consider that free healthcare do not entitle for claiming for medical negligence. And the Remaining 40.4% considers that Government Hospital responsible for the medical negligence.

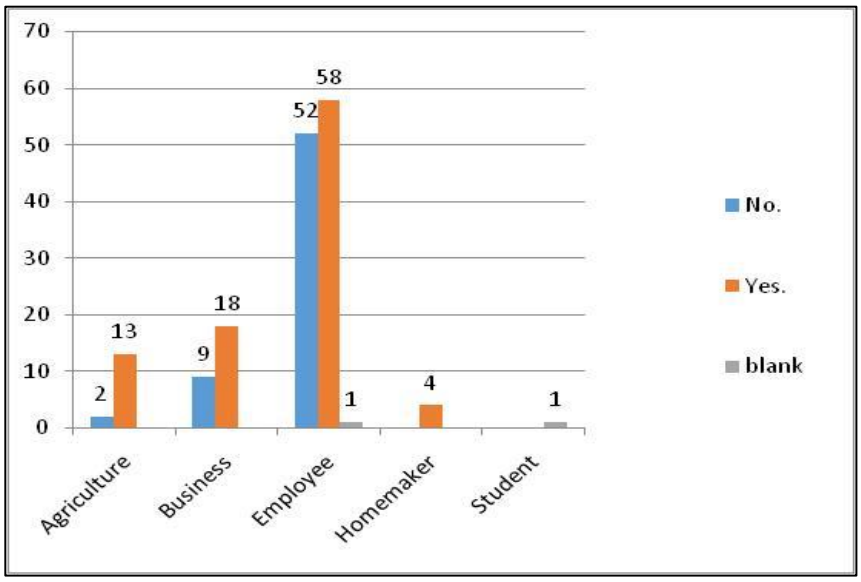
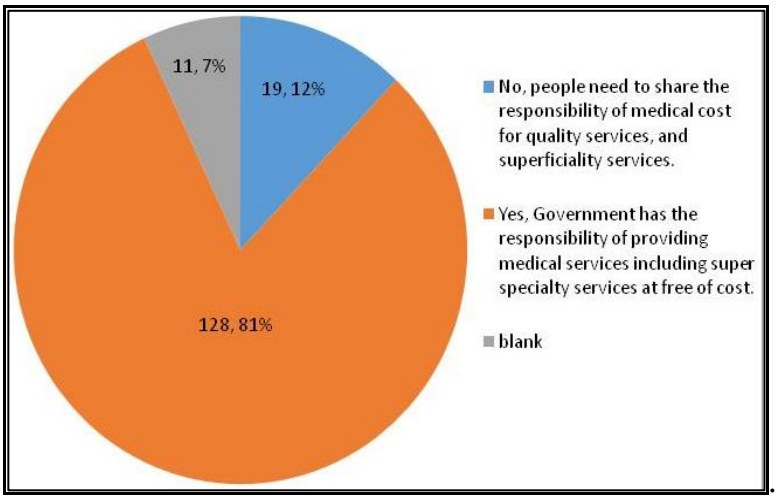


Figure-5.28.1 Occupation wise response regarding compensation payment for Medical negligence by the Government General Hospital

From the categories, 58(52%) of the **Employee**s opined that free healthcare do not entitle for medical negligence, and 52(47%) opined against the statement and supported medical negligence entitlement. From the Business Category, 18(66%) and 13(86%) from Agriculture supported that free medical treatment do not entitle for medical negligence.

5.30. Do you think Government should provide medical services at free of cost.

Figure-5.29 Opinion about Government providing health care at free of cost



In the Participants, 81% has opined that Government has the responsibility of providing medical services including Super Specialty services at free of cost. And only 12% felt that people need to share the responsibility of medical expenditure for getting quality and Super Specialty Services. 7% remain silent.

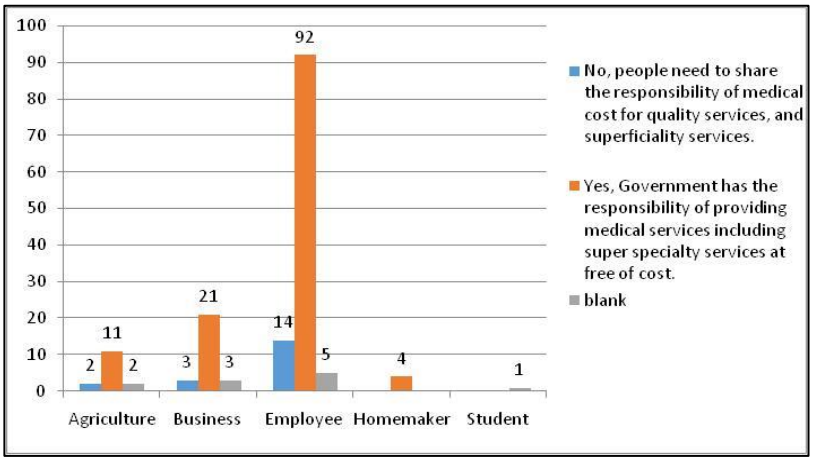
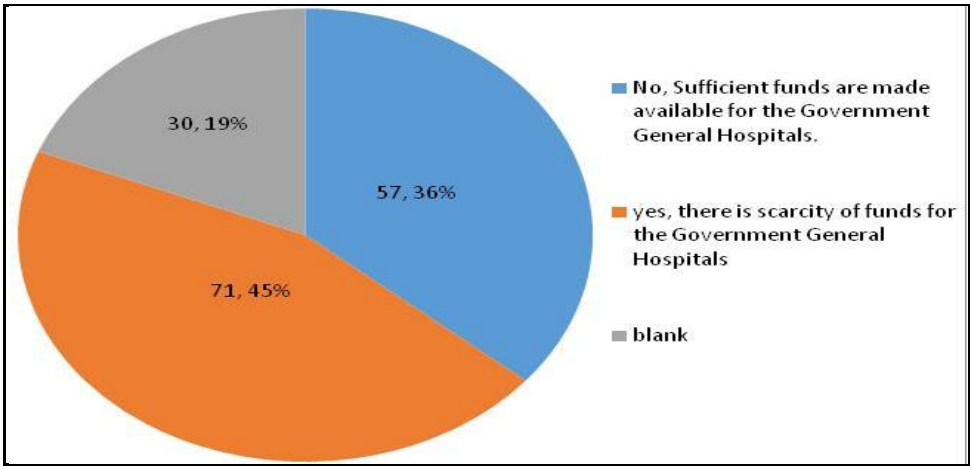


Figure-5.29.1 Occupation wise response regarding Government Providing health care at free of cost

Total 92(82%) of Employees, 21(77%) of Business Category, 11(73%) of Agriculture Category felt positively, and, 13(86.66%) of Agriculture, 1(44%) of Business Category, and 14(12.61%) of Employee Category consider negatively.

5.30. Do you think Government is not providing sufficient Budget for the Government General Hospitals to cater the needs of the patients?

Figure-5.29 Opinion about budget availability for Government General Hospitals



Total 57% of Participants consider Government is not providing sufficient budget for the Government General Hospitals to cater the needs of the patients. The remaining 43% opined that Government is providing sufficient budget to the Government Hospitals to cater the needs of the patients.

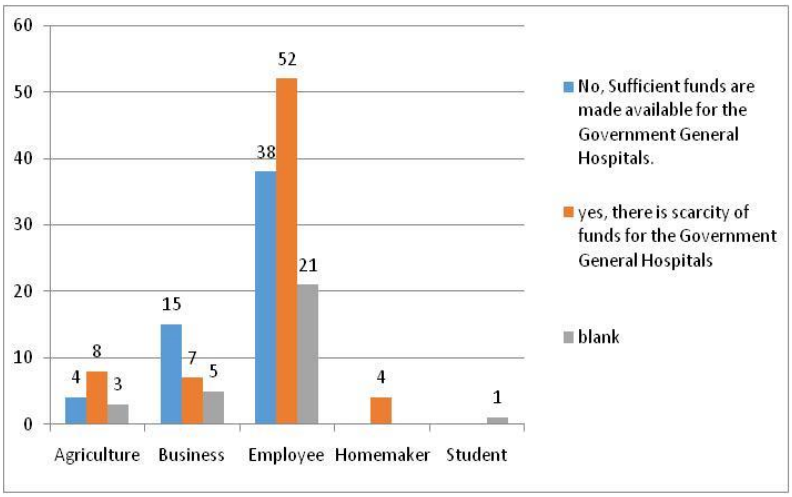
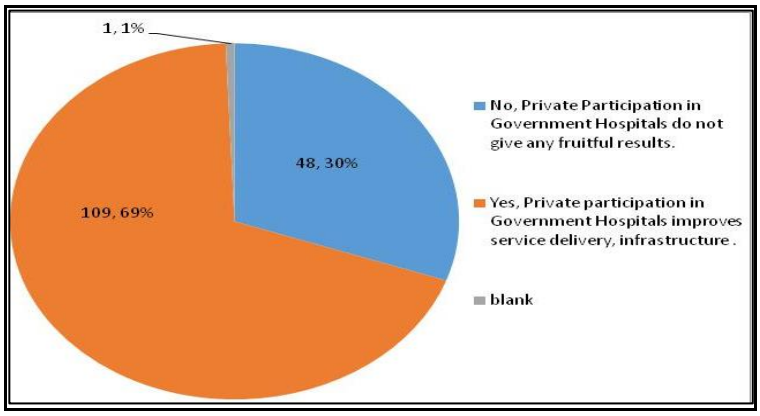


Figure- 5.29.1 Occupation wise response about budget availability for Government General Hospitals

Among the categories, 52(47%) of Employees, 7(26%) of Business, and 8(53%) of Agriculture have opined that there is scarcity of funds for the Government General Hospitals. And, 34% of Employees, 56% of Business, and 27% of Agriculture Category felt that there are sufficient funds available with the Government General Hospitals. 21(18.91%) of employee category remain silent.

5.31. Do you think, private participation in Government Hospitals could improve the Hospital management, and quality of service delivery and infrastructure?

Figure-5.30 Opinion about Private participation in Government Hospitals



Among the Participants, 69.4% opined that the private participation in Government Hospitals improves service delivery, infrastructure. And remaining 30.6% felt that private participation in Government Hospitals do not give any fruitful results.

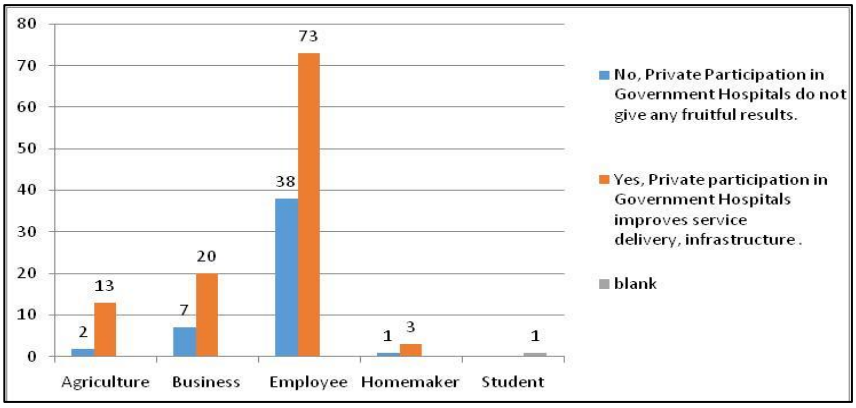


Figure- 5.30.1 Occupation wise Opinion about Private participation in Government Hospitals

From the categories, 73(66%) of Employees, 20(74%) of Business, and 13(86%) of Agriculture has considered that private participation in Government Hospitals improves service delivery, infrastructure. And, 30% of Employees, 26% of Business, and 13% of Agriculture Category has opined that private participation in Government Hospitals do not give any fruitful results.

5.32. Conclusion

A positive perception prevailed in respect of the quality, availability of services, and human resources, infrastructure being provided in the Government General Hospitals in Andhra Pradesh. In spite of the above fact, majority of people prefer Government General Hospitals mainly because lack of financial resources to take treatment in private Hospitals. In-spite of strong opinion that Government should provide free medical services, there are people who are willing to pay for the services if quality and super specialty services are provided by the Public Health system. Public and Private Partnership Model has social acceptance. All occupations of People preferred quality and availability of super specialty services, and even on cost basis irrespective of their occupational status. There is considerable amount of neutrality in their perceptions about the Government General Hospital performance and service delivery.

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CHAPTER 6

CHALLENGES CONFRONTING THE DISTRICT HOSPITALS

6.1. Introduction

Health provides crucial support for an individual in living his life of choice and helps the Country's socio-economic development. A dynamic and effective Public health care system strives to provide sound healthcare facilities for its people. In India, wherein prosperity and poverty co-exist, the issues like access, quality, and affordability of health care pose greater challenges to the Government and policymaking. In the three tire structures of the Public Health System developed in the Country, it is expected the District Hospital to cater the secondary health care services efficiently and effectively and act as a crucial link between the other two end health facilities of Primary and Tertiary Health Care. In the light of the literature review in Chapter-4, and the sample survey analyzed in Chapter-5, it is attempted in this Chapter to discuss the major challenges that are confronting the District hospitals in addressing Non-Communicable Diseases, Cardiovascular Diseases (CVDs), in Andhra Pradesh from and underlying causes.

This Chapter describes the disease burden of Non-communicable Diseases and their impact on the lives of people in the country, and the scenario in Andhra Pradesh. This chapter explores the District Hospitals' preparedness in handling the disease burden, the challenges they are encountering in that process, and the underlying reasons for the challenges. The chapter further discusses the impact of these challenges on the public choices besides discussing the possible policy gaps acting against the public health service delivery in the country and Andhra Pradesh.

6.2 Quantity of disease burden of the country is rising due to rising non-communicable diseases

India is undergoing the phase of epidemiological transition, and the Non-communicable Diseases (NCDs), Cardio-vascular Diseases (CVDs) are rising with the rapid social and economic development. The country's disease patterns have shifted during the last 26 years from that of the major Communicable diseases to Non-Communicable diseases. With the individuals' life span increased the disease burden due to rising NCDs and injuries also increased and it has wider ramifications on public health governance and service delivery. The rising disease burden calls for scaling up of the policy measures, resources, infrastructure, skilled manpower, making the public health management systems dynamic etc. The following discussion explains how the scenario of the disease burden in the Country and Andhra Pradesh.

To understand the quantity, and how it impacts the lives of different age groups of the population, the disease burden is explained in-terms of Disease Adjusted Life Years (DALYs), Years of Life Lost (YLL), Years Lived with Disability (YLD), etc. The scenario of the disease burden in the Country and in Andhra Pradesh is discussed simultaneously with a view to position the condition of Andhra Pradesh in the larger perspective.

6.2.1. Disability Adjusted Life Years (DALYs)[24]

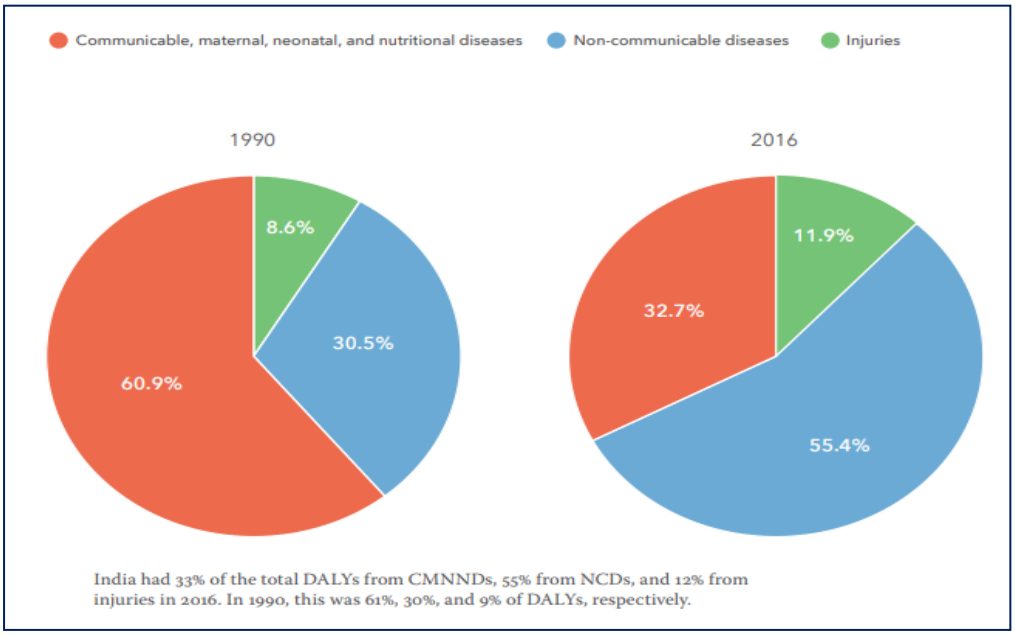
It is defined as the years of healthy life lost to premature death and suffering. DALYs are the sum of years of life lost and years lived with disability[25][26].

Figure:6.1 Contribution of major disease groups to total DALY[27]s In India, 1990 And 2016[28]

[24] The India State-Level Disease Burden Initiative, 2017, Government of India.

[25] Disease Burden Trends in the States of India 1990 to 2016, NITI Aayog,2017

[27] Disability-adjusted life years (DALYs) are a summary measure of the health loss burden caused by different conditions, and take into account both premature mortality and disability in one combined measure.(District Hospital document)



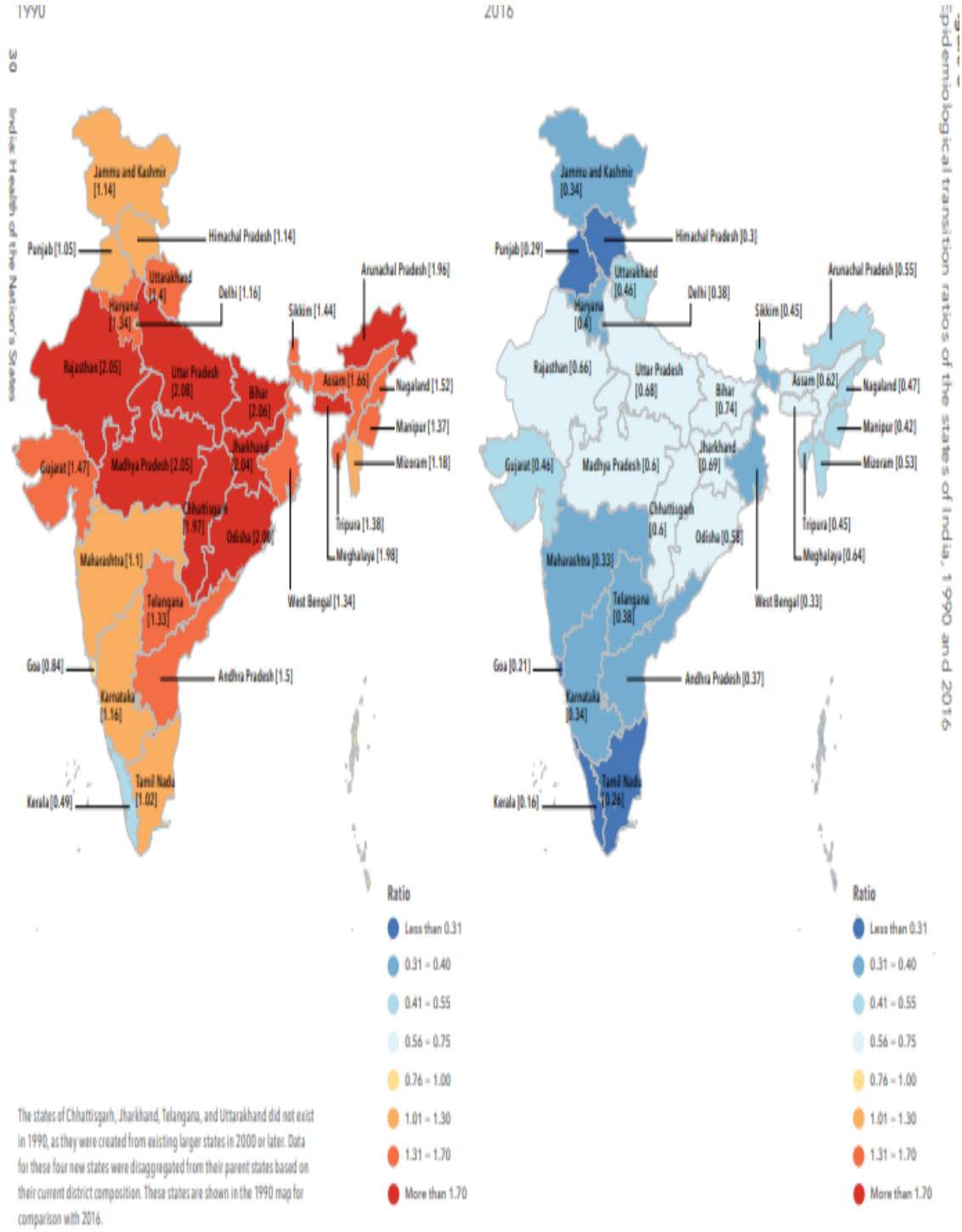
The above Figure shows that during the Epidemiological transition period of 1990 to 2016, the share of Non-Communicable diseases has increased from 30.5% to 55.4% in the country. This increasing trend has been posing greater challenges for the public health system in the country and the state of the Andhra Pradesh as well.

6.2.2. Rising epidemiological transition ratios in India during 1990 and 2016[29]:

During the period 1990, the epidemiological transition ratios of NCDs to Communicable Diseases were more than one. It indicates the lesser prevalence of NCDs, whereas, by the year 2016, the ratios have increased to less than one. The states with a ratio of 0.56–0.75 were considered as having the lowest epidemiological transition level (ETL), those with a ratio of 0.41–0.55 as lower-middle ETL, those with a ratio of 0.31–0.40 as higher-middle ETL, and those with a ratio 0.30 or less as highest ETL. Consequent to the increase, the proportion of Disease Adjusted Life Years (DALYs) caused by NCDs and injuries has increased heavily across the country since 1990, and in 2016 both account for the majority of premature death and disability for all States in the country.

[28] Disease Burden Trends in the States of India 1990 to 2016, NITI Aayog,2017
[29] Ibid,ref.5

Image:6.1 Epidemiological Transition 1990-2016[30]



[30] Ibid,ref.2

Figure:6.2 Contribution of disease categories to DALYs in the State groups increased during the period 1990 and 2016[31]

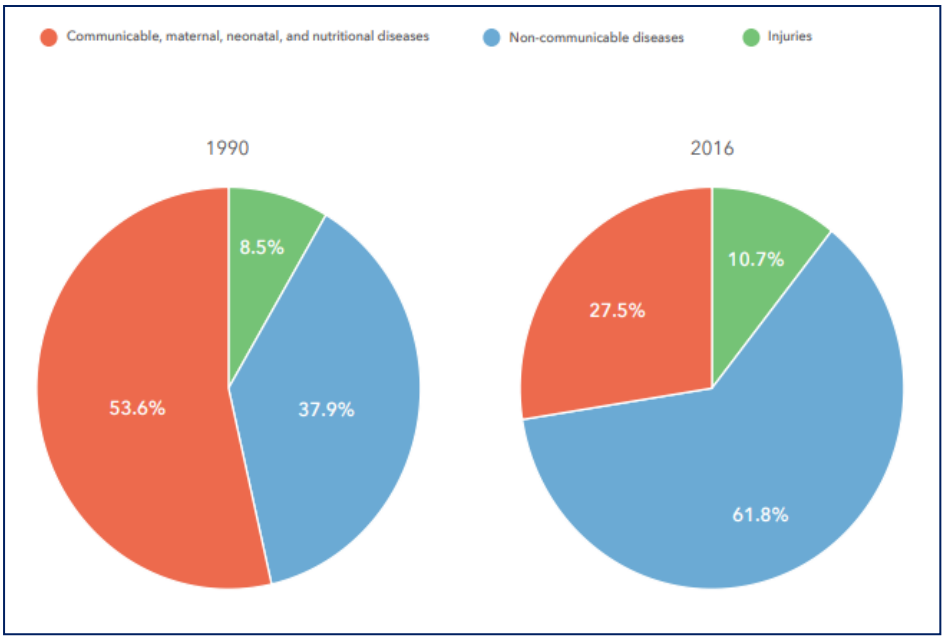
	Percent of DALYs, 1990				Percent of DALYs, 2016			
	EAG states group (369 million)	North-East states group (32 million)	Other states group (463 million)	India (864 million)	EAG states group (599 million)	North-East states group (52 million)	Other states group (665 million)	India (1,316 million)
Communicable, maternal, neonatal, and nutritional diseases	**67.1**	**61.9**	**54.2**	**60.9**	**39.9**	**37**	**24.9**	**32.7**
HIV/AIDS and tuberculosis	5.3	5.5	4.8	5.1	4.8	4.7	3.6	4.2
Diarrhoea, lower respiratory, and other common infectious diseases	38.9	31.7	27.2	33.2	16.6	13.8	8.6	12.7
Neglected tropical diseases and malaria	2.8	2.7	1.3	2.1	2	1.9	1.1	1.5
Maternal disorders	1.4	2.3	1.3	1.4	0.8	0.9	0.4	0.6
Neonatal disorders	12.9	14	15	13.9	9.5	9.1	6.2	7.9
Nutritional deficiencies	4.2	3.6	3.4	3.8	5	4.5	4.2	4.6
Other communicable, maternal, neonatal, and nutritional diseases	1.6	2.1	1.3	1.5	1.2	2.2	0.9	1.1
Non-communicable diseases	**25.4**	**30.5**	**35.9**	**30.5**	**48.9**	**52.5**	**62.4**	**55.4**
Cancers	2	2.6	2.6	2.3	4.6	5.6	5.4	5
Cardiovascular diseases	4.9	5.9	9	6.9	10.9	11.5	17.7	14.1
Chronic respiratory diseases	4.4	4.8	4.6	4.5	6.7	5.5	6.1	6.4
Cirrhosis and other chronic liver diseases	0.6	1.7	1.1	0.9	1.2	2.8	1.8	1.6
Digestive diseases	1.4	1.9	1.1	1.3	1.8	2.3	1.2	1.5
Neurological disorders	1.7	1.9	2.3	2	3.2	3.4	4.1	3.6
Mental and substance use disorders	2.4	3	3.5	2.9	4.8	5.4	6.4	5.6
Diabetes, urogenital, blood, and endocrine diseases	2.1	2.6	3.2	2.6	4.6	5.2	6.7	5.6
Musculoskeletal disorders	1.9	2.1	2.7	2.3	3.9	4.1	5.4	4.6
Other non-communicable diseases	4.1	4.1	5.9	4.9	7.2	6.7	7.7	7.4
Injuries	**7.4**	**7.6**	**9.9**	**8.6**	**11.2**	**10.5**	**12.7**	**11.9**
Transport injuries	1.5	1.4	2	1.7	3.2	2.7	3.5	3.3
Unintentional injuries	4.4	3.9	4.9	4.6	5.5	4.7	5.4	5.4
Suicide and interpersonal violence	1.4	2.2	2.9	2.1	2.5	3.1	3.8	3.1
Other	0	0.1	0.1	0.1	0	0	0	0

The above table shows how the proportion of DALYs due to NCDs increased substantially in all three state groups during this period from 49%-62% of the total DALYs in 2016. This proportion continued to be highest in the Other States group with 62.4% higher than the national average of 55.4% including Andhra Pradesh. The proportion of DALYs due to injuries also increased contributing to 11%-13% of the total DALYs in 2016. For India as a whole, the disease categories that were responsible for more than 5% of the total DALYs in 2016 are cardiovascular diseases; diarrhea, lower respiratory infections, and other common infectious diseases; neonatal disorders; chronic respiratory diseases; diabetes, urogenital and endocrine diseases; mental and substance

[31] Disease Burden Trends in the States of India 1990 to 2016, NITI Aayog,2017

abuse disorders; unintentional injuries; and cancers. All these rising diseases impose a greater burden on the already stressed District Hospitals in the country, and Andhra Pradesh.

Figure:6.3 Total Deaths on account of major disease groups is increased in India during the period 1990-2016[32]



The above figure indicates that the proportion of all deaths in India due to NCDs has increased from 37.9% to 61.8% during the period 1990 and 2016, and its proportion due to injuries also increased from 8.5% to 10.7% during the same period. The scenario of increasing death rate due to NCDs points out the condition of availability of essential medicines, health infrastructure, funds availability, proper and effective manpower proper utilization.

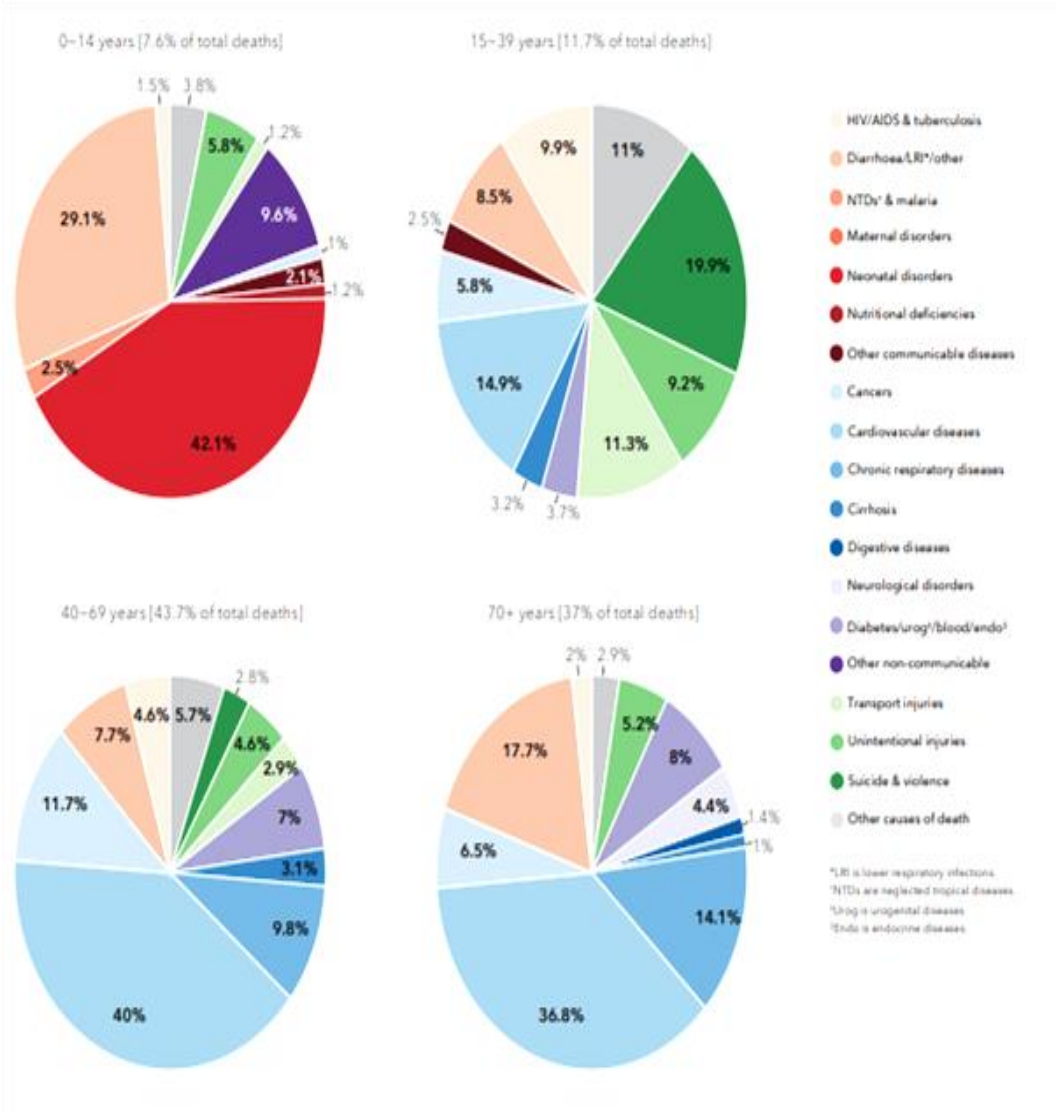
6.2.3. Epidemiological Transition in Andhra Pradesh

Andhra Pradesh has been undergoing the epidemiological transition phase. The life expectancy of females in Andhra Pradesh has increased from 58.4 years in 1990 to 71.9 years in 2016, and that of males from 57.7 years to 67.3 years during the same period.

[32] Disease Burden Trends in the States of India 1990 to 2016, NITI Aayog,2017

The Theory of the Epidemiological Transition names this phase as increased death rate due to NCDs, and it has greater implications for the people and Public Health service delivery system in Andhra Pradesh.

Figure:6.4 Cause of most death in different age groups in 2016[33]



6.2.4. Distribution of Deaths from Major Disease Groups by Age in the State Groups, 2016:

[33] Best Practices in the Performance of District Hospitals in India,2021, NITI Aayog, GoI

The distribution indicates different proportion of deaths due to communicable and non-communicable disease among different age groups in the Country, and in Andhra Pradesh**.**

Figure: 6.5 Distribution indicates different proportion of deaths due to communicable and non-communicable disease among different age groups in 2016[34]**.**

	Age group	Death rate per 100,000 [percent of total deaths in that age group]		
		Communicable, maternal, neonatal, and nutritional diseases	Non-communicable diseases	Injuries
EAG states group	0-14 years	277 [82.4]	37 [10.9]	23 [6.7]
	15-39 years	76 [34.4]	70 [31.6]	75 [34.0]
	40-69 years	278 [21.9]	873 [68.9]	116 [9.2]]
	70 plus years	2609 [29.5]	5799 [65.5]	444 [5.0]
	All ages	268 [34.6]	426 [55.1]	79 [10.2]
North-East states group	0-14 years	261 [83.0]	32 [10.3]	21 [6.7]
	15-39 years	77 [33.8]	82 [35.8]	69 [30.3]
	40-69 years	238 [19.7]	881 [73.0]	88 [7.3]
	70 plus years	2466 [27.2]	6260 [69.2]	327 [3.6]
	All ages	236 [32.1]	433 [58.8]	67 [9.1]
Other states group	0-14 years	157.5 [77.2]	30 [14.6]	17 [8.2]
	15-39 years	41.9 [23.1]	68 [37.2]	72 [39.8]
	40-69 years	133.7 [13.1]	785 [77.2]	98 [9.7]
	70 plus years	1304.2 [17.3]	5784 [76.9]	435 [5.8]
	All ages	145.3 [20.2]	493 [68.5]	81 [11.3]
India	0-14 years	225.6 [80.8]	34 [12.0]	20 [7.2]
	15-39 years	58.4 [29.1]	69 [34.4]	73 [36.5]
	40-69 years	195.8 [17.4]	824 [73.2]	105 [9.4]
	70 plus years	1867.0 [23.0]	5805 [71.6]	435 [5.4]
	All ages	204.6 [27.5]	460 [61.8]	80 [10.7]

Andhra Pradesh occupies the place in the Middle ETL Group in the NCDs and Injuries category. The Table shows that the death rate due to NCDs was over two times to the death rate due to CMNNDs in India in 2016. The proportion of deaths and the death rates due to NCDs were reported highest in the category of the Other States Group, and Andhra Pradesh is part of this group. NCDs were found to be the dominant cause of death in Andhra Pradesh for the three age groups of 15-39 to 70+. With the very productive age groups being under the threat of death due to NCDs, Andhra Pradesh

[34] Disease Burden Trends in the States of India 1990 to 2016, NITI Aayog,2017.

requires such efficient and sound public health service system that could handle the disease burden with great care and attention.

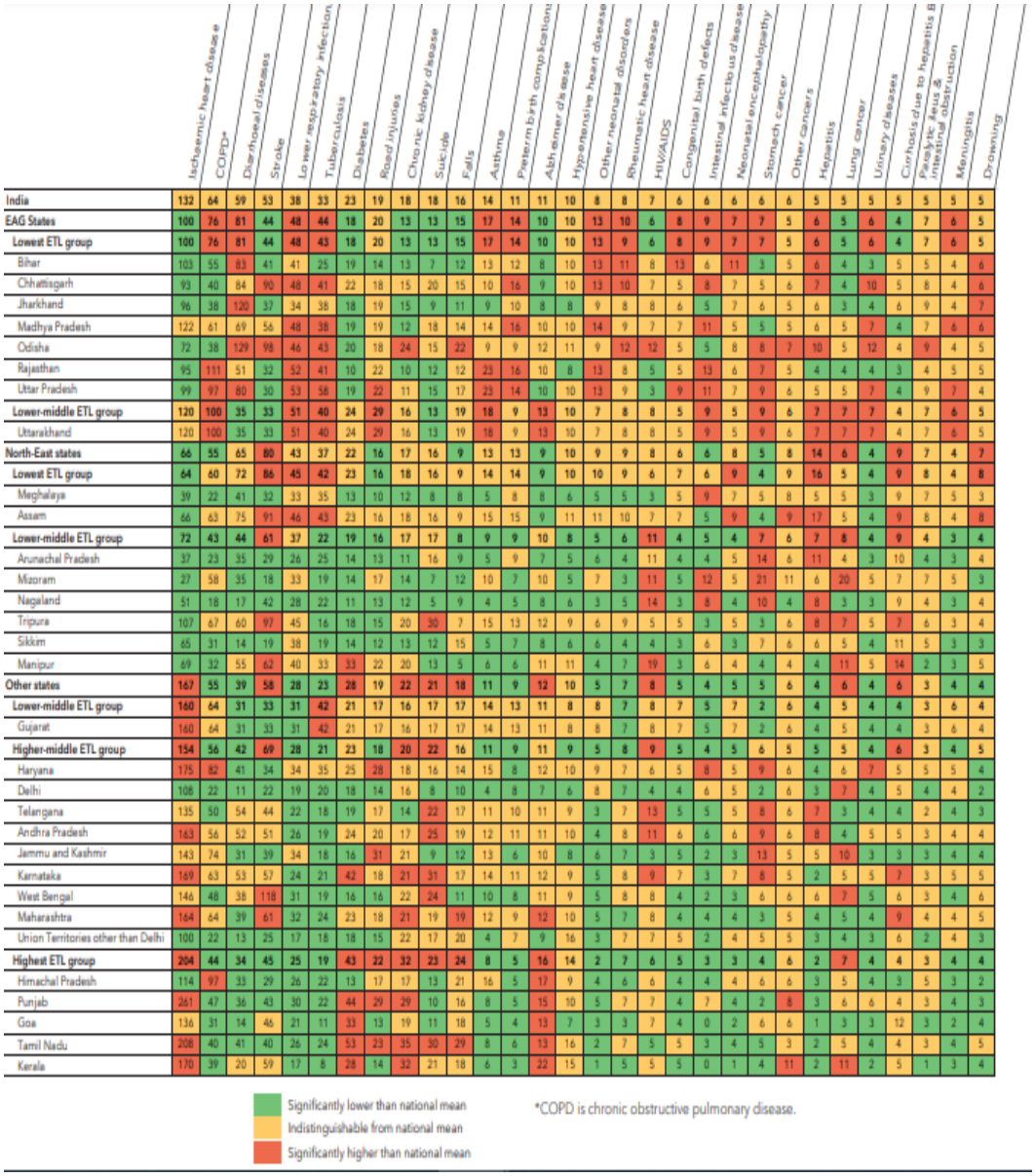
Figure:6.6 Contribution of Disease Categories to Deaths in The State Groups, 2016[35]

Disease categories	Percent of deaths to total deaths			
	EAG states group (599 million)	North-East states group (52 million)	Other states group (665 million)	India (1316 million)
Communicable, maternal, neonatal, and nutritional diseases	**34.6**	**32.1**	**20.2**	**27.5**
HIV/AIDS and tuberculosis	6.4	6.1	4.3	5.4
Diarrhoea, lower respiratory, and other common infectious diseases	19.9	17	11.2	15.5
Neglected tropical diseases and malaria	1.1	1.2	0.6	0.8
Maternal disorders	0.6	0.7	0.3	0.5
Neonatal disorders	4.9	4.6	2.8	3.8
Nutritional deficiencies	0.7	0.5	0.3	0.5
Other communicable, maternal, neonatal, and nutritional diseases	1	2.1	0.8	0.9
Non-communicable diseases	**55.1**	**58.8**	**68.5**	**61.8**
Cancers	7.8	9.5	8.7	8.3
Cardiovascular diseases	21.9	23	34.5	28.1
Chronic respiratory diseases	12.4	9.6	9.6	10.9
Cirrhosis and other chronic liver diseases	1.7	3.8	2.4	2.1
Digestive diseases	2.6	3.3	1.7	2.2
Neurological disorders	1.8	1.8	2.4	2.1
Mental and substance use disorders	0.4	0.4	0.4	0.4
Diabetes, urogenital, blood, and endocrine diseases	5.2	6.2	7.9	6.5
Musculoskeletal disorders	0.1	0.1	0.1	0.1
Other non-communicable diseases	1.3	1.1	0.9	1.1
Injuries	**10.2**	**9.1**	**11.3**	**10.7**
Transport injuries	2.9	2.4	3	2.9
Unintentional injuries	5	3.9	4.9	4.9
Suicide and interpersonal violence	2.3	2.8	3.4	2.8
Other	0	0	0	0

One can see in the above table the different disease of NCDs, their percentages of deaths, and how diseases and death are high among the Other States Group which is included of Andhra Pradesh. The Non-communicable Diseases are taking major share of 68.5% in the percentage of deaths which is higher than the National average of 61.8%. Among the diseases, cardiovascular diseases were the leading cause of death with 34.5% share, followed by chronic respiratory diseases, cancers, and the category containing diabetes and urogenital disorders. The proportion of deaths due to cardiovascular diseases and the diabetes category were recorded highest in the Other States Group, and Andhra Pradesh.

[35] Disease Burden Trends in the States of India 1990 to 2016, NITI Aayog,2017.

Figure: 6.7 Death rates of the leading individual causes in the states of India, 2016[36]:



	Ischaemic heart disease	COPD*	Diarrhoeal diseases	Stroke	Lower respiratory infection	Tuberculosis	Diabetes	Road injuries	Chronic kidney disease	Suicide	Falls	Asthma	Preterm birth complications	Alzheimer disease	Hypertensive heart disease	Other neonatal disorders	Rheumatic heart disease	HIV/AIDS	Congenital birth defects	Intestinal infectious disease	Neonatal encephalopathy	Stomach cancer	Other cancers	Hepatitis	Lung cancer	Urinary diseases	Cirrhosis due to hepatitis B	Paralytic ileus & intestinal obstruction	Meningitis	Drowning
India	132	64	59	53	38	33	23	19	18	18	16	14	11	11	10	8	8	7	6	6	6	6	6	5	5	5	5	5	5	5
EAG States	100	76	81	44	48	44	18	20	13	13	15	17	14	10	10	13	10	6	8	9	7	7	5	6	5	6	4	7	6	5
Lowest ETL group	100	76	81	44	48	43	18	20	13	13	15	17	14	10	10	13	9	6	8	9	7	7	5	6	5	6	4	7	6	5
Bihar	103	55	83	41	41	25	19	14	13	7	12	13	12	8	10	13	11	8	13	6	11	3	5	6	4	3	5	5	4	6
Chhattisgarh	93	40	84	90	48	41	22	18	15	20	15	10	16	9	10	13	10	7	5	8	7	5	6	7	4	10	5	8	4	6
Jharkhand	96	38	120	37	34	38	18	19	15	9	11	9	10	8	8	9	8	8	6	5	7	6	5	6	3	4	6	9	4	7
Madhya Pradesh	122	61	69	56	48	38	19	19	12	18	14	14	16	10	10	14	9	7	7	11	5	5	5	6	5	7	4	7	6	6
Odisha	72	38	129	98	46	43	20	18	24	15	22	9	9	12	11	9	12	12	5	5	8	8	7	10	5	12	4	9	4	5
Rajasthan	95	111	51	32	52	41	10	22	10	12	12	23	16	10	8	13	8	5	5	13	6	7	5	4	4	4	3	4	5	5
Uttar Pradesh	99	97	80	30	53	58	19	22	11	15	17	23	14	10	10	13	9	3	9	11	7	9	6	5	5	7	4	9	7	4
Lower-middle ETL group	120	100	35	33	51	40	24	29	16	13	19	18	9	13	10	7	8	8	5	9	5	9	6	7	7	7	4	7	6	5
Uttarakhand	120	100	35	33	51	40	24	29	16	13	19	18	9	13	10	7	8	8	5	9	5	9	6	7	7	7	4	7	6	5
North-East states	66	55	65	80	43	37	22	16	17	16	9	13	13	9	10	9	9	8	6	6	8	5	8	14	6	4	9	7	4	7
Lowest ETL group	64	60	72	86	45	42	23	16	18	16	9	14	14	9	10	10	9	6	7	6	9	4	9	16	5	4	9	8	4	8
Meghalaya	39	22	41	32	33	35	13	10	12	8	8	5	8	8	6	5	5	3	5	9	7	5	8	5	5	3	9	7	5	3
Assam	66	63	75	91	46	43	23	16	18	16	9	15	15	9	11	11	10	7	7	5	9	4	9	17	5	4	9	8	4	8
Lower-middle ETL group	72	43	44	61	37	22	19	16	17	17	8	9	9	10	8	5	6	11	4	5	4	7	6	7	8	4	9	4	3	4
Arunachal Pradesh	37	23	35	29	26	25	14	13	11	16	9	5	9	7	5	6	4	11	4	4	5	14	6	11	4	3	10	4	3	4
Mizoram	27	58	35	18	33	19	14	17	14	7	12	10	7	10	5	7	3	11	5	12	5	21	11	6	20	5	7	7	5	3
Nagaland	51	18	17	42	28	22	11	13	12	5	9	4	5	8	6	3	5	14	3	8	4	10	4	8	3	3	9	4	3	4
Tripura	107	67	60	97	45	16	18	15	20	30	7	15	13	12	9	6	9	5	5	3	5	3	6	8	7	5	7	6	3	4
Sikkim	65	31	14	19	38	19	14	12	13	12	15	5	7	8	6	6	4	4	3	6	3	7	6	6	5	4	11	5	3	3
Manipur	69	32	55	62	40	33	33	22	20	13	5	6	6	11	11	4	7	19	3	6	4	4	4	4	11	5	14	2	3	5
Other states	167	55	39	58	28	23	28	19	22	21	18	11	9	12	10	5	7	8	5	4	5	5	6	4	6	4	6	3	4	4
Lower-middle ETL group	160	64	31	33	31	42	21	17	16	17	17	14	13	11	8	8	7	8	7	5	7	2	6	4	5	4	4	3	6	4
Gujarat	160	64	31	33	31	42	21	17	16	17	17	14	13	11	8	8	7	8	7	5	7	2	6	4	5	4	4	3	6	4
Higher-middle ETL group	154	56	42	69	28	21	23	18	20	22	16	11	9	11	9	5	8	9	5	4	5	6	5	5	5	4	6	3	4	5
Haryana	175	82	41	34	34	35	25	28	18	16	14	15	8	12	10	9	7	6	5	8	5	9	6	4	6	7	5	5	5	4
Delhi	108	22	11	22	19	20	18	14	16	8	10	4	8	7	6	8	7	4	4	6	5	2	6	3	7	4	5	4	4	2
Telangana	135	50	54	44	22	18	19	17	14	22	17	11	10	11	9	3	7	13	5	5	5	8	6	7	3	4	4	2	4	3
Andhra Pradesh	163	56	52	51	26	19	24	20	17	25	19	12	11	11	10	4	8	11	6	6	6	9	6	8	4	5	5	3	4	4
Jammu and Kashmir	143	74	31	39	34	18	16	31	21	9	12	13	6	10	8	6	7	3	5	2	3	13	5	5	10	3	3	3	4	4
Karnataka	169	63	53	57	24	21	42	18	21	31	17	14	11	12	9	5	8	9	7	3	7	8	5	2	5	5	7	3	5	5
West Bengal	146	48	38	118	31	19	16	16	22	24	11	10	8	11	9	5	8	8	4	2	3	6	6	6	7	5	6	3	4	6
Maharashtra	164	64	39	61	32	24	23	18	21	19	19	12	9	12	10	5	7	8	4	4	4	3	5	4	5	4	9	4	4	5
Union Territories other than Delhi	100	22	13	25	17	18	18	15	22	17	20	4	7	9	16	3	7	7	5	2	4	5	5	3	4	3	6	2	4	3
Highest ETL group	204	44	34	45	25	19	43	22	32	23	24	8	5	16	14	2	7	6	5	3	3	4	6	2	7	4	4	3	4	4
Himachal Pradesh	114	97	33	29	26	22	13	17	17	13	21	16	5	17	9	4	6	6	4	4	4	6	6	3	5	4	3	5	3	2
Punjab	261	47	36	43	30	22	44	29	29	10	16	8	5	15	10	5	7	7	4	7	4	2	8	3	6	6	4	3	4	3
Goa	136	31	14	46	21	11	33	13	19	11	18	5	4	13	7	3	3	7	4	0	2	6	6	1	3	3	12	3	2	4
Tamil Nadu	208	40	41	40	26	24	53	23	35	30	29	8	6	13	16	2	7	5	5	3	4	5	3	2	5	4	4	3	4	5
Kerala	170	39	20	59	17	8	28	14	32	21	18	6	3	22	15	1	5	5	5	0	1	4	11	2	11	2	5	1	3	4

Significantly lower than national mean
Indistinguishable from national mean
Significantly higher than national mean

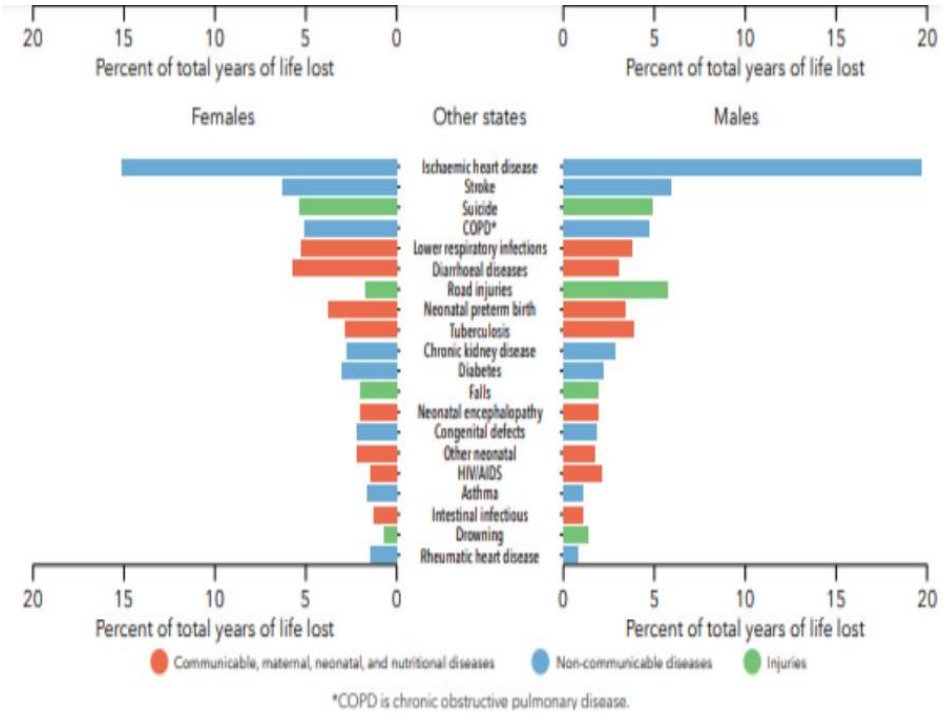
*COPD is chronic obstructive pulmonary disease.

The above figure indicates that the leading individual cause of death in India in 2016 was ischemic heart disease and the National average was 132 during the year 2016. The other NCDs in the top 10 individual causes of death included chronic obstructive pulmonary disease (COPD), stroke, diabetes, and chronic kidney disease,, road injuries and suicides are the leading injury individual causes of deaths. Andhra Pradesh has a higher proportion death rate of 163 than the National Average of 132. In almost all the remaining NCDs, the State has reported either as indistinguishable from the national

[36] Best Practices in the Performance of District Hospitals in India,2021.

mean or below the National Average. There is a need to assess how well is prepared the District Hospitals and the public health service delivery system to address this challenge of NCDs.

Figure:6.8 Leading Individual Causes Of Years Of Life Lost By Sex In The State Groups, 2016 in the Country[37]



Among the Years of Life Lost[38]s, Ischaemic heart disease was the leading cause of death among the Other States Group by a big margin. Andhra Pradesh which falls in this group has significantly higher rates of 163 deaths than the national mean death rate of 132 due to this disease, and has occupied the group of 20% of life lost for Males, and 15% for female's category.

[37] Best Practices in the Performance of District Hospitals in India,2021.

[38] Years of life lost (YLLs): It is taken as a measure that quantifies the number of years of life a person loses at the age of their death when compared with the highest life expectancy for their age group anywhere in the world. YLLs, therefore, give greater weight to causes of death that kill people at younger ages, such as common childhood infections, than those that tend to occur later in life, such as heart disease or stroke.

Figure: 6.9 Proportion of Total Disease burden in India from premature death in 2016[39].

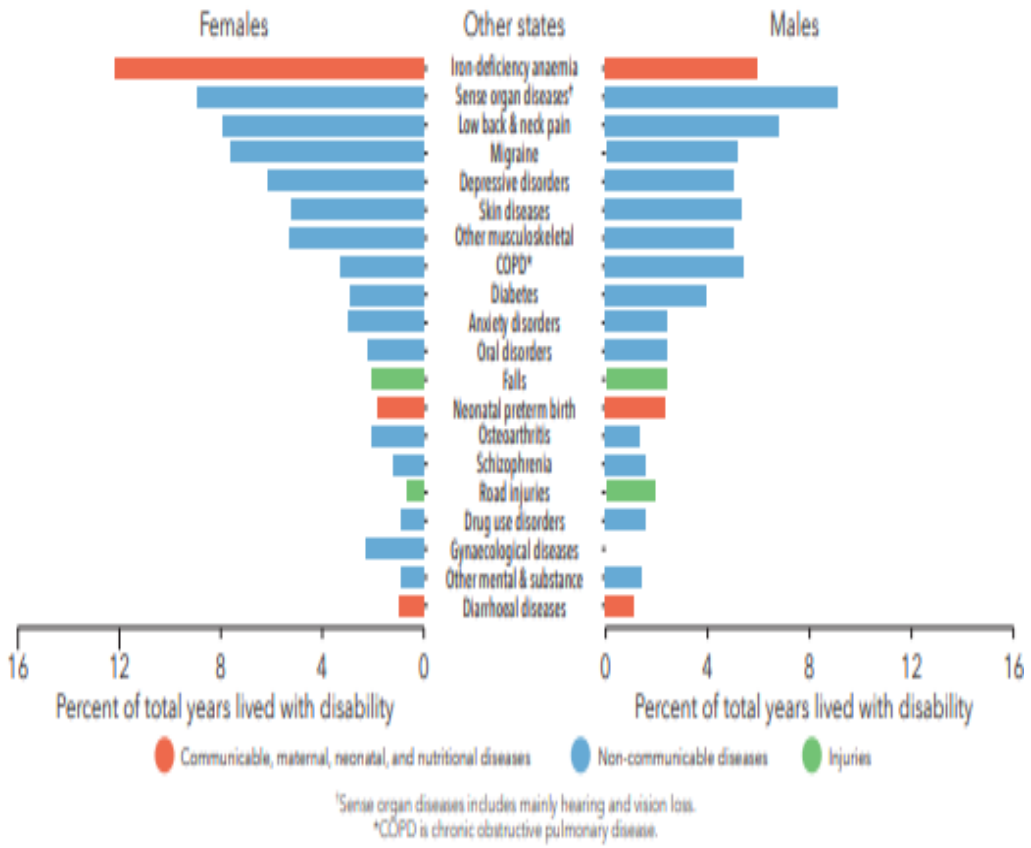
The above figure indicates that the premature mortality is higher in Andhra Pradesh with men lost 20% of YLL, and female lost 15% of YLL due to Ischemic heart disease in the year 2016. After the disease of ischemic heart disease, the higher death rate was followed by disease of stroke, COPD, chronic kidney Disease, Congenital birth defects, and Diabetes. All these diseases are the cause of greater concern for the public health system in the country, and Andhra Pradesh.

6.2.5. Years lived with Disability:

Years lived with disability (YLDs) counts both the number of individuals suffering from disability (or non-fatal poor health as a result of a particular disease or injury), and also the severity of the disability.

[39] Best Practices in the Performance of District Hospitals in India,2021.

Figure:6.10 Years lived with disability due to NCDs in 2016 in India



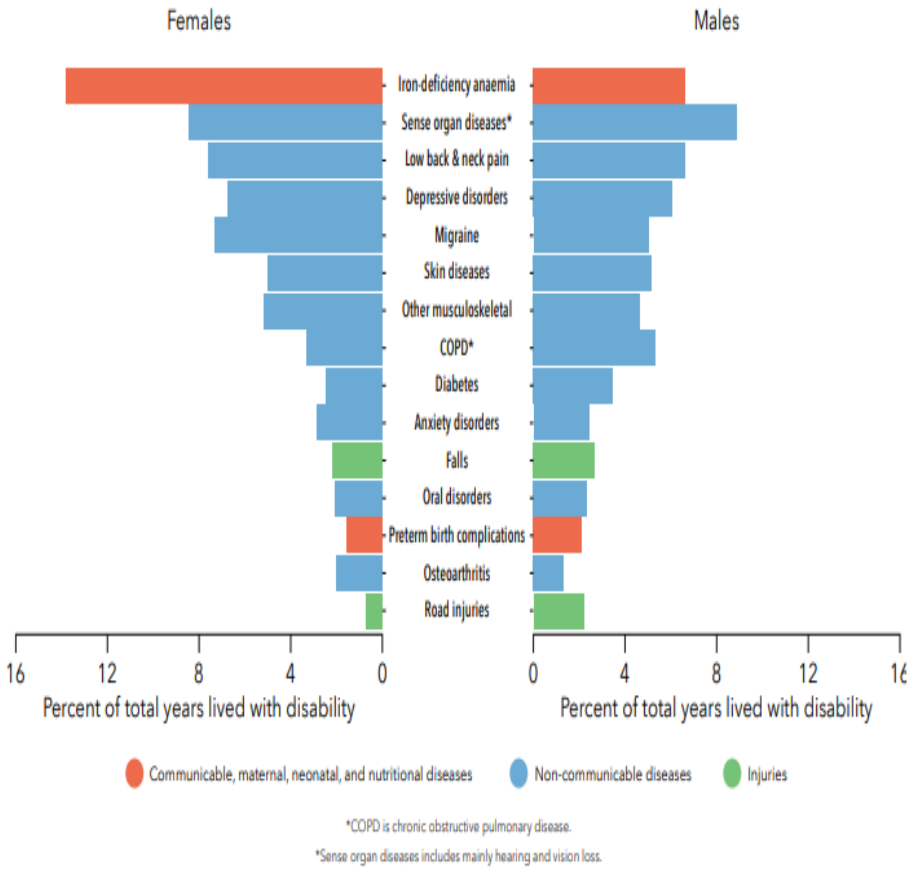
The YLD proportion in 2016 was found to be the highest in the Other states Group at 36% and lowest in the EAG states group at 30%. Besides, diseases of oral disorders, Anxiety disorders, Diabetes, COPD, Other musculoskeletal Skin diseases, Depressive disorders Migraine, Low back & neck pain, Osteoarthritis, Schizophrenia, Other mental & substance, Gynaecological diseases, Drug use disorders etc. are on higher scale in the Other States Group.

6.2.6. Andhra Pradesh[40]:

The following figures show the status of Andhra Pradesh regarding the epidemiological transition.

[40] Best Practices in the Performance of District Hospitals in India, 2021.

Figure: 6.11 Top 15 causes of YLDs, ranked by percent for both sexes Combined, 2016[41]

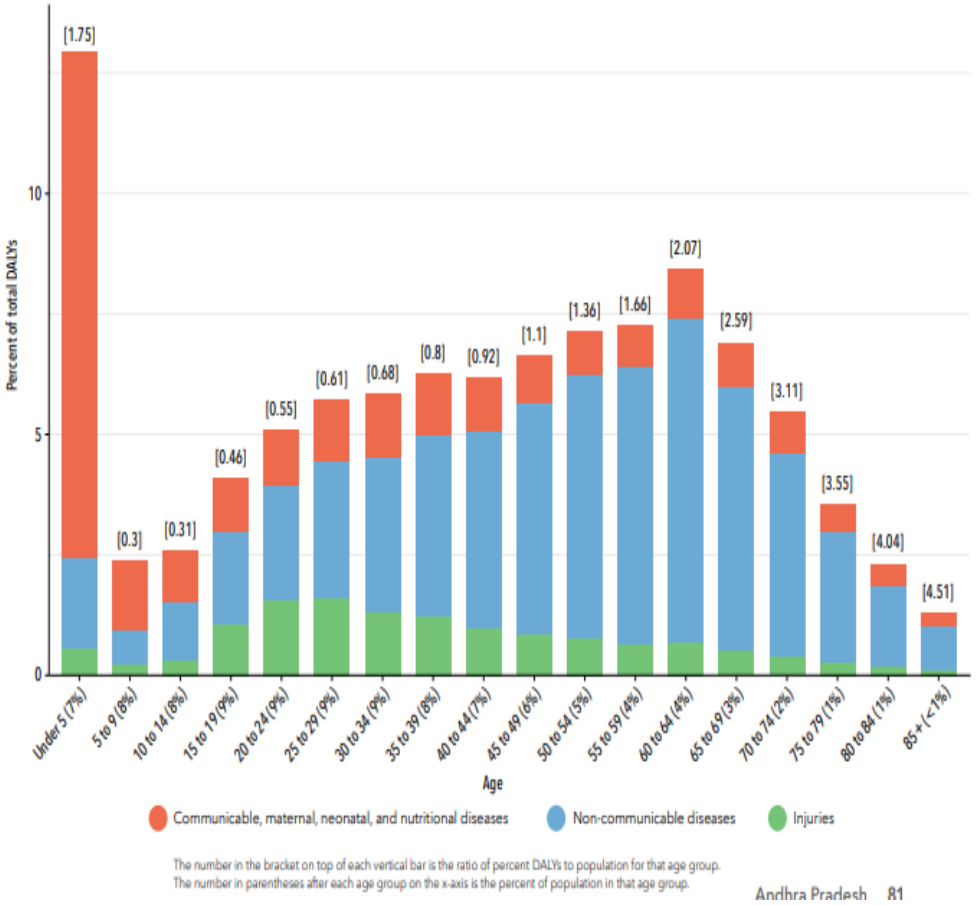


Following the pattern, the contribution of YLDs to the total disease burden (DALYs) was increased in the country between the period 1990 and 2016 from a lower rate of 17% to a higher rate of 33%. The YLDs has a 36% share in 2016 among the other states group and a major imparter of the public health service system in Andhra Pradesh. In addition to the NCDs, iron deficiency anemia has emerged as the top cause accounting for 11% of all disabilities in India in 2016. Its effects were most severe among females, contributing to 12% of YLDs among the people of the Other states Group. The NCD conditions that are the leading contributors to disability burden in all three state groups included sense organ diseases (hearing and vision loss), lower back and neck pain, migraine, depressive disorders, skin diseases, and musculoskeletal disorders. All these

[41] Ibid,ref.14

are the kind of diseases that require good infrastructure facilities, technology, skilled manpower, etc to deal with them from time to time.

Figure: 6.12 Causes of most deaths and disability combined across age groups in 2016[42]



The above Figure indicates how the Non-communicable, communicable Diseases, injuries together caused number of deaths in the year 2016 in Andhra Pradesh. Non-communicable diseases has a lion share in the total deaths among all ages groups and starting from the age of 10-14 its rate was gradually increasing as the age group progresses and its death rate was started decreasing from the age group of 60-64 years towards further down to the 85+. All categories of diseases together are imposing greater burden on the stressed financial and other medical resources in the Country, and Andhra Pradesh.

[42] Ibid,ref.14

6.3. Major challenges being confronted by the district hospitals in addressing the increasing threat of NCDs and CVDs.etc.

District Hospitals have multiple objectives to achieve for the public. One of its functions is to deliver secondary and tertiary care to the public efficiently, effectively, with great care and attention thereby restoring sound health and increasing the lifespan of the individuals so that they fulfil their needs and strive for socio-economic development of the Country. Non-communicable Diseases (NCDs) and CVDs like cardiovascular diseases, cancer, chronic respiratory disease, diabetes, etc. have become a major burden on the already undernourished District Hospitals in the country including Andhra Pradesh. To meet peoples' preferences and demands, District Hospitals require to enhance public health care facilities, effective service delivery, adopt innovative and latest technologies suitable to the cure of the new and growing NCDs, achieve declared public health standards, efficient and dynamic management of manpower and capacity building, adequate budget for covering the growing demand for the secondary and tertiary sector, etc. But in practice, they remain a big challenge for the District Hospitals in the Country despite concerted efforts have been put in place in the Country. The is evident from the fact that the World Health Organization and the Government of India targeted at making affordable basic technologies and essential medicines required to treat major non-communicable diseases available in 80% of the health care facilities, but the medicine-availability studies conducted between 2008 and 2015 had shown lower availability of medicines in public sector facilities compared to the private sector.

6.3.1. District Hospitals are still suffering from the shortage of essential services and resources required for cure of NCDS.

The District Hospitals in the Country are categorized on the size of the bed strength. Small-sized District Hospitals have a bed strength of up to 200, medium-sized hospitals have 201 to 300, and big-sized district hospitals with a strength of 400 beds. Andhra Pradesh with a total of 14 District Hospitals has a 1.98% share against the total of 810 District Hospitals functioning in the country.

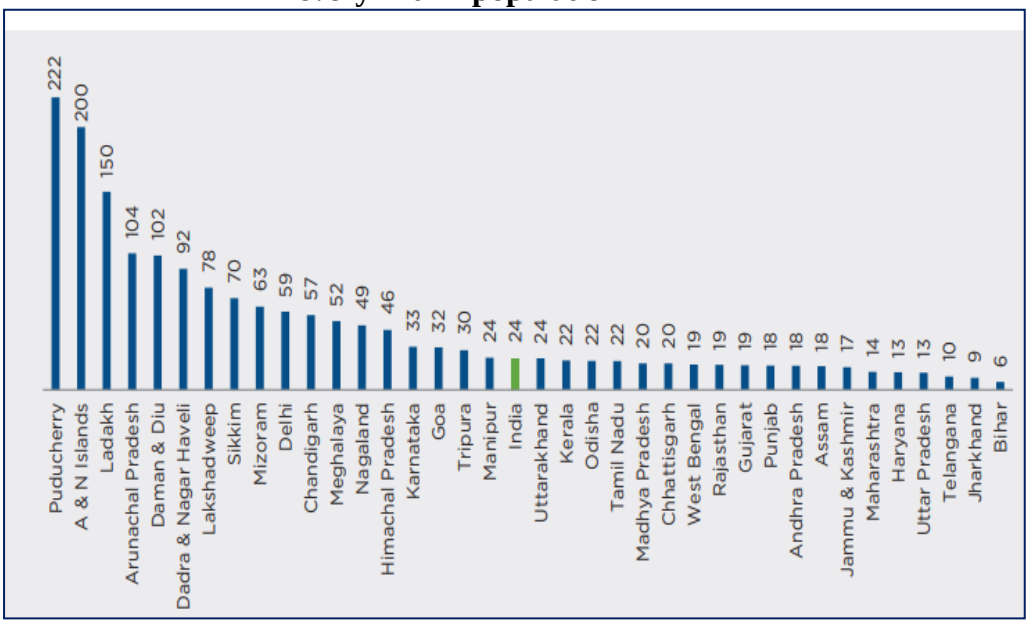
6.3.2. Bed Occupancy Rate: The bed Occupancy Rate is taken as an indicator to measure the efficiency of public health facility functioning through effective utilization of the functional beds. It is calculated by dividing the total number of inpatient bed days added for a year by the number of functional beds available in the hospital multiplied by 365 days. The ratio is multiplied by 100 to express the figure in percentage[43]. The number of inpatient bed-days refers to the sum of all inpatients at midnight. The WHO Global Standards have recommended having 5 hospital beds for every 1000 people living in that area.

The Indian Public Health Standards-2012 guidelines recommend a bed occupancy rate of at least 80% in a district hospital serving a population of 10 lakh which means the bed requirement in the district hospital would be 220 beds (based on the assumptions of the annual rate of admission as 1 per 50 population and the average length of stay in a hospital as 5 days)[44]. The District Hospitals functioning in Andhra Pradesh are also required to adhere to and achieve these prescribed standards.

Against the IPHS Norm of having at least 22 beds for every 1 lakh population, India has achieved average bed strength of 24 as on 2017-19 base year, and Andhra Pradesh only 18 beds in the District Hospitals for its every One Lakh population.

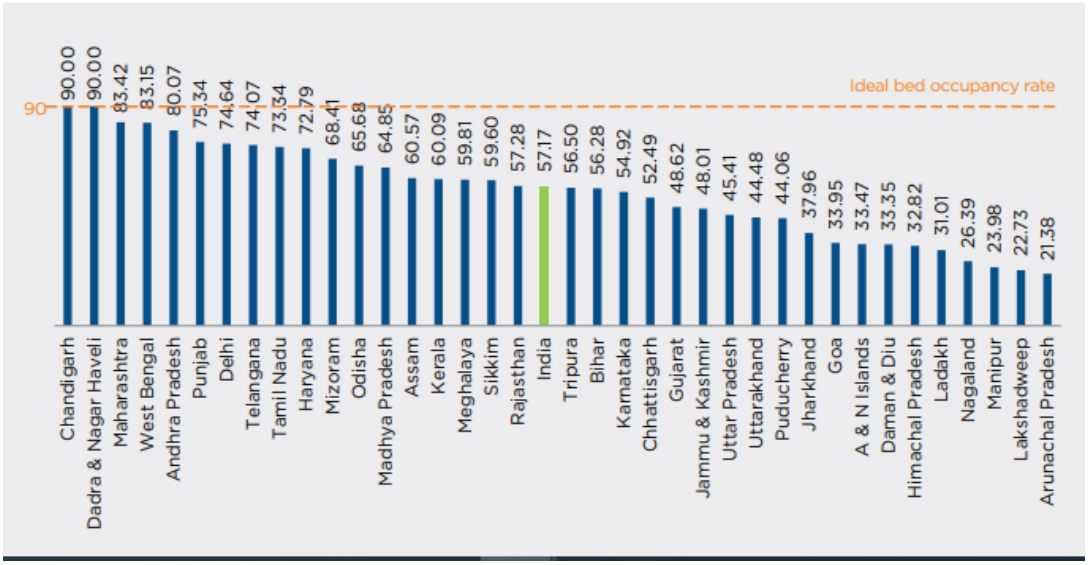
[43] Best Practices in the performance of the District Hospitals-2021, NITI Aayog, Government of India.
[44] ibid,ref.7.

Figure: 6.13 State/UT-wise average number of beds in a district hospital for every 1 lakh population[45]



Against the bed requirement of 220 for 10.00 Lakh populations, 90 beds are considered as the ideal bed occupancy rate for District Hospitals in the Country. A total of 182 hospitals in the Country has ideal bed occupancy rate of 90 or higher. But, the Nation's average remains at 57.17, and that of Andhra Pradesh at 80.07(88.96) with nearly 10 beds below the ideal bed rate.

Figure:6.14 Average bed occupancy rate (%) of a district hospital by State/UT[46]

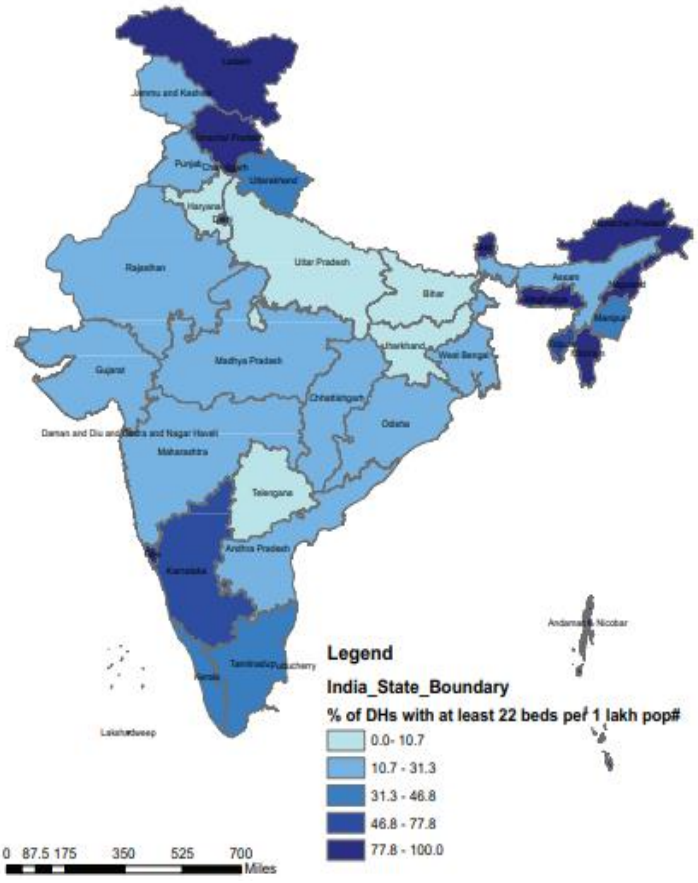


[45] Ibid,ref,7
[46] Ibid,ref.7

A high bed occupancy rate is being treated globally as an indication of good quality of services, infrastructure, trained staff, patient care, and satisfaction provided by the facility. It helps in identifying facilities with optimal resource utilization rates. Very low bed occupancy rates <42%, at the primary health care level, indicate a lack of medically trained personnel, sporadic supply of drugs and other medical supplies, and a complete breakdown in the transfer and referral system. A high bed occupancy

Figure shows the State/UT-wise percentage distribution of these 182 hospitals. Uttar Pradesh (14.8%) had the highest proportion of hospitals with bed occupancy rate greater than or equal to 90%, followed by Madhya Pradesh (10.9%), Maharashtra (8.2%), Odisha (8.2%), West Bengal (7.1%), and Andhra Pradesh (5.5%).

Figure:6.15 Percentage of district hospitals in each State/UT that have at least 22 beds per 1 Lakh population[47]



[47] Ibid,ref.7

Bed occupancy rate is also an indicator of the health system under pressure. The above figures indicate shortages of bed facilities thereby the other services and facilities in the District Hospitals in Andhra Pradesh in respect of the secondary and tertiary care.

The lack of available beds inevitably increases delays in emergency departments, cause patients to be placed on clinically inappropriate wards, and increases the rate of hospital-acquired infections. This condition also puts staff under pressure to free up beds which can pose a risk to patient safety. The other major consequence of these shortages is they are influencing the public choice of utilizing a health service provider other than the Public health care facility. The sample survey conducted for this study indicates the same scenario wherein the majority of the participant prefers private hospitals to public health care facilities due to the availability of the services, equipment, etc. Among the total 15 district Hospitals in Andhra Pradesh, only 10 district hospital have bed occupancy rate of 90% or higher.

Figure: 6.16 State/UT-wise number of district hospitals (n=182) with bed occupancy rate of 90% or higher[48]

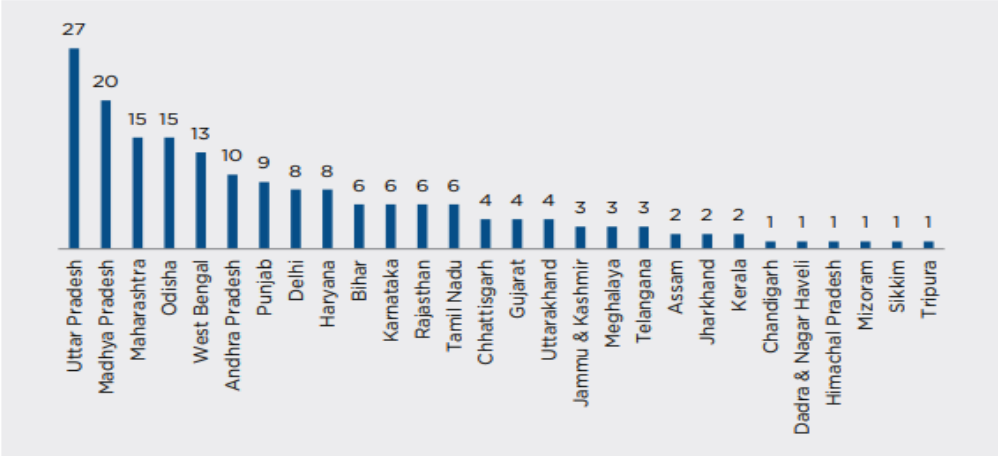
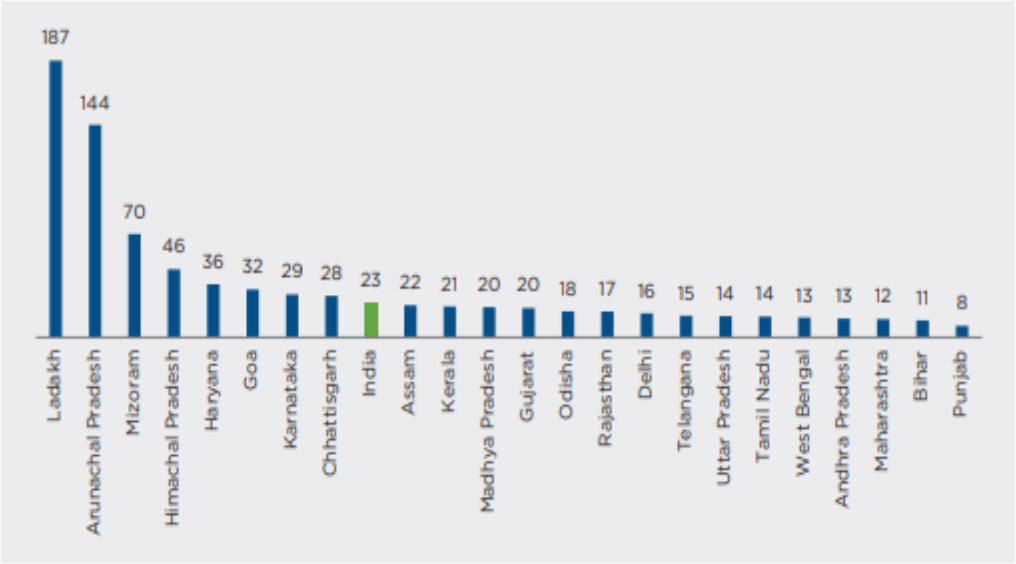


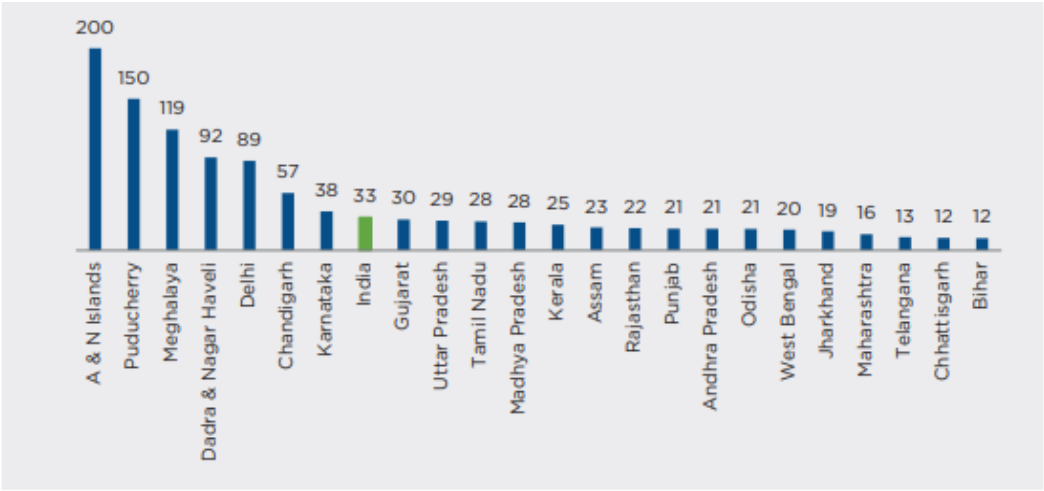
Figure:6.17 Average number of beds in mid-sized district hospitals (201–300 beds) for every 1 lakh population by State/UT[49]**.**

[48] Ibid,ref.7
[49] Ibid,ref 7



This figure indicates that in respect of the mid-sized district hospitals (201–300 beds), Andhra Pradesh has occupied the lower position with average 13 beds for every 1 lakh population.

Figure:6.18 Average number of beds in large district hospitals (more than 300 beds) for every 1 lakh population by State/UT[50]



This Figure shows that the average number of beds for larger hospitals for every one lakh population in Andhra Pradesh is only 21 which is below the national average of 33 in the base year 2017-18 falling short of the This bed number is not meeting the Indian Public Health Standards(IPHS) 2012 guidelines which recommend district

[50] Ibid, ref,7

hospitals to maintain at least 22 beds per 1 lakh population (based on district population average of 2001 Census).

6.3.3. Duration of hospital stay (days) by diseases and health care provider (public-private) in India, 2014

Low bed occupancy affects the number of hospital stays of the patients (days) by diseases and health care has implications not only for the patients' safety and their economic condition since most of the patients resort to private hospitals for saving their life and incur huge expenditure for the service received. The following table indicates how the hospitalization days are lower than the private service provider.

Table:6.1 Mean duration of hospital stay (days) by diseases and health care provider (public-private) in India, 2014[51].

Diseases	Mean duration of hospitalization (Days)		
	Public (Std.Err.)	Private (Std.Err.)	All (Std. Err.)
Diarrhea	3.8 (0.086)	4.1 (0.131)	3.9 (0.074)
Fever	5.2 (0.078)	5.0 (0.069)	5.1 (0.052)
Cataract	3.0 (0.151)	2.2 (0.079)	2.5 (0.074)
Tuberculosis	11.1 (0.895)	9.0 (0.517)	10.3(0.594)
Respiratory	6.2 (0.292)	5.7 (0.242)	5.9 (0.186)
Asthma	8.1 (0.343)	6.9 (0.261)	7.4 (0.213)
Hypertension	4.9 (0.204)	4.7 (0.171)	4.8 (0.179)
Diabetes	8.0 (0.405)	7.5 (0.501)	7.7 (0.357)
Jaundice	9.1 (0.546)	9.5 (0.442)	9.3 (0.344)
Gastro Intestinal	6.5 (0.204)	6.9 (0.131)	6.7 (0.111)
Neurological	14.9 (1.104)	7.3 (0.322)	10.4(0.506)
Musculoskeletal	9.2 (0.372)	7.8 (0.251)	8.2 (0.209)
Genito Urinary	8.5 (0.306)	7.7 (0.215)	7.9 (0.176)
Injuries	8.1 (0.279)	9.5 (0.285)	8.9 (0.202)
Heart Diseases	8.3 (0.313)	8.0 (0.194)	8.1 (0.169)
Cancer	16.7 (1.261)	13.6 (1.043)	14.8(0.804)
All Diseases	7.2 (0.091)	6.9 (0.062)	7.0 (0.052)
CDs	5.7 (0.080)	5.7 (0.071)	5.7 (0.053)
NCDs	9.9 (0.247)	7.9 (0.128)	8.6 (0.121)
Injuries	8.1 (0.279)	9.5 (0.285)	8.9 (0.202)

[51] Disease-specific out-of-pocket and catastrophic health expenditure on hospitalization in India: Do Indian households face distress health financing? Anshul Kastor*, Sanjay K. Mohanty,2017.

6.3.4 The Doctors availability in District Hospitals is below the standard norms

Against the average ratio of Doctors in hospitals with up to 300 beds in position to the IPHS requirement of 50 Doctors, Andhra Pradesh has 0.87% of Doctors which is just higher than the national average of the country, but far lower than the small states like Arunachal Pradesh, Delhi. This shortage has major affect the public service delivery systems in the District Hospitals making the services unavailable for the public.

Figure:6.19 State/UT-wise average ratio of Doctors in hospitals with up to 300 beds in position to the IPHS requirement of 50 Doctors[52]

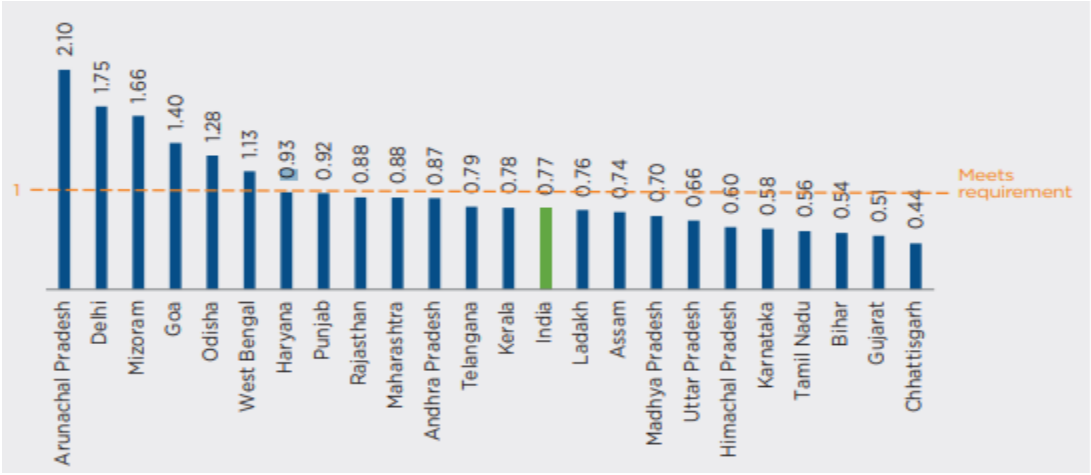
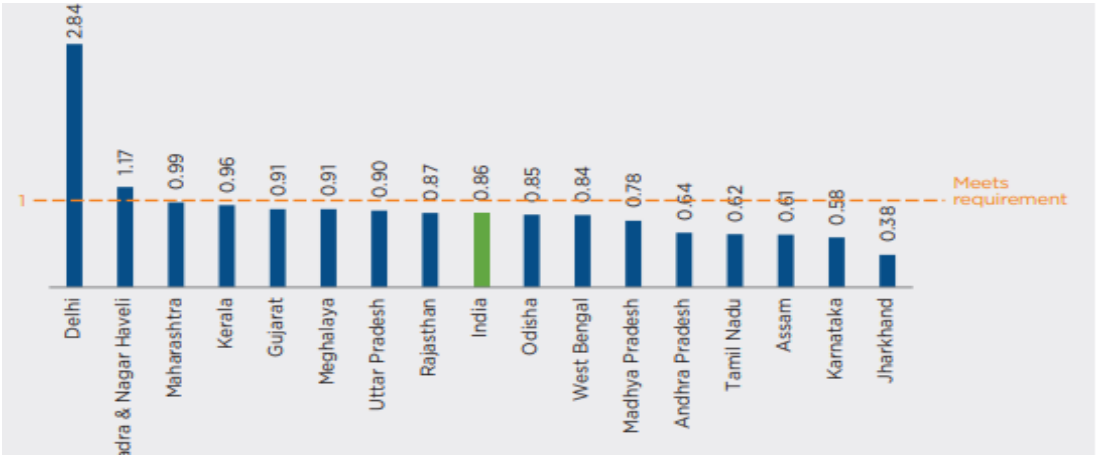


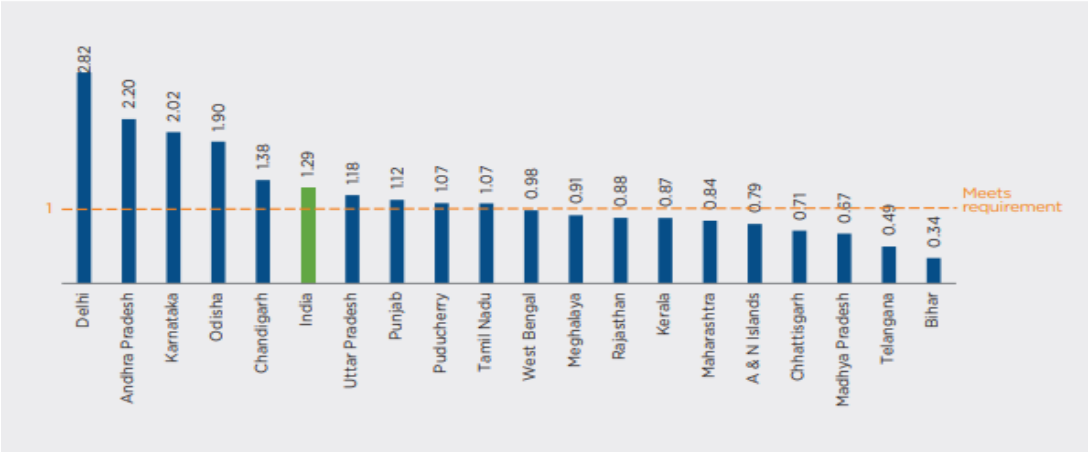
Figure:6.20 State/UT-wise average ratio of Doctors in hospitals with up to 400 beds in position to the IPHS requirement of 58 Doctors



[52] Ibid,ref.7

The State/UT-wise average ratio of Doctors in hospitals with up to 400 beds in position to the IPHS requirement of 58 Doctors is concerned Andhra Pradesh has reported 0.64% of Doctors which is lower than the National Average of 0.86. The following figure indicates a slightly better position with Andhra Pradesh having occupied 2nd position in the country with a 2.20 ratio scoring higher than the national average of 1.29%.

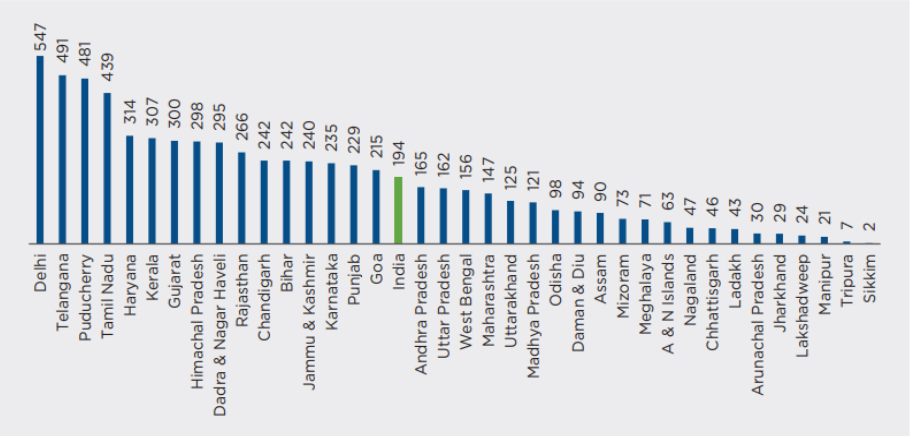
Figure:6.21 State/UT-wise average ratio of Doctors in hospitals with more than 400 beds in position to the IPHS requirement of 68 Doctors[53]



A lower level of surgeries is one of the consequences of the lack of availability of infrastructure and human resources. The lower rate of bed occupancy ratio and a lower rate of Doctor's availability in the District Hospitals of up to 400 beds indicate the lower rate of major Surgeries in these health facilities. The Major Surgeries are calculated by dividing the total number of major surgeries performed in a year (excluding the surgeries related to Obstetrics, Gynaecology, and Ophthalmology) by the number of surgeons in the hospital. The following table indicates the average number of surgeries conducted by a surgeon in a year. This average is excluded of the surgeries related to Obstetrics, Gynaecology, and Ophthalmology was excluded from the total number of major surgeries performed at the District Hospital**.**

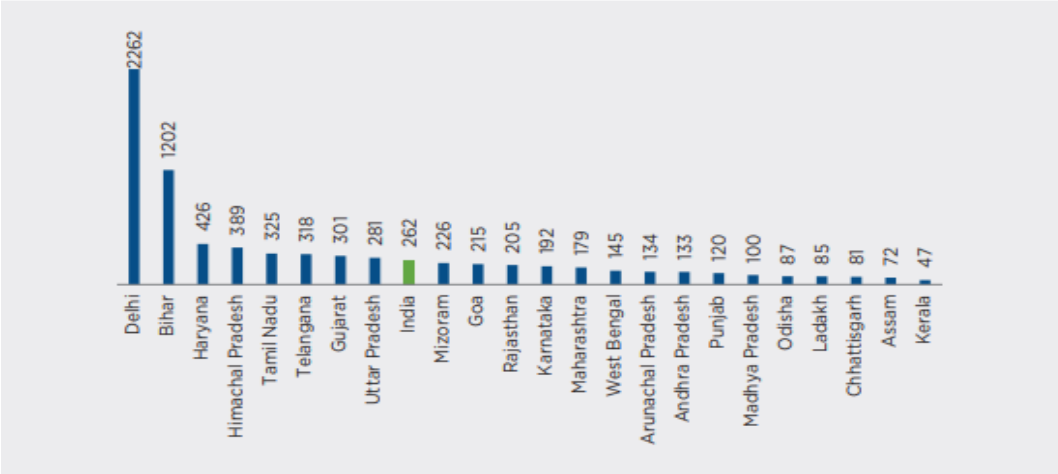
[53] Ibid,ref.7

Figure:6.22 The average number of surgeries per surgeon performed in a year in a district hospital by State/UT[54]



In the above figure, a total of 177 district hospitals from 27 States/UTs fell in the upper quartile for Surgical Productivity Index, which included hospitals performing more than 205 surgeries per surgeon per year. The top share of hospitals is occupied by the Uttar Pradesh (21.9%), Rajasthan (6.7%), and Delhi (6.2%). Andhra Pradesh with average 165 surgeries has occupied the position below the National average of 194 surgeries. This lower average number suggests lower level of facilities and a lower level of performance not only by the surgeons but the overall hospital management in effective utilisation of the man power.

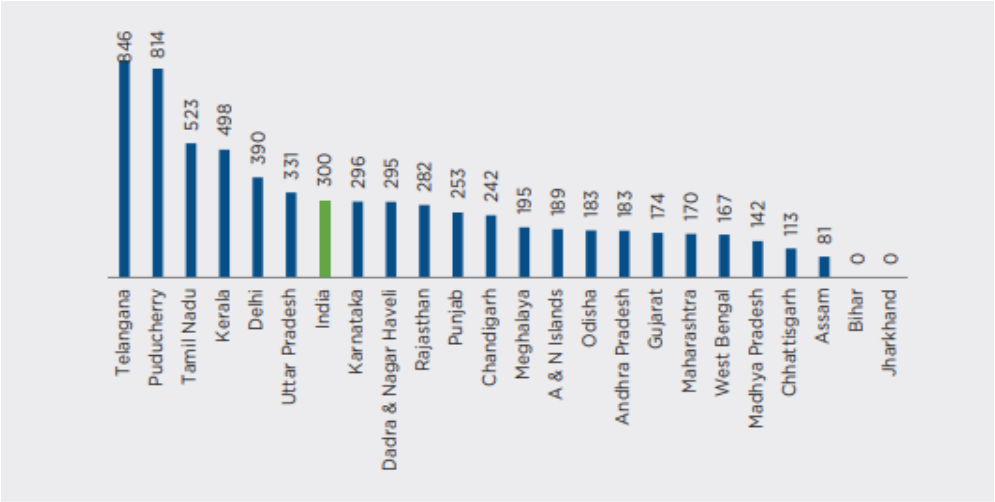
Figure:6.23 Average number of surgeries per surgeon performed in a year in mid-sized district hospitals (201–300 beds) by State/UT[55]



[54] Ibid,ref.7
[55] Ibid,ref.7

The average number of surgeries per surgeon performed in a year in mid-sized District hospitals (201–300 beds) by State/UT was 133 in Andhra Pradesh against the national average of 262 surgeries. For Andhra Pradesh, the average number of surgeries per surgeon performed in a year in more than 300 the bedded hospital was only 183 against the national average of 300 surgeries. The following Figure indicates the rank of Andhra Pradesh among the other States in the country.

Figure:6.24 Average number of surgeries per surgeon performed in a year in mid-sized district hospitals more than 300 beds by State/UT[56]



The data indicates that the District Hospitals in Andhra Pradesh are performing a fewer number of surgeries lower than in the smaller states and a few U.T. in the country. This scenario indicates not only the unavailability of skilled specialists but also underperformance and underutilization of the skills already available for these hospitals. This position is supported by the opinions expressed during the sample survey conducted for the present study. Many of the participants expressed a lack of availability of Doctors/specialist in the District Government Hospitals. Further, it is evident from the above data that number surgeons are concentrated in the bigger hospitals with 400+ beds which hospitals are usually located in bigger cities and state headquarters. Consequently,

[56] Ibid,ref.7

there emerges an artificial shortage of surgeons and specials at medium and small-sized district hospitals. All these situations are resulting into the denial or lack of service for the patients in the smaller districts and areas. District hospitals are suffering from these shortages even now after the implementation of the IPHS and the National Health Policy-2017 in the Country and in Andhra Pradesh.

6.3.5. Lower Rate of Out Patient Department Services per Doctor

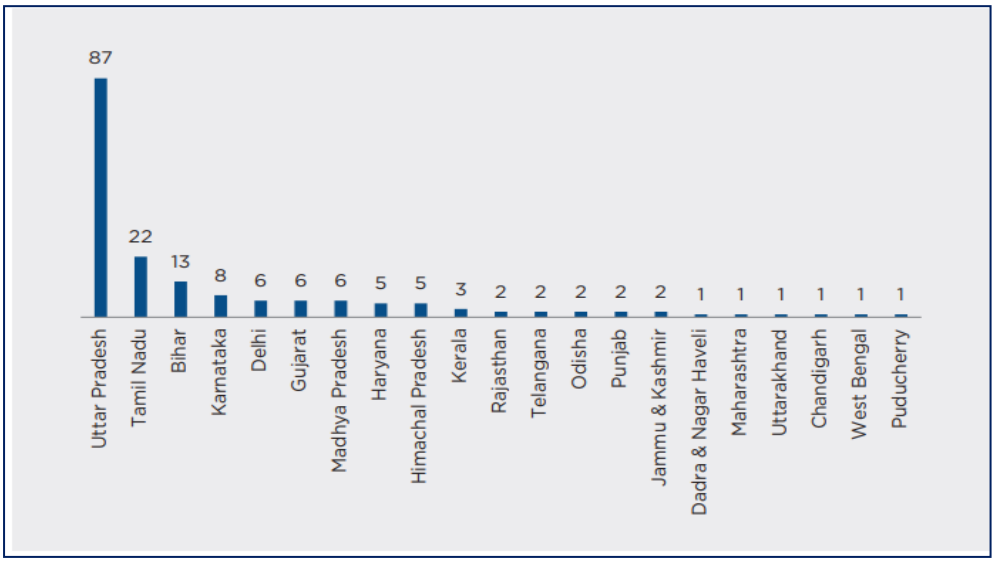
Accessibility and utilization of health services is being measured also by estimating the rate of Outpatient department services[57]per Doctor. Higher the number of the OPD Patients, higher the quality of services of a Hospital. According to WHO, there should be one doctor for every 1000 population. In India, there is only one Doctor for every 1,445 Indians of 135 Crore which is lower than the WHO's prescribed norm. In a tertiary care facility such as the Post-Graduate Institute of Medical Education & Research, Chandigarh about 500 new patients are registered daily in the OPD, and ideally, each new patient requires about 15 to 30 minutes[58]. Super-specialty clinics in government hospitals are understaffed, underworked with high patient load. If there are an adequate number of Doctors to attend to the expected patient load, they can give adequate time and quality treatment to patients, which is the basic right of every patient. During the sample survey also, against the question of whether Government General Hospitals are overcrowded, 87% of the participants have replied yes. This shows the inadequacies in the District Hospitals in terms of the availability of the adequate number of Doctors available for the Outpatient Departments.

It is calculated by dividing the total number of OPD patients in a year by the number of OPD days and the total number of positioned Doctors. OPD per doctor = Total number of OPD patients in a year. An (allopathic + AYUSH) Number of positioned

[57] Ibid,ref.7
[58] Ibid,ref.7

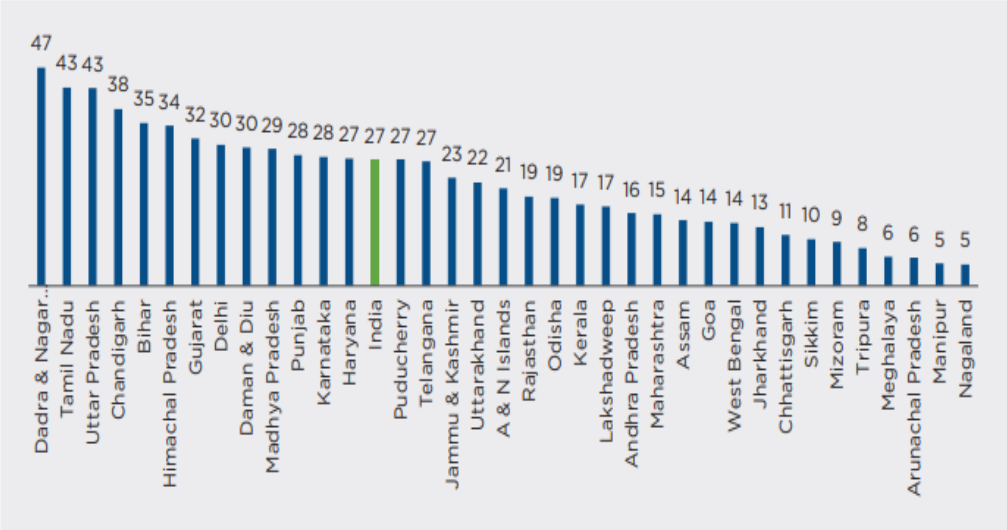
Doctors × OPD days in that year[59]. On an average, a doctor attends 27 OPD patients in a day in a district hospital in India. This average attendance is 28 in small hospitals of 200 bed size, mid-sized hospitals (201-300 beds) have an average of 27, and the large hospitals (with more than 300 beds) have the rate of a doctor attend to an average of 26 OPD patients in a day. The following table depicts how was the performance of 177 hospitals 177 out of 707 hospitals with more than or equal to 34 OPD patients per doctor in a day. None of the District Hospital from Andhra Pradesh has found a place in this category. Whereas, states like Uttar Pradesh (49.2%) had the highest proportion of hospitals with ≥34 OPD patients per doctor, followed by Tamil Nadu (12.4%), Bihar (7.3%), Karnataka (4.5%), and Delhi (3.4%). And even the smaller U.Ts like Andaman & Nicobar have found place among 177 high performing Districts in respect of 34 OPD patents category.

Figure:6.25 State/UT wise distribution of number of district hospitals (n=177) having Doctors attending to 34 or more OPD patients per day



[59] Ibid,ref.7

Figure:6.26 Average number of OPD patients per doctor in a day in a District hospital by state/UT[60].



Andhra Pradesh has been performing low even in the lesser categories of OPD patients per Doctor per day. In the category of 27 OPD patients per Doctor, which is the nation's average, the State could not achieve any impressive results but recorded lower performance of attending to only 16 OPD Patients. The same kind of lower rate is recorded for the 201-300 beds District Hospital category having reported the ratio of 23 OPD patients against the national average of 27 per Doctor per Day. In the >300 Beaded hospitals category, the performance has further deteriorated to 11 patients against the national average of 26 patients.

The above data evidence and sample survey supports that performance of the Doctors in Out Patient Department remains below the national average. Under-utilization of the manpower by the hospital administration is also evident from these results. This low level performance calls for appropriate policy action.

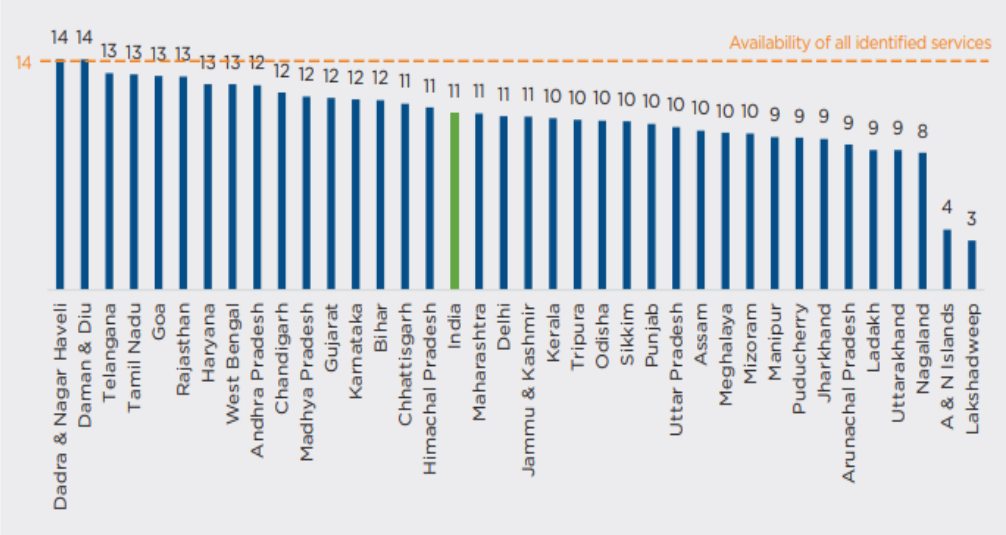
6.3.6.Lower Rate of Hospital Support Services:

The support services in health care indirectly help to achieve better outcomes in health care. They include HIS implemented in OPD, HIS implemented in IPD, HIS

[60] Ibid,ref.7

implemented in pharmacy, HIS implemented–complete HIS, Sterilization and Disinfection, Fully equipped blood bank, Waste management including biomedical waste, Medico-legal/ post-mortem Service, Hospital Transport Ambulance (Basic Life Support/ Advanced Life Support),Dietary services for patient, Electric supply (power generation and stabilization), Drugs and pharmacy, Water supply, Refrigeration etc. Their support contributes to proper patient care, complements the clinical services, and helps in improving the image of the District Hospitals' reliability, hygiene, safety, and comfort of health care environments. Though they work in the back end, their contribution to the overall care of a patient is not less than that of the clinical services. The IPHS (2012) prescribed the kind and number required for the support services for every size of district hospital. In practice, a district hospital in India has 11 support services on an average. A total of 89 district hospitals against the total 707 District Hospitals surveyed were found to have provision of all the 14 support services.

Figure:6.27 Average number of support services in a district hospital by State/UT[61]

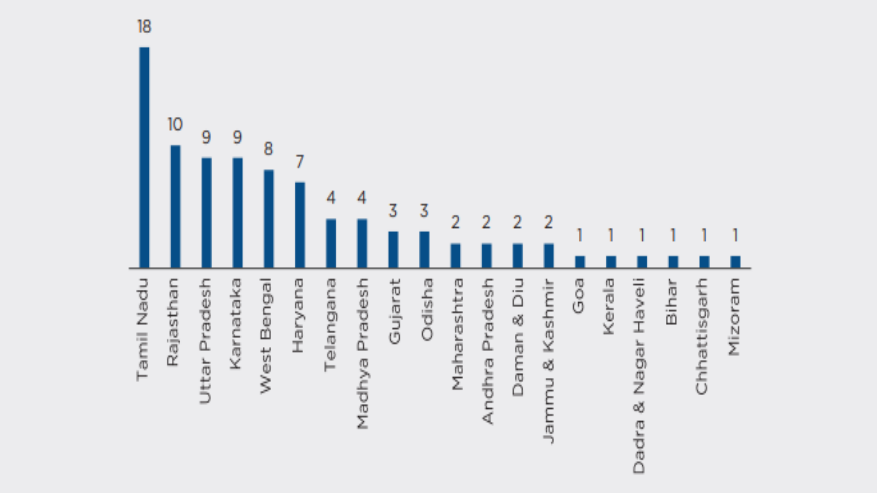


The following table depicts that a total of 89 hospitals in the country have fulfilled the criteria of having all support services available (based on available services/ total services score=1) Tamil Nadu had the highest proportion (20.2%) of hospitals with all

[61] Ibid,ref.7

support services, followed by Rajasthan (11.2%), Uttar Pradesh (10.1%), Karnataka (10.1%), and West Bengal (9%). Andhra Pradesh has just above this average with 12 supporting services in every district hospital in the State. It has only 2 district Hospitals with all supporting services lesser than that of the Orissa, Madhya Pradesh, Tamilnadu and Karnataka.

Figure:6.28 State/UT-wise distribution of the number of hospitals (n=89) with availability of all support services



During the sample survey, 69% of the participants have indicated that Government General Hospital maintaining its ambulance services, and 27% have said that the District Government General hospitals have no ambulance facility. A total of 39% of the participants have informed that they have paid an amount for the ambulance services while joining in the emergency condition in the Government hospital, and 58% have said that they had not paid any amount for the ambulance service. The reported position exists even after the Government of Andhra Pradesh gave higher preference to the Government ambulance services in the state. This requires a thorough understanding of the issue.

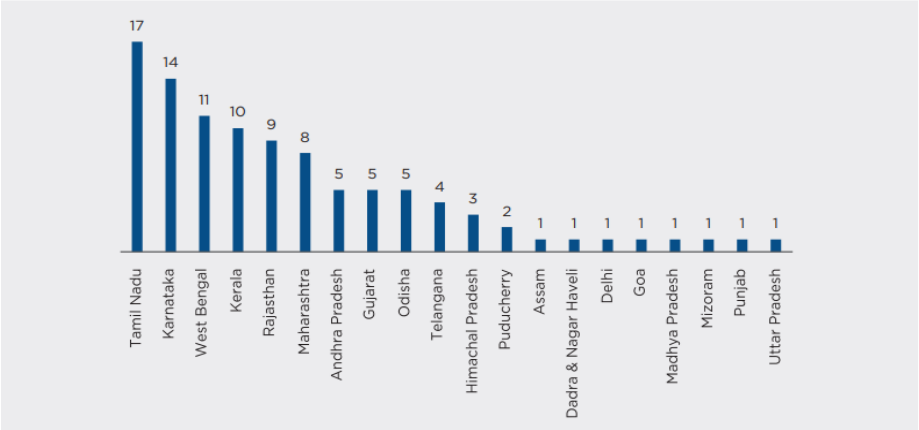
6.3.7. Availability of core health care services

The core health care services include General Medicine, General Surgery, Obstetrics & Gynaecology, Pediatrics' including, Emergency (accident & other

emergency) ,Casualty 24X7 basis, Critical Care (ICU). Anaesthesia, Ophthalmology, ENT, Dermatology and Venereology (Skin & VD) RTI / STI, Orthopaedics, Dental care, Public Health Management, Radiology etc. Each health care specialty at a hospital has its own role and significance in delivering patient care. The philosophy of the critical care is that the critical care services focus on resuscitating unstable patients and allowing time for recovery or the effect of specific therapies to improve outcomes and prevent death. Any hospital care department efficiency and for that matter its relevance of existence is mostly dependent upon the emergency services for providing medical and surgical provisions for the patients in need of immediate care and attention. It serves as the first point of contact for many patients. Government General Hospitals are expected to remains open all round the clock and never deny admission to a patient. A hospital providing all specialties gives the patient an opportunity to receive a wider range of expert inputs under one roof, all of which combine to create a course of treatment that will offer the best outcome.

In the country, total 101 district hospitals were found to have provision of all 14 core health care services. On average, a district hospital in India has 10 core health care services[62].

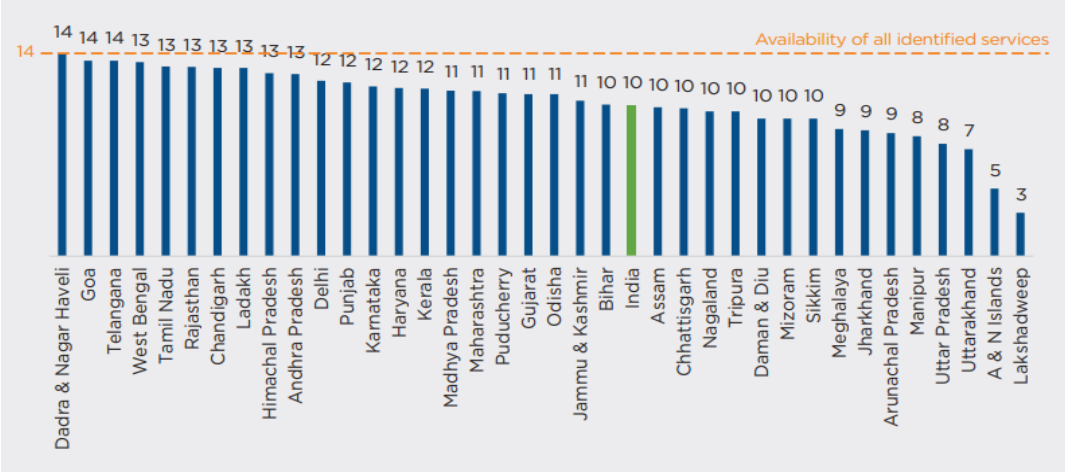
Figure:6.29 State/UT-wise distribution of number of hospitals (n=101) with all 14 functional core health care services



[62] Ibid,ref.7

The above figure shows Tamil Nadu had the highest proportion (16.8%; 17/101) of hospitals with all functional specialties, followed by Karnataka (13.9%; 14/101), West Bengal (10.9; 11/101%), and Kerala (9.9%; 10/101). Andhra Pradesh has found place at 7th position having 8 % of hospitals in this category, and left with more scope for improvement. The following table indicates, the District Hospitals in Andhra Pradesh has average 13 number of core health care services. And the U.T of Dadra and Nagar Haveli tops the list having in its district hospitals availability of total 14 core health services.

Figure:6.30 State/UT-wise average number of available core health care services in a district hospital[63]



Availability of services become meaningful and fruitful when they able to deliver prompt and better outcomes to the satisfaction of the patient. During the sample survey, 52% of the participants, who even though reported increased availability of necessary infrastructure facilities and super specialty services in the Government General Hospitals, have indicated that they prefer Private hospitals for emergency operations. This indicates the underlying negative perceptions, more often driven by personnel experience, persist among the great amount of the general public about the District Hospitals' performance. With the rapid improvements taking place in the private sector, the public has started comparing government services with private one and health care is one of such important areas of comparison. 80% of the participants of the sample survey have opined that the number of super-specialty services is limited in

[63] Ibid,ref.7

Government General Hospital, time-taking, and needs to be improved. 19% of them have indicated that the public does not have the interest to take super specialty services in Government hospitals. This indicates the requirement of taking measures for improvement of core services not only in terms of number but also the quality of these services in the District Hospitals. There is a need to examine why the improvement in the number of services is not turning into improved outcomes, and high patient satisfaction.

6.3.8. Availability of Diagnostic Testing Services

Diagnostic testing is generally performed to detect and monitor disease. It has been recognised that early and proper treatment depends on establishing a correct and accurate diagnosis. This is often aided by the laboratory, radiology, and imaging services. They have the potential to change the pre-test probability of disease into a post-test certainty that is more definitive[64]. A District Hospital is expected to maintain at least 14 diagnostic tests of Urine Analysis, Stool Analysis, PAP smear, Sputum, Hematology, Microbiology, Serology, Biochemistry, Cardiac Investigations, Ophthalmology, ENT., Radiology, Endoscopy, Physiology (Pulmonary function test). The critical importance of the diagnostic services could be understood from the fact that about 60–70 percent of medical treatments are based on laboratory diagnostic tests, thus making it one of the most indispensable segments of health service delivery[65]. But, most public hospital laboratories, the diagnostic centers are running short of adequate equipotent, up-to-date technology, and manpower. This condition adversely affects the efficiency and operation of the hospital by delaying the treatment procedure, inhibiting the continuity of the treatment, and restricting the treatment capacity of the medical practitioners, chances of judgmental errors on the condition of the patients due to the absence of proper diagnostics, treatment outcomes, unfruitful utilization and delivery of full capacity of the

[64] Ibid,ref.7

[65]

medical practitioners. Further, the lack of diagnostic testing services leads to high out-of-pocket expenditure by the patient.

In-spite of having huge importance for proper and effective health care service delivery, these services have been reeling under shortages. Following table shows that on average, a district hospital in the country has 9 diagnostic testing services, while large district hospitals have an average of 11 services. A total of 21 hospitals belonging to the States/UTs in the country have fulfilled the criteria of having all functional diagnostic testing services available. Telangana had the highest and average 14 number of diagnostic services in all districts followed by Goa (13), and Andhra Pradesh (12) higher than the national average of 9 facilities and occupies the third position in the country.

Figure:6.31 State/UT-wise average number of available diagnostic testing services in a district hospital[66]

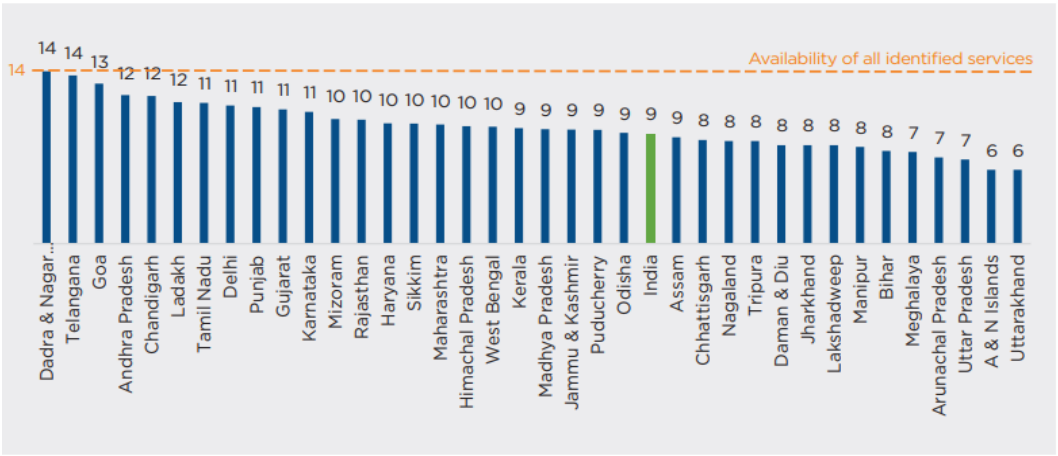
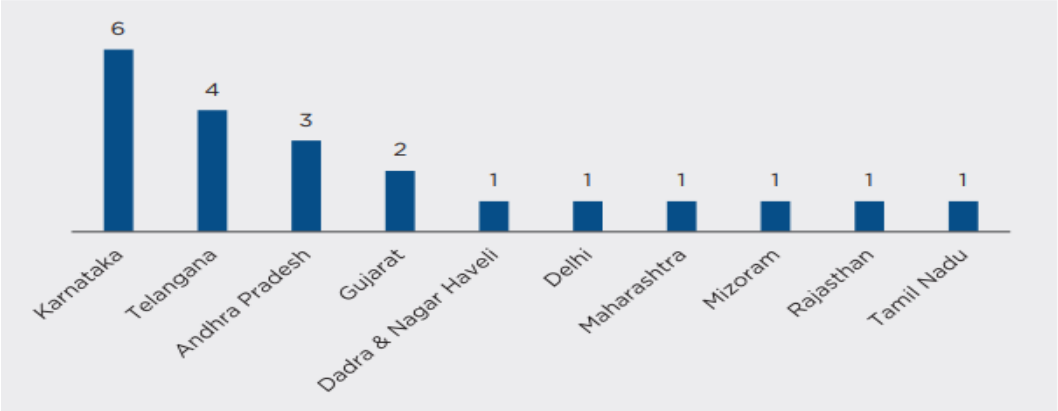


Figure:6.32 State/UT-wise distribution of number of district hospitals (n=21) with all 14 functional diagnostic testing services available[67]

[66] Ibid,ref.7
[67] Ibid,ref.7



Of the 15 District Hospitals, only three Districts from Andhra Pradesh have all 14 diagnostic testing services. It is observed from the sample survey results that the availability of adequate number and modern diagnostic services, and the functional condition of the available services have a major bearing on the public tilting more towards private health care.

6.3.9. Availability of Human Resources:

It is the human resources that operate the patients while using available material resources efficiently and effectively. It is their skill and competency that can overcome the limitations imposed by the absence of availability of material and achieves intended outcomes successfully. Health care service is a manpower-intensive area and requires a highly competent, skilled, and committed specialist to deal with any kind of disease. The public health delivery system has more demand for competent manpower to provide effective and efficient health services to the people. It is found that the quality of hospital care is influenced by the number of medical staff available. Studies have indicated that hospitals with lower than expected mortality rates had on average 24% more nurses, as well as 44% more Doctors, per bed than those with the highest rates.[68]

6.3.10. Positioned Doctors:

[68] Merrifield, N. (2015). Higher ratio of nurses per hospital bed linked to fewer patient deaths.

The Indian Public Health Standards, 2012 has indicated the following norms of Doctor per number of Beds Capacity for the District Hospitals in the Country[69].

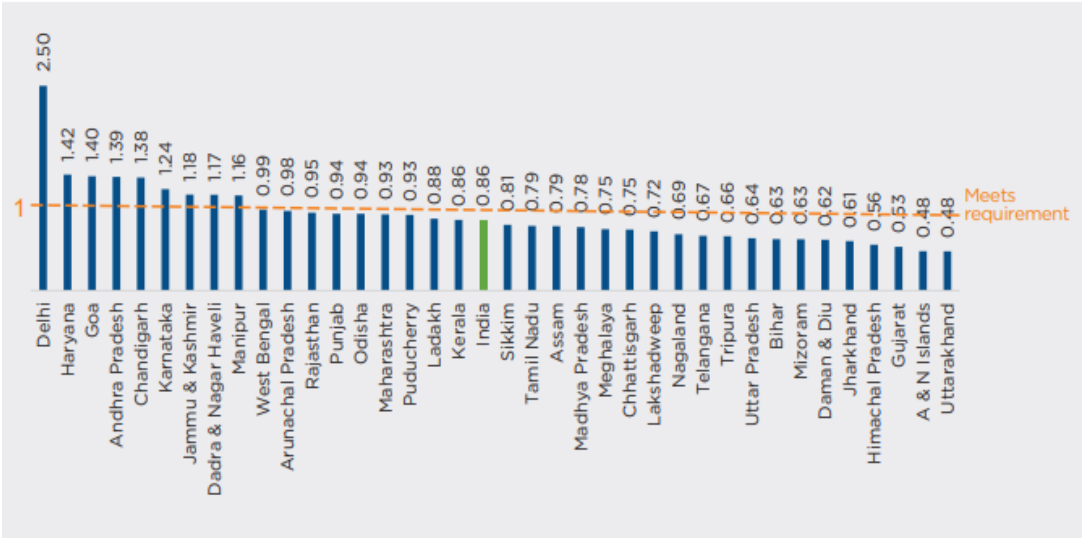
Table:6.2 Doctor and Bed Ratio

Cadre	100 Beds	200 Beds	300 Beds	400 Beds	500 Beds
Doctors	29	34	50	58	8
Staff Nurse	45	90	135	180	25
Paramedical	31	42	66	81	00
Total Strength	105	166	251	319	93

The NCD Monitoring Survey-2017 has found that nearly 7% of DHs had no MBBS duty doctor and slightly more than 50% of public secondary care facilities had a doctor from alternative systems of medicine. General Duty Medical Officers in the District Hospital was 93.4 % but Trained 15.8%. In respect of Specialist Medical Officers under Medicine: 79.4% Trained was 16.4 %; Surgery- 88.4 %, trained was 11.3 %. Overall, 189 of 707 district hospitals were found to meet the doctor to bed ratio as per IPHS norms (based on positioned Doctors / IPHS norm as per bed category ≥ 1). Uttar Pradesh had the highest proportion (12.7%) of Doctors in position at district hospitals meeting IPHS norms, followed by Karnataka (9.5%), Delhi (8.5%), Haryana (8.5%), and Jammu and Kashmir (5.8%). However, looking at the percentage of hospitals in each State/UT that meet the IPHS norm, only Chandigarh, Dadra, Nagar Haveli, and Goa had all district hospitals fulfilling IPHS norms for positioned Doctors.

Figure:33. State/UT-wise average ratio of Doctors across hospitals in position to the IPHS norms

[69] Ibid,ref.7



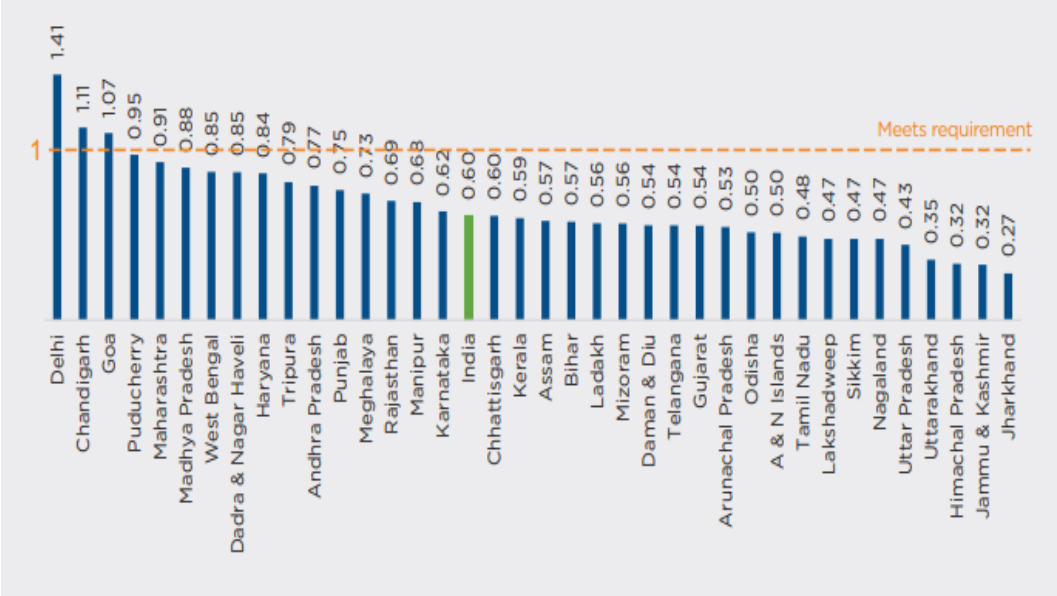
As far as Andhra Pradesh is concerned, it scores 1.39 Doctors positioned for a district hospital which is higher than the national average of 0.86. But this number is not reflecting the actual position of every District hospital unlike Chandigarh, Dadra, and Nagar Haveli, Goa. Against the norm of 50 Doctors for 300 beds hospital category, Andhra Pradesh has an average of 0.8 Doctors slightly above the national average of 0.77 but below the IPHS standard. In the case of a Hospital size of up to 400 beds, the average Doctor availability is 0.64 then the national average of 0.86. In the 400+ Beds Hospital only, Andhra Pradesh has more number of Doctors wherein 220 Doctors are positioned higher than the national average of 129 and the IPHS Norm. These different ratios indicate uneven distribution and availability of Doctors and specialist care among the different sized District Hospitals. The Sample survey participants have revealed that the lack of availability of trained and super specialty service Doctors is one of the reasons for their dissatisfaction with the Government General Hospitals. Shortage of positioned Doctors indicated in the form of crowded Patients, low level of time allotment for patient care, low tolerance levels, behavioral problems, etc. In the sample survey, 39% of participants have felt that Doctors do not spend sufficient time discussing their health problems. And 22% of the participants remain silent to the question without offering any

answer. These experiences are the outcome of the uneven and under positioning of the Doctors in the district Hospitals.

6.3.11. Positioned Staff Nurses:

Staff Nurses form an indistinguishable component of health care in any hospital. They do direct patient care and attend special technical duties in operation theatres, intensive care units, highly dependent units, etc. As found by various Studies, an appropriate size of nurse staff contributes to achieving clinical and economic improvements in inpatient health care. They are an important link in making health care satisfactory and attracting the patients to the Hospital for their every health need.

Figure: 6.34. State/UT-wise average ratio of nurses across hospitals in position to the IPHS norms



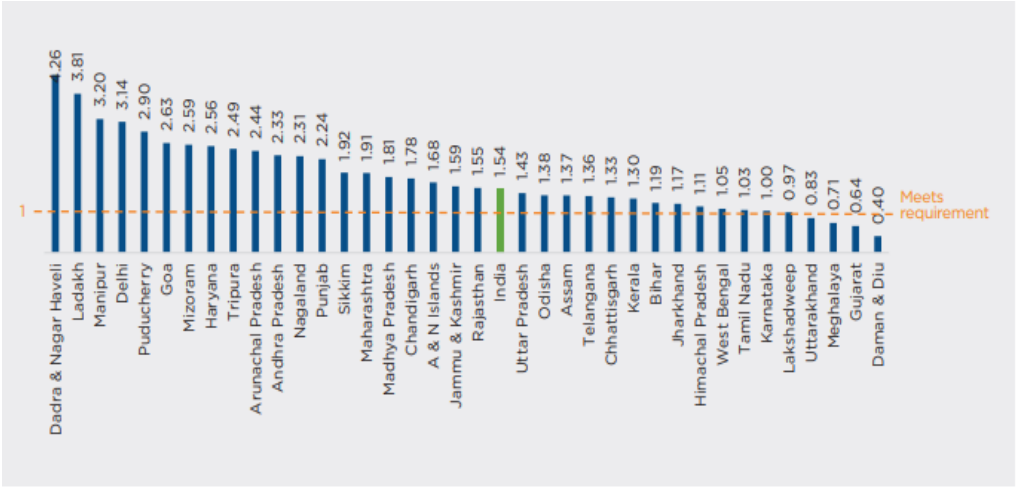
In the case of positioned Staff Nurses, a total of 88 hospitals were found to have a ratio of nurses in position as per IPHS norms (based on positioned nurses / IPHS norm as per bed category ≥ 1). Madhya Pradesh had the highest proportion (14.8%) of such hospitals, followed by Delhi (12.5%), and Uttar Pradesh (11.4%). All district hospitals in Chandigarh and Goa met the IPHS requirement.

Andhra Pradesh has 0.45 positioned Staff Nurses against 0.58 of the National average for 300 Bed District Hospitals. The ratio is 0.49 against the national average of 0.57 for the 400-bed sized hospital. The Ratio is 1.18 against the national average of 0.79 for the 400+ sized district Hospitals. This distribution of positioned Staff Nurses resembles the positioned Doctors with similar kinds of outcomes and implications on the public health care service delivery in the district hospitals.

6.3.12. Paramedics:

Paramedics is an immediate response mechanism and arrangement who conduct assessment of life threats and initiate care to stabilize the patient prior to and during transportation to the hospital emergency department[70]. They are part of the emergency medical services, most often work in ambulances. These staff contributes to reducing response time for any medical emergency and can, therefore, result in improved outcomes, decreased morbidity and mortality, and better quality of care for patients. Almost all the diagnostic procedures are carried out by the paramedical staff and they have emerged a vital cog in the wheel of the health care delivery system.

Figure:6.35 State/UT-wise average ratio of paramedical staff across hospitals in position to the IPHS norms[71].



[70] Ibid,ref.7
[71] Ibid,ref.7

The above figure indicates that almost all the states have fulfilled the ratio required as per the IPHS norms. Andhra Pradesh has 2.33 paramedics per District Hospital. However, there is inter-hospital variation in the ratio in Andhra Pradesh. The ratio is 1.03 against 1.36 of the National Average for 300 Bed sized District hospitals, 1.39 paramedics against 1.39 of the National average for 400 Bed hospitals, and 4 against 1.63 paramedics for 400+ bed size hospitals.

In the sample survey, 27% has said that Government General Hospital has no ambulance facility. And 39% of people had said they paid for ambulance service while joining District Hospital in an emergency condition. Both indicate a shortage of facilities concerning the demand. The same could be inferred from the lower level of positioned paramedics in the 300 bed-sized and 400 bed-sized hospitals.

From the above discussion, it is evident that the positioned Doctors, Staff Nurses, and Paramedics have unevenly distributed among different-sized district hospitals in the country in general and in Andhra Pradesh in particular. The majority of them have concentrated in the 400+ bed-sized hospitals. As already discussed in the Positioned Doctors section above, uneven distribution and under-availability of positioned manpower are acting against the District Hospital in fulfilling its public health commitments to the people in the country and Andhra Pradesh.

The following figure shows that Andhra Pradesh has achieved mixed and only moderate progress in fulfilling the IPHS norms of positioned manpower. Among the total 14 District Hospitals assessed in the State, only 7 hospitals (50%) have met the standard of having positioned Doctors, only 3 hospitals(21.43) hospitals have positioned staff nurses and only 8 hospitals (57.14) have positioned paramedical staff. The sample survey

results are also supporting the Low performance of the shortages in the District Hospitals in Andhra Pradesh.

6.4. Impact of the shortages existed in the District Hospitals in The Country and State

The IPHS stipulates that the District Hospitals should provide comprehensive health care treatment for both inpatient and outpatient ailments. Whereas, the following table depicts that the Government share in health care was reduced in nine states during the period of the 60th round to 71st round of the National Sample Survey. There was-a 6.85% reduction in the share in Andhra Pradesh during this period of 2004-2014. And in the remaining States, the public health share was on the increase.

6.4.1. Low Preparedness of Primary and Secondary Health Facilities in India in Addressing Major Non-Communicable Diseases

The Major Findings of the National Non-Communicable Diseases Monitoring Survey-2017 indicates that secondary and tertiary care in the country has underprepared for efficiently addressing the prevalence of the Non-communicable Diseases in the Country and their effective cure. According to the National Non-communicable Diseases Monitoring Survey-2017[72] (TNNCDMS0 in-spite of the National Programme for CDCs was being implemented in the majority of the District Hospitals (86.8%) in the Country no major differences were noted on any of the indicators between Implementing and non-implementing districts of NPCDCS. This indicates underlying and inherent shortages confronting the District Hospital service delivery mechanism, and health sector management.

[72] A national-level community-based cross-sectional survey conducted from the period October 2017 to April 2018, This is the first nationally representative health facility survey that assessed the preparedness of public and private primary and public secondary care facilities in India to address the NCDs as part of the global and national NCD monitoring framework.

Lack of sufficient Medicines in District Hospitals required for treating Non-Communicable Diseases: Medicines are basic essentials for a curing a disease, and primary requirement than the technology like high end diagnostic tools. But, the District Hospitals have been suffering from the inadequacy of these basic essentials. For diabetes, essential medicines were available only in three-fourths of district hospitals. Metformin was available in 91% of Community Health Centres (CHSs), and District Hospitals (DHs). Insulin was available in nearly 82.7% DHs. The availability of essential technology was found higher than the availability of medicines in all Public Health facilities including the District Hospital. About half of the DHs had all essential technologies. Among the secondary public facilities, essential medicines were available only in 59% of NPCDCS implementing DHs. Amongst the NPCDCS implementing and non-implementing secondary public facilities, a nearly 9% difference in availability of technologies for DHs was observed.

Twelve Channel stress ECG treadmill machine was available only in 30.4% of the District Hospitals in the Country. The NPCDCS districts were 10–13% better equipped with the technology availability than non-implementing others, they lack availability of sufficient medicines for the CVDs.

The NNCDMS data reveals that only 14.5% of the DHs where NPCDCS was being implemented and 6.8% of other DHs were fully equipped to manage all the three major NCDs. The lack of availability of critical items required for curing the disease and saving the life of the patient shows the actual conditions of the District Hospitals and their level of preparedness to address the NCDs and CVDs. The Sample survey conducted for this study also found that inadequate infrastructure like fully equipped operation theatres, ICUs, etc are among the reasons for the dissatisfaction and underperformance of the District Hospitals, and causing the individuals to go for private health care. The shortage

of essential materials like medicines could not be resolved fully even since the days of the implementation of the First National Health Policy-1982. This phenomenon could be considered a direct outcome of not only the availability of financial resources but also the performance of the public health management system. The sample survey population has indicated the same scenario of lacking essential facilities in the District Hospitals as one of the reasons for the public to opt for private care incurring the high expenditure.

6.4.2. Outpatient Care:

There exist two scenarios in the district hospitals. Majority of the District Hospitals have the availability of the facilities and services like Pharmacy, Dental Care service, Obstetrics and Gynecology service, Urine Analysis service available, Anaesthesia service available, Emergency service available, Medico-legal/post mortem service ,and Ophthalmology service at the rate of more than 95% of the District Hospitals. This availability of services and facilities in the Government hospitals is also supported to some extent by the data collected for this study. 13(8%) of the survey participants have opined that in Government General Hospital, high quality treatment is available; 14(9%) opined availability of super specialty services like heart surgery, kidney transplantation etc; 42 (27%) felt availability of high quality services are available in the Government Hospital; 3(2%) have opined that the Doctors and Nurses take care; 14(9%) have opined that good infrastructure facilities like operation theatres, ICUs etc. are available; 6(4%) have felt that good environment and cleanliness is maintained; 7(5%) of Sample Population have felt that there is an immediate response by Hospital staff to the patient. In-spite of availability of the infrastructure on at-least on modest range, 45% of the Participants have explicitly mentioned their preference for private medical treatment if their financial resources permit them. This scenario indicates not only the lack of availability of facilities, but also lack of proper utilisation mechanism

that draws better and quality services while efficiently, effectively and economically using the created assets and facilities[73].

6.4.3. District Hospitals are attracting lesser inpatient in-spite of availability modest human resources and auxiliary services and facilities

On average, 756 new NCD patients per month in their outpatients at DHs. Only 75 patients were being admitted for NCDs per month in DHs. If the hospitalisation in private hospitals is observed, it is more in the Priate hospital than in the Public District Hospitals. Most district hospitals provided ambulatory (100.0%), in-patient (96.7%), and emergency services (93.7%). In terms of the range of services, 98.8% of DHs provided screening services for NCDs. Counselling services were offered at DHs (62.1%). Physiotherapy services were available at more than 75% of DHs, Laboratory services for major NCDs were near-universal for DHs(99.7%).But, still the hospitalisation rate is lower in the District hospitals[74].

6.4.4. The Share of Public health Care In Providing Secondary Health Care is Decreased In Andhra Pradesh:

Table 6.3. Hospitalized Care: Share of Public Healthcare Providers (in %)[75]

SlNo	State/UT	Rural			Urban		
		71st	60th	Diff	71st	60th	Diff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Karnatak	26.8	40.0	- 3.2	13	289	10.6
2	Maharashtra	19.2	28.7	-9.5	20	28.0	8.0
3	Gujarat	23.4	31.3	-7.9	23.3	26.1	-2.8
4	Jharkhand	39.6	46.6	-7.0	26.4	31.2	-4.8
5	M.P	53.5	58.5	-5.0	41.7	48.5	-6.8
6	***Andhra Pradesh***	***22.5***	***27.2***	***-4.7***	***21.8***	***35.8***	***-14.0***

[73] (NSSO 71st Round Same Data, Multiple Interpretations Nishant Jain, Alok Kumar, Sunil Nandraj, Kheya Melo Furtado) 2015.
[74] Ibid,ref.50.
[75] NSS 60th round (January–June 2004) and 71st round (January–June 2014), New Delhi; NSSO, Ministry of Statistics and Programme Implementation.

7	Chhattisgarh	49.4	53.5	-4.1	29.4	49.3	-19.9
8	H.P	75.8	78.1	-2.3	71.8	89.5	-17.7
9	W.B	77.2	78.6	-1.4	52.6	65.4	-12.8
10	Kerala	34.7	35.6	-0.9	33.3	34.6	-1.3
11	Tamil Nadu	40.4	40.8	-0.4	29.3	37.2	-7.9
12	Punjab	29.3	29.4	-0.1	30.2	26.4	3.8
13	Rajasthan	54.2	52.1	2.1	54.4	63.7	-9.3
14	Odisha	81.3	79.1	2.2	58	73.1	-15.1
15	J&K	93.9	91.3	2.6	85.4	86.5	-1.1
16	U.P	30.2	26.9	3.3	28.3	31.4	-3.1
17	Uttarakhand	50.8	43.1	7.7	39.7	34.2	5.5
18	Haryana	33.3	20.6	12.7	18.3	29.0	-10.7
19	Assam	89.2	74.2	15.0	51.5	55.4	-3.9
20	Bihar	42.6	14.4	28.2	38.8	21.5	1
21	Delhi		-	-	45	37.3	7.7
	All India	**41.9**	**41.7**	**0.2**	**32**	**38.2**	**-6.2**

Table.6.4. Share of Public Health Care Rural and Uran Areas.

Share of ailments treated in the outpatient department by sector and demography

	Rural		Urban	
	2014	2017-18	2014	2017-18
Public facilities	28.30%	32.50%	21.20%	26.20%
Private facilities	71.70%	67.50%	78.80%	73.80%

Share of ailments treated in the inpatient department by sector and demography

	Rural		Urban	
	2014	2017-18	2014	2017-18
Public facilities	42.00%	45.70%	32.00%	35.30%
Private facilities	58.00%	54.30%	68.00%	64.70%

Source: *NSS 71st and 75th rounds, NSSO, Ministry of Statistics and Programme Implementation*

The above table shows that the treatment share of public health facilities has been reduced not only in India, but also in Andhra Pradesh. During the two rounds of the 60th and 71st Survey period (2004-2014), the reduction for the Andhra Pradesh was from 27.2% to 22.5% in the Rural Sector, and 35.8 % to 21.8% in Urban Sector. The difference of decrease during the two survey periods between the rural and urban sectors was appx.10 points; more disturbing finding is that the public treatment share was

decreased more than threefold in urban areas compared to that of the rural sector[76]. This reduction implies an increased burden of diseases, lower resources allocation, lower provision of infrastructure, uneven distribution and underutilization of manpower, etc. The reduced share of the public health service provider is the result of the shortages and gaps that are discussed in the previous parts of this study. The sample survey results are also supporting this scenario.

During the period 2014-2018 also, a similar trend was continued. The above figures indicate that the share of public health facility treatment increased in outpatient and inpatient care during the period from 2014 to 2017-18 in both rural and urban sectors in the Country. For rural areas, the increase was from 28.30% to 32.50% in outpatient care, and from 42% to 45.70% in inpatient care. For the Urban areas, the increase in outpatient care was from 21.20% to 26.20%, and for inpatient care, the increase was from 32.00% to 35.30%. Correspondingly the share of the private facilities was reduced to 67.50% from 71.70% in Rural patient care, from 78.80% to 73.80% in urban areas. The same decrease was reported in the inpatient care for both Rural and Urban Areas with 58% to 54.30%, and 68.00% to 64.70% respectively. However, as revealed from the other literature sources, the overall improvement is not reflected in the individual state's performances. And Andhra Pradesh had recorded a negative improvement in the share of public health care in the district hospitals during the period 60th and 71st National Sample Survey corresponding to the period 2004 to 2014.

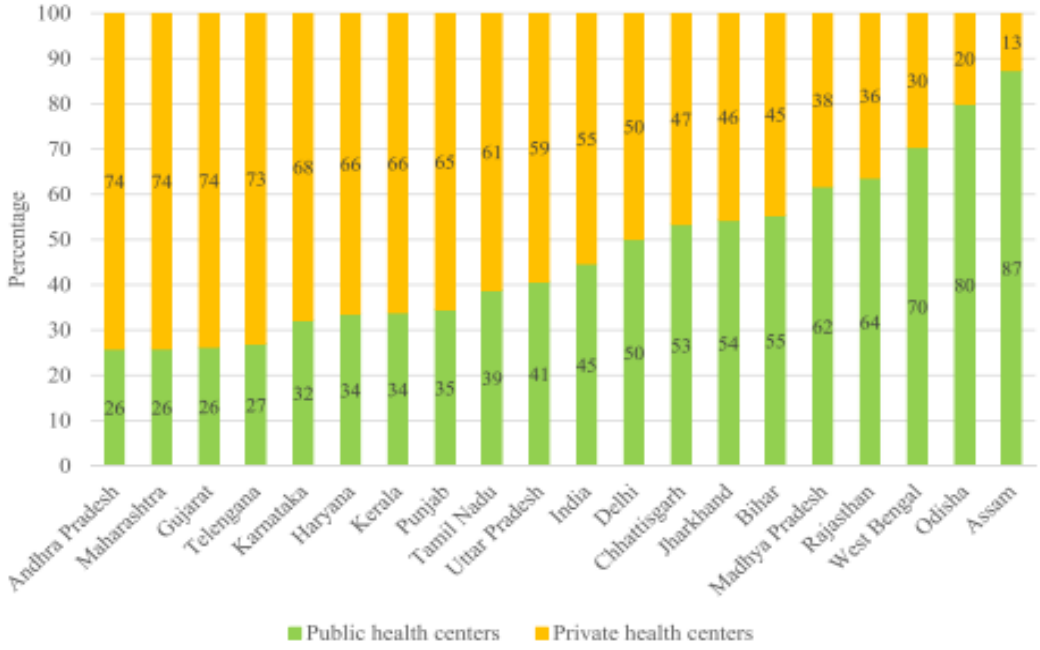
Further, during the sample survey, a total of 24% of the sample population has stated that they had never visited the Government General Hospital. 48% of them have said that Public health service providers have not been providing quality health services as being found in the private health facility.

[76] Ibid, ref.36

All the above scenarios and findings illustrate that Public health care in the District Hospitals is not up to the need, demand, and satisfaction of the public. This is the cause to the reduction in the share of the public health service provider in health service delivery in the country, and the State of Andhra Pradesh.

6.4.5. Hospitalization percentage is less in public health service facility compared to the private health facility

Figure: 6.36 Distribution of hospitalization in public and private health centers in major states of India-2014



The above figure shows the distribution of the percentage of hospitalization in public and private centers. The National average of the distribution is 45:55 between the public and private health centers. It was 26:74% in the case of Andhra Pradesh for the year 2014. The same scenario has been continuing in the country even after the implementation of the IPHS-2012, special programs for the National Program for Prevention of Non-communicable Diseases-2010, National Health Policy 2017.

6.4.6. Lower hospitalization rate in public health facility-higher out of pocket expenditure in private facility

The following table demonstrates individuals have preferred private hospitalization more than the public hospital even for normal diseases like fever, cataracts, diabetes, and hypertension. The data in the above table also suggests that the hospitalization rate is more in the private hospital, and the same is more the NCDs than CDs.

Table:6.5. Hospitalization rate per 100000 populations (during 365 days prior to the survey) by diseases and health care provider (public/private) in India, 2014[77].

	Hospitalization rate per 100000 population		
	Public	**Private**	**All**
Diarrhea	68	56	124
Fever	246	413	659
Cataract	41	84	125
Tuberculosis	32	18	50
Respiratory	28	48	76
Asthma	53	62	114
Hypertension	42	68	110
Diabetes	23	50	73
Jaundice	29	43	71
Gastro intestinal	135	269	404
Neurological	61	91	153
Musculoskeletal	56	118	175
Genito urinary	62	187	249
Injuries	178	233	411
Heart Diseases	106	189	295
Cancer	35	52	87
All Diseases	**1422**	**2278**	**3700**
CDs	607	806	1412
NCDs	386	755	1142
Injuries	178	233	411

One analysis from this data shows that lack of adequate facilities and services in Public hospitals as demonstrated in the previous paras has been making people more often resort to private hospitalization. On the other, the higher hospitalization rate indicates not only the higher satisfaction level of the patients towards the services and facilities available in that particular hospital, but also the higher rate of expenditure in the

[77] Disease-specific out-of-pocket and catastrophic health expenditure on hospitalization in India: Do Indian households face distress health financing? Anshul Kastor, Sanjay K. Mohanty,2017.

form of higher out-of-pocket expenditure, and catastrophic health expenditure by the patients which scenario will be discussed in subsequent paras.

Table:6.6. Mean spending on hospitalization, the amount reimbursed and out-of-pocket expenditure (in INR) and share of amount reimbursed to total health spending by disease in India, 2014[78].

Diseases	Total Spending on Hospitalization (Std. Err.)	Amount Reimbursed (Std. Err.)	OOPE (Std. Err.)	Reimbursed as a percentage of total health spending (Std. Err.)
Diarrhea	5640 (220)	167 (53)	5473 (214)	3.0 (0.207)
Fever	8708 (184)	422 (62)	8286 (171)	4.8 (0.896)
Cataract	10394 (436)	567 (104)	9827 (428)	5.5 (0.432)
Tuberculosis	13121 (888)	18 (24)	13104 (888)	0.1 (0.271)
Respiratory	14046 (755)	556 (181)	13490 (720)	4.0 (0.313)
Asthma	14851 (959)	1077 (232)	13774 (927)	7.3 (0.420)
Hypertension	14842 (1242)	536 (259)	14306 (1213)	3.6 (0.379)
Diabetes	15768 (790)	479 (145)	15290 (777)	3.0 (0.426)
Jaundice	18430 (1261)	636 (982)	17794 (1514)	3.5 (0.420)
Gastro intestinal	19633 (537)	1288 (143)	18345 (517)	6.6 (0.243)
Neurological	19616 (879)	969 (274)	18646 (822)	4.9 (0.300)
Musculoskeletal	24440 (1077)	1642 (374)	22798 (995)	6.7 (0.326)
Genito urinary	27150 (1476)	2807 (1248)	24343 (798)	10.3 (3.610)
Injuries	26361 (809)	1358 (208)	25003 (758)	5.1 (0.392)
Heart Diseases	43243 (1450)	2296 (352)	40947 (1406)	5.3 (0.471)
Cancer	62349 (4091)	5117 (1104)	57232 (3885)	8.2 (0.468)
All Diseases	**20370 (259)**	**1160 (103)**	**19210 (237)**	**5.7 (0.301)**
Communicable Diseases	11054 (188)	431 (67)	10623 (187)	3.9 (0.419)
NCDs	30661 (655)	2060 (309)	28601 (573)	6.7 (0.799)
Injuries	26361 (809)	1358 (208)	25003 (758)	5.1 (0.392)

[78] Disease-specific out-of-pocket and catastrophic health expenditure on hospitalization in India: Do Indian households face distress health financing? Anshul Kastor, Sanjay K. Mohanty,2017.

Table:6.7.Public-private differentials in mean spending on hospitalization, amount reimbursed and out-of-pocket expenditure (in INR)* and share of amount reimbursed to total health spending by disease in India[79], 2014.

Diseases	Total Spending		Amount Reimbursed		OOPE		Reimbursed as a percentag total health spending (St Err.)	
	Public (Std. Err.)	Private (Std. Err.)	Public (Std. Err.)	Private (Std. Err.)	Public (Std. Err.)	Private (Std. Err.)	Public (Std. Err.)	Private (Std. Err
Diarrhea	2219 (98)	9766 (461)	13 (12)	354 (127)	2205 (94)	9412 (450)	0.6 (0.136)	3.6 (0.455)
Fever	3185 (174)	11964 (278)	43 (12)	648 (106)	3142 (173)	11316 (254)	1.3 (0.305)	5.4 (1.525)
Cataract	2203 (173)	14313 (603)	12 (15)	838 (159)	2191 (172)	13475 (599)	0.5 (0.204)	5.9 (0.646)
Tuberculosis	6692 (552)	24178 (1987)	14 (12)	24 (60)	6678 (552)	24154 (1987)	0.2 (0.421)	0.1 (0.172)
Respiratory	8422 (775)	17283 (1134)	259 (177)	727 (281)	8163 (728)	16555 (1085)	3.1 (0.310)	4.2 (0.483)
Asthma	5117 (302)	23200 (1714)	23 (13)	1981 (433)	5095 (302)	21218 (1666)	0.4 (0.141)	8.5 (0.766)
Hypertension	4175 (741)	21354 (1978)	53 (28)	832 (436)	4122 (741)	20523 (1932)	1.3 (0.566)	3.9 (0.509)
Diabetes	5797 (736)	20404 (1082)	254 (258)	584 (176)	5544 (667)	19820 (1074)	4.4 (0.447)	2.9 (0.601)
Jaundice	13120 (2574)	21958 (1094)	50 (23)	1030 (1706)	13070 (2575)	20928 (1819)	0.4 (0.483)	4.7 (0.637)
Gastro intestinal	6847 (478)	26046 (770)	398 (172)	1736 (201)	6449 (420)	24311 (751)	5.8 (0.309)	6.7 (0.337)
Neurological	9908 (618)	26119 (1407)	19 (18)	1609 (470)	9889 (618)	24510 (1310)	0.2 (0.115)	6.2 (0.506)
Musculoskeletal	10069 (1107)	31290 (1530)	328 (251)	2269 (569)	9741 (1056)	29021 (1407)	3.3 (0.221)	7.3 (0.492)
Genito urinary	11949 (863)	32202 (2017)	486 (110)	3581 (1741)	11463 (853)	28622 (1044)	4.1 (0.407)	11.1 (5.029)
Injuries	8928 (400)	39568 (1342)	240 (95)	2209 (361)	8689 (380)	37359 (1257)	2.7 (0.360)	5.6 (0.636)
Heart Diseases	15837 (1132)	58605 (2139)	826 (403)	3126 (506)	15011 (1063)	55479 (2083)	5.2 (1.143)	5.3 (0.326)
Cancer	29131 (2432)	84321 (6555)	850 (362)	7946 (1837)	28281 (2407)	76375 (6229)	2.9 (0.508)	9.4 (0.705)
All Diseases	**7802 (196)**	**28154 (408)**	**219 (40)**	**1747 (172)**	**7583 (191)**	**26407 (370)**	**2.8 (0.123)**	**6.2 (0.499)**
Communicable Diseases	4513 (185)	15927 (298)	58 (15)	711 (123)	4455 (184)	15216 (299)	1.3 (0.146)	4.5 (0.762)
NCDs	12756 (468)	39783 (975)	454 (123)	2881 (478)	12301 (450)	36902 (845)	3.6 (0.329)	7.2 (1.234)
Injuries	8928 (400)	39568 (1342)	240 (95)	2209 (361)	8689 (380)	37359 (1257)	2.7 (0.360)	5.6 (0.636)

1 USD = 60.745 INR at 2014 exchange rates.

The above two tables indicates that the total spending on diseases is higher in the private hospital, and the amount reimbursed for private care was very insignificant to the spending. Still, individuals have preferred private care incurring the huge out-of-pocket expenditure. For diseases like Diarrhoea, an individual was spending in the year 2014 Rs. 9766/- while just Rs.354/- reimbursed. Spending in the Government Hospital for the

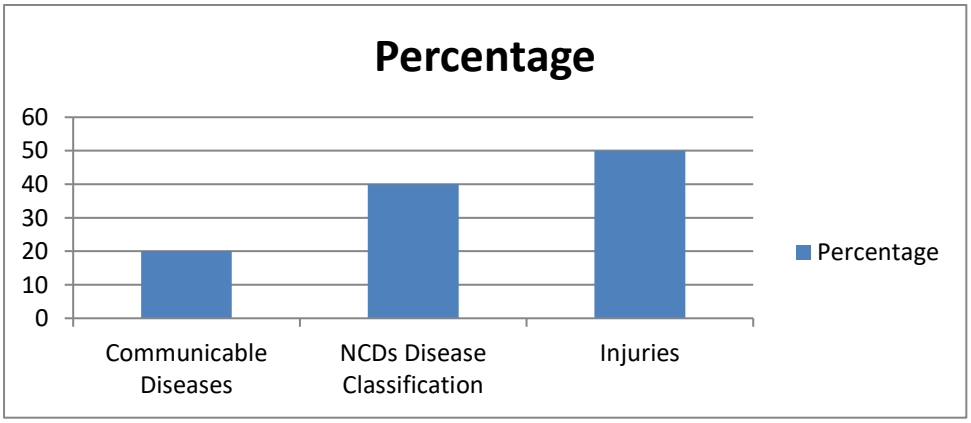
[79] Disease-specific out-of-pocket and catastrophic health expenditure on hospitalization in India: Do Indian households face distress health financing? Anshul Kastor, Sanjay K. Mohanty,2017.

same diseases was Rs. 2219/-. Despite 4 fold higher Out of Pocket spending on private hospitalization, 56 people for every One Lakh people had opted for a private hospital and only 68 had people preferred government hospitalization in respect of the Diarrhoea treatment[80].

All the gaps and shortages which have been persisting in the District Hospitals have culminated in the increased private hospitalization rate. As shown in the table below, this has further culminated in not only the high Out of Picket Expenditure but also the distress financing. The data from the below table indicates that the was 25.7 in the Public hospital and 36.7% in the private hospitalization in case of Non-communicable diseases in the country. Both the out-of-pocket expenditure and the Distress financing not only reflect the shortage in the services and facilities available in the Public health sector but also reflect the preferences, perceptions, and priorities of the individuals in health care which influences their decision about taking treatment in a particular health facility.

6.4.7. Higher catastrophic Health expenditure

Percentage of households incurring catastrophic health expenditure on hospitalization by communicable diseases, NCDs and injuries in India, 2014



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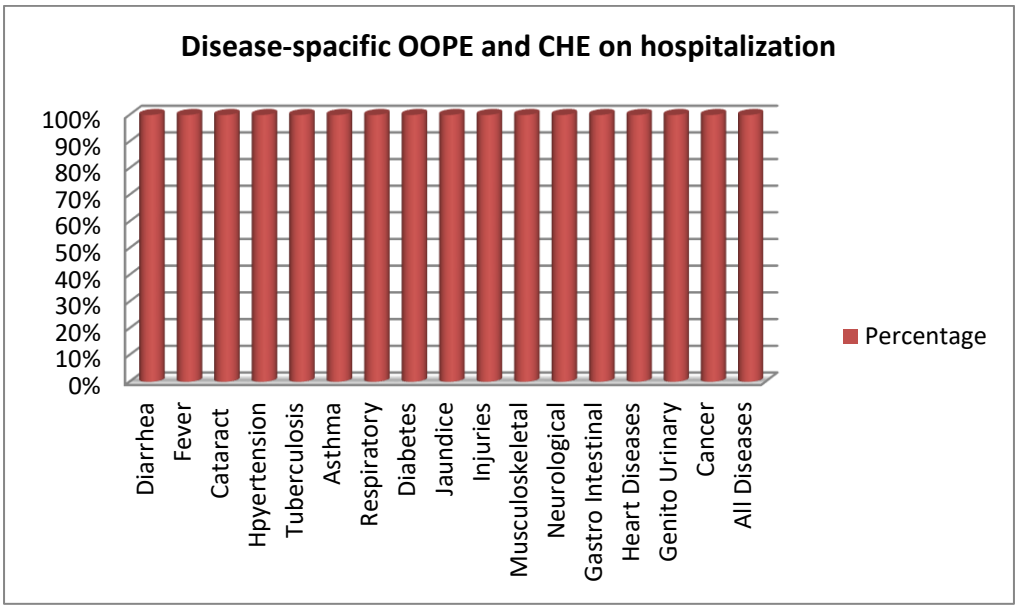
The above figure indicates that 40% of households incurring catastrophic health expenditure on hospitalization by NCDs and 50% by injuries in India, 2014.This expenditure has been forcing the patient into distress financing. The following figure indicates that there is 100% distribution of distress financing by catastrophic and non-catastrophic health spending for the diseases dominated by the Non-communicable diseases in India in 2014.

Figure:6.37 Percent distribution of distress financing by catastrophic and non-catastrophic health spending and type of disease in India, 2014



6.4.8. District hospitals are over burdened by catering different economic categories of public

The following tables describe how Non-poor is using the public health centers in the country. This is a cause of concern for the public health system planning and service delivery. District Hospitals have a very high load and demand on the limited and stressed resources. The poor and Below Poverty People have no other means for income to afford private treatment cost.

Table:6.8. Monthly per capital consumption expenditure mean age and percentage urban by poverty and type of health centers in India, 2014.

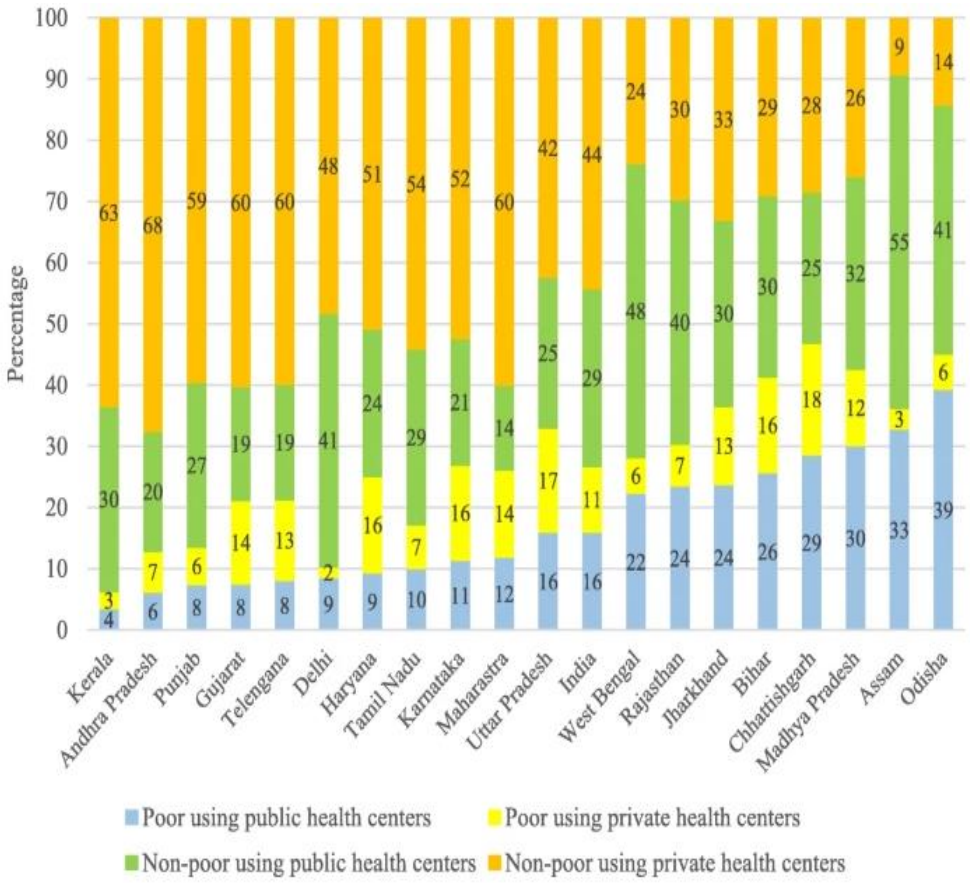
Parameters	Poor using Public health centers	Poor using Private health centers	Non-poor using Public health centers	Non-poor using Private health centers	India
Total Number of household	7,642	4,051	12,343	14,939	65,932
Total number of hospital	10,033	6,278	17,408	23,739	57,456
% residing in urban areas	23.97	35.12	20.68	37.46	29.98
Mean age	31	32	34	37	34
MPCE (in Indian rupees)	807	880	1654	2245	1625

Table 6.9. Percentage of population living below poverty line and hospitalization in public health centers in major states of India.

States	% of poor hospitalized in public health centers	% of non-poor hospitalized in public health centers	T statistic	% of people living below poverty line	Number of episode of hospitalization		
					Poor	Non-poor	All
Tamil Nadu	58.90	34.70	11.15	17.22	671	3118	3789
Jharkhand	65.13	48.03	6.21	36.57	432	758	1190
Telengana	38.35	23.92	6.81	21.34	257	1018	1275
Andhra Pradesh	48.66	22.45	10.05	12.91	368	2021	2389
Rajasthan	77.76	57.42	8.88	30.37	742	1888	2630
Kerala	56.76	32.31	9.17	6.31	257	2745	3002
Chhattisgarh	61.12	46.53	5.79	46.87	408	492	900
Karnataka	42.53	28.38	7.30	26.97	773	2059	2832
Maharashtra	45.89	18.77	17.35	26.16	1471	3538	5009
Madhya Pradesh	70.90	54.90	11.62	42.59	1292	1820	3112
Bihar	62.24	50.56	4.41	41.40	1016	1359	2375
Gujarat	35.71	23.67	5.99	21.17	594	2105	2699
Assam	90.71	85.50	5.23	36.24	619	1091	1710
Odisha	87.43	74.12	10.01	45.09	953	1159	2112

West Bengal	79.57	66.82	12.70	28.19	1318	3173	4491
Uttar Pradesh	48.60	36.79	7.84	33.02	2195	4244	6439
Haryana	37.51	32.21	3.84	25.10	331	942	1273
Delhi	83.10	46.27	5.52	10.70	85	785	870
Punjab	55.64	31.19	5.44	13.54	182	1146	1328
India	60.71	39.80	42.20	26.80	27439	30017	57456

Figure:6.38 Percentage of distribution of poor and non-poor hospitalized in public and private health centers in states of India, 2014



6.4.9. Increased Public health expenditure has not reduced the number of private care

Governments at the national and state level have been incurring regular budgeted expenditure on the public health care. The following table shows the year on year expenditure incurred by two levels of Governments on the public health.

Table 6.10. Government Expenditure on Healthcare (in Rs crore)

Year	Total Expenditure	Central Expenditure	State Expenditure
2005–06	34,769	11,640	23,129
2006–07	40,071	13,342	26,729
2007–08	47,788	17,252	30,536
2008–09	57,718	21,372	36,346
2009–10	71,895	27,147	44,748
2010–11	81,953	30,041	51,913
2011–12	92,711	33,307	59,404
2012–13	1,12,582	35,331	77,251
2013–14	1,23,908	36,656	87,252
2014–15	1,49,538	44,238	1,05,300

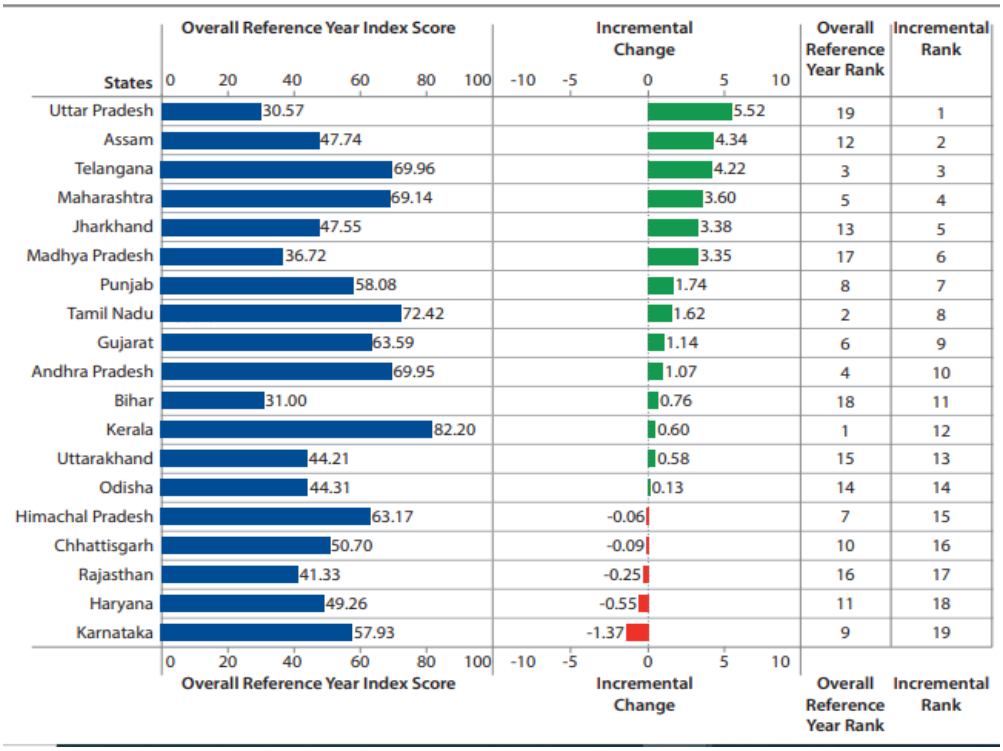
As would be seen from the above table, the expenditure on healthcare by governments at the national and state level has increased by more than four times in nominal terms, but the share of the patient load for hospitalized care in government facilities has remained practically static in rural areas (41.7% to 41.9%) and steadily declining in the urban areas (38.2% to 32%) between the 60th and the 71st round surveys. The share of public health facilities treatment in inpatient and outpatient departments has been reduced during the period of two surveys indicating that public health spending has been not matching the District Hospital Requirements in terms of human resource cost, infrastructure creation, and patient load etc.

6.4.10. Public Health Service facilities in the State of Andhra Pradesh suffering from structural deficiency

Public Health Service delivery in the District Hospitals mainly targets the poor and weaker sections of society. The National Rural Health Mission and the Nation Urban Health Mission have targeted the rural poor and urban poor respectively. It consciously kept aside the middle-income groups including lower-middle and upper-middle-class people while planning and designing the size and standards of public health service facilities. Even if these categories of people utilize Government hospital services, the standards and facilities available in the public health care units rarely satisfy this group of people. They usually compare the Public and Private Health facilities. Whereas the Government with a limited resource base and capacity could only take up incremental development despite the huge impact this incremental system does have on the immediate needs of the public and public health system. On the other hand, the middle-class people who visit private hospitals are being caught in the vicious circle of out-of-pocket health expenditure.

The District Hospitals being the Public facility are not authorized to collect charges towards the delivery of service to the Non-Poor and Non-BPL persons. Though there is no wrong in the Public health facilities catering to Non-poor and Non-BPL persons, the meager and limited resources make things worse without rendering any standard and quality treatment for any section of the people. Therefore, there is a paradoxical situation in Public health care in general, and in District hospitals in particular in the country that the facilities available in district hospitals are neither sufficient for the poor nor up to the quality and service standards that suit middle and non-poor categories in society.

Figure:6.39. Larger States: Overall Reference Year (2019-20) Index Scores and Incremental Change from Base Year (2018-19) to Reference Year (2019-20), with Overall Reference Year and Incremental Ranks[81]



The above Figure shows that in Andhra Pradesh Overall Reference Year Index Score was 69.95 with Incremental Change of just 1.07. It achieved Overall Reference Year Rank 4 and Incremental Rank 10. This indicates not so improvement in the key aspects of health performance during the year 2019-20.

6.4.11. Conclusion

The reveal that despite efforts by the Governments at the Central and State level in the Country, the District Hospitals have been facing challenges in delivering secondary and tertiary care as envisaged in the Indian Public Health Standards, National Health Policy, 2017, and the expectations of the public. In spite the Public Partnership Model was introduced long back during the Liberalisation, Privatisation period in the 1990s in the country, this model was used in a very limited scope in the public health care service delivery in the country including of Andhra Pradesh which was considered as one of the

[81] Helath Index Round IV-2019-20, NITI Aayog.

pioneering states in promoting the Public-Private Partnership Model in the Country. And, considering the burden of Out of pocket Expenditure, Catastrophic cost, and Distress financing in the health care service delivery in the country, profit motive partnership causes unintended consequences in the health sector. Hence, it is required that the Public-Private Partnership model which delivers secondary and tertiary health care with quality, efficiency, and effectiveness on an economical and self-sustained basis.

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CHAPTER-7

RECOMMENDATIONS AND CONCLUSION

7.1. Introduction

Where one million Indians die every year due to inadequate healthcare facilities and 700 million people had no access to specialist care (The Working Group Document, 2012-2017), the Public Health Care Service Delivery System in India requires a well thought and action in planning and structuring the Country's public health care delivery system and that facility aim at providing sound, quality, need-based, individual-centric services. In such a system, every individual can make choices and selects such facility and service that suits best that individual and without compromising in any respect of that decision.

The Public Health Care Delivery System of India remains neither developed, diversified, dedicated nor an underdeveloped, unsolicited, and uncalled public health system. It remained a mediocre public health service delivery system self-satisfied with the existing structures and systems passively and unenthusiastically responding to the disease burden fallen on the country, and individuals. It is yet to fully equip itself with adequate men, material, and technological advancements to satisfactorily cater to every single individual who approaches public health facilities. When the Country has been undergoing a gradual and higher epidemiological transition phase inflicting the public and the public health systems with the burden of increased Non-communicable Diseases and lifestyle diseases, the public health care system is still in the slow process of gearing itself to acquire the required specialties in terms of skilled manpower, infrastructure, and technological tools and positioning them at right and appropriate places.

The Indian Public Health system is not diversified into different service providers but bi-polarized with Government and private sectors dominating the area without giving scope for suitable their party. The Public-Private Partnership Model has successfully experimented in other areas in the country but the health sector is not a signification participant in these experiments. When, there is generated sufficient evidence that private health care is the major contributor to Out-of-Pocket Expenditure, Catastrophic Health Expenditure, and distress financing in the Country, the Government requires a different kind of stakeholder to accommodate in the Public-Private partnership model. But, so far, any effective and suitable model of such partnership emerged to fill the gap left by the increasing withdrawal of the public share in the health care service delivery in the country.

Further, the District hospitals which have limited resources in terms of finance, infrastructure, and skilled manpower at their disposal are also lacking rightly defined and targeted beneficiaries. These public health facilities are in theory made to attend to every patient, and this principle often made the under-resourced public hospitals compromise the quality and care of their services. The lower and middle-income groups' have a good share of the utilization of the public health care facilities but are at a low level of satisfaction with the services received, but they have very often and unduly exploited by the high out-of-pocket expenditure, catastrophic expenditure, and distress financing due to private health care expenditure. They require a different set of health care service delivery that addresses their needs and resources. These people being the lower and upper-middle-class people is a larger segment being suffered by both public and private health care service delivery system in the country today? The public health system is not in a position to charge affordable and economical rates for the services it provided to affordable income groups, unlike Below the Poverty line group. The public Health care

system has stood on the empty road neither fully serving the poor nor satisfying the middle-class. It just remained as an unsolicited servant loaded with an unregretful burden of functions. The District Hospital is a typical example of the public health care service delivery system in the country today.

With the above background, the following recommendations are suggested for policy contemplation:

7.2. **Public-Private Partnership based hospital care**

The Public-Private Partnership Model has the qualities of high skill, economical and efficient service delivery, and technological advantage coupled with managerial flexibility. These are essential for the success of any function, and the same kind of specialties is very required for public health service delivery. Despite the considerable amount of budget that has been spent on the creation of infrastructure facilities, engaged the good number of manpower and specialist to attend medical functions, the outcome of the public health sector is lagging behind even its standards set up by the Government, and policy targets. There has been more un-satisfaction among the public against the performance of Public health care delivery and its outcomes. On the other hand, Public-Private Partnership has a proven record in the country in producing better and more effective results with economical usage of resources.

7.3. **Non-profit public-private partnership based health care service facility**

The public health care service delivery system requires Public-Private Partnership Model for achieving better results. But, the private partner needs special characteristics to participate in the public health system. The majority of the people who belong to the poor and middle-class sections of society have been under a load of out-of-pocket expenditure, catastrophic expenditure, and distress financing. Government has the responsibility to reduce these adverse outcomes. A profit motive partnership escalates these regressive

forces even though the Public authority is a partner of this Model. Hence, a Non-Profit Organization that shares a similar and near-value system to Public Systems could be a suitable substitute to render services to the public. This will reduce if not eliminate the out-of-pocket expenditure kind of burdens, also the quality of services would be provided at a low cost which would be lesser than the private expenditure. Non-profit organization Public-Private Partnership would be a via-media solution for quality services at an economical cost for all sections of the people. Philanthropic, charitable, and religious organizations could also enter into the partnership for service motive-driven health care service delivery.

7.4. **Cost-based public-private health care service delivery mechanism**

Health care is a money-intensive endeavor. The lack of sufficient financial resources with the Public Authorities is the major reason for most of the gaps discussed in this study. Even Non-Governmental Organisations need to ensure certain amounts on the men and material to give assured and continued services assured under the partnership. The financial support and resources being provided to the public hospitals are not able to fully meet the needs, load, and expected and preferred quality of services by the public facility. Further, there is some segment of people who pay in token of quality and personalized services. They may be reasonably charged for utilizing the PPP Hospital services. It generates assured money for the PPP Hospital which in turn could provide more personnel services to the satisfaction of the patient. Since, it is not a forced and universal practice, an individual who would like to utilize that PPP facility only needs to pay a pre-decided cost towards the services he needs from the PPP facility.

7.5. **Provision for claiming insurance-based health service in the non-profit public-private model hospital**

Government at the National and State level are providing health insurance protection for the poor and economically weaker sections. And private health insurance is in increasing demand. The Non-Profit Based Public-Private Partnership Model Hospital should have the scope for entertaining both Government insurance and private insurance-based health care.

7.6. **Provision of application of consumer protection act to the new model hospital**

The Consumer Protection Act, of 1986 is not applicable for the majority of the cases of medical negligence in Public health facilities. Since the Non-Profit Based Public-Private Partnership Model Hospital is proposed to provide services by charging the cost for services, it would now be possible to claim medical negligence from this PPP Hospital. A specific provision could be incorporated into the Partnership Document to this extent.

7.7. **Government-sponsored health schemes to be implemented as being implemented in the private referral hospital at present**

The government has been providing secondary and tertiary health services to a certain section of the people like Employees, and BPL families by buying the service from the private health facility. In this process, huge amounts are paid towards expenditure in the impaneled private hospitals. Now, the PPP Hospital could participate in this scheme like other private hospitals, and get reimbursed the cost from the Government. Since the cost of treatment is set comparatively lower than the private hospital, the Government would be benefitted to this extent.

7.8. A regulatory authority to decide the cost of each treatment and monitoring over the non-profit public-private model health system

At present, there is no independent external regulatory mechanism in India like the Insurance Regulatory And Development Authority of India (IRDAI) to regulate the rates

and cost of health care in the country. Since PPP Hospitals are expected to provide paid services, a Regulatory Authority needs to decide and monitor the prices of different services in the PPP Hospital and act as a grievance redressal mechanism against any deviation from the established norms and standards of health care by the PPP Hospital.

7.9. Financial management should be left with the PPP Hospital which is accountable for the regulatory authority

Government should have very limited or no role in the Financial management of the PPP Hospital. Once Rates are decided in consultation with the proposed Regulatory authority, the PPP Hospital should have complete functional freedom in the utilization of the financial resources. A strong and sound audit system needs to be established in the Hospital to ensure accountability and transparency in the execution of the Hospital functions.

7.10 **Participation of Government Doctors and Nurses in PPP Health Facility**

The non-profit PPP-health facility can have a provision of case-wise payment system for the doctors and nurses in case of surgeries. The medical staff and specialists who are working in the public health care system need to be allowed to work in the PPP-based health system on a deputation/foreign terms basis.

7.10. Special Role to District Hospital

The District Hospitals concentrate on the poor and marginalized sections, primary health care, and government schemes and programs in a full-fledged manner including primary, secondary, and tertiary care. All Expert bodies including the High-Level Expert Group (HLEG) set up by the Planning Commission (2011) and the High-Level Group of Health Sector (2019) have observed that focusing on the prevention and early management of health problems can reduce the need for complicated specialist care provided at the tertiary level. It was recommended that the focus of healthcare provision

in the country should be on providing primary healthcare. This indicates the priority of health care. Therefore Government needs to utilize the resources for primary health care. However, there is an increasing burden due to NCDs with rising costs on the common man. This also requires immediate measures and alternative requirements which would not impose a burden on the stressed resources, but address the NCD problem without causing much cost to the common man.

7.11. District hospitals to venture into new areas of health care

District Hospitals has to enter into new areas of health care on a need basis and expand service delivery to reach out to post-treatment care and attention, treatment tracking via telemedicine, door delivery of medicines, and timely tracking of health condition, etc. District hospitals may provide free service delivery of primary, secondary, and tertiary care. Any exceptional cases may be referred to the PPP-based public-private hospital for super specialty treatment.

7.12. A separate Corporate Social Responsibility for private health care

A separate corporate social responsibility policy for private health care may be adopted. There should be appropriate linkages between the District Hospital, Non-Profit Based PPP model to achieve health in the care facility. And the private hospital under CSR can participate in health service delivery for the poor and disadvantaged sections by treating the rarest of rare diseases and high-cost involved treatment.

7.13. Government to establish a strong Call center/consultancy services on a 24X7 real-time basis

Most of the time, common people don't have the right and accurate information about the health services available in the market, Government hospitals, and whom to approach for getting the right treatment. Consequently, based on the reference by local people, these sections of people visit private hospitals. In the process, they forgo the

opportunity of getting the right treatment at the right place. A government facility working on a 24&7 real-time basis could extend call center services giving personalized guidance and information about the availability of services at different hospitals and treatment etc. They can also have the manpower details to share with the enquiring persons to take some informed decisions.

7.14. Universal diagnostic test rates central monitoring system

High out-of-pocket expenditure is found mainly in diagnostic services. The absence of universal rates for the diagnostic services/tests is one of the reasons for the higher rates for these services. There is no effective monitoring mechanism in the country and the state of Andhra Pradesh to ensure adherence to the policies and regulations in force. Therefore, universal diagnostic tests and service rates applicable for all health care establishments need to be decided and implemented with a strong monitoring mechanism.

7.15. Central post-treatment compulsory feedback mechanism for certain levels of treatments, surgeries, and certain high-costs involved

At present all sections of people from poor to wealthy sections have incurring very high costs on treatment in private facilities which most of the time runs into lakhs and the amounts are spent by individuals in the hope of getting quality treatment and survival of the patient. The government also incurs huge expenditures on public health. But due to the lack of transparent and accountable mechanisms in the country, the quality of care and appropriateness of care became unpredictable, varying from case to case. Even medical negligence is incomplete and not understandable to the knowledge of a common man. Therefore, Government needs to establish an automated mechanism that takes care of the post-treatment care of the patients, feedback, grievances, etc., and act appropriately on these issues. So that people could get the right input, and information, and feels

confident and supported. It enhances accountability and responsibility in both private and public hospital establishments.

7.16. Drug prescription and Drug Dosage policy

A disease-wise drug prescription and drug dosage policy carefully designed with all precautions would establish standardized drug prescription under standardized conditions. This tool helps to regulate undue prescriptions and enables monitoring and action against deviations in normal conditions. This system enables patients and people to have some authorized information about the treatment and lodge grievances in appropriate cases. People gain confidence and faith and power over the treatment.

7.17. **Centralized medical reports uploading access system**

People still suffer from the lack of availability of support services relating to a patient like online medical reports transferred from one hospital to another hospital. Availability of this facility provides an opportunity to make informed decisions, treatment continuity, avoid duplicated diagnostic tests, etc.

7.18. Reviewing the sufficiency of the IHPS in the changed present times

With the increasing load of patient load and disease, and the dismal picture of the Public health facilities in the country, the sufficient IPHS standards in terms of standards of number of beds, Doctor ratio, nurses ratio, etc. need to be reviewed. Even where its norms are fulfilled, the outcomes are not that effective and impressive.

7.19. Conclusion

It is a proven fact that the public health care systems in the Country and Andhra Pradesh are overloaded with more patients and new disease burdens, and lower resources with implications for the standards, availability, and quality of treatment. Despite concerted efforts being taken by the Governments at the Central and State level in the Country, the District Hospitals have been facing continuous challenges in delivering

secondary and tertiary care as envisaged by the Indian Public Health Standards, National Health Policy, 2017, above all the expectations of the public.

Public Health Service Delivery in the District Hospitals mainly targets the poor and weaker sections of society. The National Rural Health Mission and the Nation Urban Health Mission have targeted the rural poor and urban poor respectively. It apparently seems that the number and needs of middle-income groups are not being taken into consideration while planning and designing public health service facilities. Even if these categories of people utilize Government hospital services, the standards and facilities provided in the public health care units are not up to the expectations and preferences of these groups of people. These groups of people usually compare the type of services, and the kind of care provided by the Public and Private Health facilities.

Governments that usually have limited resources could only take up incremental development despite its huge impact on the lives of the people. In this scenario, the middle-class people who visit private hospitals are being caught in the vicious circle of health expenditure. On the other hand, the District Hospitals being Public Health providers and designed for free service delivery could not collect charges from the people who are not falling under the poor and economically weaker category.

There is no effective system established in the country so far that correctly assesses the economic condition of a person. Though there is no issue that Public health care facilities cater to Non-poor sections also, their limited resources have been eroding both the quality and type of service they deliver. Therefore, a paradoxical situation emerged in Public health care in general, and District Hospital in particular that the facilities available in district hospitals are neither sufficient for the poor, nor quality that suits middle and not poor categories in society. On the other hand, with the increase in income levels, and the increase in Non-communicable diseases, the middle and non-poor

category of people became more vulnerable to profit-seeking private hospital care. Health social phenomenon and a public hospital was social institution that cannot be studied in isolation from the societal conditions in which it operates.

In spite the Public Partnership Model was introduced long back during the Liberalization, Privatization period in the 1990s in the country, this model was used in a very limited scope in the public health care service delivery in the country including Andhra Pradesh which was considered as one of the pioneering states in promoting the Public-Private Partnership Model in the Country. And, considering the burden of Out of pocket Expenditure, Catastrophic costs, and Distress financing of Public Health Service facilities in the State of Andhra Pradesh, a new model of service health care provider is imminent to offset the excessiveness of the private care and lowness of the public care.

If hospitalization is seen except for diarrhea and Tuberculosis, the hospitalization rate per 100000 populations was more in the private sector than in the public sector in the country. It is nearly 50% more cases of Non-communicable diseases in India in 2014.

Only 88 hospitals, however, were found to have the ratio of staff nurses as per the Indian public health Standard norms. A total of 399 hospitals were found to have a ratio of paramedical staff in position as per the Indian Public Health Standards. Table 6 summarizes the State/UT-wise number of district hospitals that have positioned medical and paramedical staff in line with the Indian Public Health Standards. It is quite inexplicable as to why households— across income groups— choose to go to private hospitals although the average medical expenditure per hospitalization in a private facility (Rs 25,850) is over four times that in a public hospital (Rs 6,120). This question needs deep explanation.

Despite a fourfold increase in investment in the government expenditure on health, funded through the traditional supply-side system of public healthcare, the outcome has

been a mixed bag. Andhra Pradesh has 1.98% of district hospitals in the country. India is still preparing to address the three major NCDs (DM, CVD, and CRD), cancer, and other NCDs – especially mental health disorders and chronic kidney diseases that will require immediate attention.

Health care is divided between the Public Health Care and Private Health Care. Whereas after the liberalisation introduced in India in the 1990s, Public choice became the norm for almost all sectors but the Public Health Care Delivery. People have been caught between Government hospitals and Private hospitals and there is no other model which has adopted the quality and personalized services from the Private Health Sector, and service motive from the Public health sector. A pragmatic approach and diversified actions are very much required to ensure health care is available to everyone and as per their choice

Unlike the other private sector which struggles for existence and searches for ways to deliver services at competitive prices, private medical care is becoming day by day unaffordable for a large segment of the people, and even if anyone attempted to afford that service, they are being driven into distress conditions in the form of high out-of-pocket –expenditure, Catastrophic Health Expenditure, and distress financing and finally into the vicious circle of poverty. What is missing from the Government side is not contemplating creating more health care service delivery institutions that could better service than the public health care systems and private health systems. Even after 30 years of introduction of Privatisation in the Country, Public Health Care service delivery has not seen a comprehensive public-private partnership model that suits the public health sector needs, Government principles, and value system, and caters to the health of the public without losing sight of the values of affordability and public service.

The Governments at the Central and State level have been making continuous efforts for providing better and sound public health care services for their people. As per the Indian Public Health Standards(IPHS), district hospitals are mandated to provide comprehensive secondary health care (specialist and referral services) to the community*; ac*hieve and maintain an acceptable standard of quality of care; and make services more responsive and sensitive to the needs of the people of the district and the hospitals/centers from where the cases are referred. However, today, whatever the standard and type of care being provided by the District Hospitals have gained a very low level of satisfaction compared to Private health care.

Public health care service delivery largely remained for the poor and weaker sections of the people. The Sample Survey conducted for the present study has given insight that there is some segment of people in the Society who want quality services and specialist services and are willing to pay a reasonable, economical and affordable price for the services if proved by the government.

The idea that government should provide health care for all free of cost is noble, but it is more important to make available different sets of service delivery institutions available for different segments of the population according to their needs and economic conditions. These hospitals are not able to fully cater to the needs and expectations of the lower and upper-middle-class people and this section of the people who have largely caught between the dilemma of the utilization of unsatisfactory service or accepting the financial distress of private hospital care.

Further, the District Hospitals have structural inconsistency in their composition and practice. These hospitals implement national policies and programs. The National Rural and Urban Health Missions aims to provide services to the poor, marginalized, and rural population. Whereas some sections of people who do not fall under the BPL or Poor

categories are utilizing the services of these hospitals. But, the Public health facilities are not in the position to claim charges from this segment of the population due to the design of the District Hospital. Consequently, the District Hospital is caught up in a situation where the available services are neither fully addressing the needs of the intended population, nor satisfying the needs and preferences of the 2nd segment of the population, and is also not in a position to improve service quality and infrastructure by charging for their services. Consequently, the District Hospitals continue to struggle with low standards of service, and lower levels of public satisfaction adjusting to the public financial resources.

On the other hand, the people who utilized private health care easily caught up in the vicious circle. People of the middle including lower-middle and upper-middle people due to lack of sufficient quality and type of service in District Hospitals, and in expectation of the availability of the same in private health care, have been incurring huge expenditures on their hospitalization, and going into the trap of vicious circle of poverty. Though this gap also needs to be filled up by making available appropriate mechanisms in place, the government is not in a position to provide free medical care for every individual in the country. Therefore, in place of free health care, it needs to be thought over to create a health facility that meets twin objectives of quality care by public hospitals and reducing hospital burden on the patient.

District hospitals are the prototype of the Indian socio-economic diversities and realities that existed in the society with a large number of people belonging to BPL and low middle-income groups, and largely dependent on the public health system. Inadequately contemplated concepts and ideals would lead to harsh and disastrous outcomes. India today needs a full-fledged Public-Private Partnership Model that suitably accommodates different segments of the people. The PPP which is service-oriented and

provides services at a very lesser and more economical cost would give great relief to the majority number of people in the country. Hence, not-for-profit and government partnerships would be a via-media model for the Indian scenario. We could not completely divert all the pain to the public health care facility, but to a considerable degree could reduce the cost of their health spending and hospitalization by creating a PPP mode of hospital system which runs on the not-for-profit model of style and structure. The efforts of reducing the out-of-pocket, Catastrophic Health Expenditure, Distress financing through increasing public health care spending need to be complemented by parallel efforts by increasing the type and varieties of health care service providers in India, if required on a cost-sharing basis.

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