AN EMPIRICAL EVALUATION OF AYUSHMAN BHARAT SCHEME IN HARYANA

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in

Management

By

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LOVELY PROFESSIONAL UNIVERSITY, PUNJAB

2025

DECLARATION

I, hereby declared that the presented work in the thesis entitled **"An Empirical Evaluation of Ayushman Bharat Scheme in Haryana"**in fulfilment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision of Dr. Pooja Kansra, Professor, Mittal School of Business, Lovely Professional University, Punjab.In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

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CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled **"An Empirical Evaluation of Ayushman Bharat Scheme in Haryana"** submitted in fulfillment of the requirement for the award of degree of **Doctor of Philosophy (Ph.D.) in the Management**, is a research work carried out by Anurag Garg (Registration No.-41800605), is Bonafide record of his/her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

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ABSTRACT

India's healthcare system is grappling with a high out-of-pocket expense (OOPE) and it accounts for 47.1 percent of the nation's total healthcare spending. This was brought out in national health accounts report of 2019-20 (NHSRC,2020), significantly surpassing global average of 18.12 percent (Oxfam India, 2022). This financial burden is severe enough to drive approximately 55 million people into poverty each year (Selvaraj et al., 2022). India has one of the world's lowest health care expenditures, at less than 1.5 percent of GDP. Among the "Sustainable Development Goals" (SDGs), India has pledged to attain Universal Health Coverage (UHC) by 2020. In line with this goal, the government of India has initiated Ayushman Bharat Scheme to safeguard the health of low-income and vulnerable populations by lowering their financial fallout from catastrophic hospital episodes and increasing their access to high-quality health services, paving the way for universal health coverage. The notable aspects of the programme scheme include the fact that Ayushman Bharat Pradhan Mantri Jan Arogya Yojna (AB-PMJAY) recipients are eligible for a cashless benefit of up to ₹5,00,000 per family per year for elementary, secondary and tertiary medical care. Any hospital in the nation, public or commercial, may provide the cashless benefits since they are transferable between states.

Haryana is one among the green-field states with ample potential reflected in aspects like income, literacy and health parameters. Therefore, Haryana is strategically selected in the present study as the ground for analysis of the performance of the Ayushman Bharat Scheme which could provide solutions to similar green-field states. The state has adopted the trust model for implementation of the scheme. Haryana has turned out to be one among the few states who have successfully implemented the Ayushman Bharat scheme. The performance analysis of Ayushman Bharat Scheme in the study involves analysis of the real data on the Ayushman Bharat Scheme in Haryana.

The study participants were selected from the BPL families of Haryana who were beneficiaries of the Ayushman Bharat health insurance scheme. Haryana was classified into five clusters viz., Northern, Southern, Central, Eastern and Western clusters. Thus, choosing cluster sampling method, as one of the districts from each of

the clusters was enrolled viz., Panchkula, Mewat, Rohtak, Karnal and Hissar respectively. The districts were selected based on first residential density, both highest and lowest, of beneficiary BPL families, viz Rohtak and Panchkula respectively. Secondly, one district with highest and lowest empanelled health facilities is being enrolled in Hissar and Mewat respectively**.** Thirdly, Karnal is considered as a progressive district in central Haryana and therefore, was included as the fifth district to the sample. According to the Ronan Conroy guide on sample sizing, the sample size of approximately 553 was found to be appropriate to have a study of 95 percent power and 5 percent margin of error. Other than the beneficiaries, Ayushman Bharat - PM-JAY has three important stakeholders, that are part of the formal structure of the scheme implementation, which included, government agencies and policymakers - health department officials handling Ayushman Bharat, insurance companies and the empanelled hospitals under the scheme. The data from the respondents has been collected with the help of a structured questionnaire. The study has been also conducted interviews with these different stakeholders using pre-defined and pre-tested questionnaire.

The major findings and challenges were observed in the study were and found that Ayushman Bharat Scheme awareness was 57.3 percent among the study participants while anything about health insurance in general was unknown to a little less than half (42 percent) of the study participants. As regards the source of information about Ayushman Bharat Scheme among the beneficiaries, it was observed that social media was the primary source of information among the general population with about 31 percent of them depending on it. This was followed by friends/relatives with 29 percent of them receiving information from them and about 27 percent of them receiving information from the local health centres. About 13 percent received information from other sources. Despite of awareness, it was found that majority of the respondents were not fully awareabout all the components of the scheme and hold many misconceptions.

The study observed mis-conceptions in the scheme understanding among the aware participants. The primary data has been collected from healthcare facilities in five different districts of Haryana, the present study investigated that several variables impacting the Ayushman Bharat Scheme users' healthcare service utilisation. Despite,

availability of numerous medical professionals and facilities, the survey found that many people still cannot afford even the most basic medical treatment. Factors including demography, socioeconomic position, accessibility, and knowledge of health insurance schemes impact healthcare seeking behaviour, which must be understood.

The choice and utilization of healthcare services from a health centre by the patients is largely determined by the quality health services provided by the health centres. It has been many times reported that most patients who visited public health centres were displeased with the facilities given by these facilities. In addition, complaints about poor care, sanitation, hygiene, water conveniences and lack of food which have been highlighted by many previous studies. An interesting observation in our study was that majority of beneficiaries/patients recorded that the health centres under Ayushman Bharat Scheme provided high quality health care. This shows that the roping in of the private sector hospitals under the scheme to provide quality healthcare to the beneficiaries has been beneficial.

The analysis underscores the multi-faceted nature of healthcare utilization influenced by demographic, socio-economic and health-related factors. While certain factors like age, religion and severity of ailments significantly influence utilization while others like income level and gender show less impact. The findings from the satisfaction survey among Ayushman Bharat Scheme beneficiaries in Haryana indicates an overall positive response towards the program. The process of enrolment was deemed smooth by a significant majority in all districts, and the adequacy of information and guidance received was generally appreciated. The overall satisfaction level across public and private hospitals were as follows: 3.28 percent strongly disagreed, 15.69 percent disagreed, 37.32 percent had a moderate satisfaction level, 24.13 percent agreed, and 19.57 percent strongly agreed. The private hospital utilization exhibited slightly higher satisfaction percentages than public hospitals in each category. Despite these concerns, majority of respondents reported an improvement in their quality of life due to the scheme and expressed a willingness to recommend the Ayushman Bharat Scheme to others.

While enrolment and information parts are doing well, there are areas to improve, especially in making hospitals more accessible and ensuring positive staff

behaviour. The scheme has positively influenced the quality of life for beneficiaries and most people would recommend it to others. The district wise differences highlighted the need for specific improvements in certain areas. Ongoing efforts and close monitoring will be crucial to make sure the Ayushman Bharat Scheme continues to meet the diverse healthcare needs of people in Haryana**.** The opinions of the different stakeholders on the implementation of the Ayushman Bharat Scheme showed that none of the stakeholders agreed that the scheme implementation in the state was smooth and it had coordination issues both within state and with the Centre. The stakeholder analysis reveals shortcomings in the current implementation of the Ayushman Bharat - PMJAY in Haryana. Addressing these concerns through improved coordination, funding, package revisions, workload management, fraud detection, digitalization, and user-friendly online systems is crucial for the scheme's success.

The AB-PMJAY scheme has both strengths and weaknesses in its implementation in Haryana. The scheme plays a significant role in moving towards UHC and exploiting the demographic dividend for the state's betterment. However, Ayushman Bharat Scheme in Haryana has made significant strides in increasing awareness, utilization, and beneficiary satisfaction. Therefore, addressing existing weaknesses, leveraging opportunities, and mitigating threats are crucial for ensuring the scheme's long-term success and equitable healthcare access for all segments of the population.

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Ph.D. is a degree that demands extreme self-motivation and determination on the part of researcher but also needs constant and tireless efforts of the supervisor. I express deepest gratitude and indebtedness to my esteemed guide Dr. Pooja Kansra, Professor and Head of the Department of Economics, Mittal School of Business, Lovely Professional University. This research would not have been possible and accomplished without her endless exertions and valuable guidance.

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(Anurag Garg)

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LIST OF ABBREVIATIONS

ABDM	:	Ayushman Bharat Digital Mission
AB-PMJAY	:	Ayushman Bharat Pradhan Mantri Jan Arogya Yojna
ANOVA	:	Analysis of Variance
ASHA	:	Accredited Social Health Activist
AWW	:	Aangan Wadi workers
AYUSH	:	Ayurveda, Yoga, Unani, Siddha & Homeopathy
BPL	:	Below poverty line
CAPF	:	Central Armed Police Force
CGHS	:	Central Government Health Scheme
CHE	:	Current Health Expenditures
COVID-19	:	Corona Virus Disease 2019
DALY	:	Disability Adjusted Life Years
ESIC	:	Employees State Insurance Cooperation
GDP	:	Gross Domestic product
GSHI	:	Government sponsored Health Insurance
HWC	:	Health & Wellness Centre
IEC	:	Information, Education & Communication
NHA	:	National Health Authority
NHM	:	National Health Mission
NHP	:	National Health Policy
NHPS	:	National Health Protection Scheme
NRCMCS	:	New Rural Cooperative Medical Care System
OOPE	:	Out of Pocket expenditure
PFHI	:	Publicly Funded Health Insurance
RSBY	:	Rashtriya Swasthya Bima Yojna
SDG	:	Sustainable Development Goal
SECC	:	Socio Economic Caste Census
SHA	:	State Health Authority
SPSS	:	Statistical Package for the Social Sciences
SUFA	:	Social Union Framework agreement
TMS	:	Transaction Management System

UHC	:	Universal Health coverage
UHWC	:	Urban Health & Wellness Centre
UNFPA	:	United Nations Fund for Population activities
UPHC	:	Urban Primary Health Centre
VHI	:	Voluntary Health Insurance
WHO	:	World Health Organization

CHAPTER-I

INTRODUCTION

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1.1 Health Expenditures in India

India's healthcare system is grappling with the issue of high out-of-pocket expenses (OOPE), which account for 47.1 percent of the nation's total healthcare spending, this was brought out in National Health Accounts Report of 2019-20 (NHSRC,2020), significantly surpassing the global average of 18.12 percent (Oxfam India, 2022). This financial burden is severe enough to drive approximately 55 million people into poverty each year (Selvaraj et al., 2021). The impact is especially detrimental to those in the poorest wealth bracket, as revealed by the National Sample Survey Office (NSSO) data from 2017-18 rounds. Moreover, with only 2.1 percent of its GDP allocated to government healthcare spending, India's challenge in addressing these costs is substantial (MOSPI, 2020). Among, the Sustainable Development Goals (SDG) is the objective of Universal Health Coverage (UHC), which India is committed to achieving. In 2018, government of India introduced the Ayushman Bharat Scheme - Pradhan Mantri Jan Arogya Yojna (AB-PMJAY) and the Ayushman Bharat Digital Mission (ABDM), two major health programmes meant to help low-income and marginalised people deal to cope up with high out-of-pocket costs. According to Gera et al. (2018) one of the world's lowest health care expenditures, at less than 2 percent of GDP, is incurred by India. The spending on the public health system in India was 2.1 percent of GDP in FY 2023, down from 2.2 percent in FY 2022 and 1.6 percent in FY 2021 (Economic Survey, 2022–23). The majority of the funds allocated to the Indian healthcare system come from private sources. The patients pay out of pocket for the vast majority of health care, which accounts for about 70 percent of the market. The private sector is responsible for 70 percent of urban hospitalisations and 60 percent of rural hospitalisations (Gopichandran, 2019). The people in India prefer to use private health care providers since the public system is so flawed in many ways, including in terms of staffing, infrastructure, service quality, and accessibility.

However, over the past decade, there has been a positive reviving trend in the health expenditures of the country as shown in figure 1.1. Notably, government health expenditures have significantly risen from 28.6 percent in 2013-14 to 41.4 percent in 2019-20. As a result, out-of-pocket expenditures have decreased substantially, dropping from 64 percent in 2013-14 to 47 percent in 2019-20. The upward trajectory observed in health expenditures can be largely attributed to the Government of India's initiatives aimed at advancing the health-related SDGs.

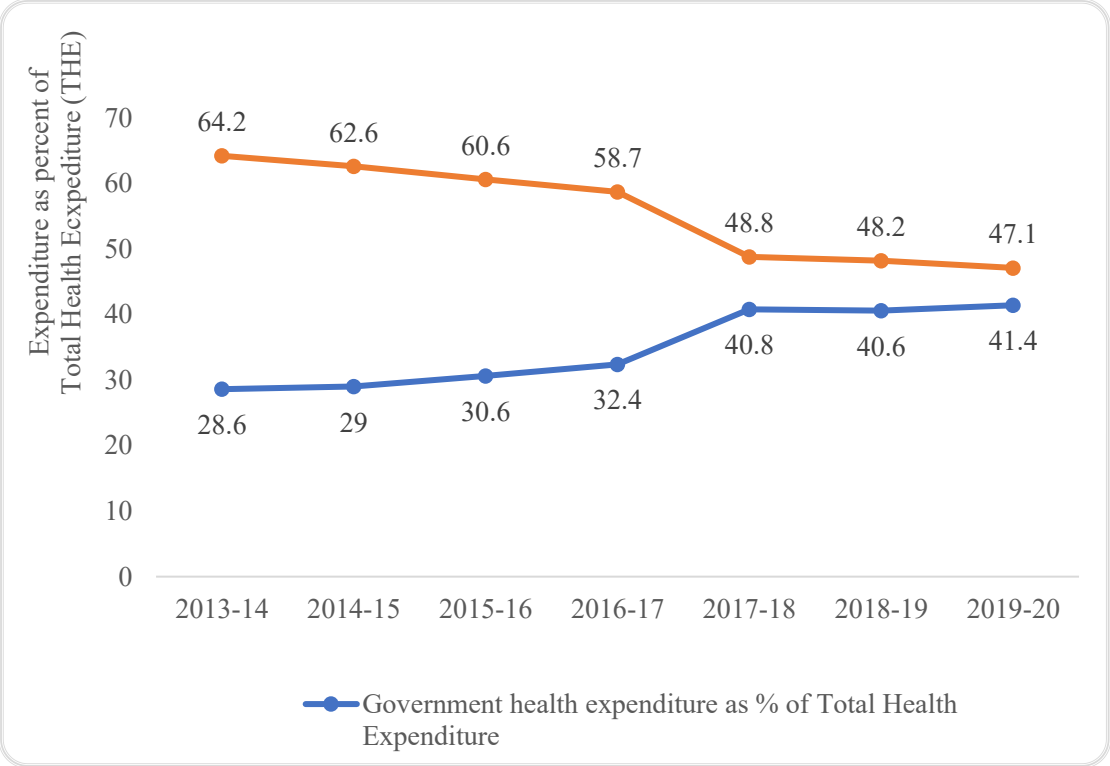


Figure 1.1: Pattern of Health Expenditures in India (2013-2020)

Source: RBI Handbook of Statistics on Indian Economy (Reserve Bank of India, 2021); National Health Accounts Estimates for India: 2019-20 (NHSRC, 2020)

The health for reproductive, maternal, newborn, child, and adolescent (RMNCH+A) and communicable illnesses get the lion's share of primary health care funding in India. But according to the ICMR Report (2017), percentage of the overall illness burden attributable to non-communicable diseases increased from 30 percent in 1990 to 55 percent in 2016, measured in Disability-Adjusted Life Years (DALYs). Despite this, the percentage of cases caused by infectious,

neonatal, and nutritional disorders fell from 61 percent in 1990 to 33 percent in 2016. During those 26 years, the country's health profile changed significantly and this transition reflects that. A result is that community health clinics are underused even if they are there. The healthcare system faces challenges related to fragmentation, ineffective gatekeeping, and referrals. Additionally, high cost of medical care and hospitalization often pushes families into poverty. Many households in India struggle with the financial burden of healthcare expenses, particularly for specialty services, making them inaccessible for those living below the poverty line (Kasthuri, 2018).

1.2 Government Spending on Insurance Based Health Coverage

A global phenomenon that exists is that when governments spend more on health and out-of-pocket (OOP) expenditure tends to be lower and vice versa. A look at the proportions of government expenditure and out-of-pocket expenditure on the current health expenditures (CHE) of selected countries reveals interesting facts as mentioned in table 1.1. It could be observed that Nigeria has a modest GHE-CHE percentage of 17.5 percent, but a very high OOP-CHE percentage (75 percent). In India, GHE-CHE is 22 percent and the OOP-CHE is 70 percent. The government health spending is high in Belgium (81 percent), Netherlands (78 percent) and Switzerland (70 percent) while out-of-pocket cost are low in those countries (18 percent, 9 percent, and 29 percent, respectively). Taiwan is a unique case where government expenditure is modest (7 percent), as are out-of-pocket expenses (35 percent). Mexico spends equal proportion from government and private out-of-pocket on health. While Japan has the lowest private expenditure, France experienced the lowest OOP spending (World Health Organization, 2023).

Table 1.1: Health Financing Indicators Across Selected World Countries

Country	Domestic General Government Health Expenditure as percent Current Health Expenditure (CHE)	Average of Out of pocket (OOP) as percent of Current Health Expenditure (CHE)	Share of Domestic Private Health Expenditure in Current Health Expenditure (CHE)
Australia	68.38	19.62	31.62
Belgium	81.46	18.52	18.54
Bulgaria	55.96	43.03	44.04
Canada	73.15	15.27	26.85
Chile	56.28	37.95	43.71
France	78.56	7.32	21.44
Germany	80.20	13.37	19.80
Ghana	33.52	49.74	54.75
India	22.47	69.30	76.07
Japan	81.70	14.91	18.30
Mexico	47.29	48.83	52.71
Netherlands	78.34	9.88	21.66
Nigeria	17.36	75.10	77.08
Russia	60.95	33.12	38.98
Singapore	39.22	44.37	60.78

Source: World Health Organization Global Health Expenditure Database (2023)

However, it was found that different nations have various health care approaches and programmes that cover varying percentages of people. In order to analyse their healthcare systems, a sample of nations is selected from both growing and developed nations and reviewed their health insurance approaches. For reimbursement of procedures not included by the primary (social) health insurance, which is offered by the government, many of these nations also have a voluntary (supplementary) health insurance (VHI), which is offered by health insurance companies. Other distinctions include the sort of model employed, with some nations using a tax-funded health insurance programme and others using an allocated fund. A summary of the health insurance policies in different countries reviewed are as below:

Canada: Canadian government in the year 1984 passed the Canadian Health Act banning doctors from billing the public insurance system as well as extra billing their patients. According to the Social Union Framework Agreement (SUFA) of 1999, the prime minister and most premiers are committed to a health care system that is "comprehensive, universal, portable, accessible and public." Although most hospitals are public, most of the services are given by private businesses or corporations. The private delivery or private insurance for publicly insured services is not directly prohibited under the Canada health act of 1984, but it offers financial deterrents for it (Government of Canada, 2002).

Unites States of America (USA): In USA, public health insurance scheme is known as Obamacare or the "Affordable care act". Almost 100 percent coverage has been achieved since the "Affordable care act" was enacted in 2010. In 2017, about 92 percent of U.S. citizens had health insurance coverage, but the country does not yet have a fully implemented universal health care system. The universal health care is generally referred to as socialized medicine in the United States with a pejorative connotation (Healthcare, 2010).

Japan: Health insurance coverage is compulsory for all Japanese citizens. The governments administer national health insurance programs for people without employer-sponsored health insurance. Regardless of their choice of physician or facility, patients are not denied coverage. A hospital must be run by physicians and be non-profit by law (Government of Japan, 2003).

China: Providing medical care to the entire population while making the most of limited personnel, equipment, and financial resources has been the goal of health care programs since the establishment of the People's Republic of China (PRC). Health care in China is undergoing reforms following a largely denationalized system in the 1990s. A new initiative designed to make rural health care more affordable for the poor is the New Rural Co-operative Medical Care System (NRCMCS).China's Cabinet approved the plan in January 2009. About 850 billion yuan is to be spent on universal health care by 2011 under the long-awaited medical reform plan, and basic medical security will be provided to every Chinese citizen (Gu et al., 2018).

Australia: The government health insurance policy of Australia is known as Medibank introduced in the year 1975. Due to senate opposition, Medibank was

funded by general taxation instead of a 1.35 percent levy (with little income exclusions). Hawke's Labour government renamed Medibank Public Medicare in the 1980s. This also led to a change in the funding model, which was implemented as a 1.5 surcharge on income tax, with exemptions for low-income recipients (Australian Government Department of Health, 2019).

1.3 India's Universal Health Coverage (UHC) Commitment and Relevance of Ayushman Bharat Scheme

With the slogan "Healthy India, Prosperous India," government of India aims to promote long-term sustainability. "Health for All" and UHC are also envisioned as ways to achieve this goal in the 2017 National Health Policy. In keeping with its promises to the SDGs, India has pledged to attain universal health coverage by 2020. In keeping with these goals and objectives, the Indian government developed the Ayushman Bharat Scheme to achieve UHC and the SDGs. However, around 10.74 crore low-income households (defined as BPL families according to the Socio-Economic and Caste Census of 2011) were the target population for the Ayushman Bharat Scheme which aimed to enhance hospital access and decrease out-of-pocket health cost. The Ayushman Bharat Scheme takes a comprehensive view of healthcare by focusing on primary, secondary, and tertiary care (including promotion and prevention). It plans to achieve this goal via two interrelated programmes: the Prime Minister Jan Arogya Yojna (PM-JAY), which provides health insurance, and the Health and Wellness Centres (HWC). When combined, these initiatives will help shape a new India by the year 2022.

However, Ayushman Bharat Scheme paves the way to universal health coverage by protecting the health of low-income and vulnerable populations by lowering their financial burden during catastrophic hospital episodes and increasing their access to high-quality health treatments. With this plan, health care will no longer be provided in silos but rather in an all-encompassing, need-based fashion (NHSRC, 2020). As a result of this unprecedented initiative, the health sector in India will undergo a paradigm shift. India can benefit from this program because it will increase productivity, increase wages, and prevent the country from suffering economic decline.

1.4 Launch of 'Ayushman Bharat' Scheme

In line with the 2017 National Health Policy (NHP), the Ayushman Bharat Scheme brought India's health care promises to fruition in the 2018–19 Union Budget. Launched on September 23, 2018, this revolutionary programme spearheaded by the Hon'ble Prime Minister is widely regarded as the most all-encompassing health care system in the world. Regardless of the quantity or age of members, everyone is covered under this plan, which is why it strives to attain universal health coverage (UHC). To enhance health and wellness across the board, from basic to tertiary care, the Indian government's Ayushman Bharat Scheme has two essential components that follow a continuum of care approach. Health and wellness facilities and the Pradhan Mantri Jan Arogya Yojana are the two parts of the Ayushman Bharat initiative that work together to ensure health for everyone.

1.4.1 Health And Wellness Centres

The Indian government revealed intentions to convert current sub centres and primary health centres into 1,50,000 health and wellness centres (HWCs) in February 2018. These Ayushman Arogya Mandir facilities are well-placed to provide CPHC, or comprehensive primary healthcare, which includes services all the way to the end user. The health care delivery, human resources, funding, community engagement, ownership, and governance are just a few areas that will undergo transformation as a result of the HWCs plan. Primary healthcare services are provided by these facilities, which emphasise wellness and provide a wider variety of services to the community. They are universally accessible and free of charge. Jangla village, Bijapur, Chhattisgarh was the site of the nation's first Health and Wellness Centre, which was opened by Prime Minister Narendra Modi on April 14, 2018.

According to the 2018 report of the Press Information Bureau–Health and Wellness Centres have bigger dreams than just providing medical treatment. In order to meet the primary health care requirements of the whole population in their respective locations, these facilities are intended to offer a wider variety of services. In addition to providing services related to maternity and child health, Ayushman Arogya Mandirs/HWCs also provide treatment for non-communicable illnesses,

mental health, first-level trauma and emergency care, dental health, eye and ENT care, palliative and rehabilitative care, and more. They enable people and communities to embrace healthy habits and lower the risk of chronic diseases and other health problems by focusing on health promotion and prevention. Improving accessibility, universality, and equality will have a positive impact on society as a whole. These centres are envisioned to enhance healthcare access and contribute to India's demographic dividend. At present, there are 1,68,157 functional Ayushman Arogya Mandir's (February, 2024) in the country of which 1,25,728 are sub centres, 23,720 are primary health centres, 5,069 urban primary health centre (UPHC), 9,039 AYUSH (Ayurveda, Yoga, Unani, Siddha & Homeopathy) centres and 4,601 urban health & wellness centres (UHWC) (Ayushman Bharat, 2018).

1.4.2 Pradhan Mantri Jan Arogya Yojana

The Pradhan Mantri Jan Arogya Yojana (PM-JAY), formerly known as the National Health Protection Scheme (NHPS), provides crucial protection to underprivileged and vulnerable families against catastrophic secondary and tertiary healthcare expenses. The public is informed about PM-JAY through the Health and Wellness Centres, where they undergo screening for non-communicable diseases, refer critical cases for secondary or tertiary treatment and hospitalization cases are effectively tracked.

a) Salient Features of PM-JAY

i. The beneficiaries under the PM-JAY are entitled for a cashless cover of up to ₹5,00,000 per family (BPL) per year for primary, secondary and tertiary levels.

ii. The cashless benefits are portable across the country, which means any hospital, whether public or private, can provide them.

iii. The registration to the PMJAY scheme can be easily done online on the government website by making available an identity proof, contact information, caste certificate, income certificate and documentation on current status of family being covered.

iv. The beneficiaries can access to both public and private facilities available in the country.

v. The scheme provides financial coverage to more than 12 crore eligible families/households (about 60 crore beneficiaries) which would create healthier population among poor and vulnerable sections, thus preventing their wage losses and ultimately their financial hardships. The deprived rural families and families belonging to identified occupational groups targeted by the PM-JAY is based on the latest Socio-Economic Caste Census (SECC) data covering both rural and urban populations.

vi. The government determines in advance the packages and the package rates (for treatment) for controlling costs.

vii. The PM-JAY provides digital and cashless treatment for 1393 treatment packages which includes 1083 surgical, 309 medical and 1 unspecified package including critical illnesses like Breast cancer, Bypass grafting of the coronary arteries, Surgical procedures on the skull base, replacement of valve in the pulmonary artery, surgery to replace both valves, surgical fixation of the anterior spine and disfigurement after burns treated with a tissue expander.

viii. PM-JAY emphasizes cooperative federalism and flexibility for states. The National Health Authority (NHA) provides policy direction and promote coordination between the Centre and States and the scheme is implemented by state health agencies (SHA) at the state level.

ix. The PM-JAY subsumed the existing Rashtriya Swasthya Bima Scheme (RSBY), other government-funded programs such as the Central Government Healthcare Scheme (CGHS), the Employee State Insurance Scheme (ESIS), and Railways Health Scheme and also ensures convergence with various State government insurance/assurance schemes (Ayushman Bharat, 2018).

b) Modes of Scheme Implementation

The dedicated implementation bodies at the national, state, and district levels make up the three tiers of the PM-JAY implementation framework that allows the plan to be implemented nationwide. The PM-JAY system is overseen by National Health Authority (NHA), the highest authority in the country. It is the responsibility of the NHA to create and maintain a state-of-the-art information technology system that can host PM-JAY. The NHA is also responsible for developing and enforcing standards for treatment protocols, quality, documentation, data sharing, data privacy and

security and fraud prevention and control. Additionally, it was are responsible for preparing and updating lists of packages and their rates.

At the state level, scheme places the responsibility of providing health care on the state government and the State Heath Authority (SHA) has been setup by the state governments. However, centre allows the states the flexibility in the method of implementation and consequently, the different states have different insurance and assurance schemes (implementation models). Hence, states are given flexibility in choosing the mode of implementation in light of their capabilities and experience within the States. Currently, states apply three different models of implementation - insurance companies, trusts/ societies, or integrated models, to implement the scheme. (Ayushman Bharat, 2018). In the insurance model the state engages with an insurance company to purchase healthcare services, while in trust model the services are purchased directly by the state-owned agency, whereas, in the mixed model the state uses insurance company for one part and trust for the other part.

Table 1.2: Various Modes of Ayushman Bharat Implementation in India

Insurance Mode	**Trust mode**		**Hybrid Mode**
Dadar & Nagara Haveli	Andaman & Nicobar	Ladhak	Gujarat
Jammu & Kashmir	Andhra Pradesh	Madhya Pradesh	Jharkhand
Lakshadweep	Arunachal Pradesh	Manipur	Maharashtra
Meghalaya	Assam	Mizoram	
Nagaland	Bihar	Puducherry	
Rajasthan	Chattisgarh	Punjab	
Tamil Nadu	Haryana	Sikkim	
	Himachal Pradesh	Telangana	
	Karnataka	Tripura	
	Kerala	Uttar Pradesh	
		Uttarakhand	

Source: National Health Authority Annual Report 2022-23 (NHSRC, 2023)

However, some of the brownfield states under the scheme include Tamil Nadu, Karnataka and Andhra Pradesh, as well as some of the north eastern states have

prior experience of implementing large-scale health insurance schemes. There is no health insurance/assurance scheme in majority of the Indian states, as most have no experience in the implementation of a structured scheme (NHSRC, 2019). As per National Health Authority, 2022-23 (NHSRC, 2023) implementation at the district level the district implementation units (DIUs) have been established which is responsible for coordinating between various stakeholders at the grass-roots level. Among their roles and responsibilities include coordinating and executing Ayushman card creation, support empanelment of hospitals, ensuring their active participation and their effective engagement, addressing beneficiary grievances, support in conducting beneficiary awareness campaigns, capacity building of various stakeholders, and on-ground coordination of anti-fraud initiatives.

c) Hospitalization Process Under PM-JAY

Under PM-JAY, citizens can obtain health insurance coverage without paying any premiums and are not responsible for any treatment expenses during or after hospitalization. The scheme also covers the pre and post hospitalization charges as well. The families are provided with cashless hospitalization benefits in both public and private hospitals that are empanelled under the scheme.

All empanelled hospitals under PM-JAY appoint Ayushman Mitras (AMs), who will act as intermediaries between the hospital and its beneficiaries in an effort to reach the scheme to the neediest and reduce their hospital expenses. During enrolment and eligibility verification, these Ayushman Mitras are at the help desk. The scheme enrolment sends letters to beneficiaries with QR codes and the PM-JAY beneficiaries are scanned and verified for eligibility by this QR code (Ayushman Bharat, 2018).

As per Insurance Regulatory and Development Authority of India (IRDAI) regulations, all health insurance companies are mandated to cover COVID-19 hospitalizations. Similarly, the PM-JAY also extends coverage for COVID-19. Notably, beneficiaries under PM-JAY are exempt from paying for medical testing conducted at any of the empaneled hospitals. Furthermore, PM-JAY also covers provisions for isolation and quarantine costs. The hospitals accredited under PM-JAY are well-prepared to test, treat, and quarantine patients affected by Coronavirus. This initiative is commendable as it provides essential protection against COVID-19 for poor and vulnerable families.

Under PM-JAY, organ transplant coverage is an essential component. It covers the cost of organ transplants, including kidney, liver, and heart transplants. This ensures that eligible beneficiaries have access to life-saving organ transplantation services without financial burden ensuring accessible and affordable care for those in need, contributing to better health outcomes for beneficiaries.

d) Expenses Covered Under PM-JAY

The following are the expenditures covered by PM-JAY scheme during the course of treatment.

Table 1.3: Expenses Covered by PM–JAY During the Course of the Treatment

Sr. No	Medical Expenses During the Course of the Treatment
1	Medical Examinations, Treatment and Consultations
2	Pre-hospitalization Expenses
3	Post-hospitalization Expenses for a Period of 15 Days
4	Medicines and Medical Supplies
5	Non-intensive and Intensive Care Services
6	Costs of Diagnostic Procedures
7	Medical Implants where Applicable
8	Medical Expenses Incurred during Treatment for Complications
9	Meals

Source: Authors Compilation based on Scheme Website

e) Expenditure Involved

The PM-JAY funding will be on the basis of 60:40 shared between centre and state governments respectively. The state and central governments will share the expenses incurred in paying premiums, according to the guidelines in effect issued by the Ministry of Finance. The responsibility of executing Ayushman Bharat PM-JAY in the states and union territories where the plan is to be implemented would fall on insurance firms. In the States/UTs where the plan will be implemented in Trust/Society mode, the central share of funds will be given in a specified ratio. In order to ensure that funds are transferred to state health agencies on time, the central government may transfer funds directly to escrow accounts pursuant to the Ayushman Bharat PM-JAY (Ayushman Bharat, 2018).

f) Benefits of Ayushman Bharat Scheme – PM-JAY

i. Largest Coverage: The PM-JAY, largest health insurance programs in the world has numerous primary benefits for the country's healthcare landscape in general, as well as its most vulnerable citizens. It includes a largest section of the beneficiaries.

ii. The coverage of families listed in SECC database: About 12 crore scheme beneficiaries to be identified on basis the SECC 2011 covers mostly the vulnerable populations in rural areas and a few in urban areas.

iii. Priority to girl child, women, and elderly: The scheme imposes no limits on the size of the family or age of the beneficiaries in the family that are covered. The scheme also pays special attention to women, children, particularly girls, and over-60-year-olds.

iv. Inclusion of secondary and tertiary level of care: The scheme covers advanced medical treatment like cancer treatments, cardiac surgery and other advanced medical treatment offered by specialists like cardiologists and urologists.

v. Coverage of all pre-existing diseases: Contrary to most insurance policies, the PMJAY covers pre-existing illnesses and requires that all patients be treated in public hospitals. Patients are therefore not denied care.

vi. Cashless and paperless registration and administration: PMJAY is aiming to remove all cash from the healthcare payment process. It also allows beneficiaries to access healthcare across India.

vii. Reduction in out-of-pocket expenditures: Private hospitals that accept PMJAY beneficiaries have been instructed not to charge any additional charges to reduce the chance of corruption or delays in medical care. Consequently, the country has seen an overall drastic reduction in the OOP expenditures on health from 64 per cent in 2013-14 to 47 per cent in 2019-20.

viii. Leveraging on the private sector to achieve public health objectives: Due to the large population coverage under the scheme, private healthcare providers are roped in to provide the required services. In addition to improving the affordability of healthcare services, equipment and drugs, this program is expected to attract more foreign investments.

ix. Improvement in quality of life: By making sure that the weaker sections of society receive timely care and finances to address their health needs/issues, this program has improved the quality of lives of many.

x. Broadening the health insurance network: By increasing access to healthcare and offering coverage of day-care, surgery, hospitalization, and diagnosis to 1350 medical packages, PMJAY provides coverage for medicines as well.

g) Major Impact of PM-JAY

i. The major objective of the PM-JAY was to reduce the OOP expenditures on health mostly among the poor and under-privileged. Among the major reasons how the Ayushman Bharat-PM-JAY has reduced OOP, expenditures are :

ii. Almost 40 percent of the population (the poorest & most vulnerable) is now covered by increased benefits.

iii. Provides coverage for almost all secondary and many tertiary hospitalizations.

iv. There is a coverage limit of five lakhs per family (there is no restriction on the number of members in a family).

v. Consequently, health care and medications will be more readily available. The scheme will not only meet the unmet needs of the population that have been hidden due to a lack of financial resources but also address the other needs. The improvement of productivity, efficiency and productivity will result in improved health outcomes, patient satisfaction, and the creation of new jobs. As a result, the quality of life will be improved of the most vulnerable population of the country and will help to improve the quality of life and can improve productivity of the vulnerable population (Ayushman Bharat, 2018).

1.4.3 Focus of the Present Study

The Ayushman Bharat Scheme comprised two major components i.e. Health & Wellness Centers (HWCs) and (Pradhan Mantri Jan Arogya Yojna (PM-JAY). These two components together are very vast to bring under a frame of analysis. The HWCs component performance mainly relies on the institutional aspects and community benefits while the PM-JAY is mainly about the patient access, utilization and satisfaction of the secondary and tertiary care provided at the empaneled hospitals. This differences in the dynamics of the two components of the scheme requires

analysis across two individual studies to estimate the impact of the two different components. The present study examined to look into the awareness, utilization and satisfaction levels of the patients that has accessed the secondary and tertiary services from empaneled hospitals under the PMJAY scheme. Specially, the study focused on assessing the processes and outcomes of the implementation of the PM-JAY in the state of Haryana and is intended on drawing policy suggestions for the state.

1.5 Implementation Status of Ayushman Bharat – PMJAY in Haryana

1.5.1 Why Haryana was in selected in the present study?

The present research study focused on the implementation status of the Ayushman Bharat Scheme–PM-JAY in the state of Haryana. Haryana is one among the green-field states with ample potential reflected in aspects like income, literacy and the health parameters. As per the Annual Report of Ministry of Statistics & Programme Implementation (2021), it is well known, Haryana is a state with high per capita income of ₹2,96,685 standing third among the states and next to Telangana and Karnataka (MOSPI, 2021). However, state has high intra-regional differences, with Gurugram outperforming other districts and the existence of very poor districts like Mewat, Palwal and Bhiwani, for which the higher income level could not be generalized to the whole state. The average literacy rate in the state is 75.6 per cent as per census 2011 which is still lower (66 per cent) among females. In terms of health, the life expectancy at birth was 69.8 years for 2014-18 which was almost on par with the national average of 69.4 years (Office of the Registrar General & Census Commissioner, Government of India). This puts the state of Haryana state in a moderate growth trajectory with average performance levels. Therefore, Haryana is strategically selected in the present study as the ground for analysis of the performance of the Ayushman Bharat Scheme – PM-JAY which could provide solutions to similar green-field states.

Haryana launched Ayushman Bharat Scheme in the year 2018 on a pilot basis in one government hospital in each of the 22 districts, one medical college and one ESI hospital. The state has adopted the trust model for implementation of the scheme. The scheme was scaled up and operational in all the districts of the state from February, 2019. As per the 11th report on performance audit of Ayushman Bharat Scheme by Comptroller & Auditor General of India (CAG), there are about 874

medical packages and 1592 procedures that were covered under the scheme (CAG,2023). The services for these packages under the scheme were made available through the empanelment of about 700 hospitals across the state. However, of the hospitals empanelled for service provision there are about 30 percent of public hospitals including the district hospitals, medical colleges, super-specialty hospitals, community health centres and the ESI hospitals (Ayushman Bharat-Haryana, 2020).

The scheme has enrolled about 8.75 lakh families in the state with member registrations of about 26 lakhs. As per the Audit Report, about 1,41,529 claims have been made so far amounting to about ₹74.3 crores. The scheme also ensures that the eligible beneficiaries can avail services across the country, which offers the benefit of national portability to the beneficiaries. A centralized grievance redressal and helpline number – 14555 that operates 24x7 is set up under the scheme which can be reached out for information, assistance, complaints and grievances. Despite being a green field state with no previous experience of fielding an insurance scheme, Haryana has turned out to be one among the few states who have successfully implemented the scheme. The state was also in limelight for creating convergence with different departments in the implementation of the scheme. The state health agency along with Department of Employment, Government of Haryana launched the scheme "Chaupal Par Charcha - Jeevan Ke Rang; Ayushman Ke Sang". The Chief Minister of Haryana released an official press release for the same on 09th Jan 2019. Under this, a team of two young educated people called "Saksham Yuvas" are deployed in one district which covers about 20 villages. These youth are entrusted with the responsibility of conducting two-hour sessions in each village explaining the provision and benefits of PM-JAY and distributing pamphlets in order to create awareness among people (P R Haryana, 2019).

1.5.2 Issues in Ayushman Bharat Scheme Implementation

The available evidences on the implementation of Ayushman Bharat Scheme have generated many concerns and criticisms. Accordingly, evidences on the scheme has debated various issues and concerns relating to dominance of private hospitals among the empanelled hospitals (Basu et al., 2012; Nandi et al., 2018; Angell et al., 2019; Choudhary & Dutta, 2019) identification of the target group and exclusion of vulnerable populations due to ineffective targeting (Ghosh & Gupta, 2017; Karan et

al, 2017; Nandi et al., 2017; Hooda, 2017; Choudhary et al, 2019; Chowdhury & Mukherjee, 2019; Garg et al, 2019), insufficient infrastructure for digitization of health records (Wadhwa, 2019; Wadhwa & Bajpai, 2019), frauds in registration and other corrupt practices (Sethi et al, 2019; Gopichandran, 2019), inadequate regulation of private providers and private insurers, risk of supplier-induced demand for services, financial burden on the states (Choudhary et al, 2019; Sethi et al., 2019; Chowdhury & Mukherjee, 2019) and the like. Also, there is limited capacity among the states in identification and enrolment of beneficiaries, designing the benefits package, fixing the package rate, empanelment of facilities, monitoring and regulation and fraud detection (Lahariya, 2018).

1.5.3 Gaps in Implementation of Ayushman Bharat Scheme

The provision of effective health care to the population at an affordable cost is one of the primary tasks of any government worldwide. Various types of health insurance schemes exist in India and can be broadly characterized as social, commercial or community health insurance. The brief literature search has identified few gaps in the prevailing system which require attention and further research.

i. Lack of structured mechanisms for channelizing the funds received by public health facilities though the PM-JAY (insurance revenues) for improving health services and infrastructure in the public health institutions and strengthening public health systems (Nandi et al., 2018; Angell et al., 2019).

ii. Establishing improved beneficiary identification mechanisms is a concern in the state. There is a huge research gap in understanding the various reasons for outreach of such programmes to majority of the poor.

iii. The issuance of health cards to generate digitally saved health records with all personal details including the health guide, treatments and hospital admission data to avoid fraudulent practices under the PM-JAY scheme is a welcome move. However, the lack of necessary infrastructure at the PHC level is a hindrance in digitization of the records (Wadhwa, 2019; Wadhwa & Bajpai, 2019).

iv. Despite of engaging the Saksham Yuva for awareness generation of the scheme in the state, a survey conducted by the National Health Authority in

2019 reveals that the awareness of PM-JAY was less than 20 per cent in Haryana which was on par with Bihar, while the awareness of the scheme was as high as 80 per cent in Tamil Nadu.

v. Considering the higher illiteracy rates in the poorer states and regions, developing innovative means for awareness generation (IEC activities) is a concern (Ghosh & Gupta, 2017; Chowdhury & Mukherjee, 2019).

vi. Apart from having an effective scheme it is also necessary to develop regular check and balances permeated into the system to have control over pilferages due to the wrong enrolments, payments, touts, insurance agents and drop out renewals. There are no guidelines framed with strict punitive actions for fraudulent operations.

vii. The success of any public welfare scheme depends on the satisfaction level of the beneficiaries. Unless the concerns of the clientele are known and addressed up to a satisfaction level, the purpose of the scheme implementation is not fulfilled (The National Trust, 2021). The continuous vigil and survey of the satisfaction levels helps in improvisation of the shortcomings.

viii. The scheme being resource-intensive, a strict focus on efficient performance is essential for optimal utilization of the scare resources and smooth implementation. An analysis of the Ayushman Bharat Scheme information available with the Government of Haryana (Ayushman Bharat, Haryana) and further a comparison of the findings from analysis of this data with the already existing findings from literature of various International and State models of health schemes against the benefit parameters would substantiate the effectiveness of this scheme.

1.6 Objectives of the Study

The present study provides a greater insight into reach of the Ayushman Bharat scheme– PM-JAY health insurance schemes in terms of coverage, awareness, utilization status, and satisfaction level for its existing beneficiaries in the state of Haryana. Following are the specific objectives of the study:

i. To study the level of awareness amongst the scheme beneficiaries towards various aspects of Ayushman Bharat scheme in Haryana.

ii. To examine the health care utilization under the Ayushman Bharat scheme in Haryana

iii. To examine the level of satisfaction amongst the scheme beneficiaries of Ayushman Bharat scheme in Haryana

iv. To understand the views and perceptions of different stakeholders regarding the implementation of the Ayushman Bharat scheme in Haryana.

v. To analyse the Ayushman Bharat scheme in Haryana

1.7 Rationale for the Study

The operational gap analysis of the study involves analysis of the real data on the Ayushman Bharat scheme – PM-JAY in Haryana. The study analysed the awareness, utilization patterns, operational gaps and the stakeholders concerns with regard to the scheme in the state and therefore could throw light on the real pressing issues in scheme implementation in similar green-field states like that of Haryana. This would augment the literature with evidences on the Ayushman Bharat scheme implementation. The study would provide critical reflections, suggestions and way forward for rapid and effective implementation of Ayushman Bharat scheme. On the implementation front, a performance analysis from different dimensions-coverage, utilization, satisfaction, implementation processes and stakeholder concerns as mentioned above would provide necessary insights to the current operations of the scheme and effective streamlining of the scheme. This would help satisfy the interests of various stakeholders and also sketches the path to achievement of the national commitments of Universal Health Coverage under the SDGs. The study can be of relevance to various stakeholders as it supports various stakeholders in varying dimensions of scheme implementation including, but not limited to, the following.

- Improve policy making to suit to the requirements of the people
- Helps administrators in effective implementation by plugging the operational gaps
- Improved coverage of target population and improving scheme utilization
- Effective implementation serves the larger goals of UHC targeted by the SDGs.

1.8 Chapter Scheme

The outcomes of the research along the above specified objectives are brought out in the present thesis which is organized into nine chapters. The introduction of health expenditures in India, UHC commitments, description of the Ayushman Bharat scheme and study objectives are provided in Chapter I. Chapter II presents a comprehensive structure of review of literature on the issues with implementation of the Ayushman Bharat scheme and its awareness, utilization and satisfaction levels. Chapter III highlights the methodology used for research findings, research instruments, tools used to do analysis and limitations. Chapter IV discusses the results on the level of awareness amongst the scheme beneficiaries towards various aspects of Ayushman Bharat scheme in Haryana. The factor influencing health care utilization under Ayushman Bharat scheme in Haryana is presented in Chapter V. Chapter VI discusses the results from the satisfaction assessment amongst beneficiaries of Ayushman Bharat scheme in Haryana. The views and perception of stakeholders towards implementation of Ayushman Bharat scheme in Haryana is captured in Chapter VII. Chapter VIII presents an overall analysis of the implementation of Ayushman Bharat scheme in Haryana and Chapter IX deals with the summary and policy implications.

CHAPTER-II

REVIEW OF LITERATURE

CHAPTER II
REVIEW OF LITERATURE

This chapter essentially examines the published literature world over on the various dimensions of public health insurance schemes such as awareness, utilization, challenges etc. and has been structured into different sections to get a comprehensive overview. The Ayushman Bharat Scheme is a recent implementation and attempt has been made to include relevant literature to support the success or drawbacks of the scheme implementation.

Section I studies in detail about the financial risk protection through the public health insurance and the health seeking behaviors of the scheme beneficiaries, across the world. Section II deals with the literature review to understand awareness of beneficiaries about various aspects of health insurance across the globe. In order to understand the various challenges that the scheme is likely to encounter in its operation, section III examines health insurance structures towards the utilization and satisfaction towards these schemes in various countries. Finally in section IV, various studies about Ayushman Bharat scheme specifically were classified and summarized as the factors influencing awareness of the scheme, utilization, satisfaction amongst the beneficiaries and the stakeholders' concerns.

SECTION I

2.1.1 Health Insurance on Financial Risk Protection

The previous research indicates that a comprehensive knowledge of health programs allows individuals to fully benefit from the schemes they qualify for, helping to manage healthcare costs and thereby enhancing their happiness. However, in developing nations, the underuse of hospital services is often linked to a lack of awareness about these reward packages. (Allegri et al, 2006). However, Ghosh (2011) analysed the severe financial strain caused by direct cash payments for healthcare in India, using data from two National Sample Survey Office (NSSO) cycles on OOP medical expenses and household spending. The study revealed that OOP payments are a significant burden, particularly in low-income countries, including India. It suggested that social welfare policies could be more effective in countries with a predominantly unorganized sector.

The research utilizing NSSO data from 2004 and 2005 aimed to identify Indian households vulnerable to high healthcare costs and the contributing factors. The findings suggest that a household's social and economic standing plays a significant role in the spread of catastrophic medical expenses. Low-skilled workers are often exploited due to their lack of knowledge. Education among women is crucial, empowering them with greater autonomy in decision-making within their families and communities. The study also found that households belonging to certain castes are more prone to incur overwhelming healthcare costs. The presence of children and elderly family members increases the risk of such expenses, highlighting the need for targeted health subsidies to ensure optimal use of healthcare services, especially among these demographic groups (Pal, 2012).

A study by Shahrawat and Rao (2012) found that medical expenses constituted 72 percent of total spending for individuals. Notably, drug costs in rehabilitation (82 percent) were higher than those in inpatient care (42 percent). They argued that health insurance policies focusing only on hospitalization are insufficient to protect families from crippling healthcare costs. Therefore, the study advocated for more comprehensive coverage that includes outpatient services and medications. Whereas, study on the Kalaignar Health Insurance Scheme in Madurai District, Tamil Nadu, revealed that beneficiaries were content with the scheme's services, confirming that no fees for medical exams or undisclosed charges were imposed. Television emerged as the primary medium for disseminating information about the scheme. The program notably brings the benefits of private healthcare to the disadvantaged, marking a significant state initiative and boosting confidence in the healthcare system (Joseph and Rajagopal, 2011).

2.1.2 Health Insurance on Health Seeking Behaviors

A study by Wicher and Fihn (1988) investigated the impact of insurance by examining the effects of discontinuing medical insurance for retired servicemen in Seattle and low-income residents in Los Angeles. The study has identified that the cessation of insurance led to reduced medical care utilization and increased blood pressure among these groups. The ability to cancel insurance was independent of the Seattle VA medical center and California's respective capacities to terminate such services.

It was observed that numerous studies have examined the effects of Medicare (for individuals over 65) and Medicaid (for low-income families) in the U.S. Research by Gruber and Currie (1996a, 1996b and 1997) indicates that Medicaid expansion has positively influenced children and pregnant women across various states, regardless of climate differences. The regions that initiated Medicaid expansion earlier, compared to those that did so later, have more medical facilities and professionals available. This early implementation has led to a reduction in child mortality rates from 3.1 to 1.3 per 10,000, and an 8.5 percent decrease in infant morbidity. Additionally, the "Healthy Start" program in Massachusetts, aimed at supporting low-income expectant mothers, has successfully reduced dropout rates from 100 percent to 185 percent upon program completion.

A study by Card et al. (2007) explored the 'Medicare effect' on individuals below 65 years, many of whom lack health insurance, and its influence on those over 65 years, who are all covered by Medicare. Their findings suggest that while the reduction in mortality isn't always statistically significant, communities with higher insurance coverage tend to receive more medical attention and have access to better healthcare. Finkelstein and McKnight (2008) did not observe a significant decrease in mortality rates, but Finkelstein posits that medical service utilization is increasing in areas where Medicare has significantly improved health coverage. However, Pradhan and Wagstaff (2003) delved into the Vietnam Health Insurance Program (VHI), focusing on the influence of selection bias. They matched insured individuals with non-insured counterparts who had similar characteristics to compare health outcomes. The study targeted those with at least a high school education, college degree, or employment in government or public enterprises. By examining the changes in health outcomes over time between the insured and uninsured, they aimed to mitigate selection bias. This approach assumes that the changes in health outcomes due to insurance status would be consistent for both groups, highlighting that the insured children experienced faster growth and adults showed health improvements.

Sodani et al. (2001) conducted a study on the preferences for health insurance among residents of Jaipur, Rajasthan. Their findings indicate that a mere 15 percent of the insured population acknowledges the significance of value and maintenance costs in deciding to support a new insurance plan. The study suggests that with vigilant

oversight of the informal sector, health insurance schemes can achieve substantial charitable contributions, particularly if managed by a coalition of public or private entities. Furthermore, their research in micro-insurance has been informed by the success of various initiatives, such as SEWA and Yashashvani (Radermacher et al., 2005). However, Anchan et al. (2011) examined the procedures for requesting current health insurance, the level of information about health insurance and the satisfaction of the customers. An approved questionnaire was used along with a section with an appropriate sample and a time study format. It was, in general, a somewhat homogeneous process. As a provider of health services, it is important to consider what the customer needs. Insurers face a direct impact of distribution channels on their image. A literature search did not find any studies that examined the relationship between insurance claims, hospital costs, or the risk covered by insurers. A thorough examination of the suppliers in this context and an understanding of their perspective is needed to better comprehend the problem, and a study of all the interested parties including insurance companies, insurers, work with the insurer to develop synergy strategies mediators, etc., can be directed.

SECTION II

2.2.1 Awareness towards Health Insurance Schemes

The effectiveness of health initiatives is heavily influenced by the beneficiaries' understanding of the program and its offerings. A lack of awareness, especially among vulnerable groups, creates a significant hurdle in accessing essential health services, which are a basic right (Sen, 2008). The study has consistently shown that not knowing about the benefits provided by UHC programs can hinder their adoption and success. Various studies conducted by Jacobs et al. (2012); Platteau and Ontiveros, (2013); Panda et al. (2016) and Bocoum et al. (2019) have all discussed this issue. Particularly, extremely poor are often unable to take advantage of the no-cost services at primary healthcare centres due to challenges like insufficient information, low awareness of health issues, and marginalization from social and healthcare systems. The beneficiary awareness plays a pivotal role in fulfilling the promise of the government health insurance schemes to enhance access to health services and provide financial protection for all. As noted by the NITI Aayog Report

(2021), low or limited awareness of insurance is observed even among the middle class that limits the uptake of the schemes. Therefore, study suggested for comprehensive awareness campaigns that intricately explains the benefits and importance of the health insurance programs in order to educate the consumers of health insurance.

Governments therefore, involve in vigorous information, communication and education (IEC) activities to propagate the benefits and eligibility to the schemes. Apart from the reliance on mass media and social media as catalysts for reach of information, one key element of this awareness strategy should be the promotions at government hospitals and other hospitals, especially the public and private hospitals empanelled under the PMJAY (NITI Aayog, 2021). The studies indicated that connecting health insurance programs with government hospitals through awareness initiatives can boost the likelihood of informal sector workers in India enrolling in these schemes. Moreover, utilizing other platforms like government health facilities, Anganwadi centres and ASHA workers can further enhance public knowledge about these insurance options (Kansra and Gill, 2017).

Numerous studies reveal that knowledge about the Ayushman Bharat Scheme-PMJAY is still not widespread among its intended recipients, with awareness ranging from low to moderate. Research by Parisi et al. (2023) found that in six Indian states, only 62 percent of those surveyed were aware of PMJAY, and of these, 78 percent knew they were eligible. Another study in Gujarat showed that awareness of AB-PMJAY was at 24 percent high and 47.8 percent moderate (Thomas et al., 2023). In Karnataka, research indicated a 65 percent awareness rate of the AB-PMJAY, with 68 percent of those being beneficiaries (Girish, 2023). Similarly, a study by Prasad et al. (2023) has reported a 68.6 percent general awareness in Bihar, with 79 percent of eligible individuals knowing about the scheme. The public awareness is often shaped by the surrounding community, particularly healthcare workers (HCWs), who are trusted sources of health information. Consequently, it's crucial that HCWs have a thorough understanding of the Ayushman Bharat Scheme to effectively convey its benefits to the public. Despite this, there appears to be a gap in the HCWs' own comprehension of the scheme (Nirala, 2022; Reddy, 2020).

SECTION III

2.3 Utilization and Satisfaction Towards Health Insurance Schemes

2.3.1 Determinants of Utilization of Health Insurance Schemes

Reaching of the necessary health services to the population in backward and remote areas has been top priority of governments in many countries. However, in spite of the ready availability of health facilities, the consumption of services has been bare minimum of just up to 10-20 percent (Griffth, 1963; John Hopkins University, 1976).Despite having health facilities available, people tend to turn to aboriginal procedures and experts including traditional birth assistants, faith therapists, and other private consultants. The previous studies reveals that apart from this, there exists a plethora of factors, starting from the age, gender, caste, education, occupation, household size, wealth quintiles and health needs/type of illness to the accessibility, affordability, quality of care and awareness of health insurance, that decides the utilization pattern of healthcare services (Araujo et al., 2017; Rout, Sahu and Mahapatra, 2019; Lotfi, 2017; Abaerei, Ncayiyana and Levin, 2017; Sassi, Beria and Barros, 2003).The access, distance and timing in terms of waiting hours are the main factors that determine how health services are used. The distance between a facility and the ill person, as well as the time required to reach it, determine the accessibility of health care services (Rout, Sahu and Mahapatra, 2019). There exist several theoretical models available in the literature that explains the health service utilization. The scoping review conducted by Gliedt (2023) categorized these models into four thematic domains.

2.3.1.1 Models to Explain Generalized Health Service Utilization

These theoretical models explained health service utilizations that can be applied to varied contexts. While, Andersen (2008) included health system factors, socio-demographic factors and individual health behaviour factors. Magi and Allander (1981) considered both patient and physician perspectives as factors and Kukafka et al. (1999) considered the patient decision making as the major contributing factor to health service utilization.

2.3.1.2 Association between Socio-Demographic Variables and Health Service Utilization

These theoretical models described health service utilization in context of specific socio-demographic determinants of health including cultural factors (Chrisman, 1997; Eiraldi et al., 2006; Copeland et al., 2007; Paasche-Orlow et al., 2007; Arnault, 2018; Holliday et al., 2019), gender groups (Bish et al, 2005; Christy et al, 2014), age groups (Gonzalez et al, 1989; Paasche-Orlow et al, 2007), race/ethnicity populations (Grembowski et al., 1989; Eiraldi et al., 2006; Copeland et al., 2007; Paasche-Orlow et al., 2007) access to healthcare (Davidson et al, 2004; Paasche-Orlow et al, 2007; McIntyre et al., 2009; Emmering et al., 2018), health disparities (Carillo et al, 2011), geography (Copeland et al, 2007), low-income/low-literacy populations (Gonzalez et al, 1989; Davidson et al., 2004; Paasche-Orlow et al., 2007), socioeconomic factors (Gonzalez et al, 1989; Grembowski et al., 1989; Eiraldi et al, 2006) and family/caregiver groups (Ornstein et al, 2015; Mohnen et al, 2019).

2.3.1.3 Health Service Utilization Specific to Illness

These theoretical models explained health care in terms of specific illnesses or health disciplines such as cancers, oral health, end of life considerations, mental health, heart attack, attention deficit hyperactivity disorder, and HIV/AIDS (Grembowski et al., 1989; Gonzalez et al., 1989; Lauver, 1992; Dracup et al., 1995; Bish et al., 2005; Eiraldi et al., 2006; Mejia et al., 2008; Schreiber et al., 2009; Davis et al., 2011; Yoo, 2011; Christy et al., 2014; Williams, 2014; Ornstein et al., 2015; Emmering et al., 2018; Holliday et al., 2019). These models generally include the core constructs as in domain 2 that includes socio-demographic, health behaviour, and health system factors.

2.3.1.4 Preventive Health Services / Screenings

These theoretical models intend to explain health service utilization specific to preventive health services/screenings. Christy et al. (2014) proposed a theoretical model to explain men's colorectal cancer screening behaviour. Similarly, Gonzalez et al. (1989) proposed an adaptation of the health behaviour in cancer prevention model to explain conditions in which Hispanics seek preventive care. These models also included other constructs that included demographics, social support, masculinity,

health behaviours, beliefs and experience and patient-provider relationship experience variables to explain preventive health service utilization.

However, the above being the cases of general health care utilization, the governmental health insurance schemes that are meant to cater to the secondary and tertiary healthcare needs of population is a more complex product that has specific features which is difficult to understand by the general public (NITI Aayog, 2021). Therefore, other than the usual factors that affect health care utilization, there seem to be additional specific factors that influence health care utilization under insurance schemes. However, in the Indian case, studies have highlighted factors like long-term morbidity, family size of more than four, family member with chronic disease, high socioeconomic status, employed household head and insured households to increase the healthcare utilization under health insurance schemes. A study looking at the utilization pattern of the Rashtriya Swasthya Bima Yojana (RSBY), a national health insurance scheme, launched in 2008 in India showed that RSBY beneficiary households are more likely to report and receive treatment for long-term morbidity in rural areas while this has not been statistically significant in urban areas. This study also did not find evidence of reduction of OOP by the scheme (Azam, 2017).

A study examining the comprehensive health insurance scheme in Kerala assessed the difference in healthcare usage between insured and uninsured Below Poverty Line (BPL) families, taking into account factors such as socio-demographics, healthcare patterns, and out-of-pocket (OOP) costs. The findings indicated that typically having four members in family, a chronically ill individual, higher socio-economic status, and an employed head of household were associated with insured households. These households also utilized inpatient services more frequently. However, insurance only covered 40 percent of these inpatient services. Additionally, the average OOP expenses for insured households (₹448.95) were greater than those for uninsured households (₹159.93) (Philip et al. 2015).

However, few studies proved age composition of households, households with female heads and those from higher decile groups tended to use outpatient services more frequently. An analysis of Nigeria's National Health Insurance Scheme (NHIS), initiated in 2005, revealed that 84 percent of individuals were registered and 76 percent had accessed the scheme's services. Key factors influencing service usage

included having an NHIS card, the demeanour of healthcare workers, and patient satisfaction. Additionally, regression analysis identified age and income as significant predictors of NHIS service utilization. (Adebiyi and Adeniji, 2021).

A study conducted among Iranian households using 2013 data aimed at investigating factors affecting the utilization of outpatient services and also determine the effect of health insurance on the financial support for individuals. It was observed that basic and full coverage through insurance was the main factor that influenced the utilization of outpatient services. The study also insisted that the age composition (more of <5 or >65 years) of the households, households with female heads and those from higher decile groups tend to more likely use outpatient services (Lotfi et al., 2017).

Awareness about scheme was indicated to the major factor that were more likely to utilize healthcare from the Shasthyo Suroksha Karmasuchi scheme among the BPL population enrolled under the scheme in Bangladesh. The cross-sectional household survey that was conducted on 806 households reported that at the time of survey 24.6 percent of people reported of suffering illnesses. Out of this, it was found about 82 percent has sought healthcare from any source and just 8 percent of them being SSK scheme beneficiaries. Only those aware about the scheme has utilized services under the scheme. This study also found suffering from an accident/injury to be positively associated with utilization of healthcare through scheme (Hasan et al., 2022).

2.3.2 Factors Affecting Satisfaction Levels of Health Insurance Schemes

The patient satisfaction with medical care is a multidimensional concept and corresponding to the major characteristics of providers and services, in which the realities of care are reflected in patients' satisfaction ratings. The patient's expectations, preferences for specific features of care, and other hypothetical constructs on patient satisfaction leads to provision of better health care. According to, the Donabedian's quality measurement model, patient satisfaction is defined as patient-reported outcome measure while the structures and processes of care can be measured by patient-reported experiences. Jenkinson et al. (2002) and Ahmed et al. (2011) pointed out that patient satisfaction mostly appears to represent attitudes

towards care or aspects of care, while patient satisfaction is a degree of congruency between patient expectations of ideal care and the real care received.

The reviewed literature agreed on the fact that there is an impact of measuring patient satisfaction on quality improvement of care. The patient satisfaction is defined by Pascoe as “a patient’s response to a significant aspect of her/his experience of health care services” (Pascoe, 1983). The patients’ evaluation of care is a realistic tool to provide opportunity for improvement, reduce treatment cost, meet patients' expectations, monitor healthcare performance of health plans and frame strategies for effective management across the healthcare institutions. Mohan et al. (2011) also deemed the significant correlation between measuring patient satisfaction and continuity of care where the satisfied patients tend to comply with the treatment and adhere to the same healthcare providers. The advantages of patient satisfaction surveys rely heavily on using standardized, psychometrically tested data collection approaches. Therefore, a standardized tool needs to be further developed and refined in order to reflect positively on the main goals of patient satisfaction survey.

The patient satisfaction encompasses various dimensions and is influenced by several factors. These factors include socio-economic background, cultural values, environmental aspects of healthcare settings, and the accessibility and availability of care. Additionally, patients’ prior experiences with healthcare, treatment quality, and the attitudes and knowledge of healthcare providers play significant roles in shaping satisfaction (Cleary and McNeil, 1988). In addition, demographic and socio-economic characteristics of patients, such as age, gender, race place of residency, education, income and marital status are among the key determinants of patient satisfaction with healthcare services (Batbaatar et al., 2017; Myburgh et al., 2005).

Irwin Press (2006) delves into the concept of patient satisfaction, examining it from the perspective of the patients to understand what influences it and what it entails. He posits that patient satisfaction is a key indicator and instrument for achieving various objectives, such as elevating care quality, retaining staff, boosting profits, recruiting medical professionals, and drawing in clientele. Essentially, it’s a potent lever for achieving organizational success. (Press, 2006). However, research, including a systematic review by Batbaatar et al. (2017), highlights that the care environment and accessibility significantly impact patient satisfaction. They found

healthcare service quality in form of health providers' interpersonal care quality was the essential determinant of patient satisfaction. They found socio-demographic characteristics to have different strength and directions across the studies and therefore suggested for conducting more studies on the cultural, behavioural and socio-demographic differences that could affect patient satisfaction.

The studies consistently demonstrate that easy access to care contributes positively to patient satisfaction. Another systematic review that examined if continuity between doctors and patients likely affected patient satisfaction, found that continuity has to have a strong variable effect on patient satisfaction (Adler et al. 2010). Another study by Atkinson and Haran (2005) emphasized that understanding the determinants of the user views on health should explore not only individual scale factors but also district scale factors which includes influences from the local health system and wider society. The study found three determinants of getting an appointment, getting better and type of district (rural-urban) to effect patient satisfaction or user views on health.

The study conducted by Badri et al. (2009) designed a detailed model based on structural equations to evaluate service quality and patient satisfaction, incorporating the health status of 244 patients before and after their discharge from public hospitals in the UAE. The model's estimations were grounded in four principal constructs: care quality, process and administration, information, and the patient's condition. The structural equation modelling goodness-of-fit metrics validated the model linking healthcare quality, patient status, and satisfaction. In addition, factors like the distance to healthcare facilities and waiting times also strongly influence overall satisfaction (Bikker and Thompson, 2006; Kroneman and Van, 2006; Bleich et al., 2009; Victoor et al., 2012; Chen et al, 2013; Ladhari and Rigaux, 2013; Batbaatar et al, 2017).

SECTION IV

2.4 Issues and Challenges in Ayushman Bharat Scheme Implementation in India

The available evidences on the implementation of Ayushman Bharat scheme have generated many concerns and criticisms. Accordingly, evidences on the topic have debated various issues and concerns relating to dominance of private hospitals among the empanelled hospitals (Basu et al., 2012; Nandi et al., 2018; Angell et al., 2019;

Choudhary & Dutta, 2019) identification of the target group and exclusion of vulnerable populations due to ineffective targeting (Ghosh & Gupta, 2017; Ghosh and Gupta, 2017; Karan et al, 2017; Nandi et al., 2017; Hooda, 2017; Choudhary et al, 2019; Chowdhury & Mukherjee, 2019; Garg et al, 2019), insufficient infrastructure for digitization of health records (Wadhwa, 2019; Wadhwa & Bajpai, 2019), frauds in registration and other corrupt practices (Sethi et al.,2019; Gopichandran, 2019), inadequate regulation of private providers and private insurers, risk of supplier-induced demand for services and financial burden on the states (Choudhary et al, 2019; Sethi et al., 2019; Chowdhury & Mukherjee, 2019) . There is limited capacity among the states in identification and enrolment of beneficiaries, designing the benefits package, fixing the package rate, empanelment of facilities, monitoring and regulation and fraud detection (Lahariya, 2018).

2.4.1 Increased Empanelment of Private Hospitals:

The success of the scheme will be measured by the access of health services across the population, type of services available and financial protection offered. As suggested by Angell et al. (2019) UHC can be achieved by overcoming the deficiencies of the Indian system such as issue of public and private governance, stewardship, quality control and health system organization. Monitoring and tracking the progress under the scheme is needed. A study conducted in Chhattisgarh reveals that highest vulnerability districts have the highest insurance coverage, but the lowest availability of empanelled hospitals (3.4 hospitals per 100,000 enrolled) and the distribution of private hospitals are highly unequal and are concentrated in lower vulnerable districts (Nandi et. al., 2018).

The studies suggested that private providers tend to unnecessary testing and treatment in low- and middle-income countries. The studies do not support the claim that the private sector is more efficient, accountable or medically effective than the public sector. However, the public sector lacks timeliness and hospitality (Basu et al., 2012). In low-income states, empanelment of private hospitals by insurance companies is low and is concentrated in few pockets. However, in states like AP, Telangana, Karnataka and Tamil Nadu the extent of empanelment of private hospitals in GHIS schemes is also substantially smaller than the empanelment of private

hospitals by insurance companies. This indicates that there is low willingness of private hospitals to participate in GSHIS schemes (Choudhary and Datta, 2019).

2.4.2 Accessibility of the Scheme

The accessibility of the scheme is an important challenge for the success and to improve the penetration of the scheme. There seems to be no evidence that schemes such as Rashtriya Swasthya Bima Yojna (RSBY) causes any reduction in out-of-pocket expenditure among the masses. The studies reveal that there is no significant difference between RSBY insured and uninsured houses (Ghosh & Gupta, 2017; Karan et al, 2017). A study conducted in Chattisgarh on RSBY reveals that more than 35.5 per cent of the patients had to spend huge amounts on health expenditure (Nandi et al., 2017).

However, studies suggested that households with insurance schemes are ineffective in reducing the mean hospitalization cost (Hooda, 2017). This study also suggested that households in higher insurance enrolment districts are more likely to be impoverished than households living in lower enrolment insurance districts. Ayushman Bharat scheme includes tertiary and secondary care and accessibility to such services are concentrated in few rich districts and due to this the patients of poor districts have to migrate to rich districts for availing insured services. Since the schemes are targeted to poorer sections of the population, low access to tertiary care health facilities in poor districts results in reduction in access to benefits of such schemes (Choudhary et al., 2019). This study on three Indian States – Andhra Pradesh, Tamil Nadu and Karnataka also revealed that there is no proper relationship established between the schemes and the out-of-pocket expenditure.

The enrolment of earlier insurance schemes such as RSBY also suggested that the poor do not get benefitted from such schemes as almost half of the households enrolled belonged to the non-poor section (Ghosh & Gupta, 2017). Another study by Chowdhury and Mukherjee (2019) reveals that States with higher incidence of poverty were found with lower proportion of its population under the government supported insurance coverage (RSBY) and vice-versa (Chowdhury and Mukherjee, 2019). In terms of effectiveness of the schemes with respect to out-of-pocket expenditure remains ambiguous in all the States. However, a study by Garg et al. (2019) evaluated that the publicly funded health insurance (PFHI) scheme in three

Indian States – Andhra Pradesh, Tamil Nadu and Karnataka with respect to improving utilization of hospital services and financial protection against expenses of hospitalization. The study suggests that the enrolment under the scheme was not associated with the utilization of hospital care. The private hospitals dominated the empanelment of facilities under the PFHI scheme. Out of pocket expenditure did not decrease with enrolment under PHFI and the size of the out-of-pocket expenditure was greater in private sector irrespective of insurance enrolment (Garg et al., 2019).

2.4.3 Corrupt and Fraudulent Practices:

However, a study by Sethi et al. (2019) highlighted the frauds surging in the registration processes under the scheme. Some States such as Uttarakhand, Chhattisgarh, etc. have witnessed incidents of fraud patients and fraud claims by private hospitals. Many fraudulent websites and mobile apps are launched that fleece money in the name of enrolling beneficiaries. Nearly, 125 fake websites and 195 fake android applications has been closed by NHA, there are still many who are functioning. Thus, quality checks are compulsory in private sector as without it there will be unnecessary and excess inpatient admission, unnecessary procedures and inferior quality of services (Sethi et al., 2019). As study by Gopichandran (2019) emphasised should be given on regulations. The corrupt practices and profit motivated supplier induced demand by private health care providers are the possible ethical burdens of the scheme. The scheme should strictly regulate the tertiary and secondary health care in private hospitals to prevent any misuse.

2.4.4 Digitization of Health Records

It has been observed that various studies have suggested that ICT application are fragmented in India and lacks interoperability and posed a challenge to the scheme (Wadhwa, 2019; Wadhwa and Bajpai, 2019). According to Rural Health Statistics (2018) it was observed that 7 percent of PHCs are operating without power, 35 percent without computers and 46 percent without telephones making the digitization of health data and telemedicine seem to be a hurdle.

2.4.5 Financial Burden

A study by Choudhary et al. (2019) analysed the fiscal implications of government sponsored health insurance (GSHI) schemes implemented in three Indian States such

as Andhra Pradesh, Tamil Nadu and Karnataka. Andhra Pradesh bore the brunt of the financial strain due to its large population and high number of covered procedures (over a thousand). In comparison, Tamil Nadu and Karnataka each had smaller populations but nearly identical procedure counts (663 procedures for roughly 60 percent of the population) (Choudhary et al., 2019). The authorised sum of ₹3,200 crores of rupees will not be enough, according to Sethi et al. (2019). They calculated that if 10 percent of beneficiaries made claims, it would amount to ₹50,000 crores annually, based on their maximum coverage. The federal government and the states will have a lot of work to do on this (Sethi et al., 2019). The funding for the programme is very insufficient, say Chowdhury and Mukherjee (2019). A smaller percentage of the population in states with greater poverty rates had health insurance that was paid for by the federal government, and the reverse is also true. The analysis found that Ayushman Bharat Scheme lack of coverage for outpatient treatment was one of the program's major shortcomings. Insurance alone won't assist the poor, according to other nations' experiences; further public investments in health facilities, healthcare workers, and preventative treatment are necessary. Consequently, a public health care should be funded by the government to ensure that it is both accessible and cheap for everyone.

2.4.6 Performance of Government Health Insurance Schemes

The Ayushman Bharat Scheme implementation and its performance is a still evolving topic and therefore the available research on the scheme performance is sparse. The government of India has recently promoted research in this area in order to generate evidence and enable cross-learning across the Indian States. In these lines are the studies by Trivedi et al. (2019) and Furtado et al. (2019) which has relevance to the focus of the present study. There are gaps in the understanding about the translation of recommendations into procedures and processes at the hospital level, as Trivedi et al. (2019) highlighted that even though the Ayushman Bharat Scheme initiative has specified guidelines for each stage of the hospitalisation processes. Although patients had to pay out of pocket to receive benefits, a thorough mapping of the sequence of activities done on a daily basis during a hospitalisation event in 14 hospitals in Gujarat and Madhya Pradesh revealed that recommendations were properly completed. Madhya Pradesh takes more time than Gujarat to approve pre-auth petitions from private hospitals. When a technical support person like Ayushman

Mitra was on staff, patients had to wait less than when a non-technical person was around.

In a similar note, another study in Uttar Pradesh and Jharkhand was conducted by Furtado et al. (2019) attempted to determine process efficiencies and outputs of purchasing, with a focus on claims management. The study used indicators like pre-authorization turn-around-time (TAT), claims TAT, the claims ratio and hospital empanelment TAT for assessment of the process efficiencies. The study brings to light that though the Insurance model shows higher performance output, the trust model if adequately capacitated can operate more efficiently by maintaining a higher level of vigilance and fraud alertness. The average administrative cost of claims processing is remains low in the present status under the Trust model (Furtado et al., 2019).

Earlier, in 2015, the performance of the Mizoram State Healthcare scheme was assessed in a study by Thanga using general feature indicators and functional indicators. The indicators for assessing the general features comprised of coverage enrolment and funding sources. While, the functional indicators comprised of claim profiles including size, illnesses, age-sex composition; speed of claim settlement; and performance of service provider network. Though the scheme did well in terms of TAT for bill settlements, coverage and financial soundness, the author indicated information asymmetry among the various stakeholders including the dealing staffs in the hospital and the beneficiaries and the minimal participation of the primary care providers as shortcomings of the scheme (Thanga, 2015).

The above literature review provided a comprehensive understanding on the areas of the present study, viz., scheme/program awareness, determinants of utilization and satisfaction of health programs which are important to improve effectiveness of the scheme. The foremost for improving effectiveness is the awareness of the scheme/program itself and the review highlights that insufficient information, low awareness of health issues, and marginalization from social and healthcare systems are bottlenecks in awareness generation and hence low utilization. Apart from comprehensive awareness campaigns and the use of mass media and social media for reach of information, promotions at the health facilities and by the community that includes the healthcare workers is also important. The utilization and

satisfaction of a health scheme has overlapping factors that determine them. From the review of literature, a variety of factors were identified to influence the utilization of a health service/scheme/program. Among these included, age, gender, caste, education, occupation, household size, wealth quintiles, health needs/type of illness, accessibility, affordability, distance of health facility, timing in terms of waiting hours, quality of care, awareness of health insurance, that decides the utilization pattern of healthcare services. Also, factors like long-term morbidity, awareness, family size of more than four, family member with chronic disease, suffering from an accident/injury, high socio-economic status, employed household head, insured households, type of insurance-basic or full coverage, households with female heads, having a health scheme card, the demeanour of healthcare workers improved utilization of health insurance schemes. The satisfaction was also intertwined with similar factor impacting it. In addition, factors like continuity of care, cultural values, ease of getting appointment, treatment quality and getting better, hospital care environment, knowledge and attitude of healthcare providers effected the satisfaction levels among patients. These aspects of utilization and satisfaction were included in the beneficiary questionnaire as deemed fit and data were collected and analysed in this thesis. The reviewed literature on the issues and challenges under the Ayushman Bharat Scheme also have identified the areas of enquiry that needs be taken into consideration while planning stakeholder interviews. The major issues highlighted included issues with empanelment of private hospitals, scheme accessibility, fraudulent practices, digitization issues and the financial issues. These were incorporated as questions in the stakeholder interviews while conducting the study.

CHAPTER-III

RESEARCH METHODOLOGY

CHAPTER III
RESEARCH METHODOLOGY

The research methods adopted and the tools used for data collection and analysis are imperative for framing the research design for a study. It involves the processes of formulation of the sample design, developing of the tools for information gathering and the process of data gathering and its examination. Thus, a well set out research design is inevitable for data collection and analysis. A detailed description of the study population is presented in this chapter and the research methodology including sample design and sample size as well as data analysis tools used are described. There are three sections in this chapter. Section I, discusses the concept and hypotheses for the study and the sample design and process of estimation of sample size for the research. In section II, instruments of research are discussed in terms of their validity and reliability. Analysing data using statistical tools is described in detail in Section III.

SECTION I

3.1 Design of the Study

The present study is based on descriptive research design. A cross-sectional study has been conducted for the collection of data from Haryana.

3.1.1 Sampling Design

The universe for the study were the BPL families in Haryana that were beneficiaries of the Ayushman Bharat Scheme. In most cases, it is impossible to collect data from every member of a group of people while conducting research on them. Thus, selection of a sample is utmost important for conducting research.

Table 3.1: Details of the Sampling Frame for the Study

Zones	District	Total No. of rural House Holds	Total rural population	Total No. of BPL Households	percentage of BPL Households	Empaneled Hospitals		
						Public	Private	Total
NORTH	Ambala	145934	727173	44185	30.28	07	26	33
	Kurukshetra	140532	698186	46491	33.08	06	19	25
	Panchkula	41340	198362	13514	32.69	04	13	17
	Yamuna Nagar	160315	778836	45330	28.28	08	19	2
WEST	Sirsa	184637	908329	47640	25.80	09	20	29
	Fatehabad	137193	674713	48720	35.51	06	07	13
	Bhiwani	260951	1259344	70009	26.83	13	14	27
	Hisar	237925	1186618	58737	24.69	09	36	45
CENTRE	Jhajjar	130747	679752	29221	22.35	09	12	21
	Jind	183976	926386	61540	33.45	09	07	16
	Kaithal	173186	864179	52732	30.45	07	05	12
	Rohtak	120308	615965	22426	18.64	09	34	40
	Charki Dadri	135455	678123	45435	29.87	03	07	10
EAST	Sonipat	183373	969673	48405	26.40	07	23	30
	Faridabad	160314	766773	34807	21.71	06	23	29
	Palwal	156453	789098	45678	30.67	06	10	16
	Karnal	195597	920169	52355	26.77	09	33	42
	Panipat	135938	649979	33402	24.57	06	34	40
SOUTH	Rewari	136008	678259	34729	25.53	02	15	17
	Mahendergarh	145430	767954	38665	26.59	09	11	20
	Gurgaon	93130	495178	22211	23.85	07	23	30
	Mewat	192388	1102494	53270	27.69	03	01	04
	Total	3159222	1586832	858389	27.17	154	370	524

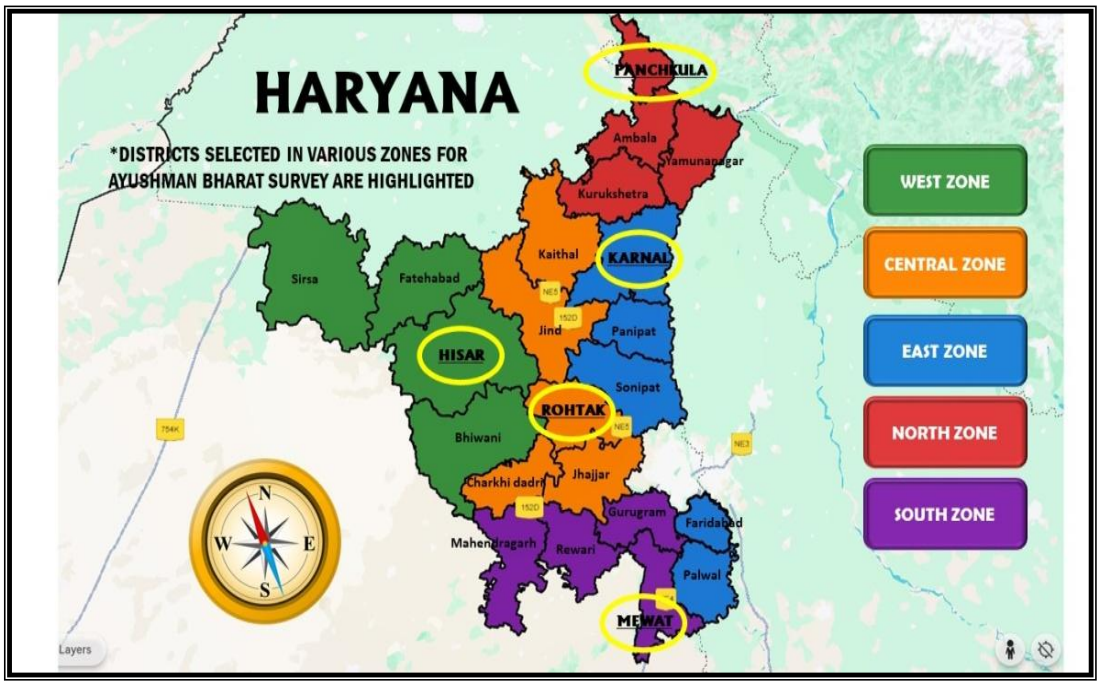
Source: Govt. of Haryana (2020)

The methods for selection of a robust sample, that is representative of the study population, are known as sampling methods. The study respondents were, therefore, selected from BPL families in Haryana who were beneficiaries of the Ayushman Bharat Scheme. A digital list of scheme beneficiaries was obtained from the Department of Health and Family Welfare before selection of the sample. The summary details about the frame from which samples were taken across the state has

been given in table 3.1. zone wise distribution of districts has been shown and the selected districts for the study have been described.

3.1.2 Sample Design

The secondary information obtained from the Department of Health and Family Welfare, Haryana was classified into five zones viz., Northern, Southern, Central, Eastern and Western zones. Further, one district from each of the zones is being enrolled viz., Panchkula, Mewat, Rohtak, Karnal and Hissar respectively. The districts were selected based on first residential density, both highest and lowest, of beneficiary BPL families, viz. Rohtak and Panchkula respectively. This difference between the different zones is due to their occupational status and migration among the rural and urban population in recent decades. Secondly, one district with highest and lowest empanelled health facilities is being selected viz., Hissar and Mewat respectively**.** Thirdly, Karnal is considered as a progressive district in central Haryana and therefore, was included as the fifth district to the sample (Figure 3.1).



Source: Haryana Statistics (2020)

Figure 3.1: Selection of Representative Districts amongst various Zones

3.1.3 Sample Size Estimation

The sample size is the process of selecting how many observations or repeats should be included in a statistical model. In order to make inferences about a population from

a sample, sample size is a crucial aspect of any empirical study. Though data collection costs, time, and convenience can determine the sample size in a study, it is equally important to have sufficient statistical power which is based on the standards set by the researcher.

The sample size is obtained using the equation given below:

Where, Z= Z statistic for a level of confidence. For a 95 percent level of confidence, the conventional Z value is 1.96. p=estimated prevalence of risk factor and e= margin error e.

$$Sample\ Size\ (n)\ = Z^2(p)\ (1-p)\ /\ e^2$$

Table 3.2 Sample Size According to Ronan Conroy Guide on Sample Size

Acceptable Margin of Error	Size of Population					
	Large	**5000**	**2500**	**1000**	**500**	**200**
+20%	24	24	24	23	23	22
+15%	43	42	42	41	39	35
+10%	96	94	93	88	81	65
+7.5%	171	165	160	146	127	92
+05%	384	357	333	278	217	132
+03%	1067	880	748	516	341	169

Source: The RCSI Sample size hand book. (2021)

As per the 2011 census, Haryana has around 10 percent BPL population. According to Ronan Conroy guide on sample sizing, sample size of approximately 553 was found to be appropriate to have a study of 95 percent power and <5 percent margin of error (Table 3.2 and 3.3).

Table 3.3 Prevalence and Power for Comparing a Sample with a Known Population

Difference between the prevalence	Population prevalence 50 percent		Population prevalence 25 percent		Population prevalence 10 percent	
	90 %	**95 %**	**90 %**	**95 %**	**90 %**	**95 %**
5%	1047	1294	825	1028	438	553
10%	259	319	214	267	122	156
15%	113	139	97	122	59	76
20%	62	76	56	70	35	46

Source: The RCSI Sample size handbook (2021)

3.1.4 Distribution of Sampled Respondents

The estimated sample size of 553 beneficiaries was drawn from five selected districts representing various zones, namely Hisar, Karnal, Mewat, Panchkula, and Rohtak. The sample was distributed using the Probability Proportional to Size (PPS) method, based on the BPL population in each district. According to the secondary data, Hisar and Mewat districts have the highest BPL population, accounting for 30 percent each. Consequently, the largest samples of 165 respondents (30 percent of the total sample size) were allocated to these two districts. Karnal district, with 22 percent of the BPL population, was assigned a sample size of 121 respondents. Rohtak district, representing 13 percent of the BPL population, received a sample size of 72 respondents, while Panchkula, with the lowest BPL population of 5 percent, was allocated a sample of 30 respondents. The distribution of the sample size across the selected districts is detailed in table 3.4.

Table 3.4 Sample Size Selection for the Study

Zones (Selected District)	BPL Population	Percent of Selected Sample	Sample Size (N= 553)
West (Hisar)	1186618	30	166
East (Karnal)	920169	22	121
South (Mewat)	1102494	30	166
North (Panchkula)	198362	05	28
Centre (Rohtak)	615965	13	72

Source: Govt. of Haryana (2020)

3.1.5 Selection of Stakeholders of Ayushman Bharat Scheme

However, other than the BPL beneficiaries, the Ayushman Bharat - PM-JAY has three important stakeholders that are part of the formal structure of the scheme implementation. These includes as follows:

(a) Government agencies and policymakers - health department officials handling Ayushman Bharat scheme

(b) The insurance companies

(c) The empanelled hospitals under the scheme.

The present research study has collected data through semi-structed interviews with these different stakeholders using pre-defined and pretested questionnaire. The discussions were planned and conducted for the following sample of stakeholders in the present study as shown in table 3.5

Table 3.5 Stakeholders Sample Size for the Study

S No.	Stakeholder	Number of Stakeholders
1	Health Department officials handling Ayushman Bharat Scheme	4
2	Administrators of empaneled hospital –public and private (1 each from public and private in 22 districts)	44
3	Insurance provider	2

Source: Authors creation on the basis of sample selection

In order to comprehend the system's execution from their end, the present study interviewed 44 administrators from empanelled hospitals under the scheme, 4 Ayushman Bharat Scheme officials, and 2 insurance providers to get their viewpoints. This has been useful in understanding how the scheme's private and public hospitals vary in their procedures.

SECTION II

3.2 Research Instrument

This section defines the approaches and measures used for the collection of data.

3.2.1 Data Sources

Considering the comprehensive objectives of the study data was obtained from the secondary as well as the primary sources.

A. Primary Data

The primary data has been collected from a sample size of 553 beneficiaries was drawn from five selected districts representing various zones, namely Hisar, Karnal, Mewat, Panchkula, and Rohtak. The primary data has also been collected from the various stakeholders. The data was collected from Health Department officials

managing the Ayushman Bharat scheme, administrators of empanelled public and private hospitals (one each from 22 districts), and representatives of the insurance provider involved in the scheme's implementation. A set of two semi-structured questionnaire has been used for the collection of data as has been presented in annexures:

1. Questionnaire for beneficiaries of Ayushman Bharat scheme
2. Questionnaire for stakeholders of Ayushman Bharat scheme

B. Secondary Data

The study is based on the secondary data obtained from government reports and websites. The study was based on data obtained from Ayushman Bharat Haryana website contains providing data on empanelled hospitals, district coverage, hospital types and enrolment phases, along with reports from the Ministry of Labour, Census, Haryana Economic Survey and International Labour Organization.

3.2.2 Pilot Study

A pilot study evaluates whether a future full-scale study is feasible and evaluates the study questionnaires/tools to examine if it produces the required information correctly. The accomplishment of a pilot study does not guarantee the triumph of a research project. While it is helpful in assessing your method and practicing the relevant methods, it does not guarantee success. The pilot phase or pre-test of the study was conducted in one of the twenty-two (22) districts, Panchkula. A total of 50 enrolled beneficiaries of Ayushman Bharat Scheme was randomly selected and interviewed to carry out preliminary analysis. The wrong understandings, measurement errors and duplications were rectified and after rephrasing of words and statements as per the findings of the pilot study, the study questionnaires were finalized and used for data collection in the study.

3.2.3 Reliability Analysis

A reliability analysis examines the properties of measurement scales as well as the items that make up the scales. The scale reliability measures can be calculated using the reliability analysis procedure. As well as providing evidence about discrete items

on the scale, it provides information about their relationships. The reliability was be measured though Cronbach alpha, 'α' score. The 'α' score indicates that the tool is reliable and measures the internal consistency. The validity of the tool was be based on the pilot study. A reliability score of 0.789 was obtained for the present study and thus endorsing the reliability of all constructs.

3.2.4 Ethical Considerations

Ethical considerations guided the study's design and procedures. A complete anonymity was ensured, as no names or identifying information were collected. Informed consent was obtained from all government authorities, scheme officials at empanelled hospitals, and scheme beneficiaries. The consent letter outlined the study's objectives and methodology in detail.

3.2.5 Hypothesis of the Study

The following hypotheses were framed and were tested to achieve the objectives of the present research.

1. Hypothesis to study the level of awareness among scheme beneficiaries on various aspects of Ayushman Bharat scheme in Haryana.

   H_0: There exists no significant difference in the level of awareness towards Ayushman Bharat scheme in different regions of Haryana.

2. Hypothesis to examine health care utilization under the Ayushman Bharat scheme in Haryana.

   H_0: There exists no significant difference in the healthcare utilization under Ayushman Bharat scheme in different regions of Haryana.

3. Hypothesis to study the level of satisfaction among scheme beneficiaries of the Ayushman Bharat scheme in Haryana.

   H_0: There exists no significant difference in the satisfaction level of the beneficiaries of Ayushman Bharat Schemes indifferent regions of Haryana, in the public and private hospitals.

SECTION III

3.3 Statistical Tools for Data Analysis

3.3.1 Methods for Data Analysis

Data that is meaningless and lifeless is breathed life into by statistical analysis. Inferences and results can only be exact if mathematicians use the proper tests. An analysis of data is the process of identifying patterns, inclinations, or other insights based on the collected data. The data has been analysed tentatively both by descriptive and inferential statistics. A descriptive statistic describes the association amongst variables in a sample or population. Data may be summarised using descriptive statistics such as means, medians, and modes. Inferential statistics use analysis and numerous tests of robustness and variability to draw conclusions about a population. All the quantitative data collected from the interviews of beneficiaries were recorded manually, and later were digitized into the computer. The material obtained using these methods were organized into a searchable database and systematically reviewed using SPSS software. Data is presented by using mean, median, dispersion, factor analysis, structural equation modelling etc. The statistical analyses used were percentages, one sample t-test, Chi-Square test, ANOVA, and Mean and Standard deviation. However, simple percentages and averages were computed for ease of reference and understanding. The details about these tools are given hereunder:

a. **Mean**: The mean provides insights into the distribution's central tendency. Simply divide the total number of scores by the total number of scores to get the mean (also called the arithmetic average). The impact of extreme variables on mean is substantial. The impact of extreme variables on mean is substantial. The formula for mean is:

$$Mean = \frac{\sum x}{N}$$

Where, x is the sum of all observations and N is the number of samples.

b. **Standard Deviation (SD)**: It measures how distributed data is from the mean. There is a high degree of clustering around the mean with low standard deviation. There is a greater spread in data when the standard deviation is high. Its formula is given as:

$$SD = \sqrt{\frac{\sum(x_i - mean)^2}{N}}$$

Where, N is the population size and x_i is one sample from the population.

c. **Student t-test**: Student's t test (also called test) compares two groups' means without needing to make multiple comparisons since there is only one p value. The statistical hypothesis tests based on t-distributions are t-tests whose statistic follows the null hypothesis's t-distribution. When a scaling parameter in the test statistic is unknown, it tends to mean the test statistic would follow a normal distribution. The student's t distribution is followed when the scaling term is estimated from data. Its formula is given as follows:

$$t = \frac{mean - theoretical\ value}{SD/\sqrt{n}}$$

Where, n is the variable set size.

d. **Analysis of Variance (ANOVA):** Analysis of Variance (ANOVA) is a statistical method used to compare the means of three or more groups to determine if at least one group mean is significantly different from the others. The ANOVA equation can be expressed as:

F= Within-group variance/Between-group variance

Where, between-group variance is:

$$\frac{\sum_{i=1}^{k} n_i(\bar{X}_i - \bar{X})^2}{k-1}$$

and the within-group variance is:

$$\frac{\sum_{i=1}^{k}\sum_{j=1}^{n_i}(X_{ij} - \bar{X}_i)^2}{N-k}$$

Here, $\overline{X}_i$ is the mean of the i-th group, $\overline{X}$ is the overall mean, n_i is the sample size of the i-th group, N is the total sample size, and k is the number of groups

e. **Chi-square test**: A chi-square test was used to compare the distribution of a categorical variable in one sample to that of another. This was done, for instance, to determine if there was a difference between the public and private hospital beneficiaries.

$$Chi - square\ = \sum \quad \frac{(Oi - Ei)2}{Ei}$$

Where, O_i is observed value and E_i is the expected value

After sorting the answers into categories based on common themes, the qualitative data was evaluated using the thematic content analysis approach. The findings of the qualitative analysis were triangulated with the secondary data findings and the quantitative analysis findings and included in the thesis.

SECTION IV

3.4 Limitations of the Study

i. The present research is a cross-sectional type of research thus the same results cannot be generalized in the longitudinal type of research.

ii. In the present study sample was selected from districts based on high and low BPL population. If samples were taken from all the 22 districts of Haryana, it would have provided different results.

iii. The results of the study are restricted to the five selected districts of Haryana, thus, socio-demographic, geographical and cultural traits may differ in different districts of Haryana state and the results obtained cannot be generalized for the entire state.

CHAPTER-IV

AWARENESS OF AYUSHMAN BHARAT SCHEME AMONGST THE SCHEME BENEFICIARIES

CHAPTER IV
AWARENESS OF AYUSHMAN BHARAT SCHEME AMONGST THE SCHEME BENEFICIARIES

India's population is expanding at a faster pace which has brought it the status of world's most populous country. However, country's spending on basic services like health and education is not keeping pace. The health care expenditures of the government presently stand at just 2 percent of GDP after being hovering around the trend of 1-2 percent for many decades (Reserve Bank of India, 2020; MOSPI, 2020). This further suggests that the country's out-of-pocket health costs are quite considerable. An estimated 55 percent of Indians (52 percent in rural areas and 61 percent in urban areas) use private healthcare providers, according to the 75th round of the National Sample Survey Office (NSSO). In the nation, out-of-pocket healthcare expenses are now at 47 percent, down from 64 percent in 2013–14, according to the annual report of National health accounts for 2019–20. (NHSRC, 2023). Medical expenses for hospitalization are nearly ₹15,937 in rural and ₹22,031 in urban areas (MOSPI, 2020). Most Indians belong to the middle class or lower socioeconomic class, health care expenses cause many families to go into debt and gradually into poverty.

In the fiscal year 2018-19, Haryana's Net State Domestic Product (NSDP) stood at a substantial ₹6,66,075 crores. Among the 32 states of India, Haryana secured the 5th position in terms of per capita income, which amounted to ₹2,36,147 (MOSPI, 2020). However, when it comes to healthcare spending, there are notable deviations from the national averages. Below the national average of ₹1,753, the per capita government health spending in Haryana is ₹1,428 rupees. Additionally, compared to the national average of 48.8 percent, OOPE accounts for 50.4 percent of Haryana's total health spending in 2023. According to the NSSO 2017–18, private hospitals in Haryana charge about ₹26,652 per patient, while public hospitals in rural regions charge around ₹9,170 per patient for in-patient department (IPD) services. Public amenities in urban areas cost ₹8,671 while private facilities cost ₹27,287. (MOSPI, 2020). These numbers highlight the complex interplay between income levels, government spending, and individual out-of-pocket burdens in Haryana's healthcare landscape. The launch of the Ayushman Bharat Scheme–PMJAY targets directly on

reducing the OOP on health and the scheme plans to bring secondary and tertiary care to the poor and the deprived at zero cost. However, for the scheme to be effective, reaching the information about the scheme to the masses is of prime importance. Only with sufficient awareness of the scheme it could be effectively and efficiently accessed by the target beneficiaries which will lead to fulfilling the ultimate goal of attaining UHC.

SECTION I

4.1 Beneficiary Awareness for Ayushman Bharat Scheme

4.1.1 Beneficiary Awareness as a Key Factor in Achieving Universal Health Coverage

The extent to which beneficiaries are knowledgeable about the health programme and the services it provides is a key factor in the scheme's effectiveness. In order to achieve the goal of Ayushman Bharat - PMJAY, which is to ensure that everyone has access to quality healthcare and financial security, it is essential that beneficiaries be well-informed. It is critical to learn more about beneficiaries' awareness and look for ways to improve if we want to go forward with UHC. A major obstacle to achieving the basic human right to health services is a lack of awareness about health programs especially those that target disadvantaged groups (Sen, 2008). The evidence strongly suggests that the effectiveness and acceptance of UHC programmes are directly impacted by the level of knowledge about programme rights. According to Platteau and Ontiveros (2013) barriers including lack of knowledge, poor health awareness and isolation from social and health institutions, the very poor often do not make full use of the free services offered at primary health centres (Ahmed et al., 2006).

4.1.2 Awareness Towards Various Aspects of Ayushman Bharat Scheme

It is anticipated that the general public and particularly the target groups are well-informed about all the aspects of Ayushman Bharat scheme, which has been in operation for five years throughout the Indian states. But the data show that people are still just somewhat or not at all aware of all the aspects of the initiative. Only over 62 percent of respondents were familiar with the PM-JAY, according to a recent survey that examined awareness levels across six Indian states. In addition, 78 percent of those who were aware of the programme were aware that they qualified for it (Parisi et al., 2023). Another study in Gujarat highlighted that the AB-PMJAY was popular

in Gujarat with about 24 percent having high level of awareness about the scheme and about 47.8 percent having moderate level of awareness (Thomas et al., 2023). Assessment in a district in Karnataka showed the awareness level of the Ayushman Bharat Scheme to be 65 percent out of which 68 percent of them were beneficiaries (Girish, 2023). The general awareness in Bihar was found to be 68.6 percent while among the eligible participants about 79 percent were aware of the Ayushman Bharat Scheme (Prasad et al., 2023).

The awareness levels among the general public are influenced by the community around them, especially the healthcare workers that they trust on for matters of health. Therefore, the awareness about the Ayushman Bharat Scheme among the HCWs is also equally important for imparting this knowledge to the beneficiaries. However, there is lack of understanding of the HCWs too about the scheme (Reddy &Navuluri, 2020; Nirala & Santosh, 2022). A strong IEC strategy is essential for the effective implementation of AB - PMJAY in Haryana, which is a Greenfield state when it comes to the implementation of government-financed health insurance policies. Considering that the current research began almost three years after Ayushman Bharat Scheme was implemented in Haryana, it is reasonable to assume that there has been a shift in awareness. This present study aims to gather information on how AB-PMJAY is being used and how well-known it is in the state of Haryana.

SECTION II

4.2 Awareness Analysis among Study Respondents towards Ayushman Bharat Scheme

4.2.1 Socio-Demographic Characteristics of the Study Respondents

The analysis results indicated that 186 (33.7 percent) of the participants in our study were aged 60 years or above, with a mean age of 49.9 and SD 15.2 years. It was found that 326 (59 percent) of the study participants were males. Participants in the study were most likely to have obtained informal education 184 (33 percent). There were 200 semiskilled workers, out of total 553 respondents in the study (36.4 percent). 127 (23 percent) respondents belonged to six unskilled categories of workers including insolvent, living on donations, manually scavenging families, primitive tribal groups, and legally released bonded labour, which shows the immense need for

such programme as the Ayushman Bharat. However, 368 study respondents belonged to nuclear family and they constituted about two-thirds (66.2 percent) of the study sample. Majority of respondents (72 percent) were Hindus. It is estimated that 300 of the study members (54.2 percent) were general category participants. Ration cards were used by nearly two-thirds (452) of the study participants (81.3 percent) (Table 4.1).

Table 4.1: Socio-Demographic Characteristics of the Sampled Respondents

Variable	Category	N (%)
Age	15-30 years	85 (15.4)
	31-45 years	159 (28.7)
	46-60 years	123 (22.2)
	above 60 above years	186 (33.7)
Gender	Male	326 (59.0)
	Female	227 (41.0)
Education	No formal education	184 (33.3)
	Primary school	69 (12.5)
	Middle school	73 (13.2)
	Secondary school	172 (31.1)
	Senior secondary school	38 (6.8)
	Graduation & above	17 (3.1)
Employment Status	Unemployed unskilled worker	127 (23.0)
	Semi-skilled worker	200 (36.2)
	Skilled worker	103(18.6)
	Clerical	81 (14.6)
	Shop owner	31 (5.6)
	Semi-professional	05 (0.9)
	Professional	06 (1.1)
Family	Nuclear family	368 (66.6)
	Joint family	185 (33.4)
Religion	Hindu	398(71.9)
	Muslim	87 (15.7)
	Sikh	60 (10.9)
	Christian	08(1.5)
Category	General	300 (54.2)
	Other Backward Class	131 (23.6)
	Scheduled Tribe	86 (15.5)
	Scheduled Caste	36 (6.5)
Ration Card	Yes	452 (81.3)
	No	101 (18.7)

Source: Author Calculation Based on Primary Data

4.2.2 Awareness About Ayushman Bharat Scheme among the Respondents

The data analysis showed that Ayushman Bharat Scheme awareness was 57.3 percent (315 out of 553) amongst the study respondents. Awareness about health insurance, in general, was unknown to a little less than half (42.7 percent) of the respondents. More men were aware of the scheme as compared to women. As shown in table 4.2, around 65 percent men were aware of the scheme while only 49 percent of the women had knowledge about it.

Table 4.2 Gender Wise Awareness of AB-PMJAY Among the Respondents

Particulars	**N (%)**
Awareness level	
Male (N =326)	205(62.9)
Female (N=227)	110 (48.5)

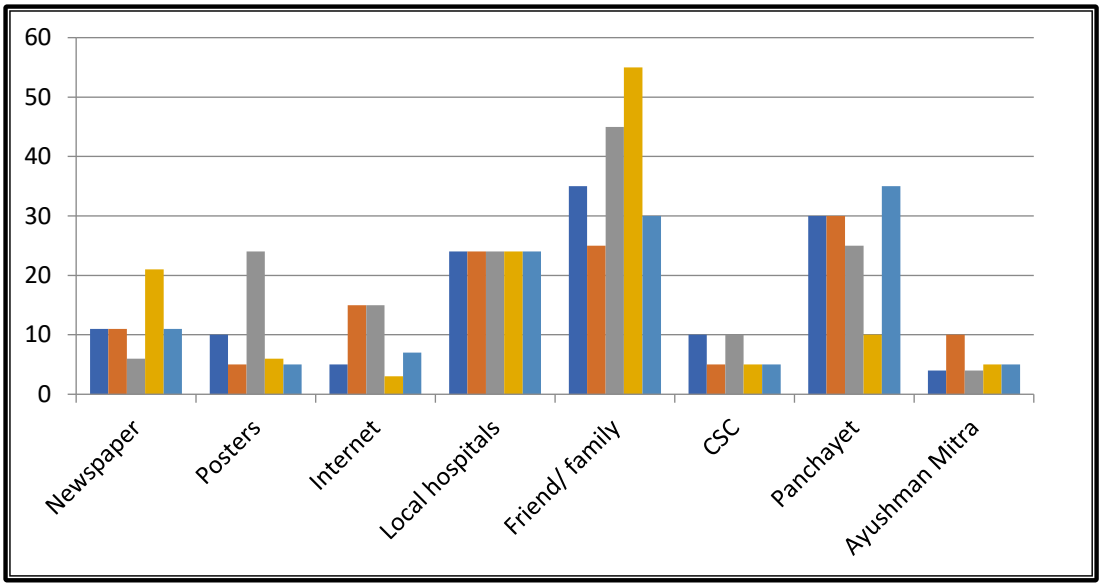
Source: Author Calculation Based on Primary Data

As regards the source of information about the Ayushman Bharat Scheme among the beneficiaries, it was observed that social media was the primary source of information among the general population with about 31 percent of them depending on it. This was followed by friends/relatives with 29 percent of them receiving information from them and about 27 percent of them receiving information from the local health centres. About 13 percent received information from other sources (table 4.3).

Table 4.3: Source of Information about AB-PMJAY Amongst Respondents

Source of information about Scheme	**N (%)**
Friends and family	160 (28.9)
Social media	171 (30.9)
Local health centres	149 (26.9)
Others	73 (13.3)

Source: Author Calculation Based on Primary Data



Source: Author Calculation Based on Primary Data

Figure 4.1: Source of Information about AB-PMJAY Amongst Respondents

4.2.3 Extent of Awareness About Ayushman Bharat Scheme Among Respondents

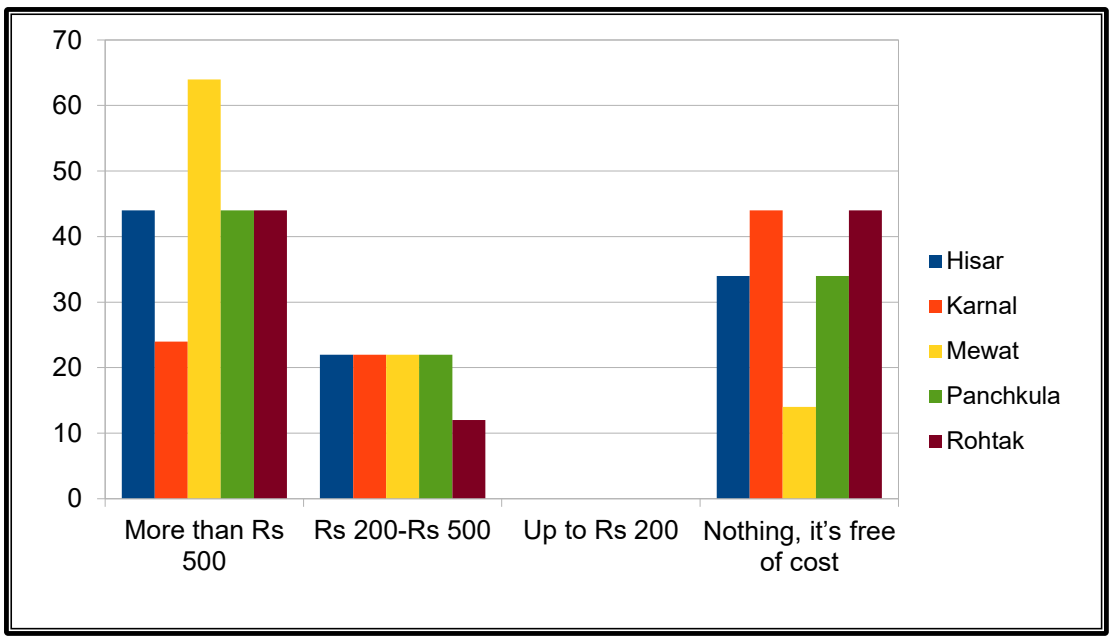
It has been observed that out of the 553 respondents only 315 knew about the scheme and table 4.4 show further the extent of awareness amongst the aware respondents.

Table 4.4 Extent of Knowledge about the Scheme Amongst Aware Respondents

Variables	Categories	N (%)
Ayushman Bharat Scheme Components	Coverage Amount	227 (72)
	Card Portability	99 (31.5)
	Treatment Package	41 (13.1)
	Diagnostics Covered	40 (12.7)
	Transportation Expenses	17 (5.3)
	Knowledge of Empaneled Providers	69 (21.9)
	Post-Discharge Benefits	48 (15.3)
	Number of Beneficiaries per Family	57 (18.0)
	Addition of New Family Member	98 (31.0)
	Grievance Mechanism	85 (27.0)
	Treatment Without e-Card	54 (17.0)
	Age Limit of the Dependents	25 (8.0)
	Others	54 (17.0)

Source: Author Calculation Based on Primary Data

It was observed that out of the 315 participants familiar with the AB-PMJAY, 226 (72 percent) knew the coverage amount, followed by 97 (31.5 percent) had knowledge about card portability. Only 41(13.1 percent) out of 315, had knowledge of treatment package, and diagnostics covered (12.7 percent). Most of the participants were unaware of aspects like coverage of transportation expenses (5.3 percent), age limit of the dependents (8 percent), coverage of post-discharge expenses (15 percent), and treatment without e-card (17 percent) and number of beneficiaries covered per family (18 percent). In spite of the fact that 238 (43.2 percent) participants were unaware of Ayushman Bharat Scheme eligibility criteria, only 37 (6.7 percent) participants knew that SC/ST families qualify for the Ayushman Bharat health card. Ayushman Bharat health card was known to almost 88 percent of all who were aware about the scheme. However, it was found that about 57 percent of the study participants were aware that the Ayushman Bharat Scheme covers all members of the family. The Ayushman Bharat card is available from government hospitals, according to 144 (46.2 percent) of the 315 participants who know about it. The availability of the product was unknown to 40 (13.2 percent) respondents. Ayushman Bharat cards are made for a fee, according to just 15 people (5.8 percent) (Table 4.4).



Source: Author Calculation Based on Primary Data

Figure 4.2: Awareness about Cost of Ayushman Bharat Card

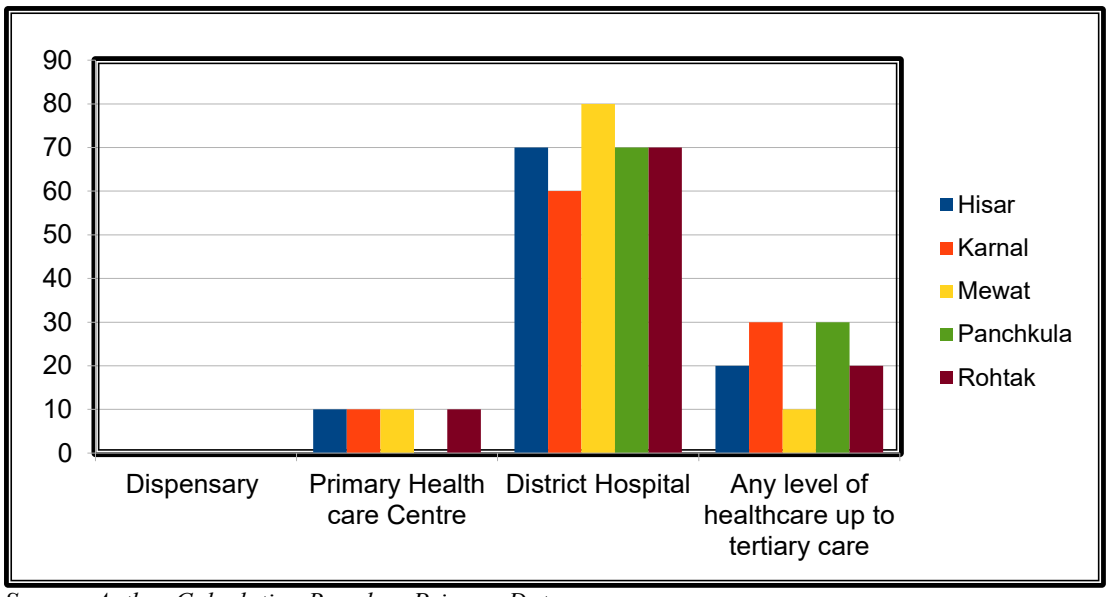
It was observed that out of 315 participants in the study that were aware of the Ayushman Bharat Scheme, about 252 (80.7 percent) of the participants stated a wrong notion that every member of the family must have their own card. According to many survey respondents, it has been found that about 240 of them (76.3 percent), were aware that having an Ayushman card is a requirement for receiving services. About 170 out of 315 participants that were aware of the scheme (54 percent) stated being able to use the Ayushman Bharat card for an emergency treatment. Among scheme aware study participants, only 99 (31.5 percent) of them knew their cards might be used in other states.

Table 4.5: Knowledge about the Ayushman Card Eligibility Amongst Aware Respondents

Variables	Statement	N (%)
Regarding the Eligibility Criteria of the Families	Do not know about Eligibility	136 (43.2)
	Only SC/ST households are eligible	21 (6.7)
	Landless families who derive major income from daily labor are eligible	123 (39.0)
	Others	54 (17.0)
Family Members Covered in Ayushman Bharat Scheme	All members of the family	180 (57.0)
	Elderly	123 (39.0)
	Do not Know	9 (3.0)

Source: Author Calculation Based on Primary Data

The study also observed misconceptions in the scheme understanding among the aware participants. About 245 (78 percent) of the scheme aware participants were aware that there is no requirement for renewal of the scheme and also that there is no need to pay premiums for the AB-PMJAY. This indicates the prevailing of wrong conceptions among the remaining 20-22 percent of the beneficiaries, though they were aware of the scheme. Ayushman Bharat's health insurance scheme does not require pre-health checkups is known to only 217 (69 percent) of the 315 scheme aware respondents which again indicates misinformation among remaining 30 percent as shown in table 4.6.



Source: Author Calculation Based on Primary Data

Figure 4.3: Awareness Kind of Medical Care Authorized Under AB-PMJAY

Table 4.6 Knowledge About Ayushman Bharat Card Usage and Processes

Variables	Statement	N (%)
Knowledge About Ayushman Bharat Health Card	Ayushman Bharat health card is required for treatment	277 (88.0)
	Ayushman Bharat Card is available from Government Hospitals	146 (46.2)
	Ayushman Bharat Cards are made for a Fee	18 (5.8)
	Emergency Treatment is made Easier with the Ayushman Bharat Card.	170 (54.0)
	Non-Residential use of Ayushman Bharat Scheme.	99 (31.0)
Knowledge About Usage of Ayushman Bharat Scheme	There is no need to renew the scheme	245 (78.0)
	There is no need to pay premiums for the AB-PMJAY	243 (77.1)
	For AB-PMJAY, there is no need for a pre-health check-up.	217 (69.1)

Source: Author Calculation Based on Primary Data

4.2.4 Factors Affecting Awareness of Ayushman Bharat Scheme

This study went a step further by analysing cross tabulations of scheme awareness with the different background characteristics of the study participants to find out what variables impacted or influenced the awareness levels of the Ayushman Bharat plan beneficiaries. Chi-square test was also run to determine the significance of the awareness differences across each variable's categories, as shown in table 4.5. The Chi-square results findings show a substantial correlation between the research participants knowledge of the Ayushman Bharat initiative and their ration card holders, socio-economic group, age category, and family type as shown in Table 4.7.

Table 4.7 Factors Associated with Awareness of Ayushman Bharat Scheme

Variables	Category	Awareness of Scheme		Chi-square statistics (p- value)
		Yes N (%)	No N (%)	
Age	16-30 years (N=85)	53 (62.3)	32 (37.7)	0.041**
	31-45 years (N=159)	87 (54.7)	72 (45.3)	
	46-60 years (N=123)	78 (63.5)	445 (36.5)	
	>60 years (N=186)	53 (28.6)	133 (71.4)	
Gender	Male (N=326)	260 (79.8)	66 (20.2)	0.314
	Female (N=227)	53 (23.3)	174 (76.7)	
Education	No formal education (N=184)	46 (25)	138 (75)	0.094
	Up-to Senior Secondary (N=352)	229 (64.8)	123 (35.2)	
	Graduation (N=17)	12 (70.9)	5 (29.1)	
Occupation	Unemployed Unskilled worker (N=127)	40 (31.4)	87 (68.6)	0.389
	Semi-skilled worker (N=200)	90 (45)	110 (55)	
	Skilled worker(N=103)	64(61)	39(39)	
	Clerical (N=81)	41 (50.23)	40 (49.77)	
	Shop owner (N=31)	20 (64.8)	11 (35.2)	
	Semi-Professional (N-5)	2 (40)	03 (60)	
	Professional (N=6)	2 (30.2)	4 (69.8)	
Family	Nuclear family (N=368)	217 (58.9)	151 (41.1)	0.02**
	Joint family (N=185)	126(67.6)	59(32.4)	
Religion	Hindu (N=378)	392(74.1)	138(25.9)	0.750
	Muslim (N=87)	2 (29.1)	5 (70.1)	
	Sikh (N-60)	9 (56.7)	7 (43.3)	
	Christian (N=8)	3 (28.3)	5 (61.7)	
Social Groups	General (N=300)	250 (83.4)	50 (16.6)	0.000**
	OBC (N=131)	100 (76.3)	31 (23.7)	
	SC/ST (N=122)	50 (40.9)	72 (59.1)	
Ration Card	Yes (N=452)	390 (86.4)	62 (13.6)	0.000**
	No (N=101)	53 (52.7)	48 (47.3)	

Source: Author Calculation Based on Primary Data

*Note: ** Significant at 0.05 level*

SECTION III

4.3 Summary

On the basis of the above discussion, it was found that Ayushman Bharat Scheme was primarily known to BPL community members through their friends and relatives and social media. Whereas, it was found that Ayushman Bharat-PMJAY participants had varying knowledge of its components and even among those aware there seemed to exist misconceptions on certain aspects like the renewal of scheme, payment of premiums and the requirement of pre-health checkups. The awareness of Ayushman Bharat Scheme-PMJAY was significantly correlated with age, social group, family type and ration card status of eligible participants. IEC and telecommunications should be used to promote Ayushman Bharat-PMJAY, as well as strengthening the grassroots network of health care workers, such as Accredited Social Health Activist (ASHA) and Anganwadi workers (AWW), to improve community connection. Ayushman Bharat-PMJAY should be utilized more effectively if eligible participants are identified.

CHAPTER-V

HEALTH CARE UTILIZATION UNDER AYUSHMAN BHARAT SCHEME IN HARYANA

CHAPTER V
HEALTH CARE UTILIZATION UNDER AYUSHMAN BHARAT SCHEME IN HARYANA

In today's healthcare system, a striking contradiction exists as there are ample resources to offer top-tier medical care; millions still struggle to obtain even the most basic services. The modern medicine, propelled by scientific advancements and evolving practices, enables doctors to deliver unparalleled care. Yet, high costs associated with such care prevent various population groups from accessing it equitably (Foster & Anderson, 1980). The families with lower incomes, often residing in less healthy conditions, face a greater need for medical attention but find it harder to afford. Additionally, unhealthy habits like smoking and drinking are more prevalent among the economically disadvantaged, further hindering the promotion of health.

Typically, the term "utilization" refers to the act of using specific services at health facilities or centres. Those who seek out these services are known as "health care seekers." The process by which an individual perceives to have a health problem and reacts to their own health concerns, including how they access and use health care services to find a remedy, is defined as "health care seeking behaviour" (Ward et al., 1997). Thus, health seeking behaviour is preceded by a decision-making process that is further governed by individuals and/or household behaviour, community norms and the provider characteristics and behaviour (Oberoi et al., 2016). Providing health care facilities is a fundamental service of the government for its citizens. The effectiveness of these services is heavily influenced by an individual's approach to using them. However, a person's use of health care can be affected by various factors such as the availability of services, their scope, and the costs and logistics of travel (Araujo et al., 2017; Rout et al., 2019). Given that multiple elements impact the utilization of public services, especially health care facilities, it is crucial for patients to have the ability to access these institutions and seek necessary medical and health care support.

SECTION I

5.1 Factors Influencing Health Care Utilization Under Health Insurance Schemes

5.1.1 Factors Influencing Health Care Utilization

In order to understand a region's population problem, it is crucial to study the geographic distribution and growth of population. Even though health facilities are readily available, consumption of their services is very little- barely 10-20 percent (National Academies of Sciences, 2019).As a result, remote areas experience a greater problem of underutilization of facilities, despite having meagre facilities available. Rather than seeking qualified professionals, they turn to aboriginal procedures and experts. Experts living and working among them comprise of traditional birth assistants, faith therapists, and other private consultants. Apart from this, there is a multiplicity of factors, starting from the age, gender, caste, education, occupation, household size, wealth quintiles and health needs/type of illness to the accessibility, affordability, quality of care and awareness of health insurance, that decides the utilization pattern of healthcare services (Sassi et al., 2003; Araujo et al., 2017; Lotfi et al., 2017; Abaerei et al., 2017; Rout et al., 2019).The access, distance, and timing in terms of waiting hours are the main factors that determine how health services are used. The distance between a facility and the ill person, as well as the time required to reach it, determine the accessibility of health care services. (Rout et al., 2019).

5.1.2 Factors Influencing Health Care Utilization Under Insurance Schemes

The public health care utilization and factors influencing them, especially under the health insurance schemes is the focus of the present chapter. However, other than the usual factors that affect health care utilization, there seem to be additional specific factors that influence health care utilization under insurance schemes. Numerous studies in Indian context highlighted the factors such as long-term morbidity, family size of more than 4, family member with chronic disease, high socio-economic status, employed household head and insured households to increase the healthcare utilization under health insurance schemes (Philip et al., 2015; Azam, 2018). However, few studies proved age composition of households, households with female

heads and those from higher decile groups tended to use outpatient services more frequently (Lotfi et al., 2017; Adebiyi and Adeniji, 2021; Hasan et al., 2022). In yet another study in Nigeria, possession of National health insurance scheme card, the attitude of health workers, and patients' satisfaction were found to significantly affect utilization (Adebiyi & Adeniji, 2021). Awareness about scheme was indicated to be another factor that was more likely to utilize healthcare from a scheme in Bangladesh. This study also found suffering from an accident/injury to be positively associated with utilization of healthcare through scheme (Hasan et al., 2022).

As we shift from preparing inputs to generating outputs, where actual population demographics and factors affecting facility usage are elusive, grasping the patterns of utilization becomes essential. This present research offers valuable perspectives to enhance utilization rates. The study is vital in advancing patient-focused planning. It is cantered on analysing how beneficiaries of the Ayushman Bharat scheme utilize public health care services. The research utilized first hand data from health care centres across five distinct districts in Haryana.

5.1.3 Modelling Health Care Utilization Using Andersen Model

However, recent decades have seen an increase in the usage of models for the study of health care service use. By means of models, many different determinants have been grouped into one explanation. The health care use, type of health care utilization and the outcome of health care utilization are the main focus of health care utilization research. As a result of predicted usage levels and patterns, Andersen's socio-behavioural model provides insight for healthcare utilization. Ronald M Andersen proposed the health care utilization model originally in 1968 which aimed at demonstrating the factors that lead to the use of health services. The original model was expanded through numerous iterations based on evidences from multiple studies.

In his structural model (Andersen, 1995), Andersen described that the usage of health services, (be it inpatient care, outpatient care, dental visits etc.) is determined by three dynamics. First set of factors are the "Predisposing factors" which refers to characteristics that are demographic, social, and belief-based factors that influence some people's likelihood of using health services more than others. These include age,

sex, race, religion, caste, education, occupation, etc. The second set of factors, according to Andersen, is the “Enabling factors”. Utilization can only occur under certain conditions that may include person, family, and community-based factors that may influence a person's ability to access health services. These aspects comprise income, insurance, distance, and accessibility of and admittance to health care resources. The third factor is specified as the “Illness factors” that is, the need element. It discusses the severity of illness that causes the most instantaneous need for medical care. The individuals may perceive their needs or the delivery systems may evaluate them. Among various socioeconomic groups, these factors interact to create different patterns of utilization of health services and satisfaction with hospital services used by patients. The researchers have used Andersen's model to study health facility use since 1968. While the processes are explained by the model, it does not explain why it happens. A detailed illustration of Andersen's model is provided in Table 5.1, which separates predisposing, enabling, and need factors which influence the use of health care services.

Table 5.1: Illustration of Andersen’s Health Care Utilization Model

<table>
<tr><th>Predisposition Factors</th><th>Enabling Factors</th><th>Illness Factors</th></tr>
<tr><td>Demographic Features</td><td>Family</td><td>Perceived Need</td></tr>
<tr><td>Age
Gender</td><td>Income
Health Insurance
Type of Health Care Use
Cost of Health Service</td><td rowspan="5">Disability
Symptoms
Diagnosis
General State</td></tr>
<tr><td>Social Factors</td><td>Community</td></tr>
<tr><td>Religion
Caste
Education
Occupation
Family Type</td><td>Availability of Transport
Distance and Travel Time
Cost for Transport</td></tr>
<tr><td>Beliefs</td><td>Facilities Services</td></tr>
<tr><td>Attitudes towards Health Services</td><td>Health Care Services
Behavioral Aspects</td></tr>
</table>

Source: *Andersen (1995)*

SECTION II

5.2 Factors Affecting Health Care Utilization Under Ayushman Bharat Scheme

The present study has identified the factors that determine health care utilization by beneficiaries under the Ayushman Bharat Scheme – PMJAY along the lines of the Andersen model. During the present study, various factors regarding accessibility, affordability, and acceptability of health services were examined. The results from data analysis of the study are discussed under the three dynamics – predisposing factors, enabling factors and illness factors, as described in the Andersen model.

5.2.1 The Predisposing Factors

5.2.1.1 Distribution of Respondents by age

The use of health services is largely determined by two factors: age and gender. Age is an important factor in determining how much of the health services will be utilized if the health centres vary by region, gender, and age.

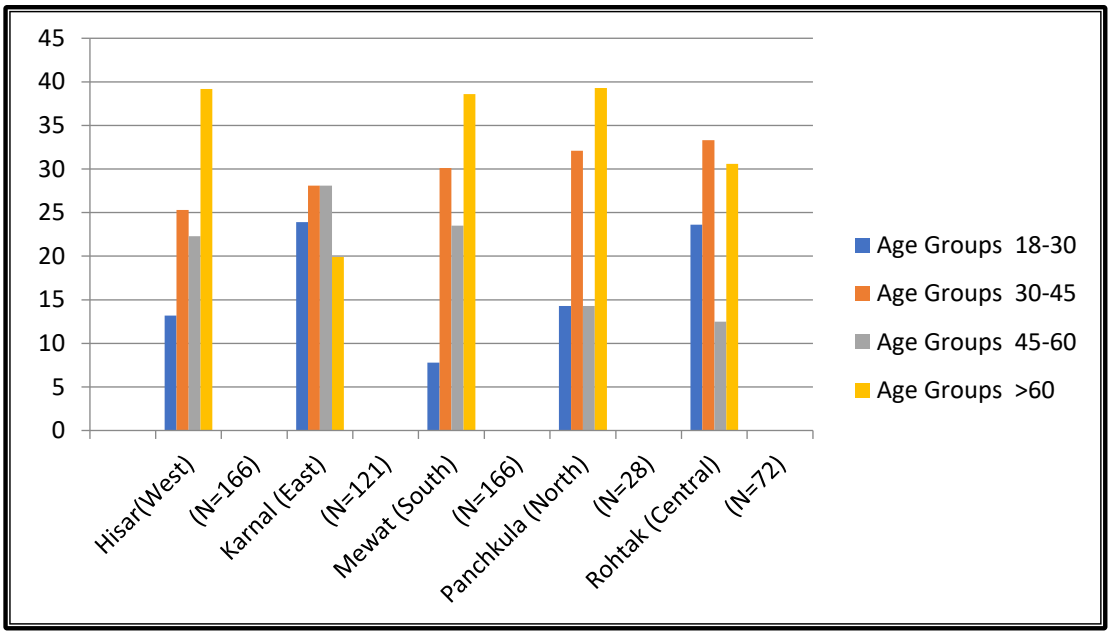
Table 5.2: Age group Respondent Beneficiaries of Ayushman Bharat Scheme

Zone(District)	Age Groups (years)				Total
	18-30 N (%)	30-45 N (%)	45-60 N (%)	>60 N (%)	
West (Hisar)	22 (13.2)	42 (25.3)	37 (22.3)	65(39.2)	166
East (Karnal)	29 (23.9)	34 (28.1)	34 (28.1)	24 (19.9)	121
South (Mewat)	13 (7.8)	50 (30.1)	39 (23.5)	64 (38.6)	166
North (Panchkula)	04(14.3)	09(32.1)	04(14.3)	11 (39.3)	28
Central (Rohtak)	17(23.6)	24 (33.3)	09 (12.5)	22 (30.6)	72
Total	85 (15.4)	159 (28.8)	123 (22.2)	186(33.6)	553

Source: Author Calculation Based on Primary Data

The participants were divided into 4 age groups mainly 18-30 years, 30-45 years, 45-60 years and >60 years. A comparison of decisions made regarding health care seeking according to age was conducted to determine whether age influences health care seeking nature as depicted in table 5.2. It was found that maximum

utilization of health care services was by older age group while the younger lot (18-30 years) was comparatively healthy and less utilized the health care services.



Source: Computation Based on Analysis of Research Data

Figure 5.1 Age Group of Respondents

Table 5.3 ANOVA on Age Group of Participants

	Sum of Squares.	df	Mean Square	F-value	p-value
Between Groups	64.887	6	5.489	3.594	0.051**
Within Groups	635.380	547	0.108		
Total	700.267	553			

Source: Author Calculation Based on Primary Data

*Note: ** Significant at 0.05 level*

It was found that among the districts of the study area, ANOVA results as in table 5.3 showed that there were differences among patients of different ages. The F-value calculated was 3.594 which is significant at 0.05 level (p-value=0.05). The test approves that there are statistically significant differences between patients of varying ages. In the Haryana districts, therefore, the participants in different age groups differed indicating that the age group of beneficiaries play an important role in access to healthcare services under the Ayushman Bharat Scheme–PMJAY scheme.

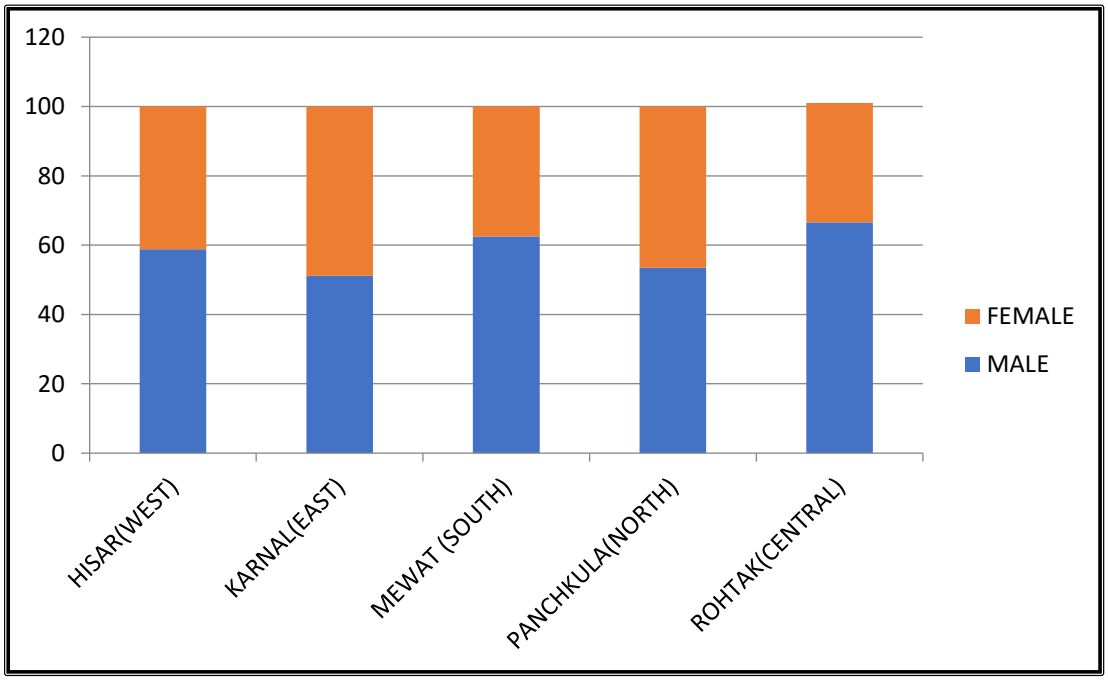
5.2.1.2 Distribution of Respondents by Gender

The gender is an important factor in determining how much of the health services will be utilized if the health centres vary by region, gender, and age. A comparison of health care seeking behaviour based on gender was carried out. Table 5.4 and figure 5.2 show the distribution of respondents depending on gender.

Table 5.4: Gender-wise Distribution of Respondents Scheme Beneficiaries

Zone(District)	Gender		Total
	Male N (%)	Female N (%)	
West (Hisar)	97 (58.8)	69(41.2)	166
East (Karnal)	62 (51.2)	59(48.8)	121
South (Mewat)	104 (62.5)	62(37.5)	166
North (Panchkula)	15 (53.5)	13(46.5)	28
Central (Rohtak)	48 (66.6)	24(34.4)	72
Total	326 (59)	227 (41)	553

Source: Author Calculation Based on Primary Data



Source: Author Calculation Based on Primary Data

Figure 5.2: Gender-wise Distribution of Respondents

Table 5.5: Independent Sample t- test on the basis of gender of participants

Variable	Levene's Test for Equality of variance		t –Test for equality of means				
	F	Sig	Mean	SD	t-value	df	Sig-value (2 tailed)
Male	6.651	0.10	3.982	7.739	1.0918	553	0.1**
Female			3.5852	8.867			

Source: Author Calculation Based on Primary Data

*Note: ** Significant at 0.05 level*

An interesting finding of the study was revealed with the independent samples t-test as shown in table 5.5 conducted on the participants to find out difference in utilization pattern of Ayushman Bharat Scheme based on gender of the patient (male or female). The t-value was calculated at 1.0918 and the F-value (6.651) and significance level (0.10) from the test results showed that despite a gender alteration, it is not statistically important (p-value >0.05). Thus, it is inferred that differences in gender among the scheme beneficiaries did not affect the scheme utilization.

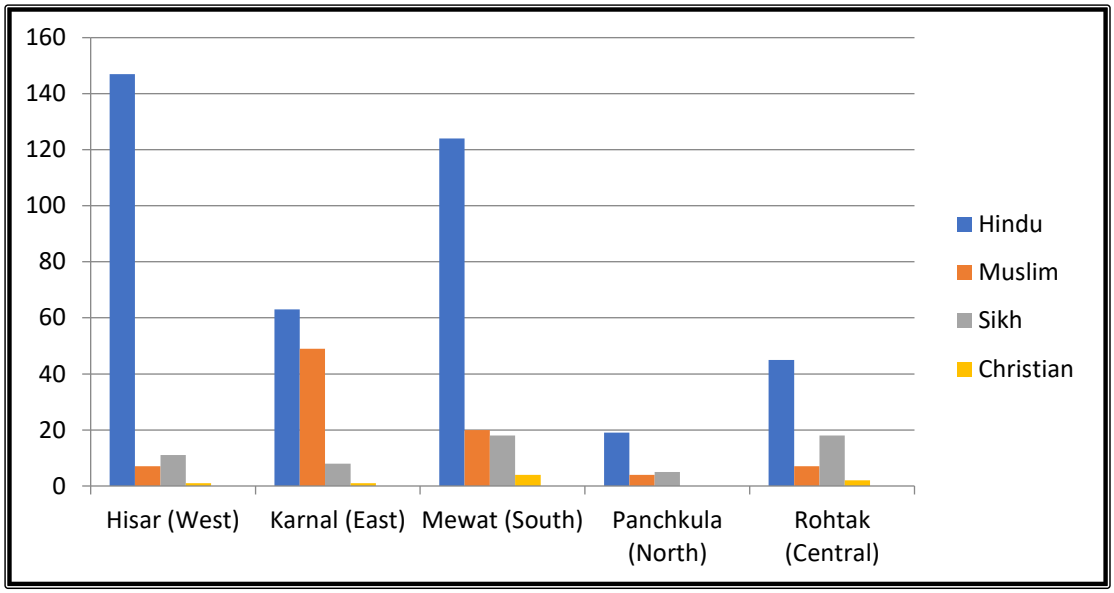
5.2.1.3 Distribution of Study Respondents by Religion

The data analysis showed that, as summed up in table 5.6, the participants practice four major religions – Hinduism, Islam, Sikhism and Christianity. However, it was observed that Hindus and Muslims were the maximum users.

Table 5.6 Religion-wise Distribution of Participants

Zone (District)	Religion				Total
	Hindu N (%)	Muslim N (%)	Sikh N (%)	Christian N (%)	
West (Hisar)	147 (89.1)	7 (4.25)	11 (6.65)	1(0.6)	166
East (Karnal)	63 (53)	49 (40)	8 (6.4)	1 (0.6)	121
South (Mewat)	124 (75.1)	20 (12.1)	18 (10.9)	4 (1.8)	166
North (Panchkula)	19 (67.85)	4 (14.25)	5 (17.9)	0 (0)	28
Central (Rohtak)	45 (62.5)	7 (9.75)	18 (25)	2 (2.75)	72
Total	398 (71.9)	87 (15.7)	60 (10.9)	8 (1.5)	553

Source: Author Calculation Based on Primary Data



Source: Author Calculation Based on Primary Data

Fig 5.3: Religion-wise distribution of Respondents Across Districts

Table 5.7 ANOVA Based on Religion of Respondents

Groups	Sum of Squares.	df	Mean Square	F-value	p-value
Between Groups	2.398	6	0.197	1.567	0.014***
Within Groups	35.10	547	0.074		
Total	37.498	553			

Source: Author Calculation Based on Primary Data

*Note: *** significant at 0.01 level*

The analysis of variance in religion using the ANOVA test shows that religion had an impact on accessing healthcare services under the scheme. ANOVA test results as in Table 5.6 reveals an F-value of 1.567 and a p-value of 0.014 indicating a statistically significant difference between patients from different religious groups (p-value<0.01). This leads to the inference that religion had an influence on the health care utilization under the Ayushman Bharat scheme.

5.2.2 The Enabling Factors

5.2.2.1 Distribution of Beneficiaries by Income Level

The income level of an individual and household determine multiple aspects of life. It determines the socioeconomic status of an individual and can dictate both access and

affordability of health and other needs. There is considerable evidence that one of the utmost important predictors of service use is economic status (Pillai et al., 2003) and that income impacts demand for and utilization of health care amenities. Health maintenance and lifestyle adoptions are better in the non-poor than in the poor. However, more government health services are used by poor people than by more affluent individuals. A breakdown of the income levels of respondents in various districts is provided in Table 5.8. In each of the districts studied, majority of the participants were in yearly income groups of ₹18,000 to ₹30,000. This indicates that the scheme has reached to the poorest of the poor, which is the right target groups and helped serve their health needs.

Table 5.8: Income-wise distribution of Respondents

Zone (District)	Income (Yearly)							Total
	>1.25L N (%)	60k-1.25L N (%)	45K-60K N (%)	30-45K N (%)	18-30K N (%)	6-18K N (%)	2-6K N (%)	
West (Hisar)	15(9)	19(11.5)	27(16.3)	41(24.8)	54(32.1)	7(4.2)	3(1.8)	166
East (Karnal)	11(9.1)	7(5.8)	11(9.1)	21(17.3)	47(38.8)	23(13.9)	1(0.8)	121
South (Mewat)	3(1.8)	11(0.6)	31(18.7)	43(25.4)	39(23.6)	39(23.6)	0	166
North (Panchkula)	0	1(3.5)	2(7.1)	6(21.4)	10(35.7)	8(28.5)	1(3.6)	28
Central (Rohtak)	3(4.1)	6(8.3)	2(2.8)	15(20.8)	12(16.6)	34(47.2)	0	72
Total	32(6)	44(8)	73(13.2)	126(22.7)	162(29)	111(20.1)	5 (1)	553

Source: Author Calculation Based on Primary Data

Table 5.9: ANOVA Based on Income of Respondents

Groups	Sum of Squares	df	Mean Square	F-value	p-value
Between Groups	7.378	6	1.547	0.702	0.610^{NS}
Within Groups	458.65	547	1.478		
Total	466.03	553			

Source: Author Calculation Based on Primary Data

Note: *NS - not significant*

According to ANOVA results presented as shown in table 5.9, though there seemed to be a difference between districts of the study in terms of patients from different income groups, the calculated F-value was 0.702 and the related p-value was 0.610. Hence, test results showed that the difference between their salary levels was not statistically significant. Even though they come from different income levels a p-value >0.05 in the variance test indicated that there was no differences among the sub-groups of income levels.

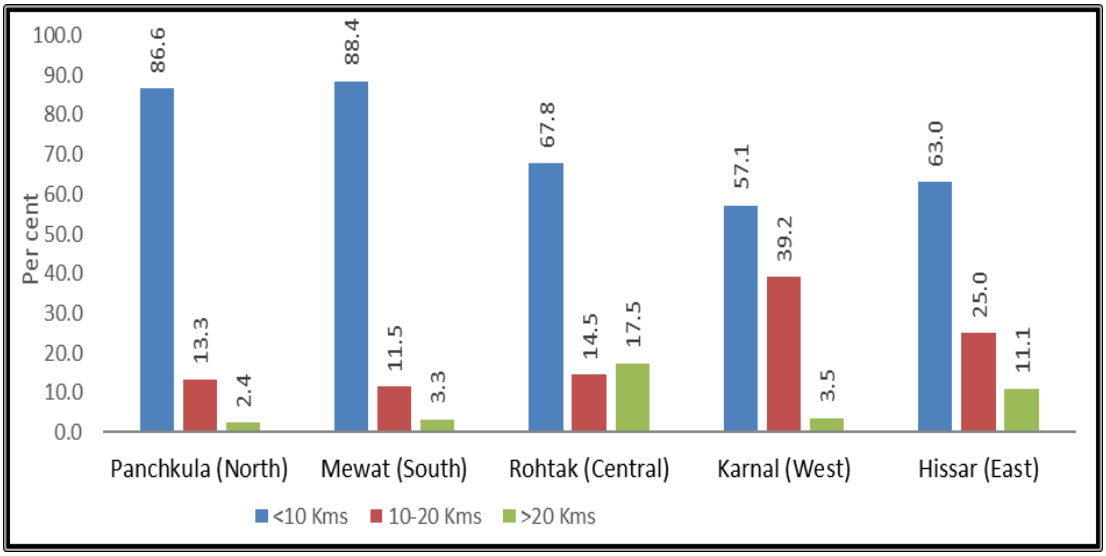
5.2.2.2 Utilization of Services Based on Distance of Facility from Respondents' Residence

The distance of the health facility from one's residence is one of the key factors that determine accessibility of health care services. A health centre's utilization and service provision will be lower when it is far from the village or place of living of the people. In table 5.10, the distance to the nearest health centre is provided for five zones under study. It is observed that most of the beneficiaries in western and eastern zone (above 86 percent) have accessed the facilities within a radius of 10 kilometres while in rest of the zones only around 60 percent of the beneficiaries have found facilities within a radius of 10 kilometres. Overall, in the entire state, hospitals and health care services are available within a radius of 10 kilometres to almost 76.7 percent of respondents and about 23.3 percent respondents have to travel more than 10 kilometres to access healthcare services under the scheme.

Table 5.10 Distance of Healthcare Centre from Respondents' Residence

Zone (District)	Distance (km)			Total N=553
	<10 N (%)	10-20 N (%)	>20 N (%)	
West (Hisar)	143(86.6)	18(13.3)	5(2.42)	166
East (Karnal)	107(88.4)	10(11.5)	4(3.3)	121
South (Mewat)	112(67.8)	25(14.5)	29(17.5)	166
North (Panchkula)	16(57.1)	11(39.2)	1(3.5)	28
Central (Rohtak)	46(63.8)	18(25.0)	8(11.2)	72
Total	424(76.7)	82(14.8)	47(8.5)	553

Source: Author Calculation Based on Primary Data



Source: Author Calculation Based on Primary Data

Figure 5.4: Distance of Healthcare Centre from Respondents' Residence

Table 5.11 ANOVA of Distance of Health Care Centre from Respondents' Residence

Groups	Sum of Squares.	df	Mean Square	F-value	p-value
Between Groups	2.324	6	0.546	1.578	0.187^{NS}
Within Groups	58.77	547	0.879		
Total	61.094	553			

Source: Computation Based on Analysis of Research Data
***Note:** NS - not significant*

The results of the ANOVA test for variance calculated an F-value of 1.578 and a p-value of 0.187. This shows that though health centres are located at different distances from beneficiaries, there is no statistically significant variance in the difference between the distance of health facility as p>0.05. This signifies that the health care access had less significance with the distance of the health facility. The beneficiaries have travelled irrespective of the distance of the health facility to access the healthcare services under the scheme.

5.2.2.3 Utilization of Health Care Facilities Based on Respondents' Satisfaction

The choice and utilization of healthcare services from a health centre by the patients is largely determined by the quality health services provided by the health centres. It has been many times reported that most patients who visited public health centres were displeased with the facilities given by these facilities. In addition, there are also complaints about poor care, sanitation, hygiene, water conveniences and lack of food

which has been highlighted by many studies. Haryana's public health centres are ranked based on the quality of their health care services in table 5.12. An interesting observation in the study was that majority of beneficiaries/patients noted that the health centres under the Ayushman Bharat Scheme provided high quality health care. This shows that the roping in of the private sector hospitals under the scheme to provide quality healthcare to the beneficiaries has been beneficial.

Table 5.12 Respondents' Satisfaction with Health Care Facilities

Zone (District)	Services			Total
	Good N (%)	Fair N (%)	Bad N (%)	
West (Hisar)	115 (69.6)	29 (17.5)	22 (12.7)	166
East (Karnal)	35 (28.9)	47 (38.8)	39 (32.3)	121
South (Mewat)	26 (15.1)	83 (50.4)	57 (34.5)	166
North (Panchkula)	9 (32)	12 (43)	7 (25)	28
Central (Rohtak)	16 (22)	24 (33)	32 (45)	72
Total	201(36.3)	195(35.2)	157(29.5)	553

Source: Author Calculation Based on Primary Data

Table 5.13 ANOVA Based on Respondents' Satisfaction with Health Care Facilities

Groups	Sum of Squares.	df	Mean Square	F-value	p-value
Between Groups	1.35	6	1.75	0.879	0.614^{NS}
Within Groups	98.77	547	1.917		
Total	100.12	553			

Source: Author Calculation Based on Primary Data
***Note:** NS - not significant*

The variance analysis of health care quality, presented in table 5.13 for Haryana's public health centres shows that though the data revealed that there were differences in health care services provided by the public and private health care setups, in the state in quality, the variance was not statistically significant as the calculated F-value was 0.879 and the p-value was 0.61 which is >0.05. Therefore, quality differences in healthcare provided by public and private health care setups, was not significant determinant of the utilization of healthcare services under the Ayushman Bharat Scheme.

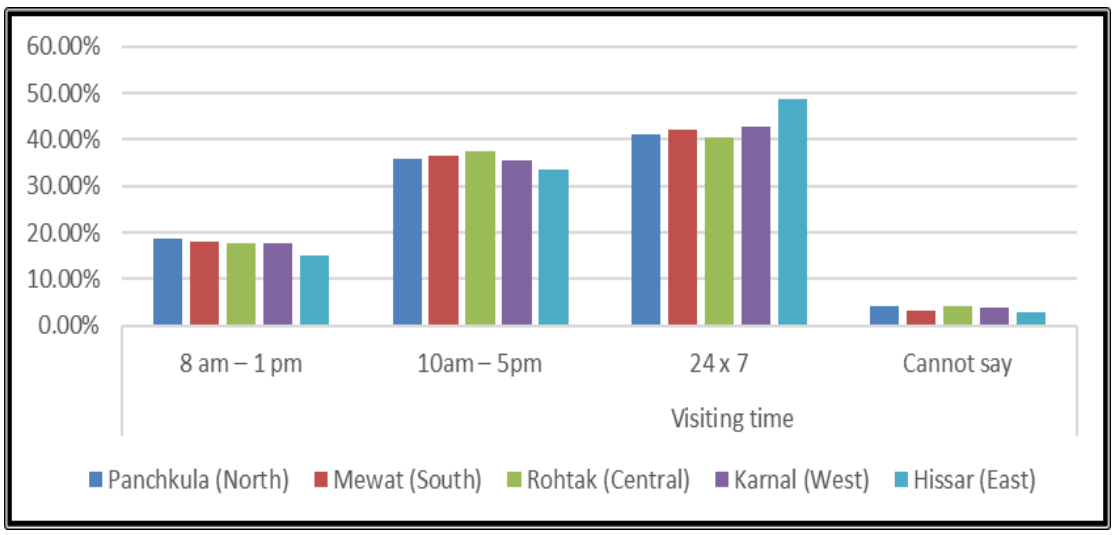
5.2.2.4 Utilization of Health Care by Respondent's Based on Doctors Visiting Hours

The patients should be able to reach their doctor with ease while in the hospital or when visiting the health centre, whether they are inpatients or outpatients. The doctors' visiting time has a greater impact on the utilization of the healthcare services provided by the healthcare facilities. The beneficiaries were asked how the visiting time of doctors in the hospital has determined their visit the health centre and access the services. According to the participants, either round the day availability of the doctor or their availability during daytime, working hours (10 am –5pm) had impacted their utilization of healthcare services as shown in table 5.14 and figure 5.5.

Table 5.14: Doctors' Visiting Time and Respondents' Utilization of Healthcare Services

Zone(District)	Visiting Time				Total
	8am -1pm N (%)	10am-5pm N (%)	24X7 N (%)	Cannot Say N (%)	
West (Hisar)	31(18.8)	60(35.8)	68(41.2)	7(4.2)	166
East (Karnal)	22(18.2)	44(36.4)	51(42.1)	4(3.3)	121
South (Mewat)	29(17.6)	62(37.5)	68(40.6)	7(4.3)	166
North (Panchkula)	5(17.8)	10(35.7)	12(42.8)	1(3.7)	28
Central (Rohtak)	11(15.2)	24(33.4)	35(48.6)	2(2.8)	72
Total	98(17.7)	204(36.9)	231(41.8)	20(3.6)	553

Source: Author Calculation Based on Primary Data



Source: Author Calculation Based on Primary Data

Figure 5.5 Doctors' Visiting Time and Respondents' Utilization of Healthcare Services

Table 5.15: ANOVA on Doctors' Visiting Time and Utilization of Healthcare Services

Groups	Sum of Squares	df	Mean Square	F-value	p-value
Between Groups	21.98	6	7.65	15.8	0.0414^{NS}
Within Groups	398.58	547	0.126		
Total	420.56	553			

Source: Author Calculation Based on Primary Data
Note: *NS - not significant*

A variation test of ANOVA in doctors' visiting times to the health facility is shown in Table 5.15. As per the test results, even when the data showed that doctors visiting time at the health centre vary, the difference was significant as the test results calculated a F-value of 15.8 and a p-value of 0.0414, which is < 0.05. This can be inferred that the doctors' time of visit or availability is a significant factor of healthcare access under the scheme.

5.2.2.5 Utilization of Health Care Services Based on Availability of Free Medicine

The health facility utilization is also influenced by the availability of free medicines. The study participants were asked if prescription medicine is accessible free of cost at the health centre has influenced their access to the healthcare service at the health centre. It could be observed from the data analysis as presented in table 5.16 that in Rohtak and Karnal districts the healthcare accessed by participants was not solely dependent on the availability of medicines. While in other districts like Panchkula, Mewat and Hissar, the free medicines were a factor that led to healthcare access under the Ayushman Bharat scheme.

Table 5.16 Utilization of Health Care Services Based on Availability of Free Medicine

Zone (District)	Medicine Availability		Total
	Yes N (%)	No N (%)	
West (Hisar)	161 (97)	5 (3)	166
East (Karnal)	97(80.2)	24(19.8)	121
South (Mewat)	88(53.4)	78(46.6)	166
North (Panchkula)	15(53.7)	13(46.3)	28
Central (Rohtak)	61(84.8)	11(15.2)	72
Total	421(76.4)	130(23.6)	553

Source: Author Calculation Based on Primary Data

The ANOVA test of variance (table 5.17) in patients' preference for healthcare service under the scheme due to free medicines show that the access to healthcare in Haryana districts is largely depended on the free medications under the scheme. The test generated F-value was 0.05 and p-value of 0.015, which is less than 0.05, indicates that the differences is statistically significant and that free medicines is an important factor promoting healthcare access under Ayushman Bharat Scheme.

Table 5.17 ANOVA on Health Care Utilization and Availability of Free Medicine

Groups	Sum of Squares.	df	Mean Square	F-value	p-value
Between Groups	1.91	6	0.45	0.05	0.015*
Within Groups	8.78	547	0.022		
Total	10.69	553			

Source: Author Calculation Based on Primary Data
***Note:** * significant at 0.05 level*

5.2.3 The Illness Factor

5.2.3.1 Utilization of Health Care Services Based on Type of Registration

To enquire whether the type of registration of the participants in the hospital had an impact on the access of healthcare services, the participants were asked about the type of registration, whether respondent's accessed outpatient or inpatient care. As shown in table 5.18, Haryana districts' majority health seekers were registered for outpatient services.

Table 5.18 Utilization of Health Care Services Based on Type of registration

Zone (District)	Type of Registration		Total
	Out patient N (%)	In patient N (%)	
West (Hisar)	151(91.6)	15(8.4)	166
East (Karnal)	116(95.9)	5(4.1)	121
South (Mewat)	148(89)	18(11)	166
North (Panchkula)	17(60.7)	11(39.3)	28
Central (Rohtak)	51(70)	21(30)	72
Total	483(87.5)	70 (12.5)	553

Source: Author Calculation Based on Primary Data

Table 5.19 ANOVA on Utilization of Health Care Services and Type of Registration

Groups	Sum of Squares.	df	Mean Square	F-value	p-value
Between Groups	6.67	6	3.47	3.97	0.005***
Within Groups	108.67	547	.125		
Total	115.34	553			

Source: Author Calculation Based on Primary Data

Note: **** Significant at 0.01 level*

A variance analysis of registration type is provided in table 5.19. The ANOVA test results reveal an F-value of 3.97 with a p-value of 0.005 indicating that the differences in patients' registration type were statistically significant with a p-value of 0.005 which is below 0.05 percent. This indicates that the coverage of the outpatient services under the Ayushman Bharat Scheme was an important and significant determinant of the access to healthcare services under the scheme.

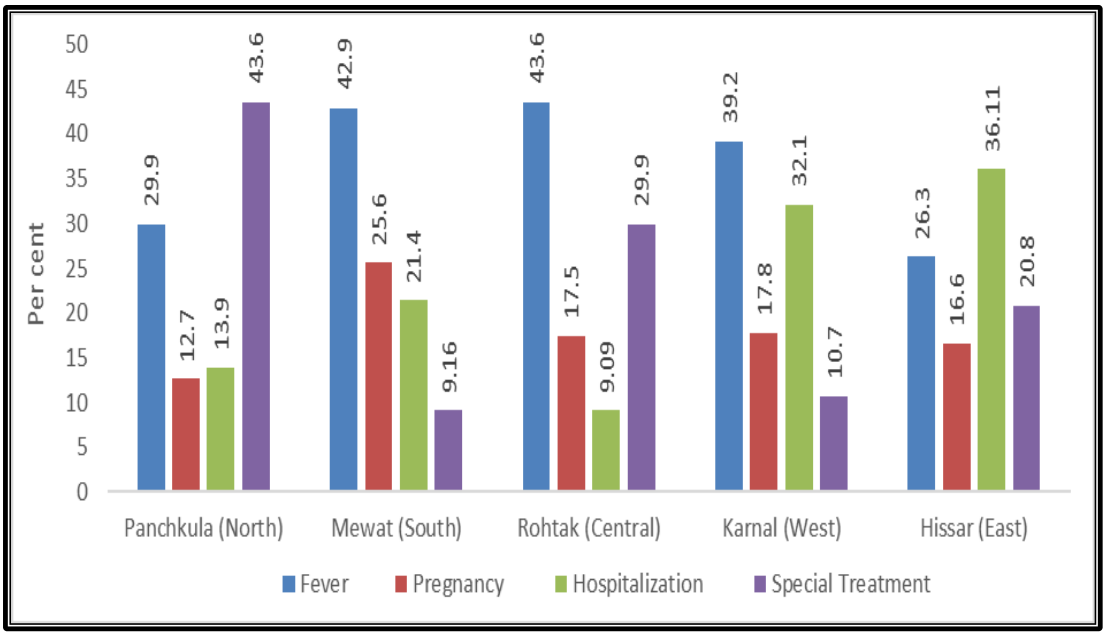
5.2.3.2 Utilization of Health Care Services Based on Severity of Respondents' Ailment

The severity of the diseases and illnesses of the participants determines the kind of treatment required, that is whether they need an OPD or hospitalization or special treatment. Health care seeking decisions were investigated by examining the degree to which diseases were severe among the participants. As can be seen in table 5.20, among the ailments for which the health seekers were covered under the scheme, most of them were IPDs for normal reasons like fever and pregnancy. However, in 3 out of 5 zones – North, Centre and West, the patients accessing hospitalization and special treatments was higher.

Table 5.20 Utilization of Health Care Services Based on Respondent's Ailment

Zone (District)	Diseases				Total
	Fever N (%)	Pregnancy N (%)	Hospitalization N (%)	Specialized Treatment N (%)	
West (Hisar)	49 (30)	21(12.7)	24(14)	72(43.6)	166
East (Karnal)	52 (42.9)	31(25.6)	26(21.4)	12(9.1)	121
South (Mewat)	72 (43.5)	30(17.5)	15(9)	49(30)	166
North(Panchkula)	11(39.2)	5(17.8)	9(32.1)	3(10.7)	28
Central (Rohtak)	19 (26.3)	12(16.6)	26(36.1)	15(20.8)	72
Total	203 (37)	99(17.5)	100 (18)	151 (32.5)	553

Source: Computation Based on Analysis of Research Data



Source: Author Calculation Based on Primary Data

Fig 5.6: Utilization of Health Care Services Based on Respondent's Ailment

Table 5.21: ANOVA on Utilization of Health Care Services and Respondent's Ailment

Groups	Sum of Squares.	Degrees of freedom	Mean Square	F-value	(p-value)
Between Groups	36.07	6	3.47	6.56	0.481
Within Groups	5108.12	547	0.125	5.98	
Total	5144.19	553			

Source: Author Calculation Based on Primary Data

The test of significance of the differences in the severity patients' ailments using ANOVA test (table 5.21) showed a F-value of 6.56 and a p-value of 0.481 indicating that the differences were significant as the p-value is below 0.05. Though districts of Haryana varied in terms of the severity of the diseases for which services were accessed, the test results infer that that type of disease was a significant factor in the respondents' access to healthcare services.

5.2.3.3 Utilization of Health Care Services Based on Respondents' Past Experience

The earlier use of the health care centres accessed by participants would have given them experience of the quality of the services provided at the centre. The satisfaction of the services leads to repeated health seeking from the same health centre. In order to examine the effect of repeated use of the health centre by the participants on the utilization of the services under the scheme, the study enquired the participants about their repeated use of the health centre. The data analysis in table 5.22 shows that repeated utilization of services from a health centre largely has led to healthcare access under the scheme.

Table 5.22 Repeat Utilization of Health Care Services Based on Past Experience

Zone(District)	Health Care Utilization		Total
	Yes N (%)	No N (%)	
West (Hisar)	165(99.4)	1(0.6)	166
East (Karnal)	118(97.5)	3(2.5)	121
South (Mewat)	151(91.5)	15(8.5)	166
North (Panchkula)	26(93)	2(7)	28
Central (Rohtak)	69 (96)	3(4)	72
Total	529 (95.4)	24(4.6)	553

Source: Author Calculation Based on Primary Data

Table 5.23: ANOVA on Repeat Utilization of Health Care Services and Past Experience

Groups	Sum of Squares	df	Mean Square	F-value	p-value
Between Groups	3.77	6	0.417	3.912	0.007***
Within Groups	109.22	547	0.198		
Total	112.99	553			

Source: Author Calculation Based on Primary Data

Note: **** significant at 0.01 level*

The ANOVA test for variance in repeated utilization of public health centres in Haryana districts from the last two years, presented in table 5.23 provides calculated F-value of 3.912 and a p-value of 0.007 indicating significant results as the p-value is less than 0.05. Therefore, the repeated use of health services from a health centre has been a significant factor in determining the access to healthcare services under the scheme.

SECTION III

5.3 Summary

Thus, it was observed from the present study that the various factors which acted as the enablers for utilization of Ayushman Bharat Scheme, at the same time the factors which were detrimental for the scheme's utilization amongst masses were mainly linked to the awareness about the scheme and various benefits offered .The awareness factor was influenced by the age, gender, education level and penetration of mass media in the region of their living (Sassi et al., 2003; Araujo et al., 2017; Lotfi et al., 2017; Abaerei et al., 2017; Rout et al., 2019).The remoteness of region leading to inaccessibility of health services leads the people to fend for themselves and follow local traditional medicine practises.(Philip et al., 2015; Azam, 2018). These practices were influenced majorly by the kind of illness – serious or non-serious and of course the financial condition of the people who could or couldn't afford the travel & accommodation expenses (out of pocket expenses) to the better health care facility in order to take benefit of better health services offered by government. (Foster & Anderson, 1980; Ward et al., 1997; Araujo et al., 2017; Rout et al., 2019).

From the above discussion it was observed that access to quality health care at affordable prices and the ability to use health care effectively are critical to the utilization of health services. Health care utilization depends on the availability of health facilities and infrastructure, but infrastructure alone is insufficient. The consumption of these services depends on a set of varied factors like the age, gender, caste, education, occupation, household size, wealth quintiles, health needs/type of illness, accessibility, affordability, quality of care and awareness of health insurance, that decides the utilization pattern of healthcare services. In addition, factors like long-term morbidity, family size of more than 4, family member with chronic disease, high socioeconomic status, employed household head, age composition of households, households with female heads, insured households and its awareness, the attitude of health workers and patients' satisfaction seem to influence the healthcare utilization under health insurance schemes. The study found age and religion of patients to be the 'predisposing factors' that determine healthcare access under the Ayushman Bharat Scheme. Among the 'enabling factors' were the free medicine availability under the scheme and among 'illness factors', coverage of outpatient services and trust on the healthcare centre from repeated use were factors that determined scheme utilization.

CHAPTER-VI

SATISFACTION AMONGST THE BENEFICIARIES OF AYUSHMAN BHARAT SCHEME IN HARYANA

CHAPTER VI

SATISFACTION AMONGST THE BENEFICIARIES OF AYUSHMAN BHARAT SCHEME IN HARYANA

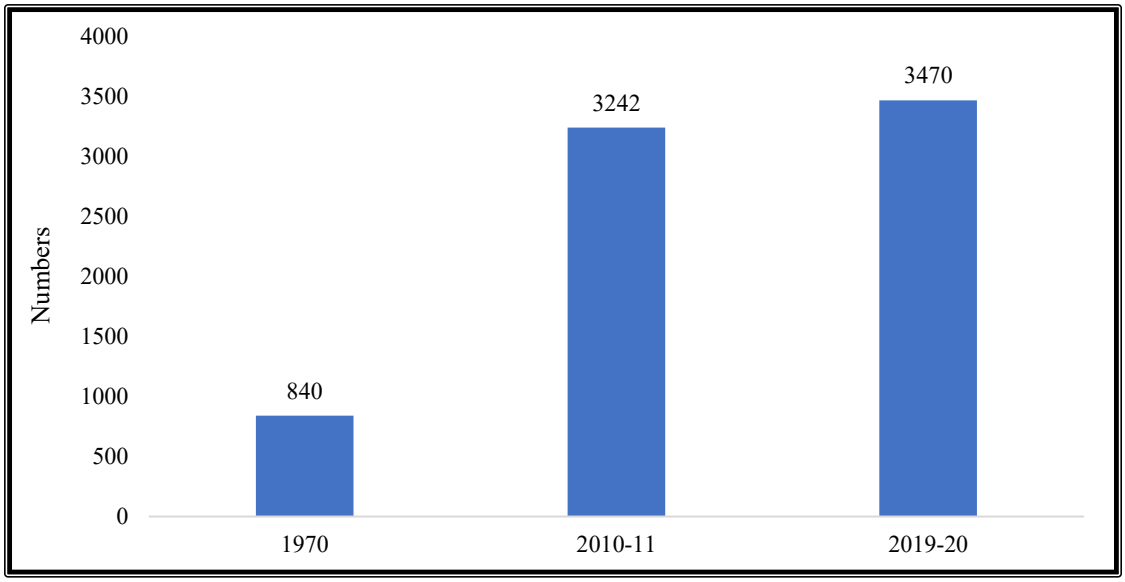
The availability of healthcare in the state of Haryana has improved dramatically. Despite an increase in the number of public and commercial hospitals throughout the state, healthcare facilities remain concentrated in a few areas, leading to significant regional discrepancies. Atkinson and Haran (2005), Badri et al. (2009), Adler et al. (2010) and Batbaatar et al. (2017) all found that patients were dissatisfied because of this since it made it harder for them to get well. There are a lot of elements that affect patient happiness, which has several dimensions. These determinants include a wide range of elements, such as socioeconomic status, cultural values, healthcare environment and availability and accessibility of care. The factors that significantly impact patient satisfaction includes treatment quality, clinicians' attitudes and expertise, and patients' previous healthcare experiences (Press, 2006). Some of the most important factors that determine whether or not a patient is satisfied with the treatment they get include the patient's age, gender, race, residence, level of education, income, and marital status (Myburgh et al., 2005; Batbaatar et al., 2017). The patient satisfaction is greatly affected by the care environment and accessibility, according to research such as a systematic review by Batbaatar et al. (2017). It is worth mentioning that research constantly shows that patients are more satisfied when they can easily receive the treatment they need. (Atkinson and Haran, 2005; Badri et al., 2009; Adler et al., 2010; Batbaatar et al., 2017). There are several variables which affect the overall satisfaction such as the distance to healthcare facilities and waiting times (Bikker and Thompson, 2006; Kroneman et al., 2006; Bleich et al., 2009; Victoor et al, 2012; Chen et al, 2013; Ladhari and Rigaux, 2013; Batbaatar et al, 2017).

SECTION I

6.1 Regional Disparities in Healthcare Availability in Haryana

6.1.1 Healthcare availability and regional disparities in Haryana

In 1970 the state of Haryana had 840 medical institutions in the public sector. Over the years, this number has significantly grown. By 2010-11 and the state boasted 3242 medical institutions, and as of 2019-20, the count has further increased to 3470 (Figure 6.1).



Source: Ayushman Bharat Haryana (2024)

Figure 6.1 Public Health Facilities in Haryana from 1970 to 2020

When compared to the rest of India, Haryana's health indices are good, and they have become much better over the years. But in Haryana, regional health facility inequities are much more noticeable (Bala, 2016; Manjit, 2023). A comparative study conducted in 2011 and 2020 (Manjit, 2023) reveals interesting insights regarding hospital infrastructure and population distribution in Haryana. However, between 2011 and 2020 average population per hospital in Haryana decreased, shifting from 535,296 in 2011 to 504,946 in 2020. Whereas, at the district level, certain areas exhibited distinct patterns. In 2011, districts like Mewat, Kaithal and Palwal had the highest population-to-hospital ratio, with more than 10 lakh population per hospital. A similar trend was observed in Kurukshetra, Karnal, and Mahendragarh districts. Conversely, districts such as Bhiwani, Hisar, Rohtak and Ambala had a population per hospital of less than 2,50,000, indicating robust healthcare facilities in these regions.

The population pressure in Bhiwani and Panchkula districts was reduced in 2022 due to the growth in the number of hospitals in these areas. Even though they have enough infrastructure in 2011, Hisar, Rohtak, and Ambala are nevertheless under a little more population strain. The populations of Mewat and Faridabad surpassed one million in 2020. From 2 to 5 lakhs people call districts like Ambala, Yamunanagar, Kaithal, Karnal, Jind, Fatehabad, Sirsa, Hisar, Rohtak, Jhajjar, and Gurugram home.

6.1.2 Regional Disparities in Hospital Empanelment Under Ayushman Bharat Scheme

There exist wide disparities in the availability of public healthcare in Haryana. The spread of the private hospitals is also uneven among the districts. As a measure to improve the availability of healthcare facilities, Ayushman Bharat Scheme PM-JAY has empanelled private hospitals that provide healthcare services to the population at a fixed treatment package. This still has not mitigated the issue of inter-district disparities. As it is observed in table 6.1, the district-wise availability of empanelled hospitals shows huge variations that varies from 25 hospitals in Mewat to 110 hospitals in Hisar. Among the empanelled private hospitals, variation ranged from just 2 hospitals in Mewat to 77 hospitals in Hisar. After Hisar, Panipat, Sirsa, Karnal and Ambala were other districts that had a fair number of empanelled private hospitals. Among the lowest, after Mewat were Palwal and Kaithal districts.

Table 6.1: District-Wise Public and Private Hospitals Empanelled under AB - PMJAY

District/State	Empanelled Hospitals (as on 10 Jan, 2024)		
	Public	**Private**	**Total**
Ambala	26	43	69
Bhiwani	37	31	68
Charki Dadri	14	21	35
Faridabad	19	20	39
Fatehabad	21	19	40
Gurugram	34	25	59
Hisar	33	77	110
Jhajjar	20	28	48
Jind	23	18	41
Kaithal	13	16	29
Karnal	25	44	69
Kurukshetra	18	32	50
Mahendragarh	30	26	56
Mewat	23	2	25
Palwal	24	12	36
Panchkula	21	17	38
Panipat	17	54	71
Rewari	21	22	43
Rohtak	21	36	57
Sirsa	31	52	83
Sonipat	33	34	67
Yamuna Nagar	14	35	49
Total	513	659	1172

Source: Ayushman Bharat Haryana (2024)

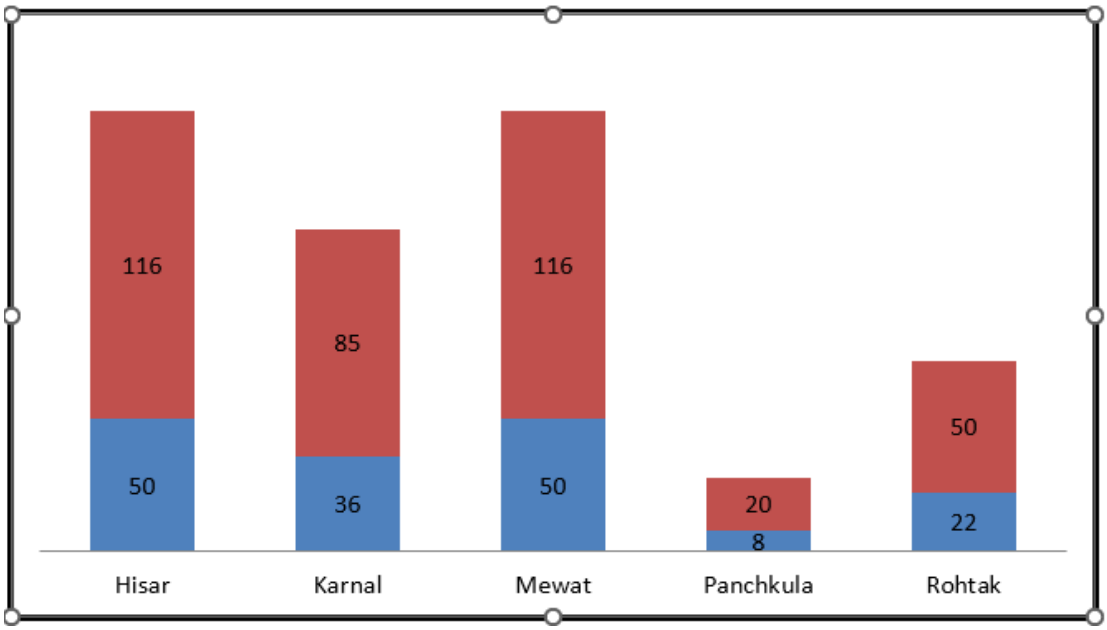
The patients are often dissatisfied with the health care services they get because of large discrepancies across districts, according to Atkinson and Haran (2005), Badri et al. (2009), Adler et al. (2010), and Batbaatar et al. (2017). With an emphasis on several areas pertaining to the execution and effect of the Ayushman Bharat Scheme, the study's patient satisfaction survey in Haryana sought to gauge the degree of satisfaction among 552 beneficiaries.

SECTION II

6.2 Results from the Respondents' Satisfaction Survey

6.2.1 Sample Distribution

A total of twelve critical questions covering various aspects of the plan made up the satisfaction survey. These questions covered aspects such as the smoothness of the enrolment process, adequacy of information and guidance provided, ease of accessing the network of hospitals, satisfaction with the services and treatment received, ease of the admission process when required, cleanliness and hygiene standards of hospitals, discriminatory treatment by healthcare staff, knowledge of empanelled providers, adequacy of infrastructure in hospitals, perceived improvement in the quality of life due to the scheme, overall satisfaction with the services provided, and likelihood of recommending the Ayushman Bharat Scheme to others. The sample distribution of the respondents interviewed across the study zones and the type of care accessed (public/private) is shown below in figure 6.2.



Source: Author Calculation Based on Primary Data

Figure 6.2 Zone-wise Distribution of Respondents and Heath Care Accessed

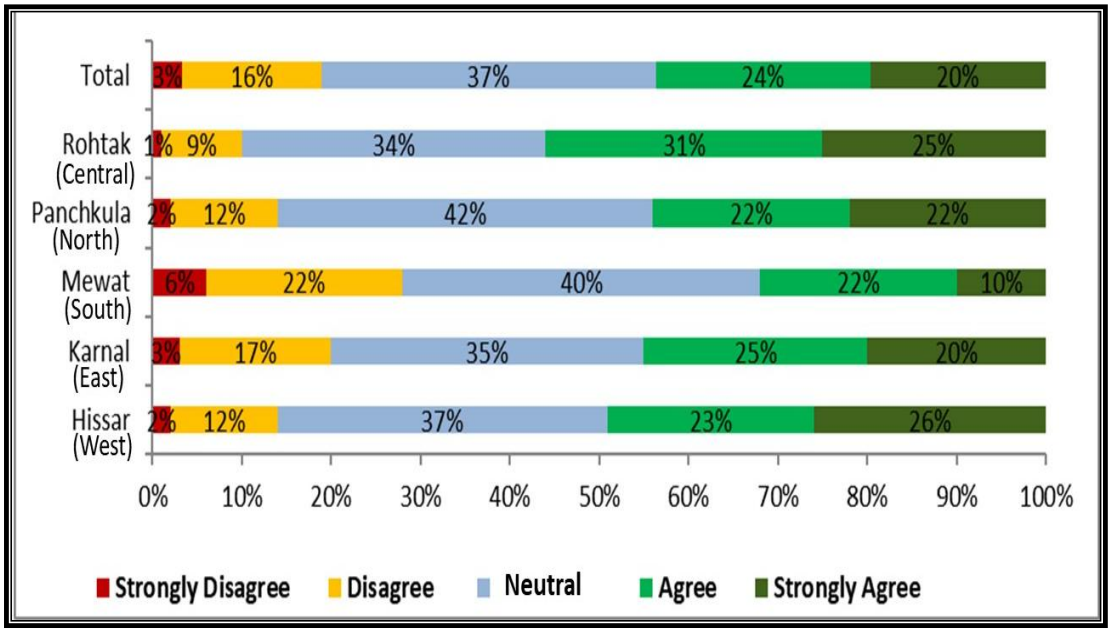
It was observed from figure 6.2 that the patient distribution by the type of hospital where service was accessed under the Ayushman Bharat Scheme satisfaction survey, emphasizing a consistent preference for private hospitals in sampled districts of various zones Hissar (116), Karnal (85), and Rohtak (50). Out of the total 553 respondents, 387 (70 percent) sought healthcare services in private hospitals, while 166 (30 percent) chose public hospitals.

6.2.2 Results from Health Care Utilization Satisfaction Survey

The collected data on satisfaction levels, classified into categories ranging from highly unsatisfactory to highly satisfactory, was crucial in evaluating the effectiveness of the scheme and identifying areas for potential improvement.

6.2.2.1 Enrolment Process

The data from figure 6.3 and table 6.2 of the enrolment process under AB-PMJAY in Haryana indicate overall positive views regarding the smoothness of the enrolment process. A large majority of respondents in all zones agreed or strongly agreed that the programme enrolment procedure was easy. Specifically, 95 (57 percent) of respondents in Hissar, 55 (45 percent) in Karnal, 73 (44 percent) in Mewat, 12 (44 percent) in Panchkula, and 40 (56 percent) in Rohtak expressed positive statements, contributing to an overall satisfaction rate of 275 (49 percent) among the total 553 respondents.



Source: Author Calculation Based on Primary Data

Figure 6.3 Zone wise Respondent's Satisfaction with Scheme Enrolment Process

Table 6.2: Zone wise Respondent's Satisfaction with Scheme Enrolment Process

Zone(District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	3 (2)	20 (12)	61 (37)	38 (23)	44 (26)
East (Karnal)	4 (3)	21(17)	42 (35)	30 (25)	24 (20)
South (Mewat)	10 (6)	36 (22)	66 (40)	36 (22)	16 (10)
North (Panchkula)	1 (3)	3 (12)	12 (42)	7 (22)	6 (21)
Central (Rohtak)	1 (1)	6 (9)	24 (34)	22 (31)	18 (25)
Total	17 (3)	86 (16)	205 (37)	133 (24)	108 (20)

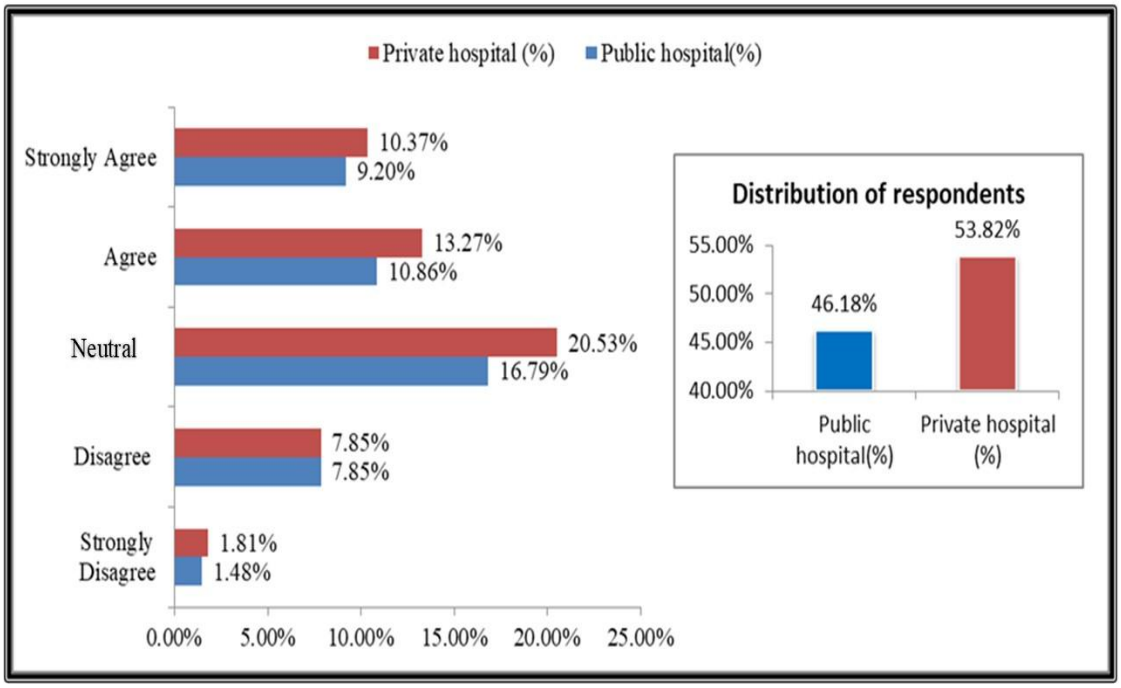
Source: Author Calculation Based on Primary Data

Table 6.3 Satisfaction Level with Scheme Enrolment Based on Type of Hospital

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	6 (1)	44(8)	94 (17)	60 (11)	50 (9)
Private	11(2)	44(8)	115 (21)	72 (13)	56 (10)
Total	17(3)	88(16)	209 (38)	133 (24)	106 (19)

Source: Author Calculation Based on Primary Data

The overall satisfaction levels across public and private hospitals were as follows presented in table 6.2 and it was found that 3 percent strongly disagreed, 16 percent disagreed, 38 percent had a moderate satisfaction level, 24 percent agreed, and 19 percent strongly agreed. The private hospitals generally exhibited slightly higher satisfaction percentages than public hospitals in each category. Figure 6.5 and table 6.3 show that there is a broad geographic representation among the respondents, with 46 percent in public hospitals and 54 percent in private hospitals throughout five districts. Thus, above data clearly shows the public and private differentials in the satisfaction level among the public and private hospitals in Haryana.



Source: Author Calculation Based on Primary Data

Figure 6.4 Respondent's Satisfaction of the Enrolment Process in Various Hospitals

Table 6.3 shows that there is insufficient evidence to suggest that private and public hospitals register patients differently under the plan, since the p-value of 0.947, obtained from a chi-square test with a $\chi 2$ value of 0.74 and degrees of freedom 4, is more than the 0.05 significant threshold. Hence, on the basis of the results of the hypothesis testing it can be inferred that no statistically significant difference exists in satisfaction between respondents from public and private hospitals on the enrolment process in the program.

Table 6.4 Chi-square Analysis of Enrolment Satisfaction in Various Types of Hospitals

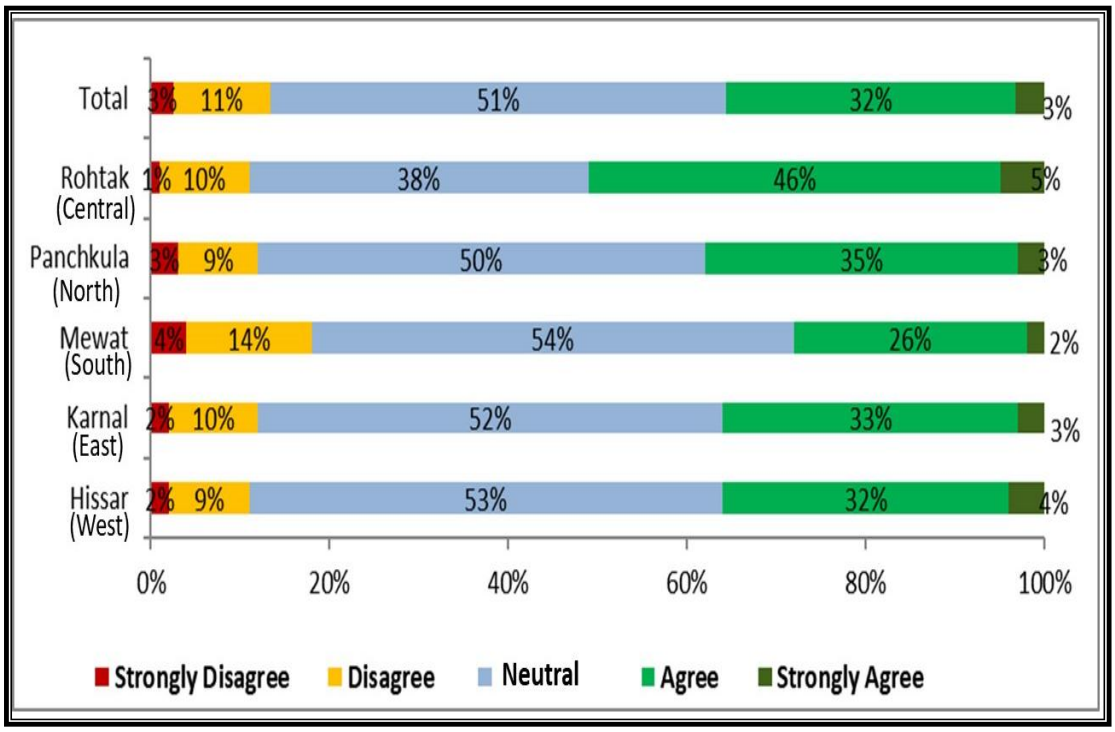
Statistic	Value
χ^2	0.74
Degrees of freedom	4
p-value	0.947^{NS}

Source: Author Calculation Based on Primary Data

Note: *NS is not significant indicates the χ^2 test is not statistically significant*

6.2.2.2 Adequacy of Information and Guidance Provided

The findings (Figure 6.5 and Table 6.5) from the respondents' satisfaction survey on the adequacy of information and guidance provided under the Ayushman Bharat Scheme in Haryana revealed a generally positive response from beneficiaries. However, across districts, including Hissar, Karnal, Mewat, Panchkula, and Rohtak, a substantial majority of respondents either agreed or strongly agreed that the information and guidance provided were adequate. Specifically, 82 (49 percent) of respondents in Hissar, 54 (45 percent) in Karnal, 52 (32 percent) in Mewat, 13 (43 percent) in Panchkula, and 40 (56 percent) in Rohtak expressed satisfaction. This positive sentiment is reflected in the overall result, where 103 (19 percent) of beneficiaries disagreed or strongly disagreed, while 239 (43 percent) of the total 553 respondents expressed agreement with the adequacy of information and guidance provided by the Ayushman Bharat Scheme in Haryana. It was observed that 38 percent of the respondents had mixed response about the scheme satisfaction.



Source: Author Calculation Based on Primary Data

Figure 6.6: Satisfaction with Information and Guidance provided under AB-PMJAY

Table 6.5: Zone Wise Satisfaction with Information and Guidance Provided

Zone(District)	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	1 (1)	7 (10)	27 (38)	33 (46)	4 (5)
East (Karnal)	1 (3)	3(10)	14 (50)	10 (34)	1 (3)
South (Mewat)	7 (4)	23(14)	90 (54)	43 (26)	3 (2)
North (Panchkula)	2 (2)	12(10)	63(52)	40 (33)	4 (3)
Central (Rohtak)	3 (2)	15 (9)	88 (53)	53 (32)	7 (4)
Total	17 (3)	60(11)	282 (51)	177 (32)	17 (3)

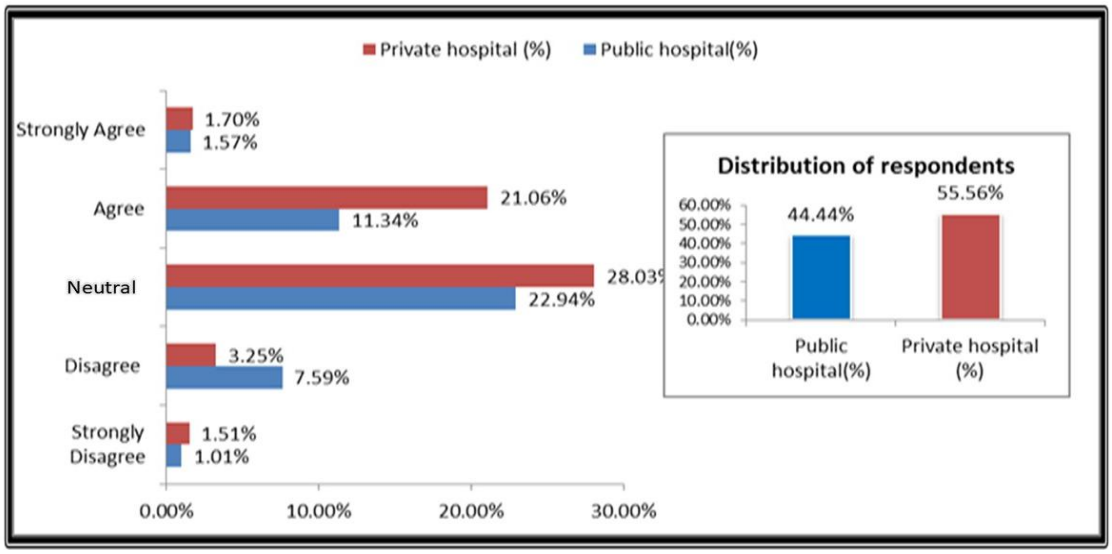
Source: Author Calculation Based on Primary Data

Table 6.6: Hospital wise Satisfaction with Information and Guidance Provided

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	6 (1)	53 (8)	127 (23)	60 (11)	11 (2)
Private	11 (2)	17 (3)	155 (28)	127 (21)	6 (1)
Total	17(3)	70 (11)	282 (51)	187 (32)	17 (3)

Source: Author Calculation Based on Primary Data

It was found that private hospitals demonstrated higher satisfaction percentages in agree and strongly agree categories, with values of 21.1 percent and 1.7 percent, respectively, compared to public hospitals with values of Agree: 11.3 percent, Strongly Agree: 1.6 percent as shown in figure 6.7 and table 6.5 and 6.6.



Source: Author Calculation Based on Primary Data

Figure 6.7: Satisfaction with the Information and Guidance Provided in Hospitals

A p-value less than 0.01 and a chi-square test statistic of 149.37 highlighted a notable difference in the distribution of answers, suggesting varied satisfaction experiences. Beneficiaries visiting public and private hospitals in Haryana under the Ayushman Bharat Scheme had significantly different levels of satisfaction with the information and assistance they received, according to the statistics. As seen in table 6.5.

Table 6.7: Chi-square Analysis of Satisfaction of Information and Guidance Provided

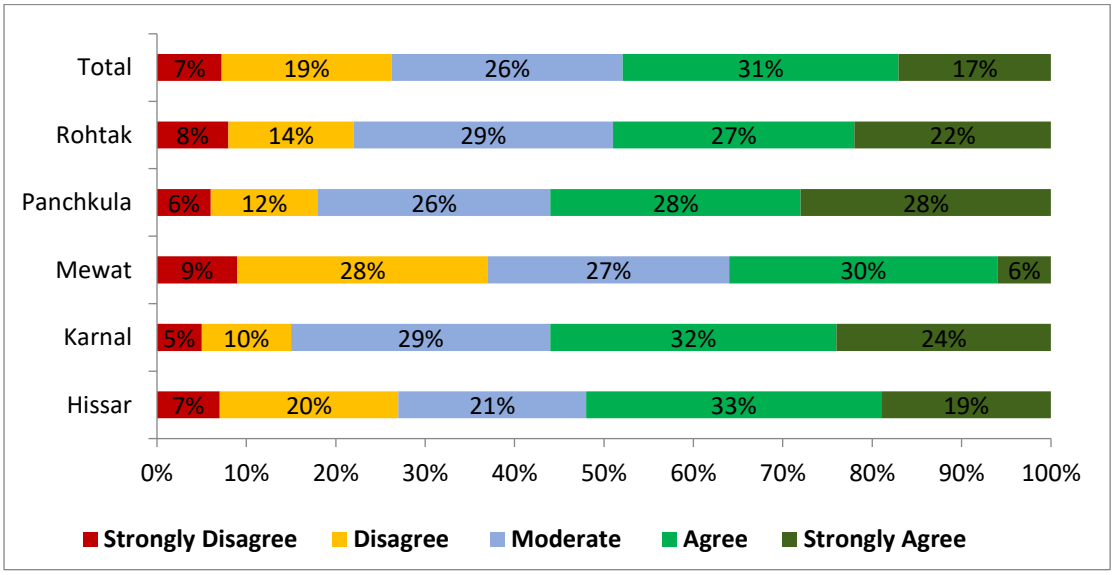
Statistic	Value
χ^2	149.37
Degrees of freedom	4
p-value	0.000***

Source: Author Calculation Based on Primary Data

Note: **** significant at 0.01 levels.*

6.2.2.3 Ease in Accessing the Network of Hospitals

The results of figure 6.8 and table 6.6 reveals a varying level of satisfaction across the districts. Overall, majority express positive sentiments, with 31 percent finding it "Agree" and 17 percent rating it as "Strongly Agree." Notable district-wise variations emerge, with Hissar, Karnal, and Panchkula displaying higher percentages in the "Agree" and "Strongly Agree" categories, ranging from 52 percent to 52 percent. Mewat shows a unique pattern, with 36 percent in the "Disagree" and "Strongly Disagree" categories. Rohtak presents a balanced distribution across categories.



Source: Author Calculation Based on Primary Data

Figure 6.8: Respondents' Satisfaction with Access to Hospitals Under AB-PMJAY in Haryana

Table 6.8: Zone-wise Satisfaction with Access to Hospitals Under AB-PMJAY in Haryana

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	12 (7)	33 (20)	35 (21)	55 (33)	31 (19)
East (Karnal)	6 (5)	12 (10)	35 (29)	39 (32)	29 (24)
South (Mewat)	15 (9)	47 (28)	45 (27)	50 (30)	7 (6)
North (Panchkula)	2 (6)	3 (12)	7 (26)	8 (28)	8 (28)
Central (Rohtak)	6(8)	10 (14)	21 (29)	19 (27)	16 (22)
Total	41 (7)	105 (19)	143 (26)	171 (31)	94 (17)

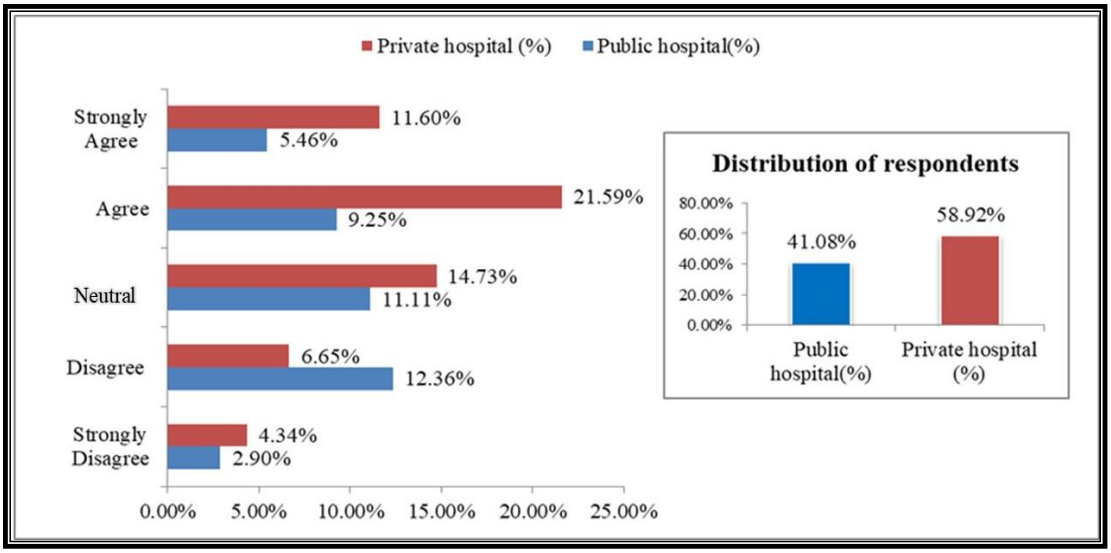
Source: Author Calculation Based on Primary Data

Table 6.9: Hospital -wise Satisfaction with Access to Hospitals Under AB-PMJAY in Haryana

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	17 (3)	66 (12)	61 (11)	50 (9)	29 (5)
Private	23 (4)	38 (7)	83 (15)	122 (22)	66 (12)
Total	40 (7)	104 (19)	144 (26)	172 (31)	95 (17)

Source: Author Calculation Based on Primary Data

In the survey, public hospital respondents (41 percent) predominantly encountered a moderate level of difficulty (26 percent) in accessing the hospital network. Conversely, private hospital respondents (59 percent of participants) exhibited a notable majority expressing satisfaction (31 percent) with the ease of accessing the hospital network (Figure 6.9 and Table 6.8 & 6.9)



Source: Author Calculation Based on Primary Data

Figure 6.9: Hospital-wise Satisfaction with Access to Hospitals Under AB-PMJAY in Haryana

The Chi-square test statistic was calculated to be 111.16 with $p < 0.01$ that proves a significant variation between the public and private hospital beneficiaries. A statistically significant association in the test, revealed varied experiences in patient satisfaction with respect to access to hospitals based on hospital type, as provided in the table 6.10.

Table 6.10: Chi-square Analysis of Satisfaction with Access to Hospitals Under AB- PMJAY

Statistic	Value
χ^2	111.16
Degrees of freedom	4
p-value	0.000***

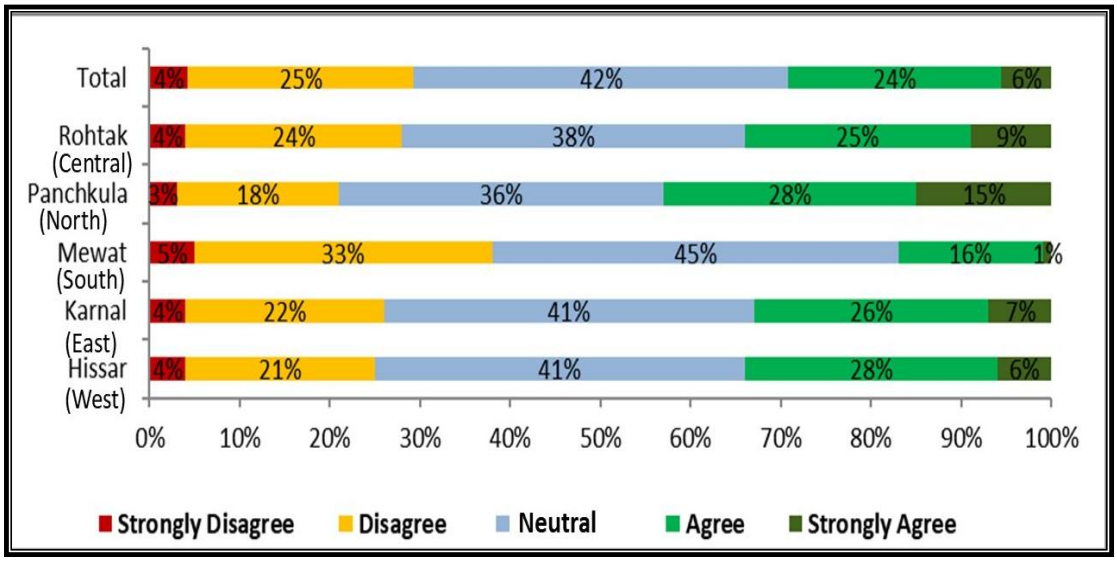
Source: Author Calculation Based on Primary Data

Note: **** significant at 0.01 level.*

6.2.2.4 Provision of Requisite Services/ Treatment

The results from Figure 6.10 and Table 611 & 6.12, the Patient satisfaction survey regarding the provision of requisite services and treatment under the Ayushman Bharat scheme in Haryana demonstrate a mixed perception among beneficiaries. Across the study zones, almost 66 percent of respondents were in agreement or strong

agreement that the necessary services and treatment were given. However, there is a notable proportion expressing dissatisfaction, with 29 percent of beneficiaries disagreeing or strongly disagreeing. Specifically, 70 percent of respondents in Hissar (West), 59 percent in Karnal (East), 61 percent in Mewat (South), 43 percent in Panchkula (North), and 34 percent in Rohtak (Centre) expressed satisfaction. While the majority of beneficiaries appear content with the services received, attention may be warranted to address concerns and enhance satisfaction levels among the subset expressing dissatisfaction.



Source: Author Calculation Based on Primary Data

Figure 6.10: Satisfaction with Provision of Requisite Services Under AB-PMJAY in Haryana

Table 6.11: Satisfaction with Provision of Requisite Services under AB-PMJAY in Haryana

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	6 (4)	35(21)	68(41)	47 (28)	10(6)
East (Karnal)	5 (4)	27(22)	50(41)	31 (26)	8(7)
South (Mewat)	8 (5)	55(33)	75(45)	27 (16)	2(1)
North (Panchkula)	1 (3)	5(18)	10(36)	8 (28)	4(15)
Central (Rohtak)	3 (4)	17(24)	28(38)	18 (25)	6(9)
Total	23 (4)	139 (25)	228 (41)	131 (24)	32 (6)

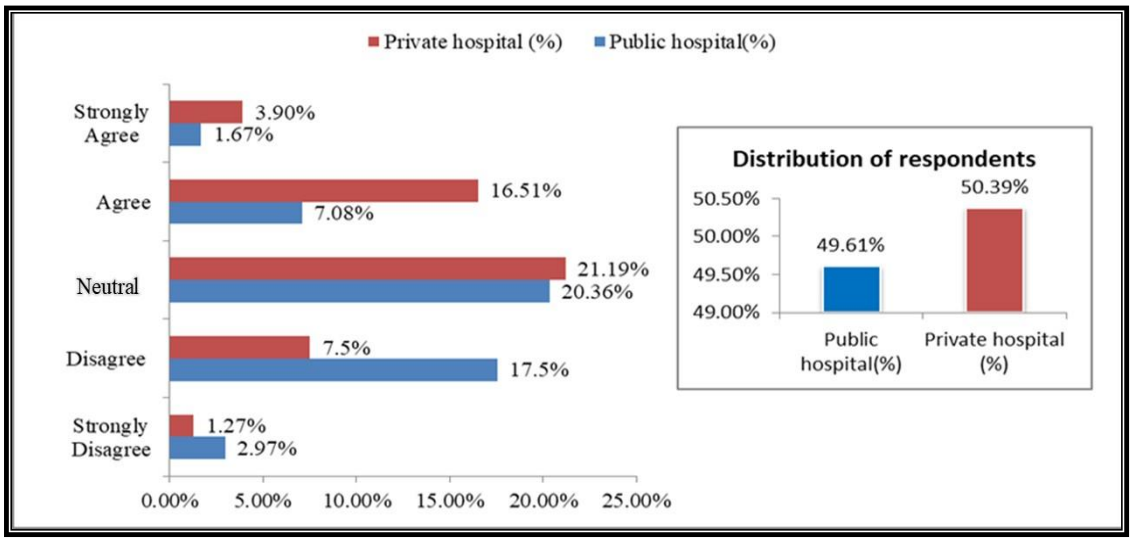
Source: Author Calculation Based on Primary Data

Table 6.12: Hospital Wise Satisfaction with Provision of Requisite Services Under AB-PMJAY

Type of Hospitals	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	17(3)	98(18)	111(20)	38(7)	11(2)
Private	6(1)	41(8)	117(21)	93(17)	21(4)
Total	23 (4)	139 (25)	228 (41)	131 (24)	32 (6)

Source: Author Calculation Based on Primary Data

The overall satisfaction among beneficiaries of the Ayushman Bharat Scheme in Haryana is nearly evenly distributed between public and private hospitals, with 49.61 percent expressing satisfaction in public hospitals and 50.39 percent in private hospitals. However, a notable distinction emerges in the breakdown of dissatisfaction levels, which are higher in public hospitals (21 percent) compared to private hospitals (9 percent). Conversely, satisfaction levels, comprising agree and strongly agree responses, are more pronounced in private hospitals (21 percent) than in public hospitals (9 percent) in figure 6.11 and table 6.12.



Source: Author Calculation Based on Primary Data

Figure 6.11: Hospital Wise Satisfaction with Requisite Services Under AB-PMJAY

The Chi-square test result shows a statistically significant link between the kind of hospital (public or private) and the satisfaction levels of scheme beneficiaries (Table 6.13). With a p-value less than 0.05, the computed chi-square was 162.74. It can be concluded that the Ayushman Bharat Scheme does in fact have a correlation

between hospital type and satisfaction with necessary services and treatments, and we can reject the null hypothesis in favour of the alternative.

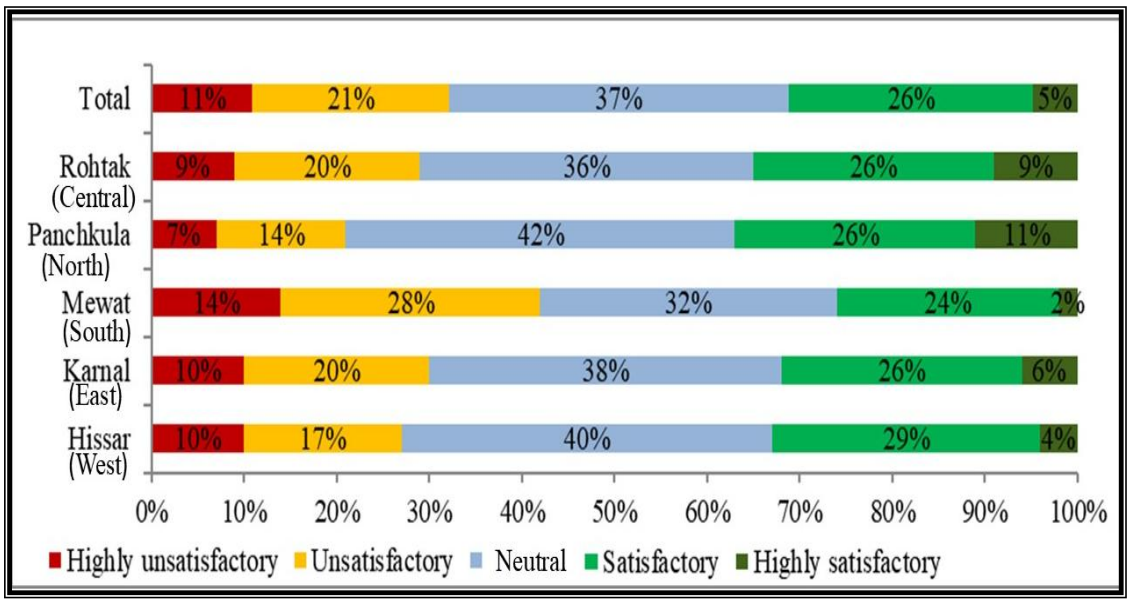
Table 6.13: Chi-square Analysis of Respondents' Satisfaction with Requisite Services

Statistic	Value
χ^2	162.74
df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
Note:*** significant at 0.01 level.*

Ease of Getting Admission in Hospitals Under AB-PMJAY in Haryana

The patient satisfaction levels regarding the ease of the admission process for Ayushman Bharat Scheme beneficiaries across various zones in Haryana, based on responses from 553 participants, has been shown in figure 6.12 and table 6.10. While a notable proportion of respondent's express satisfaction, there are also concerns. Specifically, 63 percent of respondents in Hissar, 64 percent in Karnal, 58 percent in Mewat, 57 percent in Panchkula, and 61 percent in Rohtak find the process of getting admission when required either moderately satisfactory or satisfactory. However, 32 percent of beneficiaries across the district's express dissatisfaction, with 11 percent reporting highly unsatisfactory experiences.



Source: Author Calculation Based on Primary Data

Figure 6.12: Satisfaction with Ease of Admission in Hospitals under AB-PMJAY in Haryana

Table 6.14: Zone-Wise Satisfaction with Ease of Admission in Hospitals under AB-PMJAY

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	17 (10)	28 (17)	66 (40)	48 (29)	7(4)
East (Karnal)	12 (10)	24 (20)	46 (38)	32 (26)	7(6)
South (Mewat)	23 (14)	47 (28)	53 (32)	40 (24)	3 (2)
North(Panchkula)	2 (7)	4 (14)	12 (42)	7 (26)	3 (11)
Central (Rohtak)	6 (9)	14 (20)	26 (36)	19 (26)	7 (9)
Total	60 (11)	117 (21)	203 (37)	146 (26)	27 (5)

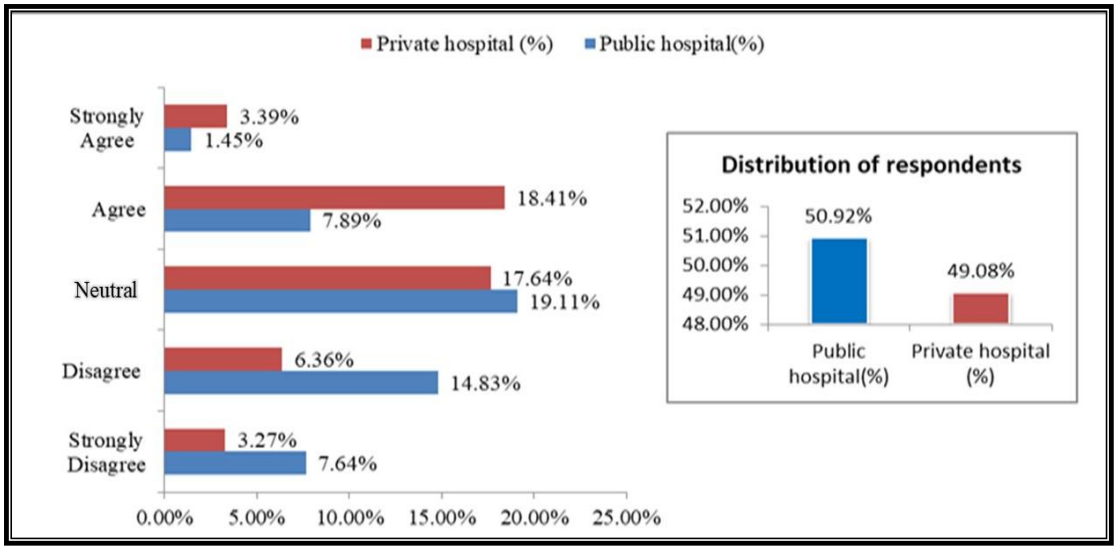
Source: Author Calculation Based on Primary Data

Table 6.15: Hospital Wise Satisfaction with Ease of Admission in Hospitals under AB-PMJAY

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	44 (8)	83 (15)	105 (19)	44 (8)	6 (1)
Private	16 (3)	34 (6)	98 (18)	102 (18)	21 (4)
Total	60 (11)	117 (21)	203 (37)	146 (26)	27 (5)

Source: Author Calculation Based on Primary Data

The overall perception of the ease of the admission process is reflected in the figure 6.13 and table 6.14, with 50.9 percent of respondents expressing their experiences in public hospitals and 49.1 percent in private hospitals. The dissatisfaction levels are notably higher in public hospitals, encompassing 22.5 percent of respondents who strongly disagree or disagree, compared to a lower dissatisfaction rate of 9.6 percent in private hospitals. Conversely, satisfaction levels, which include agree and strongly agree responses, are lower in public hospitals at 9.3 percent, while private hospitals exhibit higher satisfaction levels at 21.8 percent.



Source: Author Calculation Based on Primary Data

Figure 6.13: Satisfaction with Ease of Admission in Hospitals under AB-PMJAY in Haryana

With a p-value less than 0.01, the Chi-square test revealed a $\chi 2$ statistic of 272.51. Table 6.16 shows that there is a substantial association between the kind of hospital and the ease of the admission procedure, providing strong evidence to reject the null hypothesis.

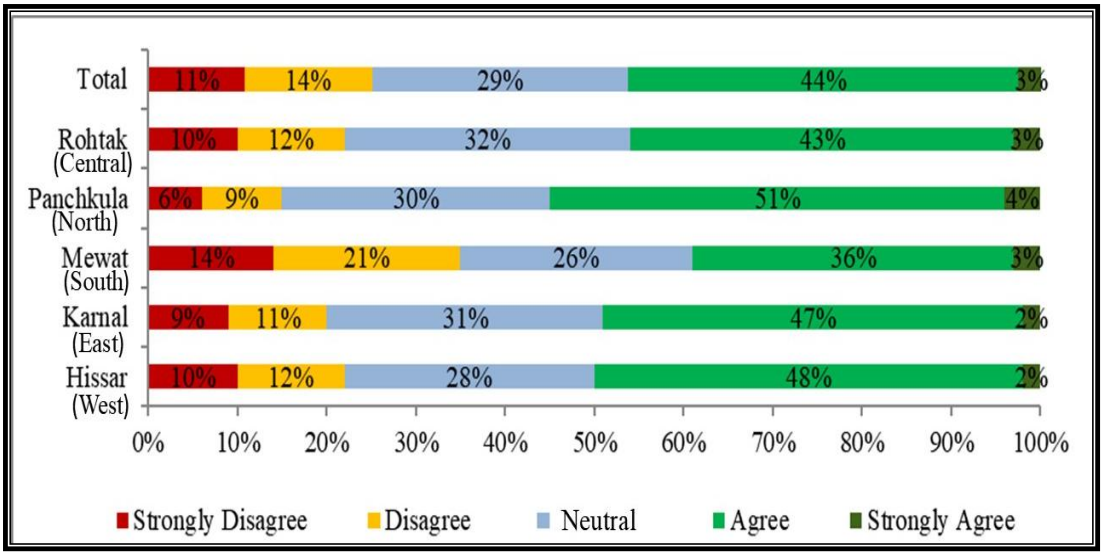
Table 6.16: Chi-square Analysis of Satisfaction with Ease of Admission in Hospitals

Statistic	Value
χ^2	272.51
df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
Note : significant at 0.01 Level

6.2.2.5 Cleanliness and Hygiene in Hospitals under Ayushman Bharat Scheme in Haryana

The results of a patient satisfaction survey about the cleanliness and hygiene of Haryana's hospitals, which was conducted as part of the Ayushman Bharat Scheme, are shown in Figure 6.14 and table 6.17. About the cleanliness and sanitation of the hospitals , 50 percent of respondents in Hissar, 49 percent in Karnal, 39 percent in Mewat, 55 percent in Panchkula, and 46 percent in Rohtak expressed satisfaction. While there are some concerns, with 25 percent of beneficiaries expressing disagreement or strong disagreement, the overall trend suggests a satisfactory level of cleanliness and hygiene in hospitals.



Source: Author Calculation Based on Primary Data

Figure 6.14: Satisfaction with Cleanliness and Hygiene in Hospitals under AB-PMJAY

Table 6.17: Zone Wise Satisfaction with Cleanliness and Hygiene under AB-PMJAY

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	17(10)	20(12)	47(28)	79(48)	03(2)
East (Karnal)	11(9)	13(11)	38(31)	57(47)	02(2)
South (Mewat)	23(14)	35(21)	43(26)	60(36)	05(3)
North (Panchkula)	02(6)	2(9)	09(30)	14(51)	01(4)
Central (Rohtak)	07(1)	09(12)	23(32)	31(43)	02(3)
TOTAL (N=553)	60(11)	79(14)	160(29)	241(44)	13(2)

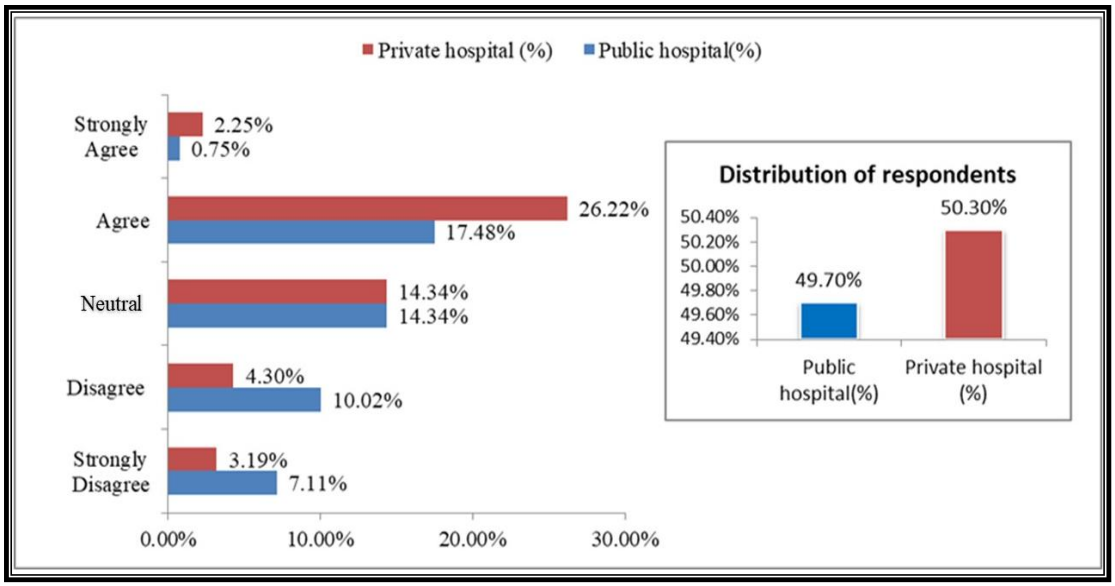
Source: Author Calculation Based on Primary Data

Table 6.18: Hospital Wise Satisfaction with Cleanliness and Hygiene under AB-PMJAY

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%)	Agree N (%)	Strongly Agree N (%)
Public	43(8)	55(10)	83(15)	94(17)	6(01)
Private	17(3)	24(4)	77(14)	147(26)	7(2)
Total	60 (11)	79 (14)	160 (29)	241(44)	13(2)

Source: Author Calculation Based on Primary Data

The respondents expressed (Figure 6.15 and Table 6.18) diverse opinions on hospital cleanliness. "Strongly Disagree" rates were 7.1 percent for public and 3.2 percent for private hospitals. In the "Disagree" category, public hospitals had 10.0 percent, private had 4.3 percent, totalling to 14.3 percent. However, combined "Agree" and "Strongly Agree" rates were 43.7 percent, showing distinctions in perceptions between public and private hospitals.



Source: Author Calculation Based on Primary Data

Figure 6.15: Hospital Wise Satisfaction with Cleanliness and Hygiene in Hospitals

A significant association is shown by the chi-square test's chi-square statistic ($\chi 2$) of 321.21 with a p-value < 0.01. This information is presented in table 6.19. According to Table 6.13, this indicates that the beneficiaries' perceptions of the cleanliness and hygiene of the hospital are significantly related to the kind of hospital.

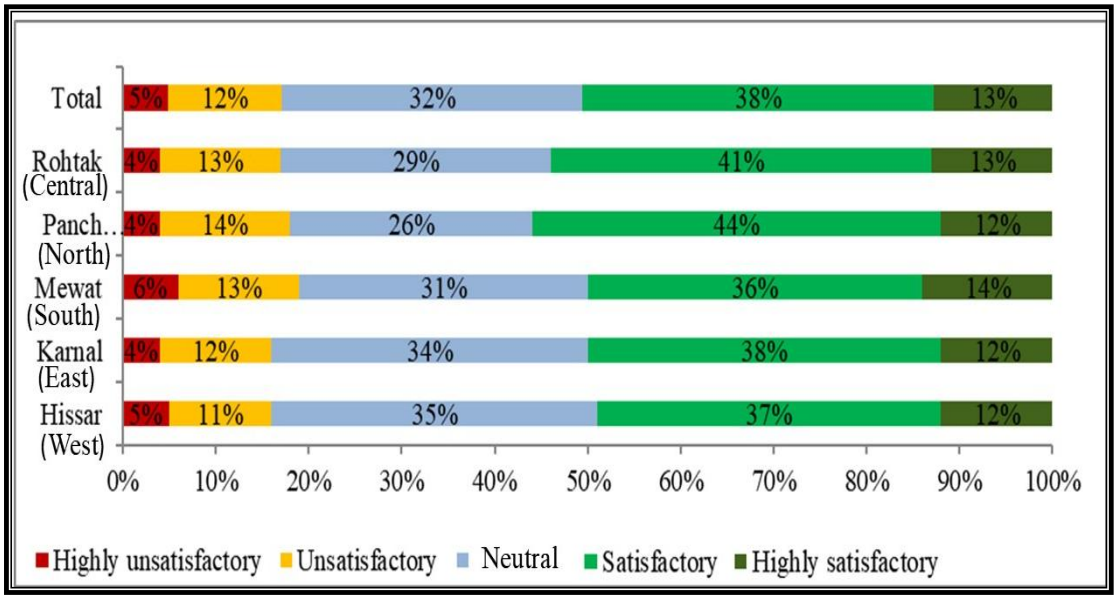
Table 6.19: Chi-square Analysis of Hospital Wise Satisfaction with Cleanliness and Hygiene

Statistic	Value
χ^2	321.21
df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
*Note: ***significant at 0.01 level.*

6.2.2.6 Discriminatory Treatment to Ayushman Bharat Scheme Beneficiaries by Hospitals

The findings from figure 6.16 and table 6.20, which focus on whether healthcare staff provided discriminatory treatment to Ayushman Bharat cardholders compared to cash-paying patients, reveal a generally positive perception among beneficiaries in Haryana. However, across districts surveyed from various zones of Haryana, namely Hissar, Karnal, Mewat, Panchkula, and Rohtak, a majority of respondents expressed satisfaction with the treatment received. Specifically, 49 percent of respondents in Hissar (West), 50 percent in Karnal (East), 50 percent in Mewat (South) , 56 percent in Panchkula (North) , and 54 percent in Rohtak (Centre) reported a satisfactory or highly satisfactory experience. While, there are some concerns, with 17 percent of beneficiaries expressing dissatisfaction.



Source: Author Calculation Based on Primary Data

Figure 6.16: Discrimination of AB-PMJAY Patient as Compared to Cash-Paying Patient

Tables 6.20 and 6.21 shows the perception of discriminatory treatment by healthcare staff among Ayushman Bharat Scheme beneficiaries by zones and type of hospital respectively. This can help the policy makers to devise strategies for improvement in healthcare utilization under the scheme.

Table 6.20: Zone-wise Perception of Discriminatory Treatment to AB-PMJAY Beneficiaries in Empanelled Hospitals

Zone (District)	Strongly Disagree N(%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	8(5)	18(11)	58 (35)	62 (37)	20(12)
East (Karnal)	5 (4)	14(12)	41 (34)	46 (38)	14(12)
South (Mewat)	10 (6)	22(13)	51 (31)	60 (36)	23(14)
North (Panchkula)	1 (4)	04(14)	07 (26)	12 (44)	4(12)
Central (Rohtak)	3(4)	10(13)	20 (29)	29 (41)	10(13)
Total	27 (5)	68(12)	177 (32)	209(38)	72(13)

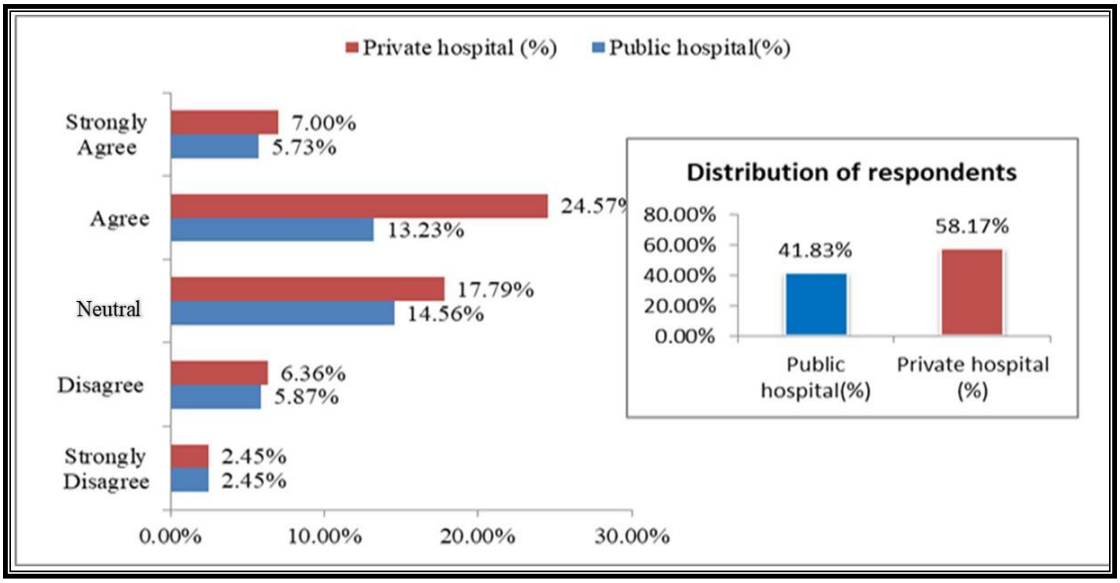
Source: Author Calculation Based on Primary Data

Table 6.21: Hospital Wise Perception of Discriminatory Treatment to AB-PMJAY Beneficiaries in Empanelled Hospitals

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	11(2)	34(6)	81(15)	72(13)	36(6)
Private	16(3)	34(6)	96(18)	137(25)	36(6)
Total	27 (5)	68 (12)	177 (33)	209 (38)	72 (12)

Source: Author Calculation Based on Primary Data

The analysis of the observed and expected distributions of responses among Ayushman Bharat Scheme cardholders in public and private hospitals reveals a significant discrepancy. In private hospitals, a higher percentage of respondents selected "Agree" (24.6 percent) and "strongly agree" (7.0 percent) compared to the private values of 13.2 percent and 5.7 percent, respectively as depicted in figure 6.17 and table 6.21.



Source: Author Calculation Based on Primary Data

Figure 6.17: Discriminatory Treatment to AB-PMJAY Beneficiaries in Various Hospitals

A p-value<0.01 is produced by calculating the Chi-square test statistic ($\chi 2$) as 85.01 with 4 degrees of freedom, as shown in table 6.22.

Table 6.22: Chi-square Analysis of Discriminatory Treatment to AB-PMJAY Beneficiaries

Statistic	Value
χ^2	85.01
df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data

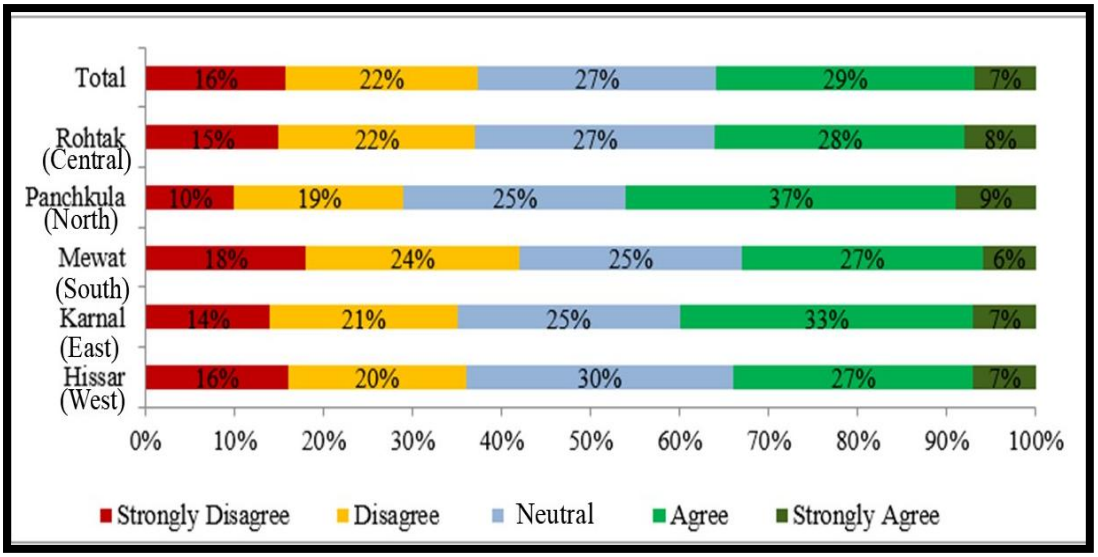
*Note: ***significant at 0.01 level.*

The p-value is much lower than the generally used significance level of 0.05. As a result, table 6.15 provides sufficient evidence to acknowledge the existence of a difference in discriminatory treatment of patients between those who received care in public and private hospitals, and to reject the null hypothesis.

6.2.2.7 Knowledge of Empanelled Health Care Providers

The results from Figure 6.18 and Table 6.23, which assesses the knowledge of empanelled providers under the Ayushman Bharat Scheme in Haryana, indicate a varied perception across respondents from various zones. While a significant

proportion of respondents expressed agreement with the adequacy of knowledge amongst empanelled health care providers; concerns and dissatisfaction are also notable. Specifically, 34 percent of respondents in Hissar (West), 40 percent in Karnal (East), 33 percent in Mewat (South), 46 percent in Panchkula (North), and 35 percent in Rohtak (Centre) reported either moderate satisfaction or satisfaction with their knowledge. On the contrary, 38 percent of respondents across districts expressed dissatisfaction, with 16 percent strongly disagreed with the statement that the health care providers under AB-PMJAY have adequate knowledge.



Source: Author Calculation Based on Primary Data

Figure 6.17: Perception about Knowledge of Health Care Providers Under AB-PMJAY

Table 6.23: Perception About Knowledge of Health Care Providers Under AB-PMJAY

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	27(16)	33(20)	50(30)	45(27)	11(07)
East (Karnal)	17(14)	26(21)	30(25)	34(33)	08(07)
South (Mewat)	28(18)	40(24)	42(25)	45(27)	10(06)
North (Panchkula)	03(10)	05(19)	07(25)	10(37)	03(09)
Central (Rohtak)	11(15)	16(22)	20(27)	20(28)	05(08)
Total	86(16)	120(22)	149(27)	154(29)	37(07)

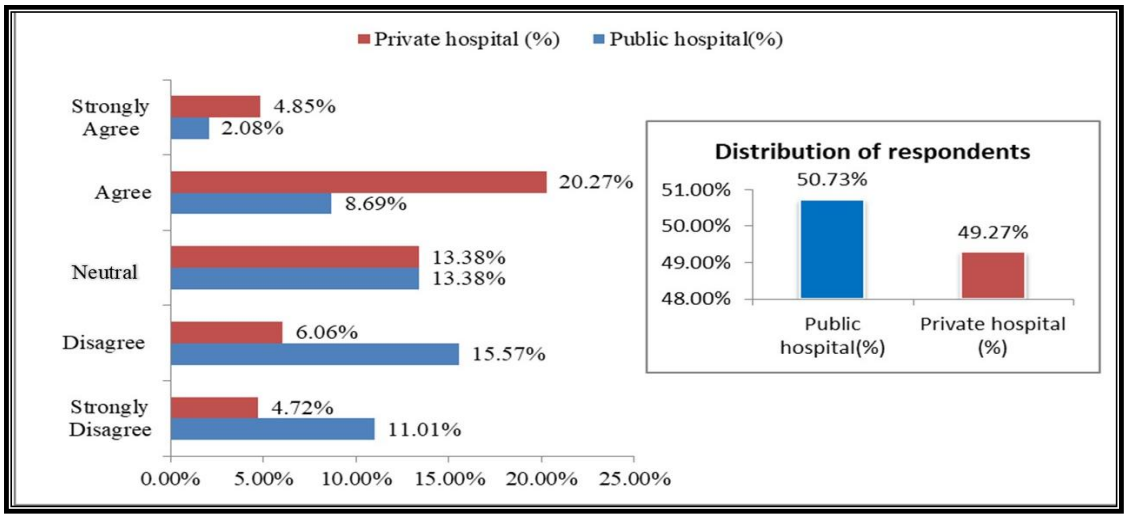
Source: Author Calculation Based on Primary Data

Table 6.24: Hospital Wise Perception about Knowledge of Health Care Providers Under AB-PMJAY

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	59(11)	87(16)	72(13)	48(09)	11(02)
Private	27(05)	33(06)	77(14)	196(20)	26(05)
Total	16	22	27	29	7

Source: Author Calculation Based on Primary Data

It was shown in figure 6.19 and table 6. 24 present the knowledge of empanelled providers among hospitals. Both public and private hospitals were surveyed. Among public hospitals, 26.7 percent of respondents had a moderate or higher level of agreement regarding their knowledge of empanelled providers. For private hospitals, this percentage was higher at 28.9 percent. In total, 49. 3 of respondents were from private hospitals, while 50.7 were from public hospitals.



Source: Author Calculation Based on Primary Data

Figure 6.19: Perception about Knowledge of Health Care Providers Under AB-PMJAY

The analysis (table 6.24) revealed substantial disparities between observed and expected frequencies across different levels of agreement. To determine if there was a association between the kind of hospital (public or private) and the degree of agreement on empanelled clinicians' appropriate expertise, we used the chi-square test. There was a very significant difference in the expertise of the public and private

providers, as evidenced by the p-value<0.01, which was produced using a chi-square statistic of 500.58 with 4 degrees of freedom.

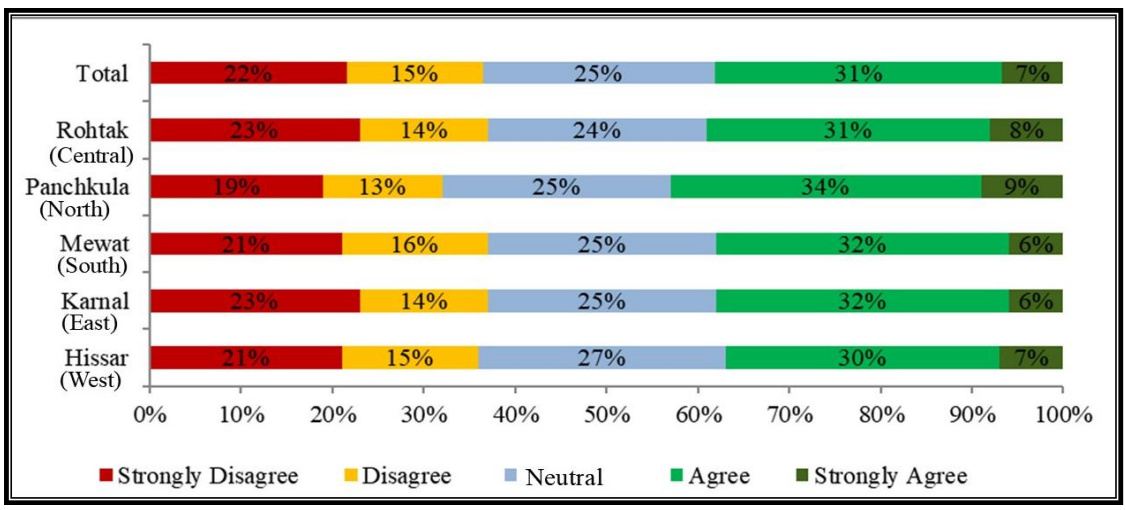
Table 6.25: Chi-Square Analysis of Knowledge of Health Care Providers

Statistic	Value
χ^2	500.58
Degrees of freedom	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
Note: **** significant at 0.01 level*

6.2.2.8 Availability of Adequate Infrastructure in Hospitals under Ayushman Bharat Scheme

The outcome of evaluation about the perception of the infrastructure in hospitals under the Ayushman Bharat Scheme in Haryana indicates a varied sentiment among beneficiaries across various zones of Haryana (Figure 6.20). While a considerable proportion of respondents expressed agreement with the adequacy of infrastructure, there are also concerns about the level of equipment and facilities in hospitals. Specifically, 37 percent of respondents in Hissar (West), 37 percent in Karnal (East), 41 percent in Mewat (South), 43 percent in Panchkula (North), and 37 percent in Rohtak (Centre) reported either moderate satisfaction or satisfaction with the infrastructure. On the other hand, 37 percent of respondents across districts expressed dissatisfaction, with 22 percent strongly disagreeing about availability of adequate infrastructure in hospitals under AB-PMJAY.



Source: Author Calculation Based on Primary Data

Figure 6.20: Availability of Infrastructure in Hospitals under AB-PMJAY

Table 6.26: Zone Wise Perception on Availability of Adequate Infrastructure in Hospitals

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	36(21)	25(15)	45(27)	50(30)	11(7)
East (Karnal)	28(23)	17(14)	30(25)	39(32)	7(6)
South (Mewat)	35(21)	27(16)	42(25)	53(32)	10(6)
North (Panchkula)	5(19)	04 (13)	07(25)	10(34)	3(9)
Central (Rohtak)	18(23)	10(14)	17(24)	22(31)	5(8)
Total	122(22)	83(15)	141(26)	171(31)	36(07)

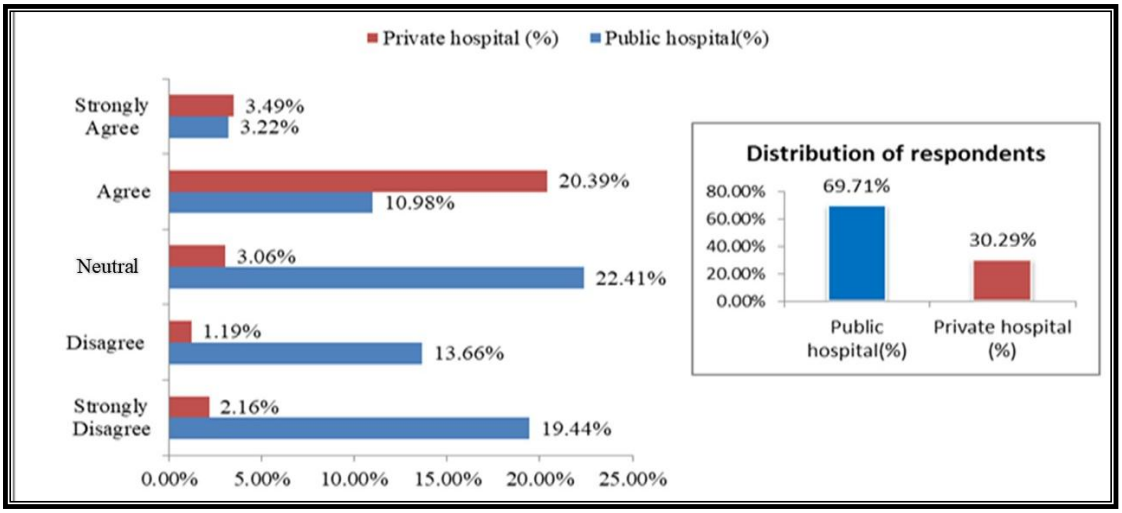
Source: Author Calculation Based on Primary Data

Table 6.27: Hospital Wise Perception on Availability of Adequate Infrastructure in Hospitals

Type of Hospitals	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	106(19)	77(14)	127(22)	60(11)	15(3)
Private	16(3)	06(1)	14(3)	111(20)	21(4)
Total	122(22)	83(15)	141(25)	171(31)	36(07)

Source: Author Calculation Based on Primary Data

The survey on hospital infrastructure perception reveals notable disparities in respondents' opinion of public and private hospitals. While a majority (69.7) feel that public hospitals are well-equipped, a substantial portion (30.3) holds a similar view for private hospitals. Strongly disagreeing with the statement, 19.44 for public and only 2.16 for private hospitals signifies a significant discrepancy as shown in figure 6.21 and table 6.27.



Source: Author Calculation Based on Primary Data

Figure 6.21: Patient perception of Availability of Adequate Infrastructure in Hospitals

Table 6.19 shows that the chi-square test yielded a chi-square value of 1393.46 and a p-value<0.01, both of which are lower than the traditional significance threshold (e.g., 0.05). This proves that the table's null hypothesis is false and that, according to the replies regarding the sufficiency of hospital infrastructure, the variables "public hospital" and "private hospital" are strongly related (i.e., the distribution of responses is different for the two kinds of hospitals).

Table 6.28: Chi-square Analysis of Availability of Infrastructure in Hospitals

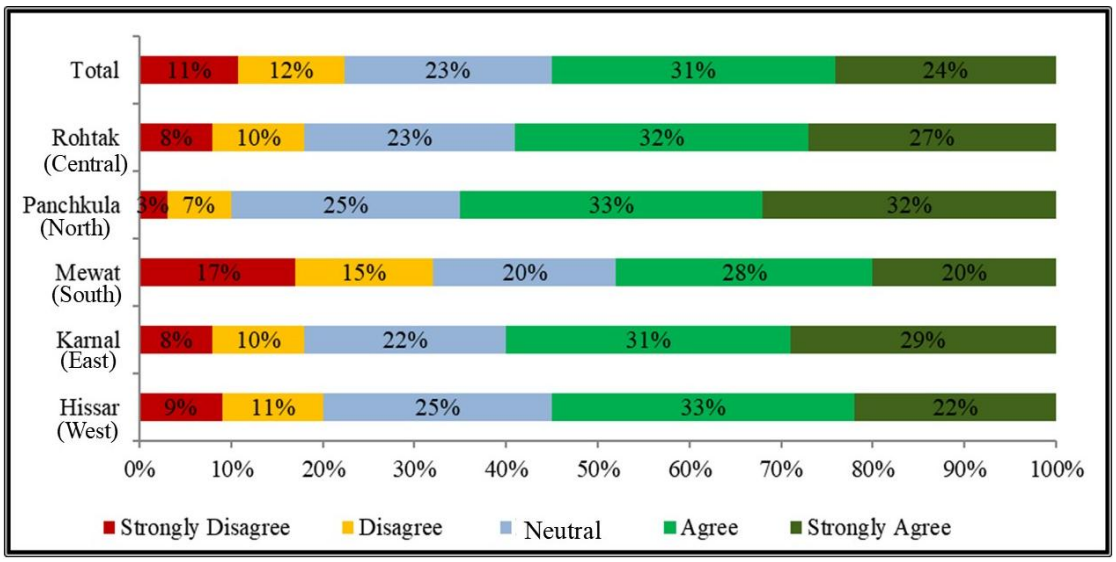
Statistic	Value
χ^2	1393.46
Degrees of freedom	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
*Note: ***significant at 0.01 level.*

6.2.2.9 Improvement in Quality of Life Due to Implementation of AB-PMJAY

The study have found that beneficiaries in Haryana typically have a good impression of the Ayushman Bharat Scheme's influence on their quality of life as shown as figure 6.22 and table 6.29. A considerable number of respondents across various zones agreed that the initiative had enhanced their quality of life as well as standard of living. Specifically, 55 percent of respondents in Hisar (West), 60 percent in Karnal

(East), 48 in Mewat (South), 65 percent in Panchkula (North), and 59 percent in Rohtak (Centre) reported either moderate satisfaction or strong satisfaction with the positive impact of AB-PMJAY on their quality of life. Conversely, only 23 percent of respondents across districts expressed disagreement, with 11 percent strongly disagreed that implementation of Ayushman Bharat Scheme in Haryana has helped in improvement of their quality of life.



Source: Author Calculation Based on Primary Data

Figure 6.22: Improvement in Quality of Life Due to Implementation of AB-PMJAY

Table 6.29: Zone Wise Perception about Impact of AB-PMJAY on Quality of Life

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	15(09)	18(11)	42(25)	55(33)	36(22)
East (Karnal)	10(08)	12(10)	27(22)	38(31)	36(29)
South (Mewat)	28(17)	25(15)	31(20)	47(28)	33(20)
North (Panchkula)	01(03)	02(07)	07(25)	09(33)	09(32)
Central (Rohtak)	06(08)	07(10)	17(23)	23(32)	19(27)
Total	60(11)	64(12)	124(23)	172(31)	133(24)

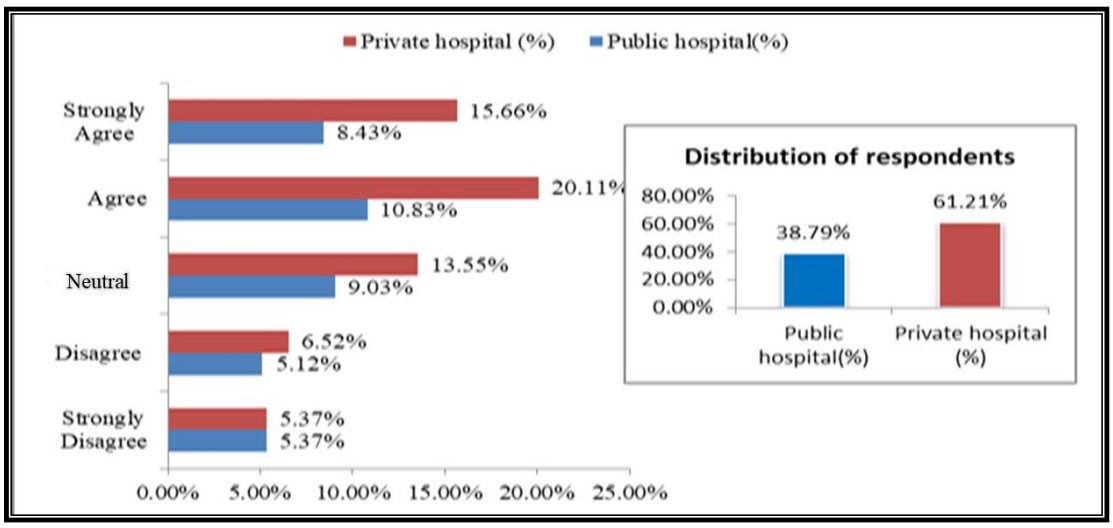
Source: Author Calculation Based on Primary Data

Table 6.30: Hospital Wise Perception About Impact of AB-PMJAY on Quality of Life

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	27(05)	27(05)	49(09)	61(11)	44(08)
Private	33(06)	37(07)	75(14)	111(20)	89(16)
Total	11	12	23	31	24

Source: Author Calculation Based on Primary

Data A majority of respondents as in figure 6.23 and Table 6.20, constituting 61.2 percent, expressed positive sentiments towards the scheme, with 30.9 percent agreeing and 24.1 percent strongly agreeing that implementation of AB-PMJAY has enhanced their well-being. On the other hand, a combined 38.8 percent had varying degrees of disagreement, with 11.6 percent disagreeing and 10.7 percent strongly disagreeing, that implementation of AB-PMJAY has improved their quality of life. Additionally, higher percentage of agreement about the positive impact of implementation of AB-PMJAY on improvement of quality life is with respondents from private hospitals (20.1 percent) as compared to 10.8 percent respondents from public hospitals as described in figure 6.23 and table 6.30.



Source: Author Calculation Based on Primary Data

Figure 6.23: Perception of Respondents from Various Hospitals About Improvement in Quality of Life Due to Implementation of AB-PMJAY

The computed p-value from the chi-square test was 0.000, and the result was 169.23. The null hypothesis of no connection is rejected since the computed p-value is less than the conventional significance level of 0.05 as indicated in table 6.31. This indicates there is a significant difference in the impact expressed by the patients in private and public hospitals on their quality of life through the Ayushman Bharat Scheme.

Table 6.31: Chi-square Analysis of Perception of Respondents About Improvement in Quality of Life Due to Implementation of AB-PMJAY in Haryana

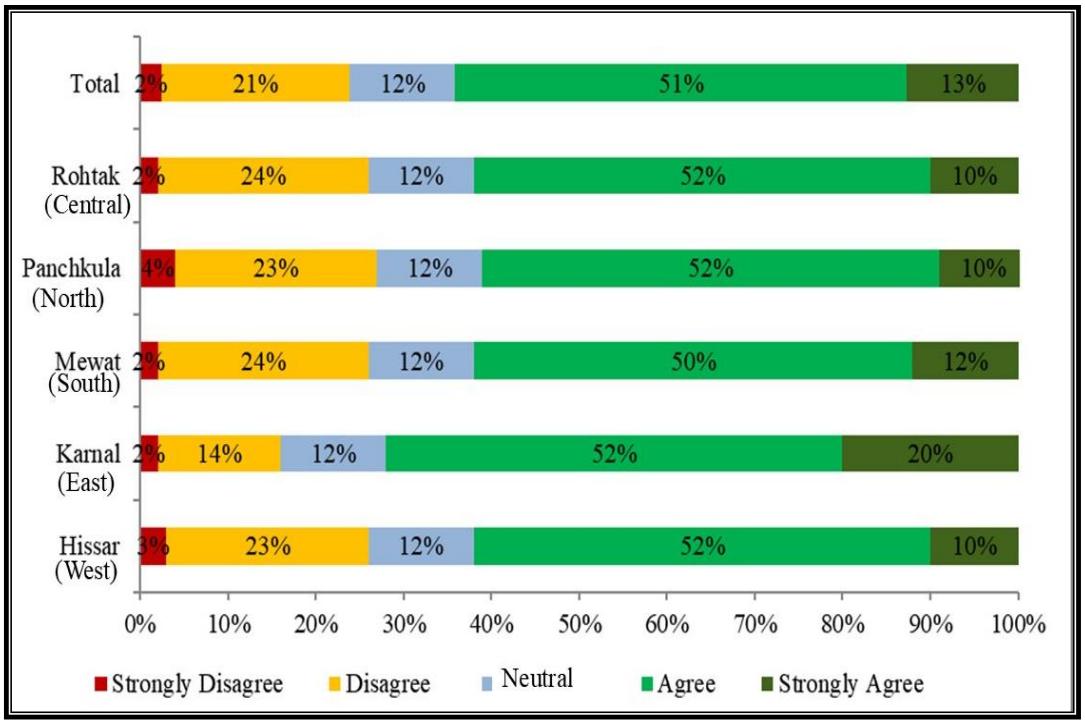
Statistic	Value
χ^2	169.23
Df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data

*Note: *** significant at 0.01 level.*

6.2.2.10 Satisfaction With the Services Provided Under Ayushman Bharat Scheme in Haryana

The assessment regarding the satisfaction levels with the services provided under the Ayushman Bharat scheme in Haryana, indicate a positive overall perception among the respondents' (Figure 6.24 and Table 6.32). Across all the zones a majority of respondents expressed agreement that the services provided under the scheme were satisfactory. Specifically, 62 percent of respondents from Hisar (West), 72 percent in Karnal (East), 62 percent in Mewat (South), 62 percent in Panchkula (North), and 62 percent in Rohtak (Centre) reported either moderate satisfaction or strong satisfaction with the services. Conversely, only 25 percent of respondents across districts expressed disagreement, with 2 percent strongly disagreeing with the services provided under AB-PMJAY in Haryana.



Source: Author Calculation Based on Primary Data

Figure 6.24: Satisfaction with the Services Provided Under AB-PMJAY in Haryana

Table 6.32: Zone-Wise Satisfaction with the Services Provided Under AB-PMJAY

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	05(03)	38(23)	20(12)	86(52)	17(10)
East (Karnal)	02(02)	17(14)	15(12)	63(52)	24(20)
South (Mewat)	03(02)	40(24)	20(12)	83(50)	20(12)
North (Panchkula)	01(04)	06(23)	03(12)	15(52)	03(10)
Central (Rohtak)	01(02)	17(24)	09(12)	38(52)	07(10)
Total	12(2)	118(21)	67(12)	285(52)	71(13)

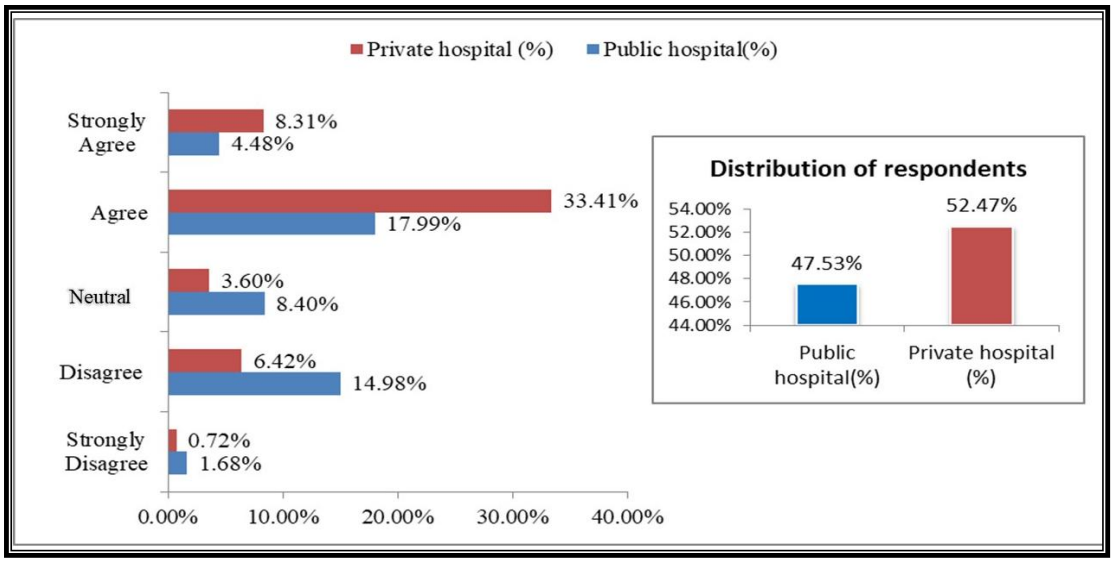
Source: Computation Based on Analysis of Research Data

Table 6.33: Hospital Wise Satisfaction with the Services Provided Under AB-PMJAY

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	08(02)	84(15)	44(08)	99(18)	23(04)
Private	04(01)	34(06)	23(04)	186(33)	48(68)
Total	3	21	12	51	13

Source: Author Calculation Based on Primary Data

It was found noteworthy trends among public and private hospital respondents about the satisfaction levels with AB-PMJAY services as presented in figure 6.25 and Table 6.33). Notably, a higher percentage of respondents in private hospitals (33.4 percent) 'agreed' on better healthcare services in private hospitals compared to those in public hospitals (18.0 percent). On the other hand, a relatively smaller proportion expressed dissatisfaction, with an overall 21.4 percent disagreeing and 2.4 percent strongly disagreeing / dissatisfied with the services under AB-PMJAY as shown in figure 6.25.



Source: Author Calculation Based on Primary Data

Figure 6.25: Satisfaction with the Services Provided Under AB-PMJAY in Haryana

The Chi-square test yielded a 367.26 statistic with a p-value of 0.000, significantly below the p-value<0.05 criterion. With the null hypothesis of no difference eliminated, we can see from Table 6.34 that there is a statistically

significant correlation between satisfaction and hospital type. Therefore, there were significant differences in the healthcare services provided through private and public hospitals under the Ayushman Bharat Scheme in Haryana.

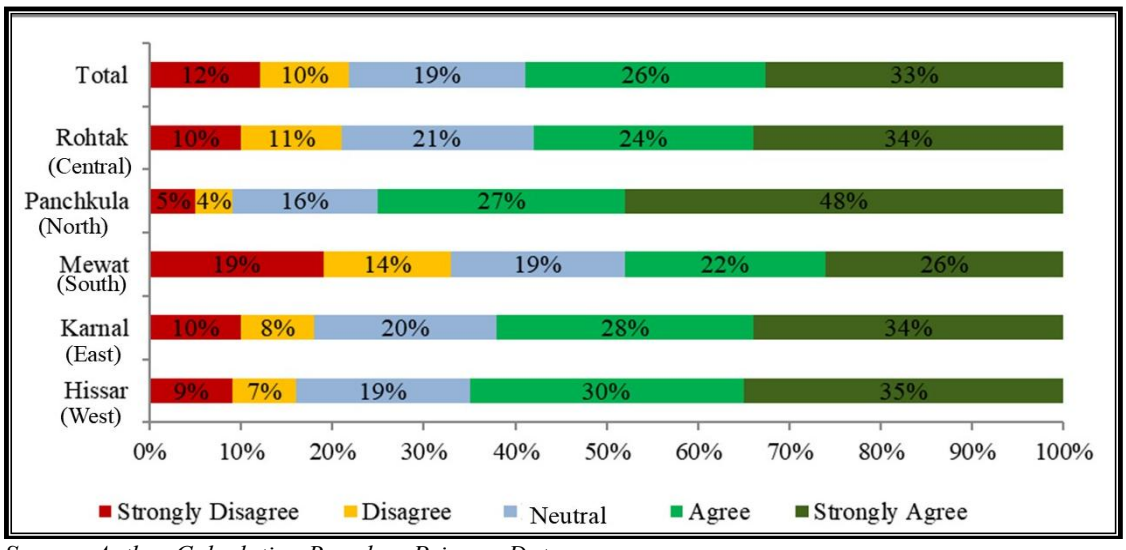
Table 6.34: Chi-square Analysis Satisfaction with the Services Provided Under AB-PMJAY

Statistic	Value
χ^2	367.26
df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
*Note: ***significant at 0.01 level.*

6.2.2.11 Opinion on Recommending Ayushman Bharat Scheme to Others

The conclusions from figure 6.26 and table 6.35, indicating the likelihood of recommending the Ayushman Bharat Scheme to others in Haryana, demonstrate a generally positive sentiment among beneficiaries. Across all the zones, a significant majority of respondents expressed a positive inclination toward recommending the scheme to others. Specifically, 65 percent of respondents from Hisar (West), 68 percent from Karnal (East), 52 percent from Mewat (South), 76 percent from Panchkula, and 58 percent from Rohtak reported either moderate agreement or strong agreement, that they will recommend the utilization of Ayushman Bharat scheme to others. Conversely, only 22 percent of respondents across all zones of Haryana expressed disagreement, with 12 strongly disagreeing, to recommend Ayushman Bharat scheme to others.



Source: Author Calculation Based on Primary Data

Figure 6.26: Respondents Views on Recommendation of AB-PMJAY to Others

Table 6.35: Zone Wise Recommendations of Ayushman Bharat Scheme to Others

Zone (District)	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
West (Hisar)	15(9)	12(7)	31(19)	50(30)	58(35)
East (Karnal)	12(10)	10(8)	24(20)	34(28)	41(34)
South (Mewat)	31(19)	24(14)	31(19)	37(22)	43(26)
North (Panchkula)	02(5)	01(4)	04(16)	08(27)	13(48)
Central (Rohtak)	07(10)	8(11)	15(21)	17(24)	25(34)
Total	67(12)	55(10)	105(19)	146(26)	180(33)

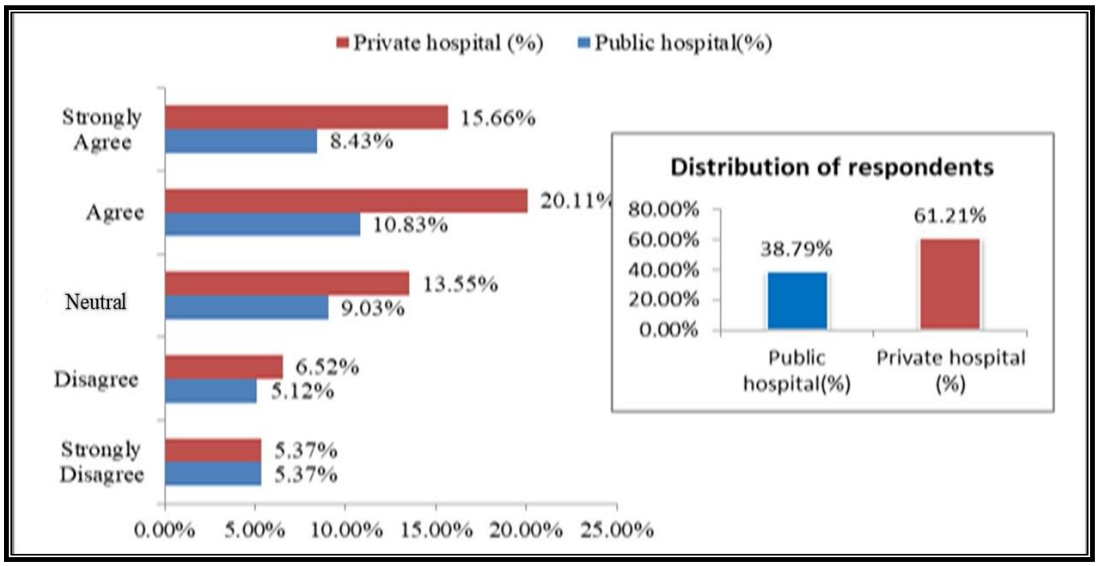
Source: Author Calculation Based on Primary Data

Table 6.36: Hospital Wise Recommendation of Ayushman Bharat Scheme to Others

Type of Hospital	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)
Public	12(2)	70(13)	33(6)	99(18)	22(4)
Private	05(1)	48(9)	33(6)	182(33)	50(09)
Total	17(3)	118(22)	66(12)	281(51)	72(13)

Source: Author Calculation Based on Primary Data

The findings of the survey as shown in figure 6.27 and table 6.36 revealed interesting insights into the beneficiary perception of the Ayushman Bharat Scheme. Half of those who took the survey said they would suggest the plan to others, with another 20 percent saying the same thing. The proportion of agreement was larger among private hospitals (33.4 percent) than among governmental hospitals (18 percent). However, a substantial portion (21.4 percent) expressed disagreement overall, with a higher age in private hospitals (8.6 percent) than public ones (12.8 percent). The moderate category saw a relatively balanced response, with 12 percent expressing moderate agreement overall.



Source: Author Calculation Based on Primary Data

Figure 6.27: Respondents from Various Hospitals on Recommendation of AB-PMJAY

A p-value of 0.000 and a Chi-square statistic of 340.55 were produced by the test. We may reject the null hypothesis that there is no change and depicted table 6.37 since the p-value (0.000) is less than the traditional significance limit of 0.05. So, it is reasonable to assume that the kind of hospital used is significantly related to the recommendation of the Ayushman Bharat initiative.

Table 6.37: Chi-square Analysis of Recommendation of AB-PMJAY to Others

Statistic	Value
χ^2	340.55
df	4
p-value	0.000***

Source: Author Calculation Based on Primary Data
*Note:*** significant at 0.01 level.*

SECTION III

6.3 Summary

The above findings from the satisfaction survey among Ayushman Bharat Scheme beneficiaries in Haryana indicate an overall positive response towards the program. The process of enrolment was deemed smooth by a significant majority in all districts, and the adequacy of information and guidance received was generally appreciated. Beneficiaries reported ease in accessing the network of hospitals, satisfaction with the services and treatments provided, and perceived cleanliness of the healthcare facilities. However, there were concerns related to potential discrimination by healthcare staff and the level of knowledge about empanelled providers. Despite these reservations, most respondents said the initiative improved their quality of life and were happy to tell others about the Ayushman Bharat scheme. Beneficiaries of the Ayushman Bharat Scheme in Haryana have expressed satisfaction with the service, demonstrating that it meets its goal of making quality healthcare more widely available. While the enrolment and information parts are doing well, there are areas to improve, especially in making hospitals more accessible and ensuring positive staff behaviour. The scheme has positively influenced the quality of life for beneficiaries, and most people would recommend it to others. Zone wise differences highlight the need for specific improvements in certain areas. To ensure that the Ayushman Bharat scheme continues to address the varied healthcare requirements of the people of Haryana, it would be essential to maintain ongoing efforts and closely monitor its progress.

CHAPTER-VII

STAKEHOLDERS' CONCERNS REGARDING AYUSHMAN BHARAT SCHEME IN HARYANA

CHAPTER VII

STAKEHOLDERS' CONCERNS REGARDING AYUSHMAN BHARAT SCHEME IN HARYANA

The public and private hospitals, insurance companies that handle hospital claims, the formation of the National Health Authority (NHA) and the State Health Agencies (SHAs) and many more stakeholders are all working together to make the Ayushman Bharat Scheme a reality. Under the functions of each of these stakeholders, there are multiple processes that relates to enrolment of beneficiaries, the provision of services to beneficiaries through the empanelled network hospitals and the settlement of claims of the hospitals through the insurance companies. A deeper look into the processes involved would churn out the enablers that worked good for the scheme and the disablers that needs improvement. This could be termed as 'process assessment' which is a systematic evaluation of an organization's processes that facilitates identification of strengths, weaknesses, and areas for improvement. "Individual, collective or managerial views and actions in executing any intervention and their effect on the overall outcome of the intervention" are the definitional elements of process assessment (Nytro et al., 2000). To better comprehend the planning process, process evaluations often use a qualitative approach, detailing the reasoning behind choices and actions (Bess et al., 2004). The need for process assessment arises from the ever-evolving scheme landscape and the increasing demand for quality, efficiency, and compliance. Whereas, conducting regular process assessments for the Ayushman Bharat Scheme– PMJAY scheme can support in the following manner.

- **Enhance Performance:** Assessments reveal bottlenecks and inefficiencies, enabling streamlined workflows, reduced errors, and overall performance improvement.
- **Improve Decision-Making:** Clear process understanding allows data-driven decisions and effective resource allocation.
- **Achieve Beneficiary Satisfaction:** Fine-tuning processes ensures consistent meeting of beneficiary expectations, leading to increased satisfaction and loyalty.

SECTION I

7.1 Stakeholders of Ayushman Bharat Scheme and their Roles

The Ayushman Bharat Scheme (PM-JAY) has three important stakeholders other than the beneficiaries that are part of the formal structure of the scheme. These include (a) Government agencies and policymakers - Health Department officials handling Ayushman Bharat, (b) insurance companies and; (c) empanelled hospitals under the scheme.

(a) The Government Agencies and Policymakers

- Policymakers at various levels of government are involved in shaping the scheme's policies, guidelines, and implementation strategies.
- They collaborate with NHA to ensure effective execution in an effective way.

(b) The Insurance Companies

- Ayushman Bharat Scheme– PMJAY partners with national insurance companies to provide health coverage to beneficiaries.
- These insurers handle claims, reimbursements, and coordination with healthcare providers.

(c) Empanelled Hospitals

- Hospitals and healthcare providers play a critical role in delivering quality healthcare services to Ayushman Bharat Scheme - PMJAY beneficiaries.
- They are essential stakeholders in achieving the scheme's objectives.

The current study has conducted interviews with these different stakeholders in order to evaluate the shortcomings in the overall systems and processes as regards to the scheme implementation. The interviews were conducted with the help of a predefined and pretested questionnaire. The discussions were planned and conducted for the following stakeholders in the present study.

- Health Department officials handling Ayushman Bharat Scheme
- Empanelled hospital – public and private Hospitals
- Insurance provider

In order to understand the scheme's implementation from their end, the study interviewed 44 administrators from empanelled hospitals (1 public and 1 private hospital in 22 districts) as well as 4 Ayushman Bharat Scheme officials and 2 insurance providers. This has been useful in understanding how the scheme's private

and public hospitals vary in their procedures. The stakeholders' perspectives on the scheme's execution in the state, the availability and flow of funds within the scheme, the efficacy of the different processes within the scheme, the difficulties encountered by various stakeholders in the state during implementation, and their recommendations for scheme enhancement were all part of the discussions with the stakeholders. The findings from the discussions are presented in sub-sections below.

SECTION II

7.2 Analysis of Stakeholders' Views on Ayushman Bharat Scheme

7.2.1 Views on Implementation of Ayushman Bharat Scheme

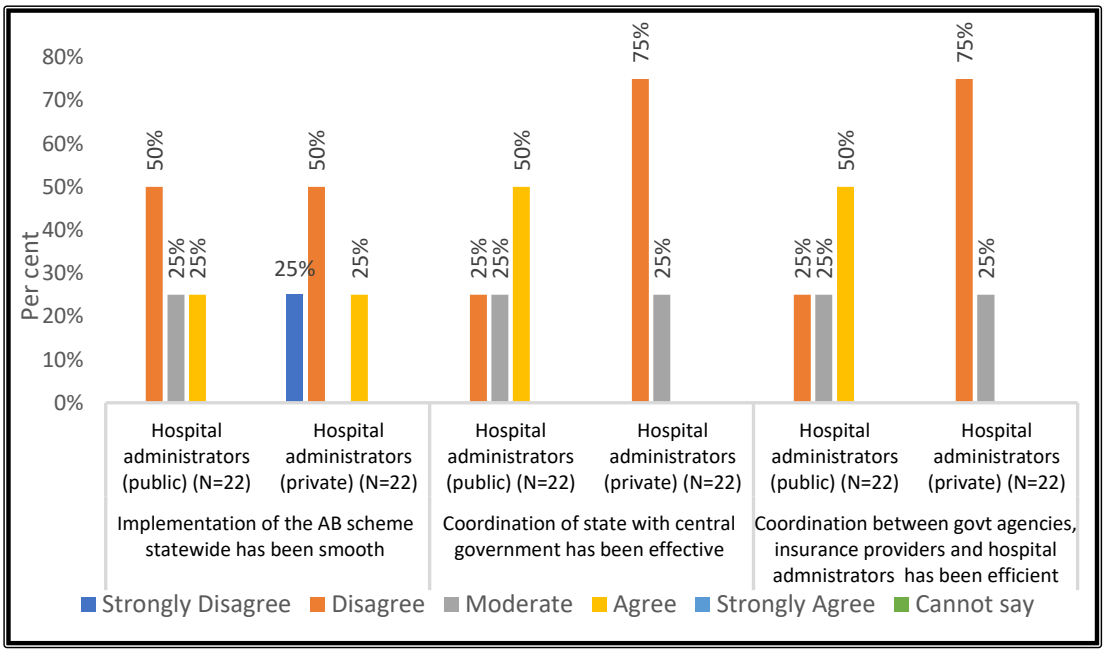
The Ayushman Bharat Scheme is a flagship programme that has been initiated by the centre and is being absorbed in the states with pooled finances from the centre and the states. Also, at the state level scheme requires smooth coordination between the government agencies, insurance providers and hospital administrators for effective implementation. All parties involved in the Ayushman Bharat Scheme's rollout in the state had negative things to say about the program's execution, citing problems with coordination at the federal and state levels. As can be observed from table 7.1, among the 4 government officials interviewed about half of them stated the implementation of the scheme has not been smooth and that the coordination of the state with the central government has been ineffective. More of them, in fact are aware of the inefficient coordination between the stakeholders of the scheme within the state.

Table 7.1 Views of Government Officials on Implementation of AB-PMJAY in Haryana

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Implementation of the Ayushman Bharat Scheme state-wide has been smooth	1(25)		2(50)	1(25)		
Coordination of State with Central Government has been effective		2(50)		2(50)		
Coordination between Govt. agencies, insurance providers and hospital administrators has been efficient		3(75)		1(25)		

Source: Author Calculation Based on Primary Data

Among the hospital administrators both the public and private administrators were of the opinion that the scheme implementation was not smooth as about 75 in both groups expressed their disagreement on this. About 50 among public and 100 private hospital administrators disagreed of effective internal state coordination and state-centre coordination in scheme implementation which had a major impact on the operational aspects of the scheme (figure 7.1). As stated by an administrator in public hospital, "*The scheme implementation is jointly done through shared finances of Centre and state. But there is shortage of funds for the scheme that sometimes causes delays in claims settlement*"- Public hospital administrator. The private hospitals face more issues of exaggerated and fraudulent claims which has led to imposing stringent checks that has inflated the coordination issues between the stakeholders in the state. "The rules in the state are being made strict for claims settlement due to the doubts on authenticity of the claims raised by us. To restrict malpractices the government imposes stricter rules and more rigorous checks which has created confusion and chaos. This also delays the claims settlement process creating tensions between the government, hospitals and insurance agencies.



Source: Author Calculation Based on Primary Data

Figure 7.1 Views of Hospital Administrators on AB-PMJAY Implementation in Haryana

As can be seen from table 7.2 the insurance providers also disapproved of the smoother existence of the scheme in the state. They acknowledged the internal and

external coordination issues in the state with regard to implementation of the AB-PMJAY.

Table 7.2 Views of Insurance Providers on Implementation of AB-PMJAY in Haryana

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Implementation of the AB scheme state wide has been smooth			1 (50)	1 (50)		
Coordination of state with central government has been effective		1 (50)		1 (50)		
Coordination between govt. agencies, insurance providers and hospital administrators has been efficient		1 (50)	1 (50)			

Source: Author Calculation Based on Primary Data

7.2.2 Views on Fund Availability and Cash-Flow for AB-PMJAY in Haryana

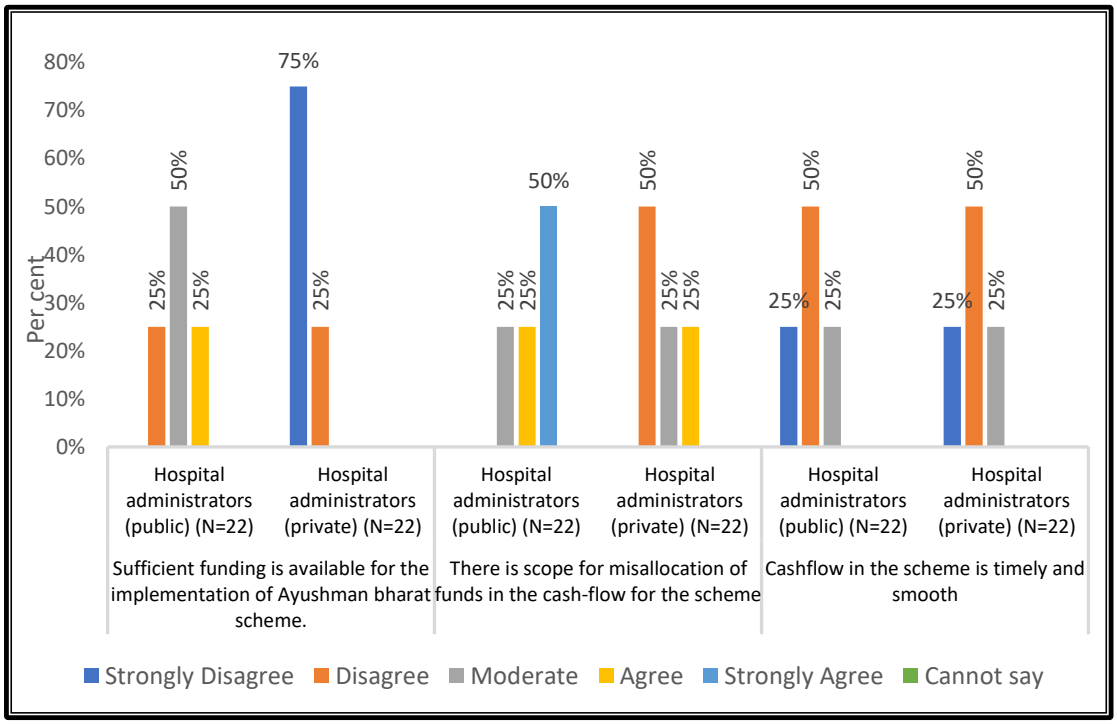
Given the higher coverage of ₹5,00,000 per household under the Ayushman Bharat Scheme, it is well understood the scheme is highly resource-intensive. The allocation of adequate finances and making these finances available at each point of usage (the cash flow) is equally important for the smooth implementation of the scheme. The government officials interviewed for the study completely disagreed that sufficient funding is available for implementation of the Ayushman Bharat Scheme and that this affected the timely and smooth cashflow to the scheme. However, these government officials stated that there is less scope for misallocation of funds in the cashflow for the scheme as shown in table 7.3.

Table 7.3 Views of Government Officials on Fund Availability and Cashflow for AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Sufficient funding is available for the implementation of Ayushman Bharat Scheme	3 (75)		1 (25)			
There is scope for misallocation of funds in the cash-flow for the scheme			1(25)	1(25)	2(50)	
Cashflow in the scheme is timely and smooth		2(50)	1(25)	1(25)		

Source: Author Calculation Based on Primary Data

A look at the opinions of the public and private administrators on the fund availability and cashflow under the scheme shows that while only 25 public hospitals disagreed to the fact of availability of sufficient funds for the implementation of the scheme, 100 of the private hospitals disagreed it. Similar contrasting opinions were observed between the public and private hospitals on the scope for misallocation of funds under the scheme. The private hospitals verified that the likelihood of misallocation of cash is minimal under the programme, in contrast to public hospitals that have acknowledged the possibility of misallocation of funds. It was found that public and private hospitals alike were unhappy with the scheme's sluggish and uneven funding flow.



Source: Author Calculation Based on Primary Data

Figure 7.2: Views of Hospital Administrators on Fund Availability for AB-PMJAY in Haryana

The two insurance providers that were interviewed were aware of the overall funding options of the scheme. However, they declined to comment on the misallocation of funds and the timing of the funds for its smooth implementation.

Table 7.4: Views of Insurance Providers on Fund Availability and Cash-flow for AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree (%)	Cannot Say N (%)
Sufficient funding is available for the implementation of Ayushman Bharat Scheme	1 (50)		1 (50)			
There is scope for misallocation of funds in the cash-flow for the scheme						2 (100)
Cashflow in the scheme is timely and smooth						2 (100)

Source: Author Calculation Based on Primary Data

7.2.3 Effectiveness of Various Processes Under the Ayushman Bharat Scheme

7.2.3.1 Overall Cover, Packages and Incentives of Ayushman Bharat scheme

Each family that qualifies for the Ayushman Bharat Scheme receives a health insurance policy worth five lakh rupees, allowing them to visit any of the public or private hospitals on the program's list of approved providers. The government reimburses the healthcare provider based on the predetermined treatment package after the provider has treated the patient (beneficiary). The discussions with government officials about the scheme brought out that it was challenging to retain the empanelled private hospitals under the scheme. According to them, the hospitals were not adequately equipped to accommodate the scheme beneficiaries. These government officials felt that the overall household insurance cover provided to beneficiary household is usually enough to cater to majority of the patients' needs. Two officials out of four interviewed also felt that the health benefit package provided for treating patients under the Ayushman Bharat Scheme is not adequate. This happens in cases of patients undergoing cancer treatment and for other procedures like the organ transplant, for which the treatment costs are higher and Ayushman Bharat Scheme covers only partial costs. However, three of the four agreed that the

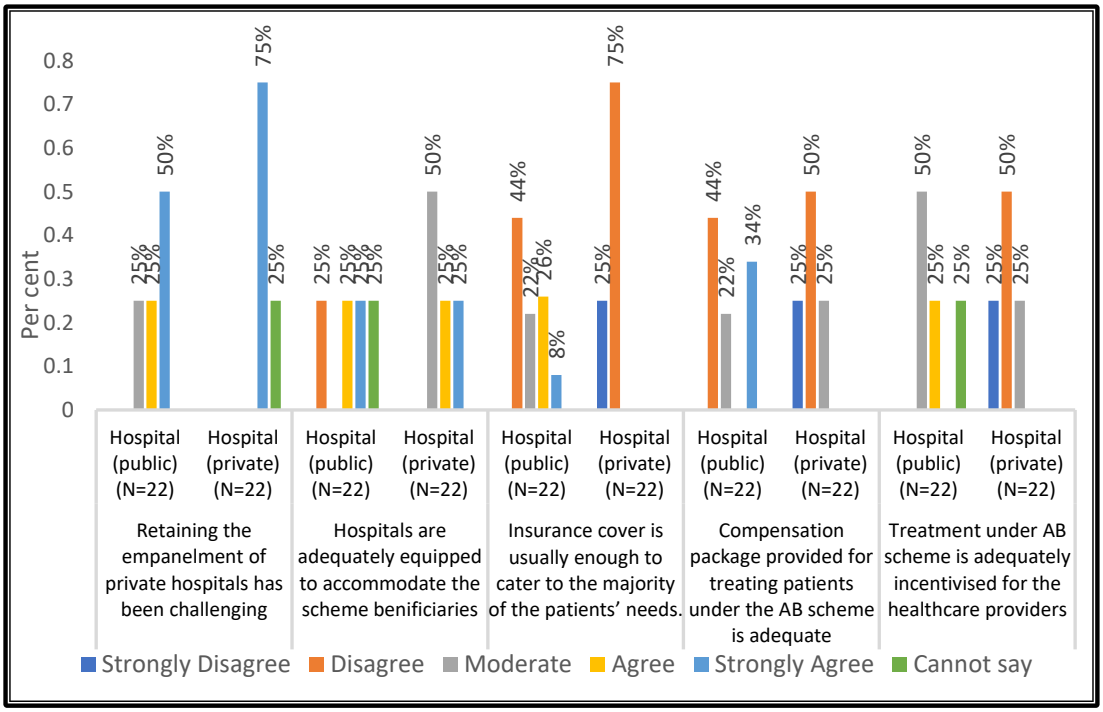
healthcare providers are adequately incentivised under each package for treatment provided under Ayushman Bharat Scheme (Table 7.5).

Table 7.5: Views of Government Officials on Cover, Packages and Incentives of AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Retaining the empanelment of private hospitals has been challenging			1(25)		3(75)	
Hospitals are adequately equipped to accommodate the scheme beneficiaries	1(25)	1(25)	2(50)			
Household insurance cover is usually enough to cater to majority of the patients' needs	1(25)	3(75)				
Health benefit package provided for treating patients under the scheme is adequate		1(25)	1(25)	2(50)		
Healthcare providers are adequately incentivised for treatment provided under Ayushman Bharat Scheme			1(25)	3(75)		

Source: Author Calculation Based on Primary Data

The hospitals were also aware of the fact that it has been challenging for the government to retain the private hospitals in its empanelled list. Most of the hospitals, both in public and private stated that they were adequately equipped to accommodate the scheme beneficiaries. The private hospitals strongly felt that the insurance cover provided is usually not enough to cater to the majority of the patients' needs and also that the compensation package provided for treating patients under AB-PMJAY is not adequate. The private hospitals also reiterated that the healthcare providers are not adequately incentivised for the treatment provided under the scheme (Figure 7.3).



Source: Author Calculation Based on Primary Data

Figure 7.3: Views of Hospital Administrators on Cover, Packages and Incentives of AB-PMJAY

The insurance providers did not have strong opinion on the scheme coverage or packages or the incentives of the healthcare service provider and therefore declined to comment. But they were aware of the difficulty in retaining the empanelled private hospitals under the scheme as presented in table 7.6.

Table 7.6: Views of Insurance Providers on Cover, Packages and Incentives of AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Retaining the empanelment of private hospitals has been challenging			1 (50)	1 (50)		
Household insurance cover is usually enough to cater to majority of the patients' needs		1 (50)				1 (50)
Health benefit package provided for treating patients under the AB scheme is adequate						2 (100)

Source: Author Calculation Based on Primary Data

7.2.3.2 Admission and Treatment of Respondents in AB-PMJAY Empanelled Hospitals

For smoothening the access to the scheme and the further processes related to admission and treatment in the hospital, the Ayushman Bharat Scheme has appointed Ayushman Mitras in the empanelled hospitals. The Ayushman Mitras are responsible for distributing the full advantages of the programme to those who deserve them. They notify beneficiaries about the programme, confirm their eligibility, register them in the hospital, and work with their doctors to diagnose and treat them. They also file claims for reimbursement. Discussions with the empanelled public and private hospitals as summed up in table 7.7 reveals that both the public and private administrators have observed sufficient participation in the scheme. While majority of the public hospitals felt that the participation in scheme has been profitable to them, the private hospitals completely dispelled this. However, this participation, in both the public and private hospitals, has increased the workload.

It was found that about 11(50) public and 6(27) private hospitals agreed to the fact that the assessment and management of patients vary when the patient is a scheme beneficiary. About 11(50) overall also stated that there is resistance from healthcare workers in providing treatment to scheme beneficiaries. Thus, 16 (73) in public and 11(50) in private hospitals asserted that the participation in the scheme hampers management of the other patients.

Table 7.7: Views of Hospital Administrators on Admission and Treatment of Respondents in AB-PMJAY Empanelled Hospitals

Statement	Hospital Type	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%	Agree (%)	Strongly Agree N (%)	Cannot Say N (%)
There is sufficient participation in the scheme	Public					16(73)	6(27)
	Private				5(23)	17(77)	
Participation in the scheme has been profitable	Public		5(23)		6(27)	5(23)	6(27)
	Private	6(27)	16 (73)				
Treatment of beneficiaries of the scheme has increased workload	Public				6(27)	5(23)	11(50)
	Private				6(27)	5(23)	11(50)

Statement	Hospital Type	Strongly Disagree N (%)	Disagree N (%)	Moderate N (%	Agree (%)	Strongly Agree N (%)	Cannot Say N (%)
Assessment and management of patients varies when the patient is a beneficiary of the scheme	Public			11(50)	5(23)	6(27)	
	Private		11(50)	6(27)	5(23)		
There is resistance from healthcare workers in providing treatment to scheme beneficiaries	Public		11(50)	5(23)	6(27)		
	Private		11(50)	6(27)	5(23)		
Participation in the scheme hampers management of the other patients	Public			6(27)	11(50)	5(23)	
	Private		6(27)	5(23)	11(50)		
Manpower assigned is adequate for the scheme	Public		5(23)	6(27)	11(50)		
	Private			6(27)	16 (73)		

Source: Author Calculation Based on Primary Data

7.2.3.3 Claims Settlement Process

The claims of the empanelled hospitals after completion the procedures are settled by the insurance company upon conducting a rigorous verification process. This claims settlement process, though is being digitized, the uptake of digitization is low in the state of Haryana. There is also observed the rate of faulty or fraudulent claims being sprung up in the state. The insurance company adopts necessary revisions to its validation process before approving the claims. If found fraudulent or faulty, the claim is adjudicated as per the applicable law. The discussions with the government officials, hospitals and insurance agencies revealed the opinions of the different stakeholders engaged in the process.

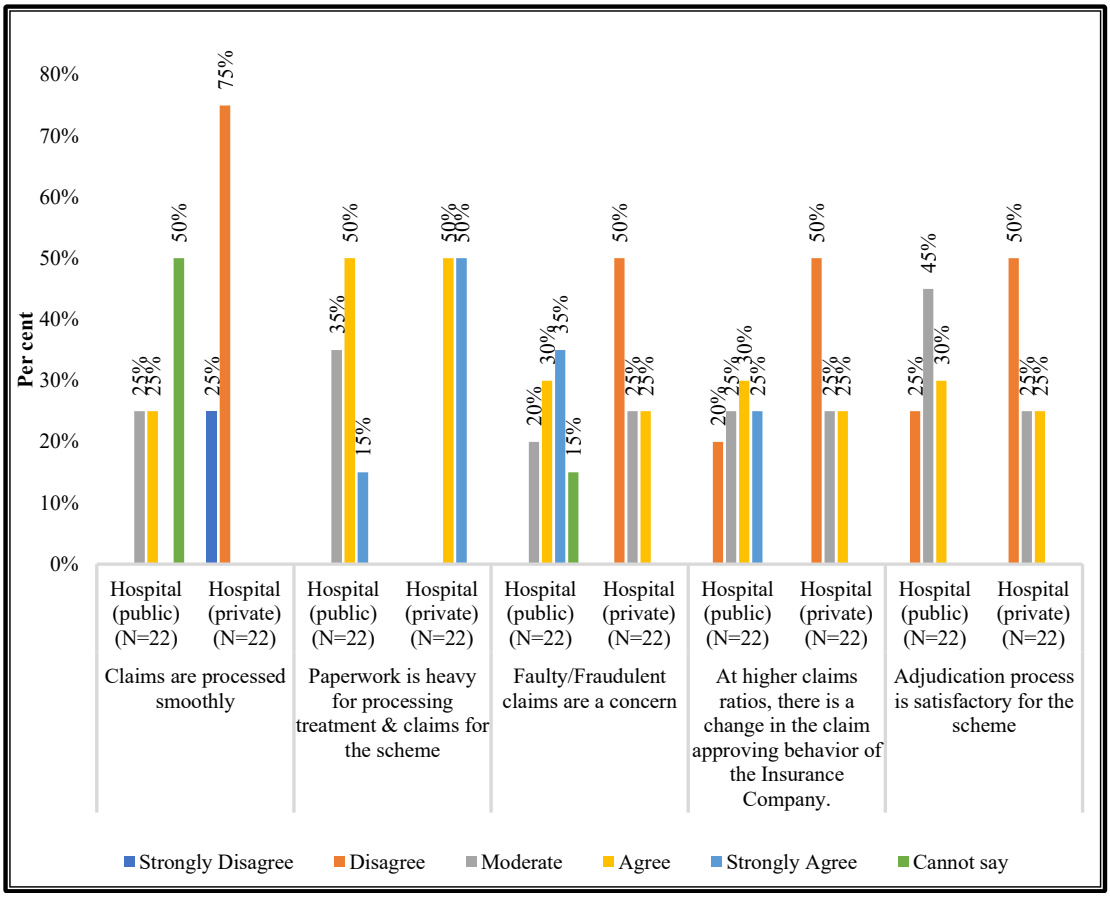
The government officials strongly feel that the claims settlement processing is smooth and that the system for it is digitalized that there is less paper work for processing treatment and claims settlement under the scheme. The officials were suspicious of faulty or fraudulent claims and for curbing it, when there is a higher claims ratio, the claim approving criteria and behaviours of the insurance company is changed. The adjudication process in cases of frauds is expedited and seemed satisfactory to them (Table 7.8).

Table 7.8: Views of Government Officials on Claims Settlement Process in AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Claims are processed smoothly				1(25)	3(75)	
Paperwork is heavy for processing treatment & claims for the scheme		4(100)				
Faulty/Fraudulent claims are a concern			1(25)		2(50)	1(25)
At higher claims ratios, there is a change in the claim approving behaviour of the Insurance Company				2(50)	2(50)	
Adjudication process is satisfactory for the scheme			1(25)	3(75)		

Source: Computation Based on Analysis of Research Data

The direct stakeholders engaged in claims settlement, that is, the empanelled hospitals, had varied experiences in the public and private domains. The public hospital administrators in half of the districts interviewed declined to comment on the process while the other half felt the processing to be smoother. All the private hospitals administrators reported that the claims processing was not smooth. According to 50 of these empanelled hospitals, both public and private, the paperwork has been heavy for treatment and claims settlement processes under the scheme. However, many of the public hospital administrators were concerned about the faulty/fraudulent claims submitted whereas the private hospital administrators answered in contrary about this concern. More of the public hospitals also felt that when there is a higher claims ratio there is a change in the assessment and validation criteria and the approving behaviour of the insurance company than that of the private hospitals. About 25-30 hospitals overall were satisfied with the adjudication process under the scheme (Figure 7.4).



Source: Author Calculation Based on Primary Data

Figure 7.4 Views of Hospital Administrators on Claims Settlement Process in AB-PMJAY

The insurance providers were not in line with the opinion of the other stakeholders on the claims settlement processes of the scheme. They agreed the processing was smooth and there was less paperwork for claims processing under the scheme. Surprisingly, they did not feel fraudulent claims was a concern in the state. They also affirmed that when the claims ratio is high, they have no change in the claims approving behaviour and were satisfied with the effectiveness of the adjudication process under the scheme.

Table 7.9: Views of Insurance Providers on Claims Settlement Process in AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Claims are processed smoothly				2(100)		
Paperwork is heavy for processing treatment & claims for the scheme		2(100)				
Faulty/Fraudulent claims are a concern		1(50)				1(50)
At higher claims ratios, there is a change in the claim approving behaviour of the Insurance Company		2(100)				
Adjudication process is satisfactory for the scheme			1(50)	1(50)		

Source: Author Calculation Based on Primary Data

7.2.3.4 Digitalization Process

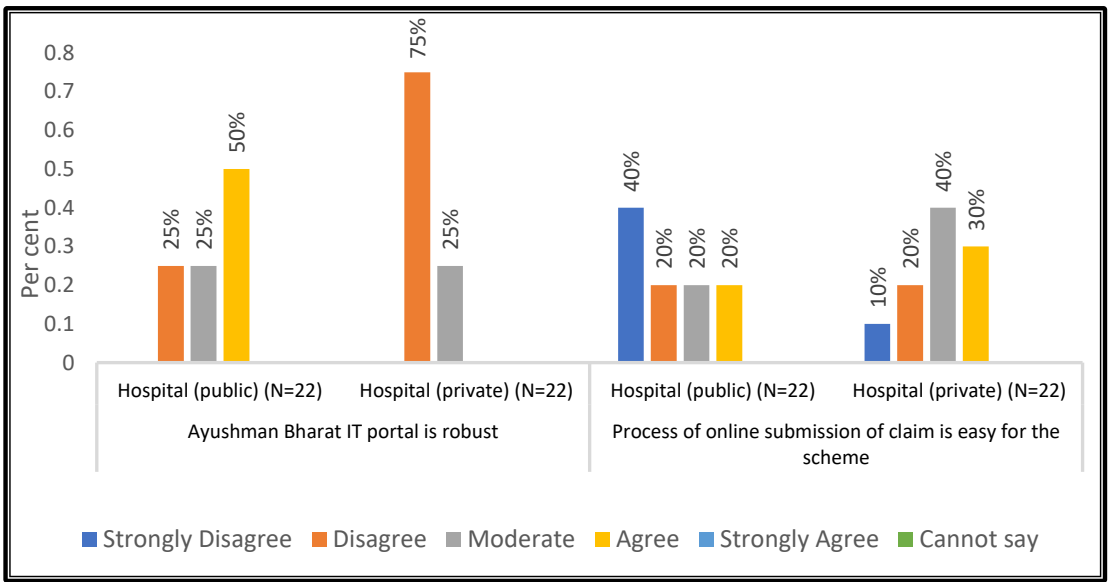
As a measure of smoothening the various processes under the AB- PMJAY right from the verification to admission to claims settlement, a digitalization of the processes is being implemented by the centre. However, in the state of Haryana the digitalization process is not undertaken completely. This leads to delays which causes dissatisfaction on the part of the beneficiaries. The discussions with the stakeholders on the robustness of the IT portal and the processes of online submission of claims reflected their opinions on the same. The effect of low uptake of the digitalization process was seen among the government officials interviewed. However, out of 4 officers, 3 of them did not believe that the AB IT portal is robust. To them the online submission of claims was only moderately easier (Table 7.10).

Table 7.10: Views of Government Officials on Digitalization Process in AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Ayushman Bharat IT portal is robust		3(75)		1(25)		
Process of online submission of claim is easy for the scheme		1(25)	3(75)			

Source: Author Calculation Based on Primary Data

Among the hospital administrators there was contrasting opinion as to the aspect of digitalization. When about half the public hospital administrators interviewed were of the opinion that the IT portal was robust, about 75 of private hospital administrators disagreed to this fact. Even to the easiness of the process of online submission of claims, it was observed that majority of the public hospitals (about 80) stated that the process was difficult, while it has been the reverse in the public hospitals indicating the public hospitals lacked IT infrastructure and also trained manpower for online submission processes.



Source: Author Calculation Based on Primary Data

Figure 7.5: Views of Hospital Administrators on Digitization Process in AB-PMJAY

The discussions with the insurance providers on the digitization aspect reveals that they disagreed on the robustness of the Ayushman Bharat Scheme IT portal. However, to them the process of online submission of claims seemed to be better and easier as shown in table 7.11.

Table 7.11: Views of Insurance Providers on Digitization Process in AB-PMJAY

Statement	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	Cannot Say N (%)
Ayushman Bharat IT portal is robust		2 (100)				
Process of online submission of claim is easy for the scheme			1 (50)	1(50)		

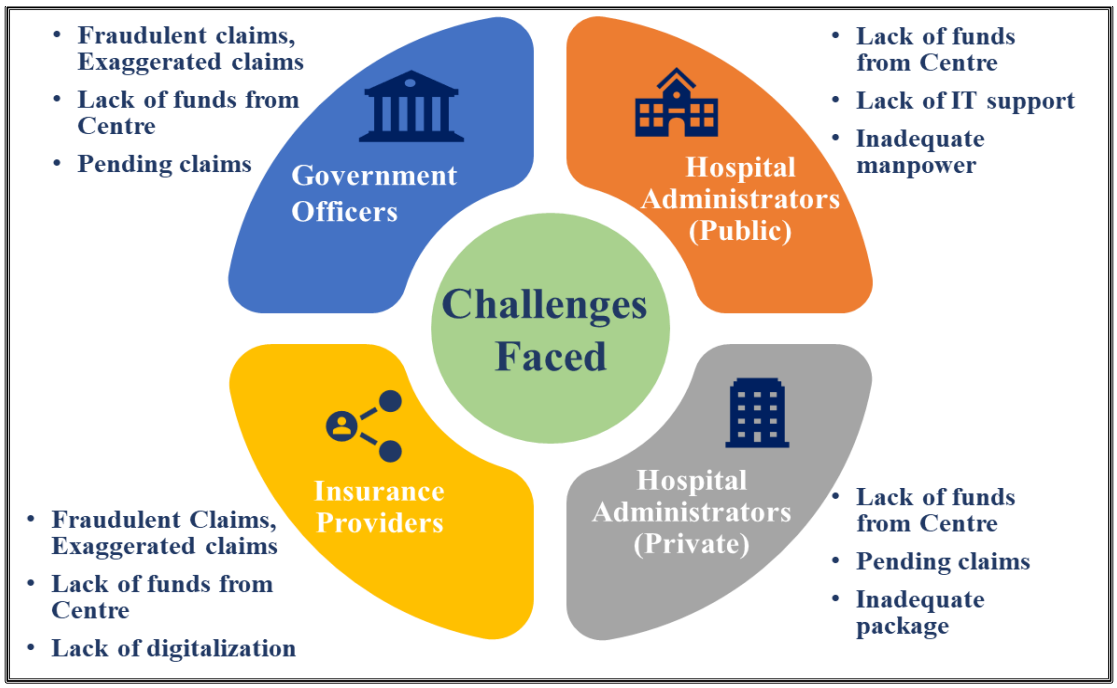
Source: Author Calculation Based on Primary Data

7.2.4 Challenges in Scheme Implementation

The problems with implementing the Ayushman Bharat Scheme system were discussed with stakeholders, and their perspectives were highlighted. The study's findings about the scheme's implementation presented the following key issues.

- **Fraudulent Claims:** The government and the insurance providers were to deal with frequent fraudulent and exaggerated claims which requires thorough checks that creates delays in the processes of claims settlement.
- **Lack of Funds from Centre*:*** The Ayushman Bharat scheme is on a sharing basis with the Centre supporting the states in implementation of the scheme. The higher coverage of ₹5,00,000 per household, introduced through the scheme has created a financial burden to the centre in making available sufficient funds for the scheme. Many states have also planned to scale up the scheme to above BPL populations which has increased their burdens.
- **Pending Claims*:*** There is quite a lag on the part of the government in settlement of claims by the empanelled hospitals for want of adequate fund allocation for the scheme. The delays from verification and validation of the claims made by the hospitals to curtail fraudulent claims has contributed to the pendency. "*The scheme provides ₹5,00,000 cover per household. However, there is a huge financial scarcity at the state level in channelizing the funds and ensuring adequate flow of funds for the scheme. This at certain times creates delays in settling the claims of the empanelled hospitals. Apart from this, as a means to curtail inappropriate claims rigorous verification and validation processes are adopted which delays the processes and at times creates pendency.*" – Government officer.
- **Inadequate Package*:*** The Ayushman Bharat Scheme does not include certain procedures like plastic surgeries and organ transplants which are expensive in nature. For some procedures the package rates fixed under the scheme seemed inadequate to the private empanelled hospitals.
- **Lack of Digitalization*:*** The insurance companies that were engaged in service provision were unable to effectively execute the scheme due to the lack of digitalization of the whole processes in the hospitals that creates pendency and undue delays in claims settlements.

- **Lack of IT Support and Inadequate Manpower in Public Hospitals*:*** The empanelled government hospitals have inadequate IT infrastructure and the resources that can operate them. The hospital administrators in the public hospitals also raised issues of shortage of necessary specialists for which many of the procedures are not performed in the public hospitals. "*We do not have necessary computers and stable network connection to operate the scheme on a digital mode. Moreover, the staff are also not trained for operating the online software of the scheme. In addition to that we do not have the necessary specialists, surgeons and other manpower to conduct high level procedures and therefore, we miss out on claiming various expensive procedures which can be beneficial to the development of the hospitals."* – Public hospital administrator.



Source: Author's Construction

Figure 7.6: Challenges faced by different stakeholders under AB-PMJAY in Haryana

7.2.5 Suggestions for Scheme Improvement

The different stakeholders interviewed had faced different challenges and therefore, had several opinions for improvement of the Ayushman Bharat scheme.

Government Officials:

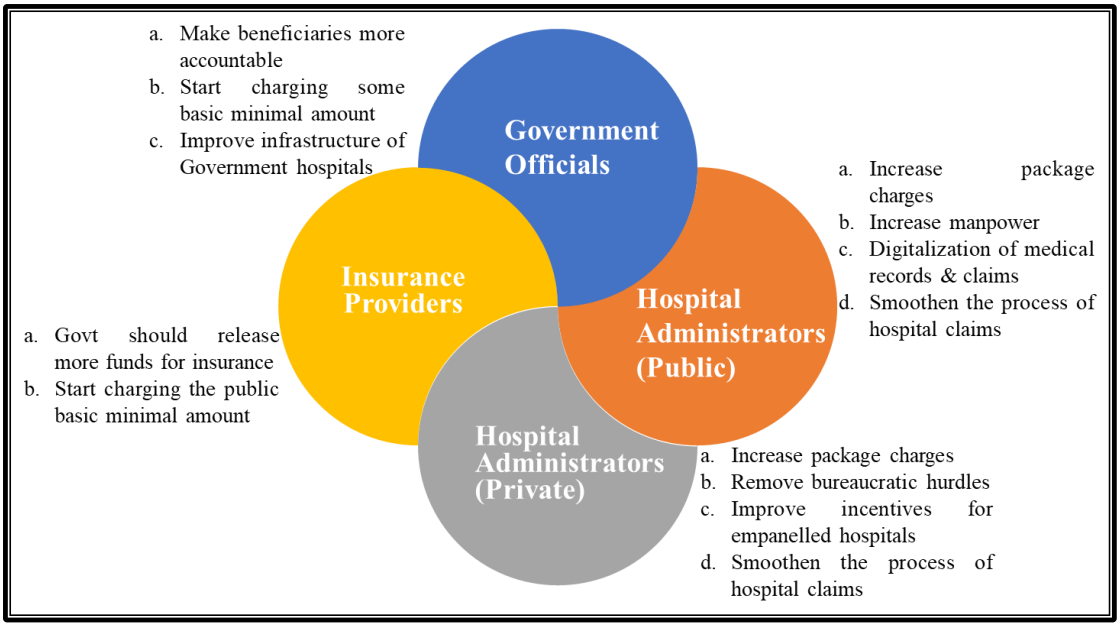
- The government officials are the overall administrators of the scheme and they insisted on bringing in more accountability on the part of the beneficiaries. They were of the opinion that considering the enormous benefits that the beneficiaries can avail under the scheme. They should be made to contribute to the scheme by charging them some basic minimal amount.
- With the governments now insisting on bringing the government hospitals under the ambit of the Ayushman Bharat Scheme PM-JAY, there is a wide scope for improving the infrastructure in public hospitals from the receipts from the scheme.

Empanelled Hospitals:

- The empanelled hospital administrators, both public and private, that were interviewed were of the opinion to enhance the packages fixed for the procedures.
- These hospitals also insisted on smoothening the processes of the hospital claims as many times there is a delay in setting the claims that slightly was discouraging in picking up the Ayushman Bharat Scheme PMJAY cases in the hospitals.
- The administrators at the government/public hospitals highlighted the need for digitization of the medical records and claims. The also suggested for placing adequate manpower in the hospitals for this purpose and for handing the online documentations under the scheme.
- The private hospitals demanded improving the incentives for empanelled hospitals and measures for easing bureaucratic hurdles.

Insurance Providers:

- There has been delays in release of funds for the Ayushman Bharat Scheme which has created instances where payments were halted. The insurance providers requested for release of adequate funds from the government for the scheme.
- The insurance providers also suggested for government consideration on imposing basic minimal charges to the public/beneficiaries.



Source: Author's Construction

Figure 7.7: Suggestions by Stakeholders for Improvement of AB-PMJAY

SECTION III

7.3 Summary

The process assessments conducted through interviews of stakeholders including reveal lack of coordination within state and also between the state and the centre in scheme implementation. There was insufficiency of funds for the scheme in Haryana and also the cash flow was untimely and not smooth. The private hospitals were in disagreement with adequacy of the packages and the incentive structure. The hospital staff also felt increase in workload in both public and private hospitals and there was resistance from hospital staff on the influx of patients due to the scheme. The government officials and the insurance providers were sceptical about the fraudulent claims. The digitalization did not seem to be well penetrated in the state. This low uptake was mainly due tothe public hospitals lacking IT infrastructure and manpower. There was contrasting opinion on the ease of using online claim submission mode. The government officials and the private hospitals disagreed on the robustness of the IT portal and ease of online claim submission. However, the insurance providers agreed that the online claim submission has eased the process. There were multiple suggestions from the various stakeholders for improved scheme implementation. The government officials insisted on charging the beneficiaries a basic minimal amount to make them more accountable and also suggested on improving the infrastructure in

government hospitals. The public hospital administrators opined of increased manpower and digitization of medical records and claims to smoothen the treatment and claims processes under the scheme while the private hospitals emphasized on increased packages and incentives and smoothen the process of hospital claims. The insurance providers insisted on ensuring adequate fund flow from the government and also charging the public the minimal amount.

CHAPTER-VIII

ANALYSIS OF AYUSHMAN BHARAT SCHEME

CHAPTER VIII
ANALYSIS OF AYUSHMAN BHARAT SCHEME

Ayushman Bharat Pradhan Mantri Jan arogya Yojna (PM-JAY) is a government health insurance programme in India whose principal goal is to lower the proportion of the population that must pay out of pocket for medical care. Therefore, the prime stakeholders of the scheme are the patients that have availed the services under the Ayushman Bharat Scheme.

This forms the demand side of the scheme and on the supply side are three important stakeholders that are part of the formal structure of the scheme. These include the Health Department officials handling Ayushman Bharat Scheme, insurance providers and the service providers (empanelled hospitals) under the scheme. There are several processes that are being adopted by the stakeholders on the supply side starting with the processes of prescription of treatment packages and provider incentives, hospital empanelment, beneficiary registrations, pre-auth approvals and claims settlements which has enabled the operationalization of the scheme in Haryana. Similarly, on the demand side reaching out to the target beneficiaries by registering them under the scheme, creating awareness among them and increasing scheme utilization decides the outcome achievements of the scheme.

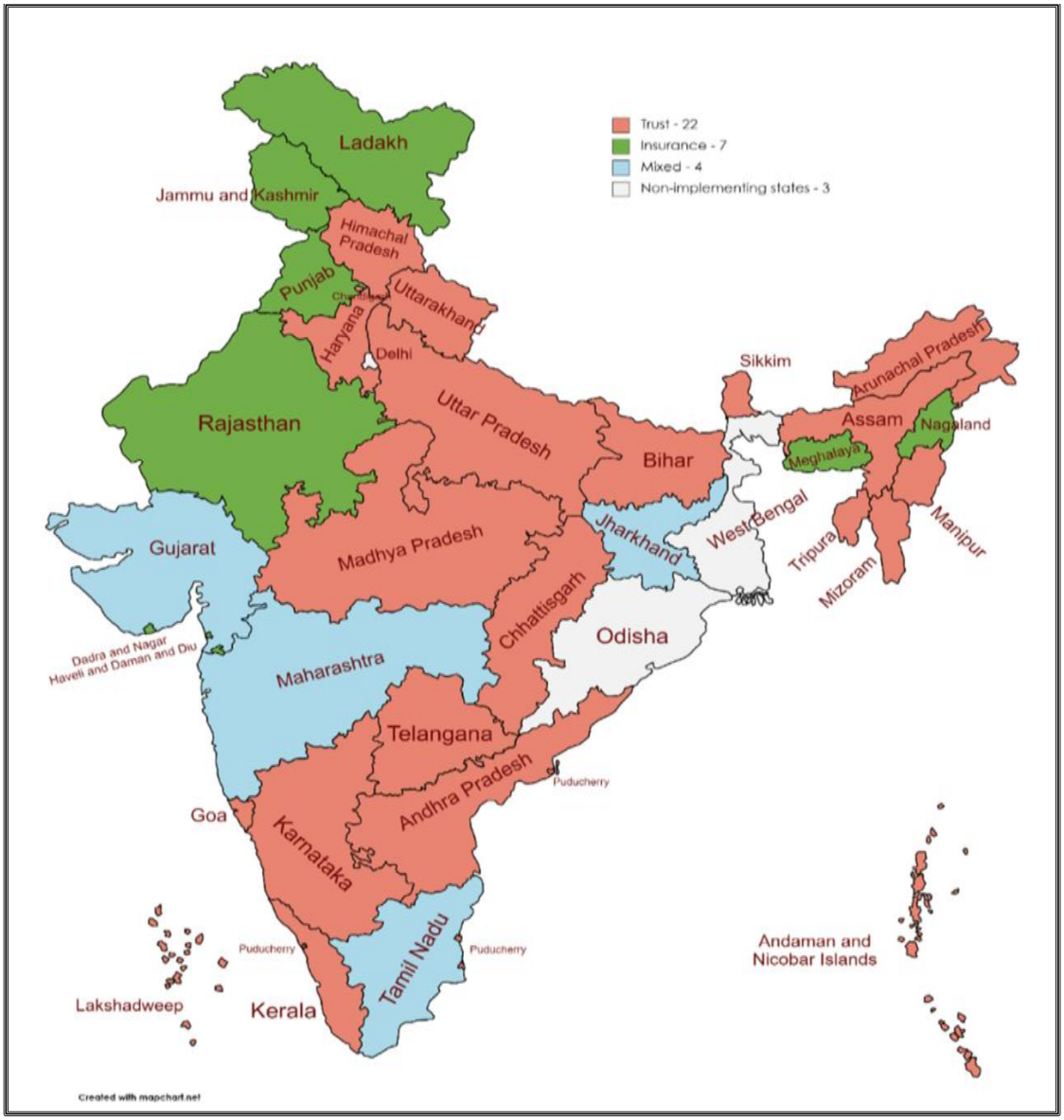
These aspects were covered under the different objectives of the present study and in this chapter the findings from the study are triangulated with the findings of available previous studies to identify the enablers and disablers of the scheme in the state. Three kinds of implementation are currently in place for Ayushman Bharat scheme: insurance, trust, and mixed. The central government's portion is given to the State nodal agencies in three instalments of 45:45:10; in the trust and mixed modes, the distribution is 50:25:25.

Table 8.1: Implementation Modes of Ayushman Bharat Scheme

Type	Execution
Insurance Mode	State Health Authority (SHA) tenders for an insurance company. Based on market determined premium. SHA pays premium to the Insurance company per eligible family for the policy period, which in turn, settles the claims and makes payments to the service provider (empaneled hospitals). The financial risk for implementing the scheme is, thus, borne by the Insurance company.
Assurance or Trust Mode	In the mode, the financial risk is borne by the government, as the SHA directly reimburses the healthcare providers. SHA employs the service of an implementation support agency (ISA) for claim management and related activities. Specialized tasks such as hospital empanelment, beneficiary identification, claims management and audits are carried out by SHA.
Mixed Mode	SHA engages both the assurance/T and insurance models mentioned above, thus, providing flexibility and allowing convergence with the state scheme (s). This model is usually employed by those states which had existing health schemes prior to 2018 when PM-JAY was implemented.

Source: Ayushman Bharat (2023)

The Ayushman Bharat Scheme-PMJAY was accepted by 32 of the 36 states and territories as of March 2021. Of them, four states and territories used the mixed mode, seven used the in mode, and twenty-one used the T mode. Of the total beneficiaries, 62.11 were under the trust mode, 26.66 were under the Mixed mode, and 10.13 were under the Insurance Mode



Source: Ayushman Bharat (2020)

Fig 8.1: State-wise Details of Modes of Implementation of AB-PMJAY

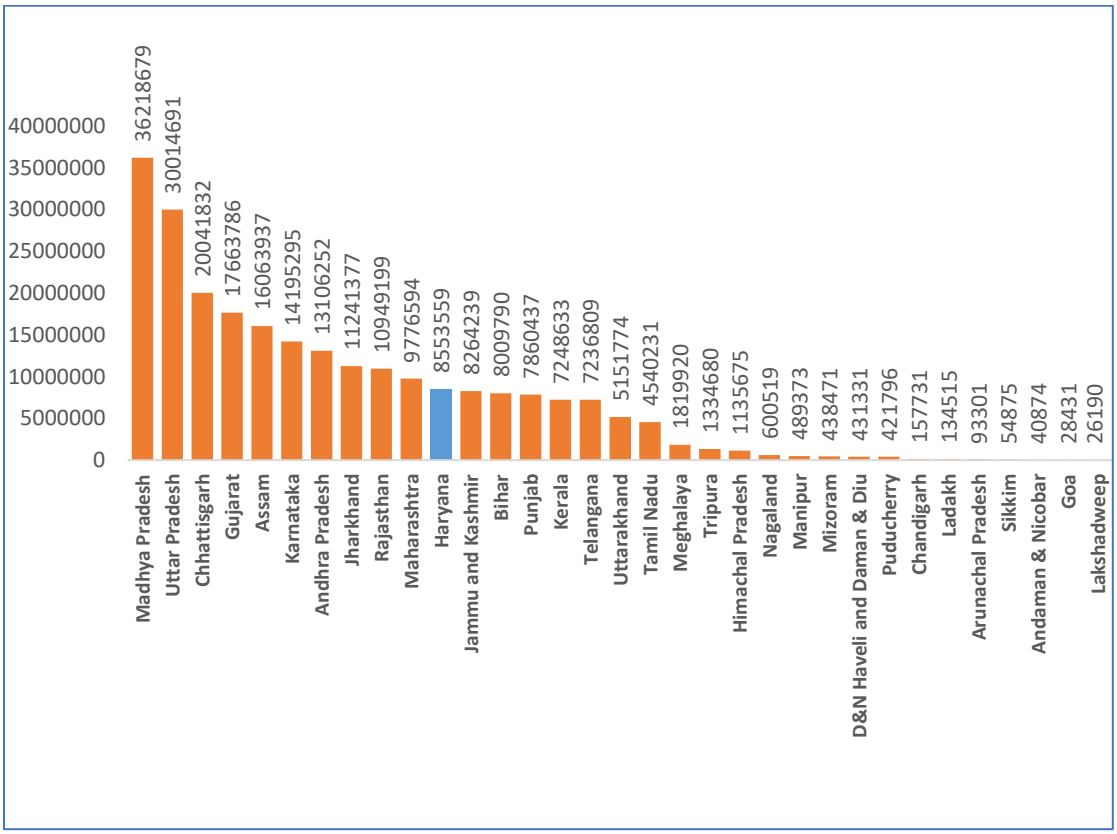
8.1 Findings from Process and Outcome Assessments of the Study

8.1.1 Findings from Process Assessments (Supply Side) of the Scheme

The processes under the Ayushman Bharat scheme were assessed through interviews with the different stakeholders including government officials, providers and empanelled hospitals. The process assessments in the study revealed the following:

- **Implementation:** As indicated in the CAG Report 2023, there were more than 24 crores of Ayushman cards issued in the country. However, there were differences in the coverage across the states as shown in Figure 8.1. Haryana

was in the eleventh position with over 85 lakh Ayushman cards issued to beneficiaries. In Haryana, 100 per cent Aadhaar seeding of Ayushman card and 100 per cent biometric authentication at the time of hospitalization except neonates has been done.



Source: Open Government Data (OGD) platform India (2023)

Figure 8.2: State-wise Number of Ayushman Cards Issued under the AB-PMJAY

As evident from above data card the state which has enrolled / registered maximum number of beneficiaries is Uttar Pradesh 9 around ₹1.35 crore followed by Bihar. Chattisgarh, Gujrat & Maharashtra. Haryana with its 26 lakhs + enrolment (8 lakh households) stands at number 7 in the PMJAY CAG Audit report (CAG 2023).

Table 8.2 provides data on the registration of households and beneficiaries based on eligibility in the SECC database for the beneficiary identification system across various states in India.

Table 8.2: Details of Eligible Households and Members Registered (SECC database)

S. No.	State/UT	Households registered with at least one active member	Beneficiaries registered	Overal l Rank
1.	Arunachal Pradesh	7,702	22,223	24
2.	Assam	51,698	77,189	19
3.	Bihar	33,28,387	68,40,717	4
4.	Chandigarh	20,076	60,861	20
5.	Chhattisgarh	13,40,267	28,52,810	6
6.	Dadar & Nagar Haveli	22,925	1,02,262	18
7.	Daman and Diu	3,628	10,220	26
8.	Goa	8,477	19,905	25
9.	Gujarat	22,53,190	71,86,954	2
10.	Haryana	8,74,715	26,02,647	7
11.	Himachal Pradesh	1,20,688	3,17,240	11
12.	Jammu and Kashmir	4,65,612	15,07,040	8
13.	Jharkhand	12,02,502	29,77,509	5
14.	Karnataka	336	415	
15.	Kerala	1,14,121	1,43,551	16
16.	Madhya Pradesh	2,51,536	4,46,633	10
17.	Maharashtra	27,85,024	71,08,453	3
18.	Manipur	1,01,856	2,75,435	13
19.	Meghalaya	1,16,008	2,17,978	15
20.	Mizoram	21,154	52,159	21
21.	Nagaland	64,021	1,34,765	17
22.	Pondicherry	41,545	1,32,242	18
23.	Punjab	1,85,497	2,91,206	12
24.	Sikkim	12,176	33,900	22
25.	Tamil Nadu	340	386	
26.	Tripura	2,98,983	7,42,634	9
27.	Uttar Pradesh	51,41,334	1,34,05,598	01
28.	Uttarakhand	1,21,641	2,65,258	14
	Grand Total	**1,89,66,789**	**4,78,61,966**	

Source: Open Government Data (OGD) platform India (2023)

It lists the number of households with at least one active member registered, the total number of beneficiaries registered, and the overall rank of each state/UT. The

highest number of households and beneficiaries registered are in Uttar Pradesh, ranking first, followed by Gujarat and Maharashtra. Conversely, several states and UTs like Andhra Pradesh, Karnataka, and Tamil Nadu show minimal registrations and needs relevant policy interventions for the same.

Table 8.3 details the delays in processing beneficiary registrations across various states/UTs. Jammu and Kashmir has the highest number of cases pending at 349,345 with an average delay of 120 days. Gujarat and Puducherry have low average delays of 9 and 7 days respectively, despite having a significant number of cases (5,068 and 17,224). Bihar and Chandigarh face the longest maximum delays, at 931 and 921 days respectively. Jharkhand has the highest average delay at 212 days for 170 cases, indicating inefficiencies in processing registrations. Bihar and Chandigarh experience the longest maximum delays of 931 and 921 days, respectively. States like Punjab and Puducherry display efficient processing systems with minimal average delays of 7 days. This data reveals substantial disparities in the efficiency of beneficiary registration processing across regions.

Table 8.3: Beneficiary Registration Under Process for Approval

State/UT	Number of Cases	Maximum Delay (in days)	Average Delay (in days)
Andhra Pradesh	50	662	104
Bihar	650	931	94
Chandigarh	60	921	145
Delhi	588	881	56
Gujarat	5068	940	9
Haryana	365	916	115
Jammu and Kashmir	349345	862	120
Jharkhand	170	929	212
Karnataka	100	588	55
Kerala	305	710	95
Madhya Pradesh	461	940	116
Maharashtra	1574	898	33
Manipur	352	129	65
Puducherry	17224	508	7
Punjab	2194	240	7

Source: CAG Audit Report (2023)

Table 8.4 exhibits the availability ratio of empanelled health care providers (EHCPs) per 1 lakh eligible beneficiaries in the top 25 states and union territories of India. It shows the total number of EHCPs, the SECC eligible beneficiary count, and the hospital availability ratio per 1 lakh beneficiaries. Himachal Pradesh ranks highest with a ratio of 23.7, followed by Karnataka (21.5) and Mizoram (21.0). States like Tamil Nadu (6.2) and Jharkhand (6.0) have lower ratios, indicating fewer hospitals available per 1 lakh eligible beneficiaries.

Table 8.4: Empanelled Health Care Provider (EHCPs) Availability Ratio

Sl. No.	State/UT	Total	SECC Eligible Beneficiary	Hospital Availability Per1 lakh Beneficiary
1.	Himachal Pradesh	270	11,37,946	23.7
2.	Karnataka	3739	1,74,04,802	21.5
3.	Mizoram	96	4,57,118	21.0
4.	Gujarat	2864	2,12,84,770	13.5
5.	Punjab	935	70,55,971	13.3
6.	Andhra Pradesh	2475	1,99,75,159	12.4
7.	Chhattisgarh	1610	1,52,74,556	10.5
8.	Kerala	749	72,88,329	10.3
9.	Meghalaya	183	17,75,299	10.3
10.	Uttarakhand	244	24,63,043	10.0
11.	Haryana	700	73,49,722	9.5
10.	Jammu and Kashmir	295	31,50,959	9.4
11.	Telangana	735	1,01,32,938	7.3
12.	Tripura	145	20,70,365	7.0
13.	Manipur	92	14,08,348	6.5
14.	Tamil Nadu	1790	2,88,44,541	6.2
15.	Jharkhand	852	1,39,94,648	6.0

Source: CAG Audit Report (2023)

However, claim settlement has been presented in table 8.5. It was observed that highest claim was processed were in Kerala and lowest were in Haryana. Tamil Nadu leads with 80.87 lakh cases settled amounting to ₹4,445 crore, followed by

Rajasthan and Kerala. Karnataka, despite settling fewer cases (27.69 lakh), has a high settlement amount of ₹4,325 crore. Maharashtra, although settling fewer cases (26.45 lakh), has the highest settlement amount of ₹5,955 crore. The table also lists claims under process, with Kerala and Karnataka having the highest pending amounts at ₹985 crore and ₹653 crore, respectively.

Table 8.5: Top States in Terms of Claim Settlement (*in crore*)

Rank	States	Claims Settled		Claims Under Process of Settlement	
		No.of Cases *(In Lakhs)*	**Amount** *(In crore)*	**No. of Cases** *(In Lakhs)*	**Amount** (*In Crore)*
1.	Tamil Nadu	80.87	4,445	1.48	109
2.	Rajasthan	38.17	4,136	1.69	189
3.	Kerala	35.35	2,683	8.44	985
4.	Karnataka	27.69	4,325	8.35	653
5.	Maharashtra	26.45	5,955	1.75	454
6.	Chhattisgarh	24.02	2,247	5.12	609
7.	Andhra Pradesh	16.95	3,756	1.64	370
8.	Madhya Pradesh	16.50	2,456	3.52	639
9.	Gujarat	14.12	3,508	1.19	534
10.	Uttar Pradesh	13.70	1,422	1.54	293
11.	Jharkhand	12.33	1,178	0.72	227
12.	Punjab	11.56	1,267	1.21	185
13.	Jammu and Kashmir	5.20	729	0.56	119
14.	Haryana	4.99	590	0.55	80
15.	Telangana	4.88	947	0.76	309

Source: CAG Audit Report (2023); NHA' reply in December 2022

*Note: **Amount & Numbers Rounded off to Single Digit Round Figure*

Table 8.6 provides state-wise and mode-wise details of grants released to States/UTs in India for the years 2018-19, 2019-20, and 2020-21.

Table 8.6: State/UT-Wise and Mode-Wise Release of Grants to States/UTs (*in crore*)

S. No	State/UT	Mode	2018-2019		2019-20		2020-21	
			Imp	Admin	Imp	Admin	Imp	Admin
1.	Andaman & Nicobar	T	0.10	0.05	0.00	0.41	0.14	0.13
2.	Andhra Pradesh	T	174.5	8.30	357.47	16.59	248.99	12.24
3.	Arunachal Pradesh	T	2.10	0.20	0.00	0.00	0.00	0.67
4.	Assam	T	15.00	6.08	126.03	7.21	11.36	0.75
5.	Bihar	T	71.93	16.34	78.07	4.42	0.00	0.00
6.	Chandigarh	T	0.50	0.18	3.28	0.53	1.84	0.00
7.	Chhattisgarh	T	211.8	5.59	274.78	5.59	112.62	0.00
8.	Dadra Nagar Haveli	I	3.09	0.16	1.69	0.34	3.17	0.00
9.	Daman and Diu	I	0.96	0.05	0.00	0.00	1.07	0.00
10.	Goa	T	0.58	0.06	0.00	0.06	0.00	0.49
11.	Gujarat	M	70.78	6.73	212.33	0.00	90.53	9.31
12.	Haryana	T	24.49	2.33	53.51	5.17	68.89	3.04
13.	Himachal	T	16.56	0.62	19.12	0.00	30.44	2.48
14.	Jammu& Kashmir	I	19.26	1.38	28.88	4.56	22.70	0.00
15.	Jharkhand	M	165.9	4.21	126.50	0.00	100.3	0.00
16.	Karnataka	T	150.0	9.31	241.48	12.65	145.7	15.13
17.	Kerala	T	25.00	0.00	97.56	0.00	138.1	7.50
18.	Ladakh	I	0.00	0.00	0.00	0.00	1.12	0.50
19.	Lakshadweep	T	0.00	0.004	0.00	0.00	0.00	0.00
20.	Madhya Pradesh	T	60.00	12.57	118.46	0.00	150.3	14.43
21.	Maharashtra	M	253.7	12.55	241.88	0.00	376.6	0.00
22.	Manipur	T	6.56	0.62	14.24	2.87	11.45	0.00
23.	Meghalaya	I	14.78	0.78	18.07	0.00	47.64	1.88
24.	Mizoram	T	16.60	0.88	10.36	2.06	14.44	0.54
25.	Nagaland	I	4.20	0.52	9.32	1.57	12.27	0.00
26.	Puducherry	T	1.21	0.31	0.00	0.00	1.23	0.00
27.	Punjab	I	0.00	2.24	47.90	7.65	46.85	0.00
28.	Rajasthan	I	0.00	0.00	200.07	0.00	251.7	6.60
29.	Sikkim	T	0.94	0.09	0.00	0.09	1.51	0.34
30.	Tamil Nadu	M	293.3	11.66	441.77	0.00	359.81	0.00
31.	Tripura	T	11.70	1.11	15.10	5.08	8.98	0.00
32	Uttar Pradesh	T	67.30	17.71	129.80	17.69	150.00	17.63
33.	Uttarakhand	T	10.12	2.42	23.44	7.29	40.52	0.00
34.	West Bengal	Nil	30.45	0.83	0.00	0.00	0.00	0.00
	Total		1723.6	125.9	2891.1	101.8	2450.5	93.7

Note: Imp=Implementation, Admin=Administrative
Mode of Implementation: T-TRUST; M- MIXED ; I- Insurance model
Source : CAG Audit Report (2023)

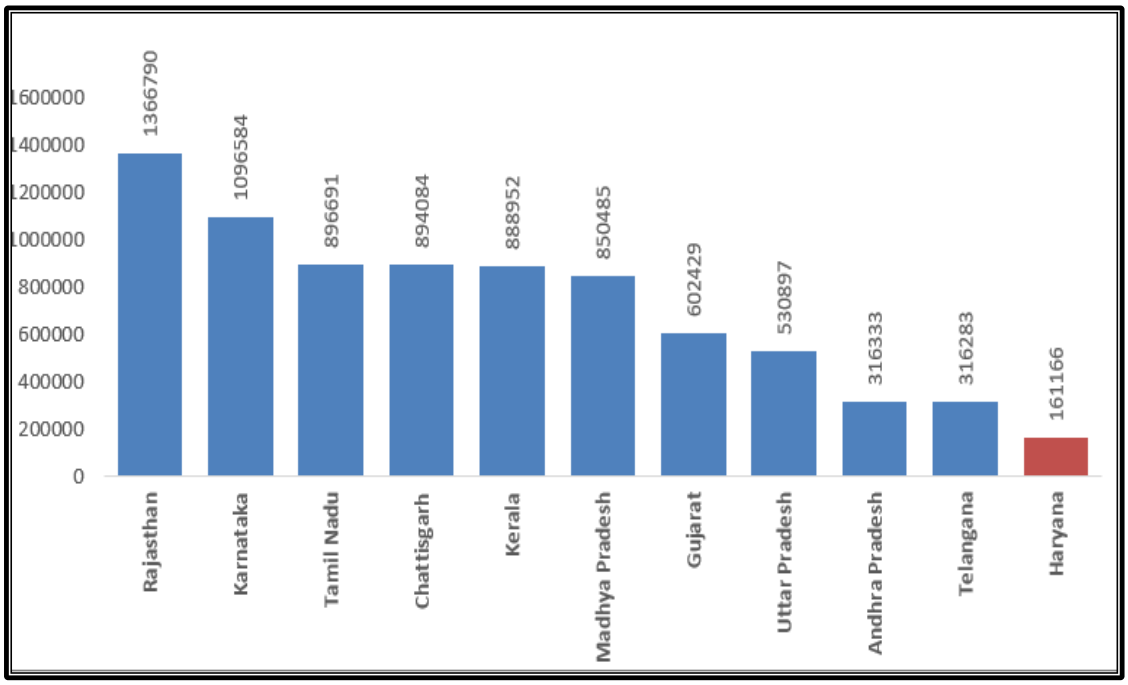
The table shows the allocation for both implementation (Imp) and administrative (Admin) purposes in crores. Three modes of implementation are highlighted: T (Trust), M (Mixed), and I (Insurance model). Andhra Pradesh, Maharashtra, and Tamil Nadu received the highest grants across the years, primarily through the Trust and Mixed models. The total grants released in 2018-19 were ₹1723.6 cr for implementation and ₹125.9 Cr for administration, which increased in subsequent years, peaking in 2019-20. The data underscores the allocation's focus on implementation over administration. The findings of the shortfall in the deployed manpower against sanctioned strengths have been presented in table 8.7. The table displays the manpower shortages in State Health Agencies (SHAs) across various Indian states and union territories. The sanctioned strength represents the approved number of staff, while the present strength shows the actual number employed. The shortage percentage is calculated based on the difference between these two numbers. The table reveals significant shortfalls, with Andaman & Nicobar and Assam facing the highest shortages at 75 percent and 70 percent, respectively. Punjab has 62 percent shortage, while Rajasthan and Tripura have the lowest shortages at 17 percent and 15 percent, respectively.

Table 8.7: Shortfall in Deployed Manpower Against the Sanctioned Strength in SHAs.

Sr No	State/UT	Name of Unit	Sanctioned Strength	Present Strength	Shortage N(%)
1.	Andaman & Nicobar	SHA	4	1	3(75)
2.	Assam	Atal Abhiyan Society	51	15	36(70)
3.	Manipur	SHA	17	6	11(65)
4.	Punjab	SHA	29	11	18(62)
5.	Dadra & Nagar Haveli and Daman& Diu	SHA	7	3	4(57)
6.	Bihar	SHA	183	81	102(56)
7.	Jammu & Kashmir	SHA	17	8	9(53)
8.	Madhya Pradesh	SHA	78	38	40(51)
9.	Gujarat	SHA	80	41	39(49)
10.	Uttarakhand	SHA	74	38	36(49)
11.	Uttar Pradesh	SHA	87	51	36(41)
12.	Haryana	SHA	279	178	101(36)
13.	Chhattisgarh	SHA	81	56	25(31)
14.	Karnataka	SHA	287	216	71(25)
15.	Rajasthan	SHA	12	10	2(17)
16.	Tripura	SHA	13	11	2(15)

Source: CAG Audit Report (2023)

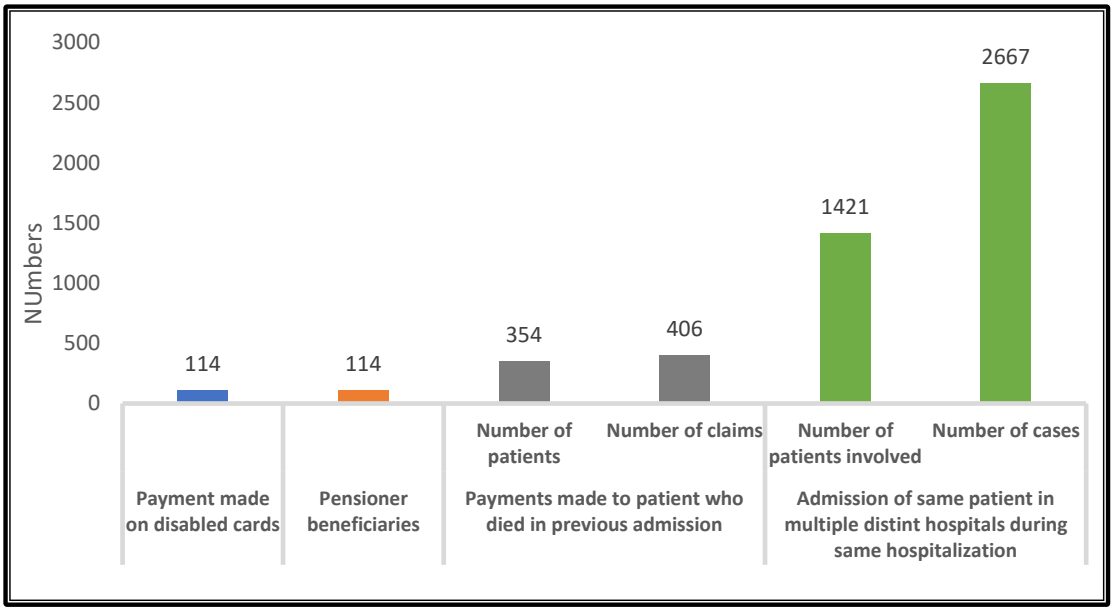
Figure 8.3 depicts that public and commercial hospitals that are part of the Ayushman Bharat Scheme's network have seen a dramatic increase in patient admissions since the program's launch. However, figure 8.2 shows that other states had a far higher number of admissions than Haryana (161166). For example, 1366790 admissions were recorded in Rajasthan, 1096584 in Karnataka, and 896691 in Tamil Nadu. Higher participation of the target beneficiaries in the scheme has increased workload in both public and private hospitals. Varied assessments and treatments were existent in the hospitals for the scheme beneficiaries and huge resistance from healthcare workers was observed in hospitals.



Source: Open Government Data (OGD) platform India (2023)

Figure 8.3: Hospital Admissions under AB-PMJAY in Selected States (2022-23)

Figure 8.4 shows that government officials and the providers agreed on smooth processing of claims on the digitalized mode but raised concerns about fraudulent claims. However, the hospitals disagreed on smooth processing and digitalization, with public hospitals concerned about faulty claims and private hospitals concerned about heavy paperwork. The extent of fraudulent claims in the states as highlighted by the CAG Audit in 2023 is shown in figure 8.4



Source: CAG Performance Audit Report (2023)

Figure 8.4: Extent of Fraudulent Claims in Haryana

It was observed from table 8.8 that the top 10 states in India that detected the highest number of fraudulent claims, specifically involving the admission of the same patient in multiple distinct hospitals during the same hospitalization period. However, Gujarat leads with 21,514 cases involving 302 hospitals, followed by Kerala and Chhattisgarh, each with around 9,632 and 9,640 cases, respectively. Punjab, Madhya Pradesh, and Uttar Pradesh also report significant numbers. The table highlights the extent of fraud in the healthcare system, with a notable number of cases and hospitals involved in these fraudulent activities.

Table 8.8: States to Detect Fraudulent Admission of Same Patient in Multiple Hospitals

S/No	State/UT	Cases	Hospitals Involved
1.	Gujarat	21,514	302
2.	Kerala	9,632	234
3.	Chhattisgarh	9,640	234
4.	Punjab	9,061	321
5.	Madhya Pradesh	8,081	213
6.	Uttar Pradesh	3,502	321
7.	Haryana	2,667	134
8.	Jharkhand	1,942	148
9.	Uttarakhand	4,905	44
10.	Assam	1,869	52

Source: CAG Performance Audit Report (2023)

Table 8.9 details the claims, biometric authentication status, and payment amounts for various states/UTs in India's healthcare system. It shows the total claims, those without biometric authentication, patients without biometric authentication, Aadhaar-authenticated patients, total amount paid, and amount paid without biometric authentication. Kerala has the highest number of claims (15,62,760) and payments (₹482.37 Cr), with most claims (15,14,458) and payments (₹472.64 Cr) lacking biometric authentication. Similarly, Chhattisgarh and Madhya Pradesh also report high numbers of unauthenticated claims and payments. The data highlights significant reliance on non-biometric authentication, potentially indicating gaps in verification processes across these states.

Table 8.9: States Where Claims Were Paid Without Biometric Authentication

(*in crore*)

State/UT	Claims	Claims Without Biometric Authentication	Patients Without Biometric Authentication	Aadhaar Authenticated Patients	Amount Paid	Amount paid Without Biometric Authentication
Kerala	15,62,760	15,14,458	2,01,790	1,48,714	482.37	472.64
Chhattisgarh	6,12,862	6,03,378	2,03,624	1,32,339	240.30	234.86
Madhya Pradesh	3,66,083	2,66,706	54,950	44,432	232.85	160.70
Punjab	3,57,508	2,43,468	56,798	40,517	208.25	146.80
Uttar Pradesh	3,42,978	3,05,161	63,387	47,013	148.57	129.99
Uttarakhand	1,66,688	1,59,920	24,448	21,350	103.35	100.33
Gujarat	3,39,836	2,05,902	52,715	36,307	150.28	93.91
Meghalaya	1,15,025	1,14,930	45,359	538.00	68.98	68.93
Jharkhand	2,92,924	1,26,032	37,727	25,596	143.28	60.29
Assam	64,874	64,873	10,637	36	40.97	40.97
Jammu and Kashmir	1,22,190	1,21,175	11,223	8,876	35.52	35.11
Himachal Pradesh	38,574	33,979	11,084	8,485	30.26	28.47
Mizoram	20,885	20,560	6,656	2,359	19.89	19.24
Bihar	76,858	38,276	8,358	4,803	33.46	17.99
Haryana	1,41,529	25,915	6,903	6,195	74.32	16.21

Source: CAG Performance Audit Report (2023)

Table 8.10 shows the payment on disabled and rejected cards" presents data on the number and number of payments made on disabled and rejected cards across

various states/UTs. Punjab tops the list with the highest total amount paid at ₹73.92 lakhs, comprising ₹53.50 lakhs for 756 disabled cards and ₹20.42 lakhs for 233 rejected cards. Chhattisgarh follows with a total of ₹12.56 lakhs paid, including ₹3.01 lakhs for 48 disabled cards and ₹9.55 lakhs for 101 rejected cards. Haryana and Madhya Pradesh also show notable figures, with total payments of ₹8.64 lakhs and ₹8.51 lakhs respectively. States like Jharkhand, Uttar Pradesh, and Nagaland have lower total payments, each below ₹5 lakhs. Assam records no amount paid for disabled cards but has ₹3.12 lakhs for 24 rejected cards. Overall, the data indicates significant regional disparities in the amounts paid for disabled and rejected cards, with Punjab showing the highest figures by a large margin. There was a low uptake of the digitalized processes in the state of Haryana as mainly the public hospitals lacked IT infrastructure and manpower. The government officials and the private hospitals disagreed on the robustness of the IT portal and ease of online claim submission.

Table 8.10: Payment on Disabled and Rejected Cards

State/UT	Payment on Disabled Cards (A)		Payment on Rejected Cards (B)		Total Amount Paid (A+B) *(In Lakhs)*
	Number	Amount Paid *(In Lakhs)*	Number	Amount Paid *(In Lakhs)*	
Punjab	756	53.50	233	20.42	3.92
Chhattisgarh	48	3.01	101	09.55	2.56
Haryana	114	8.49	002	00.15	8.64
Madhya Pradesh	11	1.34	061	07.17	8.51
Jharkhand	4	0.65	063	03.39	4.04
Uttar Pradesh	21	0.76	007	02.96	3.72
Nagaland	3	0.18	016	03.51	03.69
Bihar	2	0.36	040	02.83	3.19
Assam	1	--	024	03.12	3.12
Jammu & Kashmir	49	1.15	025	01.51	2.66
Kerala	13	0.84	010	00.87	1.71

Source: CAG Performance Audit Report (2023)

8.1.2 Findings from Outcome Assessments (Demand Side) of the Scheme

The outcomes of the Ayushman Bharat Scheme are mainly concerned with the beneficiaries the scheme coverage, awareness among beneficiaries, their scheme utilization and satisfaction with the services received. The study extensively analysed these aspects through interviewing the beneficiaries and the major findings are as summarized below.

Beneficiary Awareness:

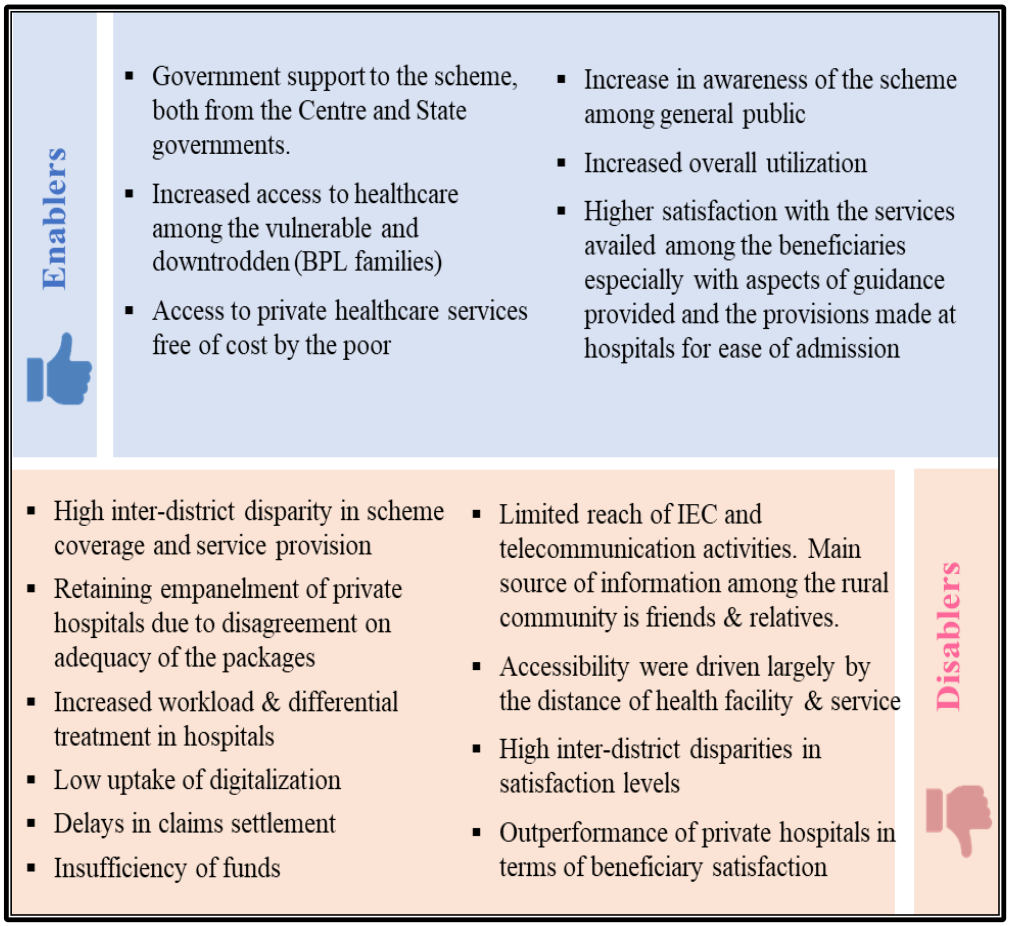
1. Ayushman Bharat-PMJAY participants had varying knowledge of its components. The awareness of Ayushman Bharat-PMJAY was significantly correlated with occupational status category, and ration card status of eligible participants. The educated and professional workers were better aware and similar was awareness among joint families and the aged.
2. Ayushman Bharat was known to rural community through their friends and relatives and social media. The reach of IEC and telecommunications activities to the community and the grassroots network of health care workers, such as ASHA and AWW, was limited. Despite a mandatory minimum of 25 percent, 14 states' spending on IEC activities fell anywhere from 0 to 20.24 percent of their total budget, according to the CAG Audit Report (2003). Accordingly, the age of expenditure made on IEC activities against the allocated budget in Haryana is 9.4 indicating only limited IEC activities in the state.

Scheme Utilization:

1. The mission of PMJAY is to ensure that low-income families have fair access to a range of high-quality, patient-centred treatments. Creating all-inclusive service packages is a crucial move in the right direction. Unfortunately, the intended facilities and services were not provided by several states, rendering these packages useless. Some districts of Haryana did not have access to fourteen different specialisations. This meant that 1,178 people who were eligible for the PMJAY had to go to a different district or state to get the care they needed.
2. Under the Ayushman Bharat Scheme, age, gender, religion and caste impacted the health seeking behaviour.
3. Accessibility, in terms of distance to the health facility and the services, was a key factor determining use, even if income levels did not have a significant influence. In addition, the doctor visiting hours and availability of free medicines also influenced utilizations.
4. Previous health care utilization under the scheme varies significantly across districts and this variability was supplemented by the type and severity of the illnesses.

Beneficiary Satisfaction:

1. Beneficiaries have a generally positive perception and satisfaction (77) of Ayushman Bharat Scheme largely with higher satisfaction on the information and guidance provided, ease of getting admission, provision of services/treatment, cleanliness and hygiene, non-discrimination in provision of services by healthcare staff.
2. High inter-district disparity in satisfaction levels were observed with the enrolment process, ease of accessing hospitals, knowledge of the empanelled service providers and adequacy of the hospital infrastructure.
3. Private hospitals consistently outperform public hospitals in terms of beneficiary satisfaction across various aspects of the scheme. Improving service provision in public hospitals is crucial for improving the overall effectiveness and equity of the Ayushman Bharat Scheme.
4. There was high likelihood of recommending the scheme to others (62) irrespective of the type of hospital services accessed.



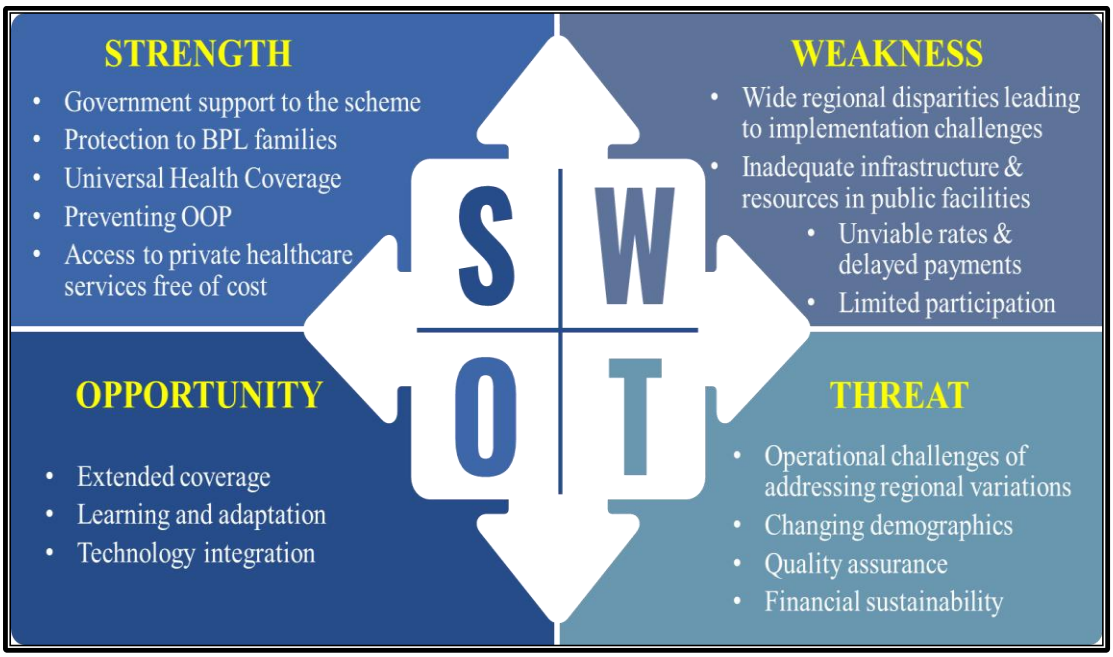
Source: Author's Creation

Figure 8.5: Enablers and Disablers of the Ayushman Bharat Scheme in Haryana

SECTION II

8.2 SWOT Analysis of the Ayushman Bharat Scheme in Haryana

There have been great advances under the Ayushman Bharat Scheme, but there will be obstacles to overcome before the programme can realise its goal of providing excellent healthcare to all citizens and protecting them from catastrophic medical costs. A SWOT analysis of the scheme in the state examining the strengths, weaknesses, opportunities and threats, was conducted as part of the study that clearly articulates the internal and external factors that would boost the state's position and augment its potential. Analysing the strengths and weaknesses provides insights into the internal strongholds and the weak points under the scheme. Recognizing weaknesses allows the government and other stakeholders to turn them into strengths or find solutions to recurring issues. Weighing of the pros and cons is essential for making informed decisions about implementation that can tap the available and foreseeable opportunities and turn the weaknesses and threats into gainful opportunities. A snapshot of the SWOT analysis conducted for the Ayushman Bharat Scheme in Haryana is presented below and a component-wise description of the points is made further.



Source : Authors Construction

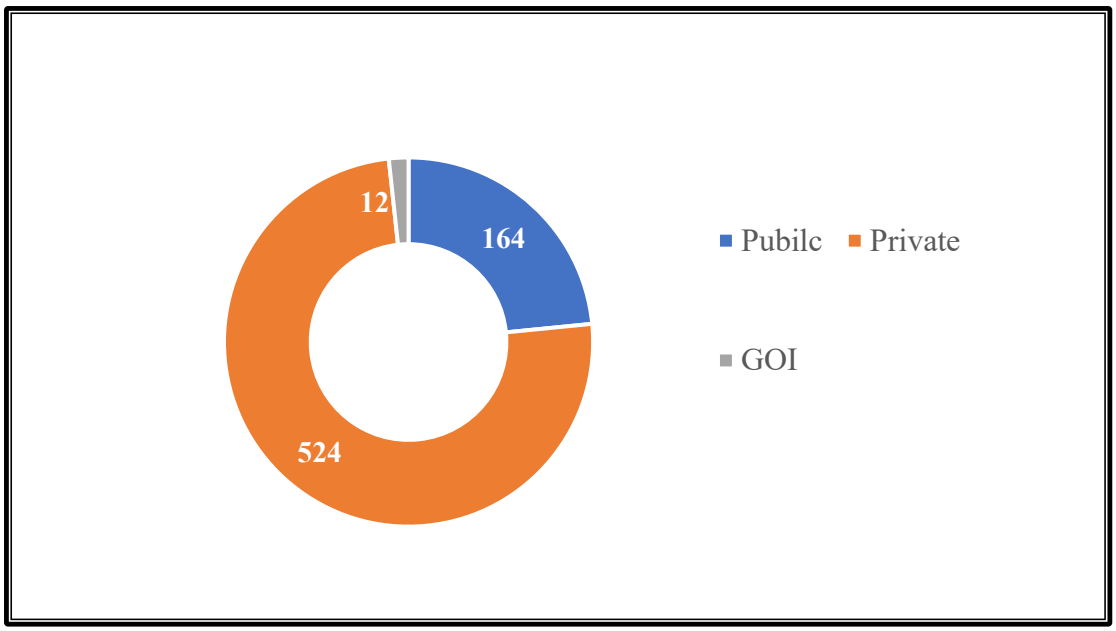
Figure 8.6: SWOT Analysis of the Ayushman Bharat Scheme in Haryana

8.2.1 Strengths (S):

- ***Government Support:*** Ayushman Bharat Scheme receives backing from the government, both Centre and the State ensuring adequate funding and resources for implementation.
- ***Protection to BPL families:*** All families living below the poverty line, regardless of size, are covered financially by Ayushman Bharat for significant health expenditures up to ₹5 lakh.
- ***Universal Health Coverage:*** It takes a daring step towards attaining SDG and providing health coverage to all residents of the state.
- ***Preventing Out-of-Pocket Expenditure:*** It aims to avoid disastrous medical bills and distress finance that might put low-income families in even deeper debt by include primary, secondary, and tertiary healthcare in the programme.
- ***Access to private healthcare services free of cost:*** It covers 24 medical specialties and 1,393 procedures, all of which are free of charge, in public and private healthcare institutions.

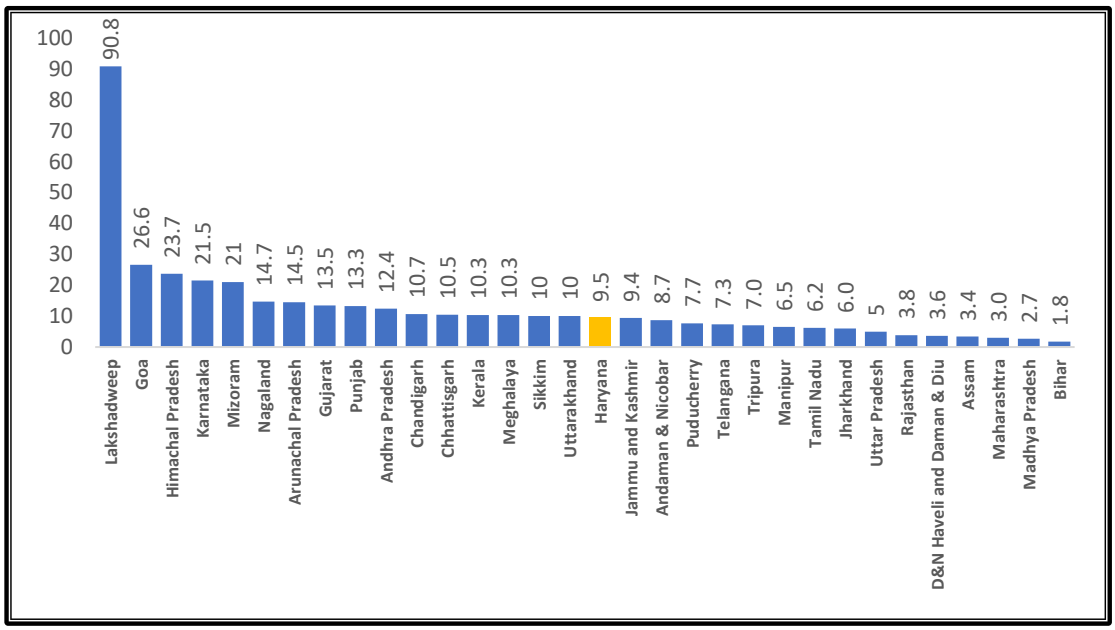
8.2.2 Weaknesses (W)

- ***Implementation Challenges:*** Inspite of roping in the private sector, the disparities in availability of health services (even private services) across the different regions of the state as evident from the study, poses a weak and overburdened health system hampering effective implementation of the scheme. The CAG report (2023) on the performance audit of AB - PMJAY states that in different areas of Haryana, around 14 specialties were out of stock. Thus, in order to get treatment, approximately 1,178 PMJAY participants were had to travel to a different district or state. While it also states that the hospital availability per lakh population in Haryana is 9.5 for an SECC eligible beneficiaries of about 73,49,722.
- The availability of the type of empanelled health care providers in Haryana as per the CAG Report 2003 is shown in figure 8.7. However, in comparison to other states, Haryana seems to be below the average position with the availability ranging from 90.8 in Lakshadweep to just 1.8 in Bihar as shown in figure 8.8.



Source: CAG Report on Performance Audit (2023)

Figure 8.7: Empanelled Health Care Provider Availability in Haryana



Source: CAG Report on Performance Audit (2023)

Figure 8.8: State-Wise Empanelled Hospital Availability per Lakh Population

- ***Inadequate Infrastructure and Resources in Public Facilities:*** The public facilities majorly lacked availability of adequate healthcare infrastructure and skilled personnel that remains a challenge in their participation in the scheme.
- ***Unviable Rates and Delayed Payments:*** Some private players claim the packages and incentives to health staff under the scheme to be unviable and

have been discouraged to continue being empanelled. The hospitals also were discouraged due to delayed payment of claims.

- ***Limited Participation:*** Inspite of the various awareness measures there is still many eligible families that is unaware of the scheme and resort to heavy payments out-of-payments for accessing services at private hospitals.

8.2.3 Opportunities (O)

- ***Expanding Coverage:*** There's an opportunity to expand coverage and reach more vulnerable families/groups to be included in the BPL category. Extending the scheme to cover families with annual income in ranges between ₹1.8L - ₹3L could open up new avenues. The scheme can also reach out to vulnerable groups in the APL category by providing a partial coverage.
- ***Learning and Adaptation:*** Haryana has been a greenfield state for the Ayushman Bharat program. During the first five years of the scheme's implementation in the state, there has been a lot of hard work, dedication, and learning. The programme may use this information to make adjustments and improvements.
- ***Technology Integration:*** Though technology has been introduced at the Centre level for management of each of the processes from verification to claims settlement, the uptake of this technology in the state was learnt to be low. There is for leveraging the technology for efficient management and monitoring of the scheme in the state.

8.2.4 Threats (T)

- ***Operational Challenges:*** The state faces wide regional differences in the scheme operations. Addressing these regional variations poses a threat to the operational success of the scheme in the state.
- ***Changing Demographics:*** The changing demographics and the disease pattern have brought new emerging demands from younger population as well as the aging population which has overburdened the system. Addressing these healthcare needs requires well-designed systems to absorb the need.
- ***Quality Assurance:*** Maintaining quality healthcare services across all centres is a difficult task that the government needs to ensure.

- ***Financial Sustainability:*** Sustaining the program financially and ensuring timely payments to healthcare providers in the long-run is a question to be solved by both the levels of governments – the Centre and the State. The States and UTs deposit their portion of the monies into the SHA escrow account in accordance with the AB-PMJAY regulations so that the scheme may be put into action. When this is complete, the NHA will transfer its portion to the SHA. In reality, however, NHA has disbursed funds without guaranteeing the delivery of advance shares by the corresponding State governments (CAG Audit Report, 2003). In the case of Haryana, about ₹24.49 crore were released by NHA in advance for scheme implementation purposes. The State/UT governments need to ensure that the State funds accruing to SHAs are made available to them on time for smooth implementation of the scheme.

SECTION III

8.3 Ayushman Bharat Scheme Nurturing UHC in Haryana

8.3.1 Ayushman Bharat as a Means to Achieve UHC

Goal 3.8 of the Sustainable Development Goals (SDGs) calls for universal health coverage, which includes protection from financial risk, access to quality essential health-care services, and affordable, safe, effective, and high-quality medicines and vaccines for everyone. UHC is an important part of this goal. Universal health coverage (UHC) examines a nation's capacity to guarantee that all individuals, regardless of their financial situation, may affordably access a comprehensive array of high-quality health care when and when they need them. Palliative care, treatment, rehabilitation, prevention, protection, and health promotion are all part of it. With UHC included in SDGs, we can now advocate for a holistic and consistent approach to health. Progress towards UHC has the potential to complement and even accomplish other health-related objectives.

In 2018, the Indian government implemented the Ayushman Bharat programme, which was suggested in the 2017 National Health Policy. Achieving Universal Health Coverage—making sure no one is left behind—is the scheme's aim. A shift from a sectoral model to a need-based, all-encompassing healthcare service that includes primary, secondary, and tertiary ambulatory care as well as prevention and promotion is the ultimate goal. Health and Wellness Centres (HWCs) and the

Pradhan Mantri Jan Arogya Yojana (PM-JAY) are the two main parts of the Ayushman Bharat programme, which are interdependent on each other.

(1) Health and Wellness Centres (HWCs)

In 2018, the government of India revealed its intentions to convert current Sub Centres and Primary Health Centres into 1,50,000 HWCs. The primary goal of these facilities is to provide CPHC, or Comprehensive Primary Health Care, by bringing medical treatment to individuals in their own homes. They deal with a variety of issues, such as non-communicable illnesses and maternity and child health care. In addition, these clinics provide free diagnostic services and critical medications. By fostering accessibility, universality, and fairness, Health and Wellness Centres aspire to provide the basic health care requirements of the local community. These facilities assist communities and individuals to adopt healthy practices and minimise the risk of chronic illnesses and other health concerns via health promotion and prevention.

Haryana has established about 1122 HWCs by upgrading its SHCs, PHCs and UPHCs as of the year 2021. Though the utilization patterns and satisfaction levels of the HWCs services were out of the scope of the current study, there exist evidences to indicate that majority of the HWCs in the state lacked human resources and the physical infrastructure required for providing the outlined HWC services (PRC, 2020).

(2) Pradhan Mantri Jan Arogya Yojana (PM-JAY)

The Pradhan Mantri Jan Arogya Yojna (PM-JAY), which offers financial insurance against high health costs, is the second component of Ayushman Bharat. Health coverage for secondary and tertiary care hospitalisation amounts to ₹5 lakhs per family per year under PM-JAY, the biggest health insurance plan globally. More than 12 crores low-income and vulnerable households, or around 55 crore individuals—representing the lowest 40 of the Indian population—are among the recipients. Importantly, PM-JAY supplanted the 2008-launched RashtriyaSwasthya Bima Yojana (RSBY), and PM-JAY coverage is available to families who were already beneficiaries of RSBY. Noteworthy, the government covers the whole expense of PM-JAY, with the cost of implementation being split between the federal and state governments.

Despite being a first-rate state in terms of government-funded health insurance plans (GFHIS), Haryana has achieved remarkable strides in implementing the

programme. The assessments in the current study reveals that there is considerable awareness among the beneficiaries about the scheme despite the limited reach of the scheme IEC activities. Wide regional variations in the utilization patterns of the scheme as well as the satisfaction levels were observed. However, the plan anticipates an improvement in the trajectory of the country's health spending pattern. The Ayushman Bharat initiative is likely substantially responsible for the decline in the proportion of out-of-pocket health care costs, as shown in figure 1.1 of Chapter 1 from 64 in 2013–14 to 47 in 2019–20. In light of this, it is clear that the plan is outlining the way to UHC.

8.3.2 Ayushman Bharat Promoted UHC in Haryana

Haryana has embraced the Ayushman Bharat Scheme to expand healthcare coverage and also provide preventive and promotive healthcare to its population.

- The state has transformed existing sub-centers and basic health centres into 1,122 Health and Wellness Centres (HWCs), which are vital for preventative and promotive healthcare.
- As a means of providing financial protection against major health expenses, the PM-JAY has registered about 30 lakh identified beneficiaries and generated Ayushman cards to them. The PM-JAY has provided financial support to over 4 lakh families in the state.
- The state has launched the Chirayu Yojana, a health insurance scheme, that caters to families with an annual income range of upto ₹1.80 lakh under which they are provided a Free Health card. Families with income upto Rs 3 lakh is given an Ayushman card on payment of ₹1500 per year. About 1.3 crore Ayushman-Chirayu cards are issued in Haryana.

UHC remains a critical priority for global health reform, emphasizing comprehensive and coherent approaches to health systems strengthening. UHC serves as a cornerstone for equitable and accessible healthcare, fostering well-being and sustainable development worldwide. Ayushman Bharat strives to bridge gaps in healthcare access, while UHC remains a fundamental goal for Haryana’s population.

SECTION IV

8.4 Ayushman Bharat Scheme: Exploiting the Demographic Dividend in Haryana

According to "The Power of 1.8 billion," the 2014 UNFPA State of the World's Population report, India has the biggest youth population with over 356 million people aged 10 to 24. This forms about 28 of India's population. As per the Census 2011 estimates, youth (15-24 years) in India constitutes one-fifth of India's total population. Therefore, ongoing demographic transition has put India on an advantageous position with higher proportions of young people that can bring economic and developmental benefits. The term "demographic dividend" refers to a period when a greater proportion of people fall within the working-age group which would have occurred due to factors like improved health, longevity, and smaller family sizes. These contribute to economic growth by reducing dependency ratio (the ratio of dependents to the working-age population) and increasing savings. When these conditions align, the national economic payoff can be substantial, leading to accelerated growth and development.

To fully enjoy this demographic dividend, we must first ensure that our people is healthy, which is a basic human right in and of itself. By securing population health, ensuring access to quality healthcare, and promoting overall well-being, the country and states can unlock their economic potential and create a sustainable future. Overall productivity and economic development are boosted by investments in the health and well-being of persons in their working and youth years.

Haryana entered the new century with a population of approximately 2.11 crore and has now grown to nearly 2.54 crores (as of Census, 2011) at a population growth rate of 28. Policies promoting health during this phase are essential to fully harness the demographic dividend. Adequate health financing and quality health facilities are critical components to ensure a healthy and productive workforce. The state's Aysuhman Bharat Scheme, which includes the HWCs, PM-JAY, and the Chirayu Yojana, has been crucial in fostering a healthy and productive workforce by guaranteeing that all citizens can receive high-quality healthcare when they need it. This supports the ideologies of the various economic theories proposed by renowned

economists. Following are the contributions of the scheme to economic development and growth and ultimately exploiting the demographic dividend.

Economic and Social Development: Ayushman Bharat forms an integral part of India's endeavours to improve the health outcomes of its citizens, ultimately contributing to enhanced economic and social development. The program seeks to enhance healthcare access for the poor and vulnerable population, thereby reducing the cost of illnesses and boosting overall productivity. However, its effectiveness is subject to the various economic stages of development across various regions in the state.

Promoting Economic Growth: Ayushman Bharat Scheme can boost economic growth by enhancing population health. Poor and disadvantaged families in India are the primary beneficiaries of the scheme's healthcare and financial security benefits. The Ayushman Bharat aims to solve important health problems by creating Health and Wellness Centres (HWCs) to provide basic healthcare and by making it possible to pay for serious diseases with no money at all.

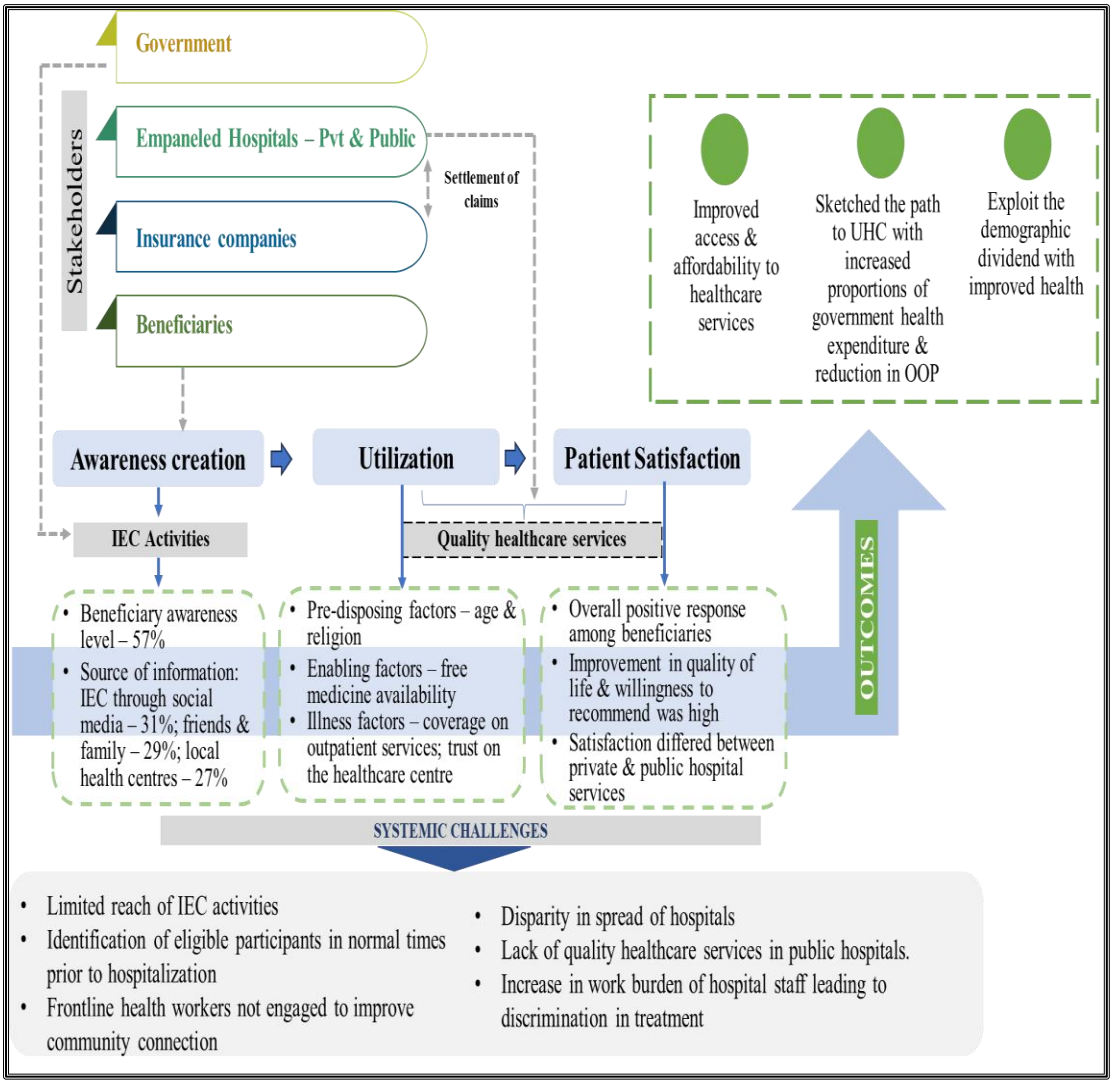
Improving population health indirectly promotes economic expansion as a healthy workforce tends to be more productive, leading to increased efficiency and reduced absenteeism. Additionally, the program eases the financial burden of healthcare bills, allowing families to save money for other essential aspects of life, such as education or business investments. Ultimately, these efforts can contribute to long-term national economic growth

Promoting Multi-Dimensional Growth: Dudley Seers proposed a multi-dimensional approach to development that goes beyond mere economic growth. According to Seers, development should embed human well-being and social justice in economic growth. The Ayushman Bharat Scheme aligns with this perspective by aiming to enhance people's choices and opportunities. By emphasizing social justice and equity in the development process, AB seeks to create a more inclusive and people-centered approach to development

Promoting Modernization: Ayushman Bharat is embracing contemporary concepts such as cashless treatment and modern healthcare practices and technologies. By

doing so, it encourages the adoption of Western models of healthcare delivery, aligning with the theory of Modernization.

Redress Disparities and Exploitation: Ayushman Bharat can be seen as a policy approach aimed at mitigating healthcare disparities between the affluent and economically vulnerable segments of society. By providing free healthcare services, particularly to those most in need, the scheme addresses inequities within a capitalist framework. From a Marxist perspective, this effort seeks to create a more balanced and just healthcare system.



Source: Author's Creation

Figure 8.9: Comprehensive Overview of Study Findings

SECTION V

8.5 Summary

On the basis of the above assessment of the processes of the scheme revealed that there were certain aspects like the fraudulent practices were high in the State; managing the high workload in hospitals which is presently reflecting as differentiating between patients and huge resistance from healthcare workers in hospitals; and the low uptake of digitization. As regards the outcomes, the Ayushman Bharat -PMJAY scheme has worked well with the general public as the beneficiaries that accessed the scheme exhibited good awareness as well satisfaction from the services accessed. However, certain underlying factors like high inter-district disparity, retaining the empanelled hospitals, fraudulent practices and digital uptake were to be given more attention for the scheme to be completely effective. The scheme has been instrumental in setting the path to UHC by improving access and affordability of healthcare to the poor and vulnerable populations. Improved health due to improved access leads to exploitation of the demographic dividend through better economic and social development, multi-dimensional growth and redress disparities and exploitation

CHAPTER-IX

CONCLUSIONS AND POLICY RECOMMENDATIONS

CHAPTER IX
SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

India's healthcare system is grappling with the issue of high OOPE, which account for 47.1 of the nation's total healthcare spending and was brought out in National Health Accounts report of 2019-20 (NHSRC,2020) significantly surpassing the global average of 18.12 (Oxfam India, 2022). This financial burden is severe enough to drive approximately 55 million people into poverty each year (Selvaraj et al., 2022). India has one of the world's lowest health care expenditures, at less than 1.5 of GDP. As reported in the 2019 National Health Profile, the public health system in India received 1.28 of the country's GDP. The patients pay out of pocket for the vast majority of health care, which accounts for about 70 of the market (Gopichandran, 2019). The private sector is responsible for 70 of urban hospitalisations and 60 of rural hospitalisations. According to Garg et al. (2019) people in India prefer to use private health care providers since the public system is so flawed in many ways, including in terms of staffing, infrastructure, service quality and accessibility.

Among the SDGs, India has pledged to attain UHC by 2020. As a way to this objective, National Health Policy, 2017 also envisions Health for All and Universal Health Coverage. To achieve UHC, government came up with the Ayushman Bharat Scheme which helps low-income and vulnerable populations by lowering their out-of-pocket costs during catastrophic hospital episodes and increasing their access to high-quality health services. Health care delivery is reoriented under the system from being segregated and sector-wise to being comprehensive and need-based. (MOHFW, 2017).

In response to the pressing issue of high out-of-pocket expenses, country has launched significant health initiatives such as the AB PM-JAY in 2018 and ABDM, aiming to bolster health protection for the underprivileged and marginalized communities. (Gera et al., 2018). The AB PM-JAY is notable for its cashless coverage of up to ₹5,00,000 per BPL family per year for elementary, intermediate, and tertiary levels, which is one of its key characteristics. Cashless benefits are portable across the country, which means any hospital, whether public or private, can

provide them. The registration to the AB PMJAY scheme can be easily done online on the government website. The scheme provides financial coverage to more than 12 crore eligible families (about 60 crore beneficiaries) which would create healthier population among poor and vulnerable sections. The coverage of disease packages, entitled amount and entitled sections of society are increasing day by day.

SECTION I

9.1.1 Rationale for the Study

The state of Haryana is one among the green-field states with ample potential reflected in aspects like income, literacy and health parameters. Haryana is strategically selected in the present study as the ground for analysis of the performance of the Ayushman Bharat Scheme which could provide solutions to similar green-field states. In 2018, one government hospital, one medical college, and one ESI hospital in each of Haryana's 22 districts served as test sites for the Ayushman Bharat Scheme. The state has adopted the trust model for implementation of the scheme. The scheme was scaled up and operational in all the districts of the state from February, 2019. There were about 1350 packages that were covered under the scheme the services for which were made available through the empanelment of about 527 hospitals across the state. However, of the hospitals empanelled for service provision there are about 30 per cent of public hospitals including the district hospitals, medical colleges, super-specialty hospitals, community health centres and the ESI hospitals.

The scheme has enrolled about 7.5 lakh families in the state. There has been about 1 lakh plus pre-authorizations requested so far while claims have been settled in about 90.5 thousand cases. The scheme also ensures that the eligible beneficiaries can avail services across the country, which offers the benefit of national portability to the beneficiaries. A centralized grievance redressal and helpline number of 14555 that operates 24x7 is set up under the scheme which can be reached out for information, assistance, complaints and grievances. Despite being a green field state with no previous experience of fielding an insurance scheme, Haryana has turned out to be one among the few states who have successfully implemented the Ayushman Bharat Scheme. The state has adopted an IT enabled transaction management system for

smooth and speedy pre-authorization and claim submissions. The Haryana government has been applauded for introducing customization of claim which is a unique initiative to curb the claim rejection rate and burn out ratio. This tool helps to cut the financial outgo because of the fair claim payments to the hospital.

The state gained attention for its role in coordinating the scheme's execution among several government agencies. The "Chaupal Par Charcha- Jeevan Ke Rang; Ayushman Ke Sang" programme was initiated by the State Health Agency and the Department of Employment of the Government of Haryana. Under this, a team of two young educated people called “Saksham Yuvas” are deployed in one district which covers about 20 villages. These youth are entrusted with the responsibility of conducting two-hour sessions in each village explaining the provision and benefits of PM-JAY and distributing pamphlets in order to create awareness among people. The study's performance analysis of the Ayushman Bharat Scheme initiative takes a look at actual data from the system in Haryana. The scheme is analysed for on the basis of the following aspects:

I. Coverage and beneficiary population profile- socioeconomic condition, education levels, religion etc.
II. Scheme utilization – in terms of healthcare utilization patterns and financial implications
III. The level of satisfaction amongst beneficiaries towards services of network hospitals
IV. The stakeholders concern with regard to the scheme in the state.

These could throw light on the real pressing issues in scheme implementation which could have relevance to similar green-field states like that of Haryana. This would augment the existing literature with evidences on the Ayushman Bharat Scheme implementation. In addition to identifying potential problems and solutions, present study can make recommendations for improving Ayushman Bharat Scheme and speeding up its introduction nationally. Analysis of stakeholder concerns would lead to effective streamlining of the scheme as well as help to satisfy their interests and also sketch the path to achievement of the national commitments of universal health coverage under the SDGs. The study can be of relevance to various stakeholders as it supports them in varying dimensions of scheme implementation. including, but not limited to, the following objectives.

SECTION II

9.2 Major Findings

The major findings and challenges observed in the study are summarized below:

9.2.1 Awareness of Ayushman Bharat Scheme amongst the Scheme Beneficiaries

This section examined at how well recipients in Haryana, India, knew about the Ayushman Bharat Scheme. The study revealed that 186 individuals (30.3 percent) of the total, were 60 years of age or older, with a mean age of 49.9 and a SD of 15.2 years. It was found that 326 (59 percent) of the study participants were males. Participants in the study were most likely to have obtained informal education 184 (33 percent). However, after examining the occupational background of the respondents, it was found that 200 out of total 553 were semi-skilled workers (36.4 percent) and 127 (23 percent) were unskilled and belonged to six deprived categories of work including insolvent, living on donations, manually scavenging families, primitive tribal groups, and legally released bonded labour of participants which shows the immense need for such programme as the Ayushman Bharat Scheme. About 368 study respondents belonged to nuclear family and they constituted about two-thirds (66.2 percent) of the study sample. Majority of respondents in the study (72 percent) were Hindus. It is estimated that 300 (54.2 percent) of the study respondents were from general category. It was found that 452 (81.3 percent) of the respondents had made their ration cards.

The analysis has shown that Ayushman Bharat Scheme awareness was 57.3 percent among the study respondents while anything about health insurance in general was unknown to a little less than half (42.7 percent) of the respondents. Hence, a total of only 315 out of 553 participants knew about the scheme. More men (62.9 percent) were aware of the scheme as compared to women (48.5 percent). As regards the source of information about the Ayushman Bharat Scheme among the beneficiaries, it was observed that social media was the primary source of information among the general population with about 30.9 percent of them depending on it. This was followed by friends/relatives with 28.9 percent of them receiving information from them and about 26.9 percent of them receiving information from the local health centres. About 13.3 percent received information from other sources.

It was observed that out of the 553 respondents , 315(56.9 percent) knew about the scheme. Even these, were not fully awareabout all the components of the scheme and had many misconceptions. However, out of 315 participants familiar with the AB-PMJAY , 226 (72 percent) knew the coverage amount , followed by 97 (31.5 percent) had knowledge about card portability. However, it was found that only 41(13.1 percent) out of 315 , had knowledge of treatment package or the diagnostics covered (12.7 percent). Most of the participants were unaware of aspects like coverage of transportation expenses (94.7 percent), age limit of the dependents (92 percent), coverage of post-discharge expenses (85 percent), treatment without e-card (83 percent) and number of beneficiaries covered per family (82 percent).

Whereas, only 37 people (6.7 percent) were aware that SC/ST families are eligible for the Ayushman Bharat health card, even though 238 people (43.2 percent) didn't know what the qualifying conditions were. However, 88(28 percent) of those who were aware of the Ayushman Bharat health card system were familiar with it.About 57(10.3 percent) of the respondents, were aware that the Ayushman Bharat Scheme covers all members of the family. Out of 315 respondents who know about it, 144 (46.2 percent) told that the Ayushman Bharat card is available from government hospitals.The availability of the product was unknown to 40 (13.2 percent) respondents.Ayushman Bharat cards are made for a fee, according to just 15 people (5.8 percent). It was observed that out of 315 respondents in the study, those who were aware of the Ayushman Bharat Scheme, about 252 (80.7 percent) of the participants stated a wrong notion that every member of the family must have their own card. Most of the respondents, that is about 240 of them (76.3 percent), are aware that having an Ayushman card is a requirement for receiving services. About 170 out of 315 participants that were aware of the scheme (54 percent) stated being able to use the Ayushman Bharat card for an emergency treatment. Among scheme aware study respondents, only 99 (31.5 percent) of them knew their cards might be used in other states.

The study also observed misconceptions in the scheme understanding among the aware participants. It has been found that 245 (78 percent) of the scheme aware participants were aware that there is no requirement for renewal of the scheme and also that there is no need to pay premiums for the Ayushman Bharat Scheme. The remaining 22 percent of recipients had the erroneous idea about the initiative, even

though they were aware of it. Only 217 (70 percent) out of 315 respondents were mindful of the fact Ayushman Bharat Scheme did not need pre-health examinations, suggesting that the other 30 percent were misinformed. The present study emphasised the need of better communication tactics to raise knowledge and comprehension of the Ayushman Bharat Scheme. Social media and telecommunication channels can be leveraged for wider outreach. Additionally, strengthening the role of healthcare workers (ASHA, Aanganwadi workers, Ayushman Mitr etc.) in disseminating accurate information is crucial. By addressing these gaps, the program's effectiveness in reaching eligible beneficiaries can be significantly improved.

9.2.2 Health Care Utilization under Ayushman Bharat Scheme in Haryana

Typically, the term "utilization" refers to the act of using specific services at health facilities or centres. Those who seek out these services are known as "health care seekers." The process by which an individual perceives to have a health problem and reacts to their own health concerns, including how they access and use health care services to find a remedy, is defined as "health care seeking behaviour" (Ward et al., 1997). Using primary data collected from healthcare facilities in five different districts of Haryana, our research investigated the many variables impacting the Ayushman Bharat Scheme initiative users' healthcare service utilisation. The Andersen model, which outlines the elements that constitute a risk factor, an enabler, and a disease-specific determinant of healthcare use, served as the framework for the investigation. Despite, the availability of numerous medical professionals and facilities, survey found that many people still cannot afford even the most basic medical treatment. Factors including demography, socio-economic status, accessibility, and knowledge of health insurance schemes impact healthcare seeking behaviour, which must be understood.

- **Predisposing Factors**: Demographic variables like income, gender, religion, and age are examined in the research. It finds statistically significant differences in healthcare utilization based on age groups and religious affiliations, while gender does not significantly impact utilization. These findings highlight the importance of understanding demographic variations in healthcare access.

- **Enabling Factors**: Factors like income level, proximity to healthcare facilities, quality of healthcare services, doctors' availability, and availability of free medicines are analyzed. Income level does not significantly affect healthcare utilization, indicating that the scheme effectively reaches the poorest sections. However, religion and availability of free medicines emerge as significant determinants of healthcare utilization.
- **Illness Factors**: The severity of ailments and type of registration (outpatient vs. Inpatient) significantly influence healthcare utilization. Most beneficiaries seek outpatient services, indicating the prevalence of less severe ailments covered under the scheme.

The study undertook the estimation of the factors that determine the health care utilization by beneficiaries under the Ayushman Bharat Scheme– PMJAY along the lines of the Andersen model. During this study, various factors regarding accessibility, affordability, and acceptability of health services were examined. The participants defined and described all factors based on how they use health centres during their selection process. The data was analysed using descriptive statistics, specifically cross tabulations. According to the Andersen model, the study's findings are examined in terms of the three dynamics: predisposing factors, enabling factors, and disease factors.

The use of health services is largely determined by two factors: age and gender. It is an important factor in determining how much of the health services will be utilized if the health centres vary by region, gender and age. A comparison of decisions made regarding health care seeking, gender and age was conducted to determine whether age and gender influences health care seeking nature. The results of the tests show that there are notable variations among individuals of different ages. Therefore, there was a significant age gap in the Haryana districts among the participants, suggesting that the age of beneficiaries is a key factor in the Ayushman Bharat scheme's ability to provide healthcare. However, differences in gender among the scheme beneficiaries did not affect the scheme utilization.

The study concludes that religion has an impact on accessing healthcare services under the scheme. However, the test results showed that the difference between the salary levels of respondents inspite of the fact that health centres are

situated at varying distances from their intended recipients, the results showed no statistically significant variation in the distances between the facilities. The study suggested that the importance of health care access decreased as the distance to the health institution increased. No matter how far away the healthcare centre was, the beneficiaries still made the journey to get the treatment they needed under the programme.

The patients are highly influenced by the quality of healthcare services offered by health centres while choosing and using these facilities for their healthcare needs. It has been many times reported that most patients who visited public health centres were displeased with the facilities given by these facilities. In addition, there are also complaints about poor care, sanitation, hygiene, water conveniences and lack of food which has been highlighted by many studies. An interesting observation in our study was that majority of respondents noted that the health centres under the Ayushman Bharat Scheme provided high quality health care. This shows that the roping in of the private sector hospitals under the scheme to provide quality healthcare to the beneficiaries has been beneficial.

The patients should be able to reach their doctor with ease while in the hospital or when visiting the health centre, whether they are inpatients or outpatients. The doctors' visiting time has a greater impact on the utilization of the healthcare services provided by the healthcare facilities. The results of our study indicated that the doctors' time of visit or availability was a less significant factor of healthcare access under the scheme. The patients 'preference for healthcare service under the scheme due to free medicines show that the access to healthcare in Haryana districts is largely depended on the free medications under the scheme. The results of the study concluded that free medicines are an important factor promoting healthcare access under Ayushman Bharat Scheme.

To access of whether the type of registration (inpatient or outpatient) of the participants in the hospital had an impact on the access of healthcare services, we found majority health seekers were registered for outpatient services. Access to healthcare treatments under the Ayushman Bharat Scheme was significantly and critically affected by the coverage of outpatient services. Though districts of Haryana varied in terms of the severity of the diseases for which services were accessed, the

test results infer that those differences were not a significant factor in the patients' access to healthcare services. The analysis underscores the multifaceted nature of healthcare utilization, influenced by demographic, socio-economic, and health-related factors. While certain factors like age, religion, and severity of ailments significantly influence utilization, others like income level and gender show less impact. The findings suggest the need for targeted interventions to address specific barriers to healthcare access, such as improving access to free medicines and ensuring quality healthcare services. Understanding these factors is crucial for optimizing the effectiveness of healthcare schemes like Ayushman Bharat in ensuring equitable access to healthcare services.

9.2.3 Satisfaction Amongst the Beneficiaries of Ayushman Bharat Scheme in Haryana

When it comes to providing its citizens with healthcare, the state of Haryana has achieved great progress. Despite an increase in the number of public and commercial hospitals throughout the state, healthcare facilities remain concentrated in a few areas, leading to significant regional discrepancies. The findings from the satisfaction survey among Ayushman Bharat Scheme beneficiaries in Haryana indicate an overall positive response towards the program. The process of enrolment was deemed smooth by a significant majority in all districts, and the adequacy of information and guidance received was generally appreciated. The overall satisfaction levels across public and private hospitals were as 3.3 percent strongly disagreed, 15.7 percent disagreed, 37.3 percent had a moderate satisfaction level, 24.1 percent agreed, and 19.6 percent strongly agreed. In every category, private hospitals showed somewhat greater satisfaction rates than public hospitals. The varied geographic representation is shown by the fact that 46.2 percent of respondents were from public hospitals and 53.8 percent were from private hospitals throughout the five zones. The study concludes no statistically significant difference in satisfaction between respondents from public and private hospitals on the enrolment process in the program. The patient satisfaction survey on the adequacy of information and guidance provided under the Ayushman Bharat scheme in Haryana revealed a generally positive response from beneficiaries across zones. This positive sentiment is reflected in the overall result, where 17 percent of respondents disagreed or strongly disagreed, while 15 percent of

respondents expressed agreement with the adequacy of information and guidance provided by the Ayushman Bharat Scheme in Haryana.

In the survey, public hospital respondents (41.1 percent) predominantly encountered a moderate level of difficulty in accessing the hospital network. Conversely, private hospital respondents (58.9 percent) exhibited a notable majority expressing satisfaction (30.9 percent) with the ease of accessing the hospital network. A statistically significant association in the test, revealed varied experiences in patient satisfaction with respect to access to hospitals based on hospital type such as public or private. The overall satisfaction among beneficiaries of the Ayushman Bharat Scheme in Haryana is nearly evenly distributed between public and private hospitals, with 49.6 percent expressing satisfaction in public hospitals and 50.4 percent in private hospitals. However, a notable distinction emerges in the breakdown of dissatisfaction levels, which are higher in public hospitals (20.5 percent) compared to private hospitals (9.8 percent). Conversely, satisfaction levels, comprising agree and strongly agree responses, are more pronounced in private hospitals (20.4 percent) than in public hospitals (8.8 percent).

The overall perception of the ease of the admission process reflected that dissatisfaction levels are notably higher in public hospitals, encompassing 22.5 percent of respondents who strongly disagree or disagree, compared to a lower dissatisfaction rate of 9.6 in private hospitals. The majority of respondents either agreed or strongly agreed that hospitals are clean and sanitary, according to a patient satisfaction study that focused on the cleanliness and hygiene of hospitals under the Ayushman Bharat Scheme in Haryana. The analysis of the observed discrimination among Ayushman Bharat Scheme cardholders in public and private hospitals reveals a significant discrepancy. In private hospitals, a higher age of respondents felt discrimination compared to the private hospitals. When testing the connection between hospital type (public vs. private). Majority (69.7 percent) of respondents felt that public hospitals were well-equipped, but at the same time, substantial portion (30.3 percent) holds a similar view for private hospitals. The study indicates there is a significant difference in the impact expressed by the patients in private and public hospitals on their quality of life through the Ayushman Bharat Scheme. Among those who responded from both public and private institutions, there are some intriguing trends in the levels of satisfaction with the services offered by the system. Notably,

compared to public hospital respondents (18 percent), a larger proportion of private hospital respondents (33.4 percent) "Agreed" that private hospital healthcare is superior. On the other hand, a relatively smaller proportion expressed dissatisfaction, with an overall 21.4 percent disagreeing and 2.4 percent strongly disagreeing regarding the services in a public hospital. Overall, as per the respondents' perception, there were significant differences in the healthcare services provided through private and public hospitals under the Ayushman Bharat Scheme in Haryana.

The beneficiaries reported ease in accessing the network of hospitals, satisfaction with the services and treatments provided, and perceived cleanliness of the healthcare facilities. However, there were concerns related to potential discrimination by healthcare staff and the level of knowledge about empanelled providers. Despite these reservations, most respondents said the initiative improved their quality of life and were happy to tell others about the Ayushman Bharat Scheme. While, enrolment and information parts are doing well, there are areas to improve, especially in making hospitals more accessible and ensuring positive staff behaviour. The scheme has positively influenced the quality of life for beneficiaries, and most people would recommend it to others. The district wise differences highlighted the need for specific improvements in certain areas. To ensure that the Ayushman Bharat Scheme continues to address the varied healthcare requirements of the people of Haryana, it would be essential to maintain ongoing efforts and closely monitor its progress.

9.2.4 Stakeholders' Concerns Regarding Ayushman Bharat Scheme in Haryana

An analysis was made to know how the stakeholder's view about the scheme in Haryana. However, based on interviews with public and private hospital executives, insurance providers, and government officials, it identifies areas that might want improvement. None of the stakeholders surveyed thought that the state's implementation of the Ayushman Bharat Scheme initiative was seamless, and there were problems with cooperation between the state and the federal government. Among the hospital administrators, both the public and private administrators were of the opinion that the scheme implementation was not smooth as about 75 percent in both groups expressed their disagreement on this. About 50 percent among public and

100 percent private hospital administrators disagreed of effective internal state coordination and state-centre coordination in scheme implementation which had a major impact on the operational aspects.

The analysis of the opinions of the public and private administrators on the fund availability and cashflow under the scheme shows that while only 25 public hospitals disagreed to the fact of availability of sufficient funds for the implementation of the scheme, 100 of the private hospitals disagreed it. Similar contrasting opinions were observed between the public and private hospitals on the scope for misallocation of funds under the scheme. Private hospitals verified that the likelihood of misallocation of cash is minimal under the programme, in contrast to public hospitals that have acknowledged the possibility of misallocation of funds. Nevertheless, the scheme's delayed and uneven funding flow was a common gripe among both public and private institutions. The hospitals were also aware of the fact that it has been challenging for the government to retain the private hospitals in its empanelled list. However, most of the hospitals, both in public and private stated that they were adequately equipped to accommodate the scheme beneficiaries. The private hospitals strongly felt that the insurance cover provided is usually not enough to cater to the majority of the patients' needs and also that the compensation package provided for treating patients under Ayushman Bharat Scheme is not adequate. The private hospitals also reiterated that the healthcare providers are not adequately incentivised for the treatment provided under the scheme.

The discussions with the empanelled public and private hospitals revealed that both the public and private administrators have observed sufficient participation in the scheme. While, majority of the public hospitals felt that the participation in scheme has been profitable to them, the private hospitals completely dispelled this. However, this participation, in both the public and private hospitals, has increased the workload. The stakeholder analysis reveals shortcomings in the current implementation of the scheme in Haryana. Addressing these concerns through improved coordination, funding, package revisions, workload management, fraud detection, digitalization, and user-friendly online systems is crucial for the scheme's success. This section examines the methodology used in Haryana for implementing the scheme. It delves into the scheme's contributions to UHC and how it takes use of the state's

demographic dividend, identifying strengths, weaknesses, opportunities, and threats (SWOT analysis).

9.2.5 Evaluation of Ayushman Bharat Scheme in Haryana

In Haryana, 100 per cent Aadhaar seeding of Ayushman card and 100 per cent biometric authentication at the time of hospitalization except neonates has been done. Haryana with its 26 lakhs enrolment (8 lakh households) stands at number 7 amongst all states of India. Haryana is doing averagely well in terms of claim settlement, though in terms of beneficiary registration it is far behind the National average. Haryana stands at 11th position amongst 22 states in terms of hospital availability per lakh population. Despite of technological advancement Haryana is faring poorly in terms of claim settlement and pending claims. Though there has been a gradual increase in amount of funds allotted by the central govt., still there is deficiency of trained manpower as against the authorized strength. Inspite of being a small state, the vigilance dept of Haryana has been able to detect significant number of fraudulent claims.

To achieve UHC, which is the ultimate goal of this scheme; AB-PMJAY and HWCs are essential parts of it. Universal healthcare eliminates financial barriers to high-quality medical treatment. Reducing out-of-pocket spending and boosting healthcare access are two areas where Ayushman Bharat Scheme has showed encouraging signals. A healthy population is crucial for reaping the benefits of a demographic dividend (a larger working-age population). The Ayushman Bharat Scheme helps create a healthy and productive workforce, ultimately contributing to economic growth and development.Since its inception, the Ayushman Bharat Scheme in India has undergone several upgrades and expansions to improve its reach and effectiveness in providing healthcare services to citizens. Some notable upgrades and enhancements include:

- **Expansion of Coverage**: The scheme has gradually expanded its coverage to include more beneficiaries. Initially focused on providing health insurance coverage to economically vulnerable families, it has since been extended to cover more people, including those in the informal sector.
- **Increase in Beneficiary Pool**: The Socio-Economic Caste Census (SECC) was used to identify low-income households, who were the primary targets of

the project. However, the coverage has expanded to include additional categories of beneficiaries such as rural and urban poor households, defined by specific criteria set by the government.

- **Coverage for Informal Sector Workers**: A notable development is the incorporation of those employed in the informal sector, who were not previously part of official health insurance programs. With this extension, a sizable portion of the populace that frequently lacks access to high-quality healthcare services will be covered for medical expenses.
- **Geographical Expansion**: The scheme has expanded its coverage geographically, reaching more rural and remote areas across the country. Efforts have been made to establish empaneled hospitals and healthcare facilities in underserved regions to ensure that beneficiaries have access to healthcare services closer to their homes.
- **Urban Focus**: While initially focused on rural areas, the Ayushman Bharat Scheme has also expanded its coverage to include urban areas, recognizing the healthcare needs of the growing urban population. This extension aims to address the healthcare challenges faced by urban poor households and informal sector workers in cities and towns.
- **State Participation**: The scheme encourages and incentivizes states to participate by implementing it effectively. Many states have joined the scheme and expanded its coverage further by integrating it with their existing healthcare programs and initiatives.
- **Special focus on vulnerable groups**: Efforts have been made to ensure that vulnerable groups such as women, children, and the elderly are adequately covered under the scheme. Special provisions may exist to cater to the specific healthcare needs of these groups, such as maternal and child health services.
- **Increase in Diseases Covered**: The Ministry of Health and Family Welfare has included the kidney transplantation package within the PM-JAY initiative of Ayushman Bharat. Patients whose income is below the poverty line and who need a transplant for a heart, lung, liver, kidney, etc. may get financial assistance from the Ministry up to ₹15 lakh under Rashtriya Arogya Nidhi.

- **Benefit Packages**: The scheme has continually updated its benefit packages to cover a wider range of medical treatments and procedures. This ensures that beneficiaries have access to a more comprehensive set of healthcare services. Starting initially at packages of ₹5 lakh per family per year, few states have declared it to double it up to ₹10 lakh per family per year. In the election manifesto of some political parties, they are promising to increase it up to ₹25 lakh per family per year.

- **Emphasis on Wellness and Preventive Healthcare**: There has been a growing emphasis on promoting wellness and preventive healthcare under the Ayushman Bharat scheme. This includes initiatives such as wellness clinics and health education programs aimed at preventing diseases and promoting healthier lifestyles.

- **Quality Improvement**: The healthcare services provided under the programme have been enhanced. This includes measures to ensure the accreditation of empanelled hospitals and monitoring the quality of care provided to beneficiaries.

- **Digital Integration**: The scheme has leveraged technology to enhance its operations and reach. This includes the use of digital platforms for beneficiary registration, claims processing, and monitoring the implementation of the scheme.

- **Partnerships and Collaborations**: Ayushman Bharat has forged partnerships with various stakeholders, including state governments, private sector entities, and non-governmental organizations, to strengthen its implementation and expand its reach.

- **Focus on Primary Healthcare**: There has been an increased focus on strengthening primary healthcare infrastructure under the Ayushman Bharat scheme. This includes initiatives to upgrade existing primary healthcare centers and establish new facilities in underserved areas.

- **Special Initiatives**: The scheme has launched special initiatives to address specific healthcare challenges, such as the provision of free treatment for specific diseases or conditions, or the establishment of specialized treatment

centers for certain medical procedures. These improvements and changes are made with the intention of making the Ayushman Bharat plan better able to meet the healthcare requirements of the people it serves, more accessible, and more effective.

SECTION III

9.3 Conclusion

1. The assessment of the processes of the scheme has revealed that there were certain aspects like the fraudulent practices were high in the state; managing the high workload in hospitals which is presently reflecting as differentiating between patients and huge resistance from healthcare workers in hospitals; and the low uptake of digitization. As regards the outcomes, Ayushman Bharat - PMJAY scheme has worked well with the general public as the beneficiaries that accessed the scheme exhibited good awareness as well satisfaction from the services accessed. Improved health due to improved access leads to exploitation of the demographic dividend through better economic and social development, multi-dimensional growth and redress disparities and exploitation. Tailor outreach will be highly appreciated to diverse age, gender, religion, and caste groups to address specific health-seeking behaviours.

SECTION IV

9.4 Policy Recommendations

2. The study has shown that the respondents were not aware of the various aspects of the Ayushman Bharat Scheme. To enhance awareness and understanding of the Ayushman Bharat Scheme the government should intensify information, education, and communication (IEC) activities, leveraging social media and community outreach with the help of grassroot organizations and local influencers. This includes clear, accessible information campaigns to dispel misconceptions and ensure comprehensive awareness of all scheme components. The camps with team from Ayushman Bharat Scheme can be organized from time to time.

3. The study identifies that age, gender, religion and caste were associated with impacted the health seeking behaviour. Accessibility in terms of distance to the health facility and the services was a major factor impacting utilization. Thus, it has been suggested to enhance Ayushman Bharat Scheme utilization by improving public health care facilities, increasing accessibility through more local centres, extending doctor visiting hours and ensuring the availability of free medicines. Tailor outreach will be highly apricated to diverse age, gender, religion, and caste groups to address specific health-seeking behaviours.

4. The study has observed significant differences between districts regarding availability, utilisation and perception about Ayushman Bharat Scheme - PMJAY. Thus, to address disparities in Ayushman Bharat Scheme utilization, government need to invest in service delivery in the underutilized districts. It is suggested to the government to allocate additional resources to improve healthcare infrastructure and staffing in underutilized districts.

5. It was observed from the study that private hospitals consistently outperform public hospitals in terms of beneficiary satisfaction across various aspects of the scheme. Thus, an improvement in service provision in public hospitals is crucial for improvement of the overall effectiveness of the Ayushman Bharat Scheme.

6. The study has shown that stakeholder's concern was the cash deficit, non-payments and fraudulent billing by private players. Thus, study suggests to curb cash deficits and non-payments due to fraudulent billing. The government should expedite the digitalization of health records, invest in IT infrastructure, and provide manpower training. However, blockchain technology can be used to standardize and streamline online claim submissions, ensuring transparency and user-friendliness for all stakeholders for the effectiveness of the scheme

7. The study found that respondents hold misconceptions related to various aspects of the scheme. To address this government should enhance communication efforts through targeted educational campaigns, workshops and clear informational materials. Efforts should be made to correct misunderstandings about scheme renewal, premiums and pre-health checkup

requirements to ensure accurate awareness and effective utilization of the scheme.

8. The study provided empirical evidence of difference in discriminatory treatment of patients in public and private hospitals. Thus, it is suggested that government should implement stringent regulation to ensure equitable care across all facilities. It is highly required to bring standardized protocols and regular audits to address disparities.

9. Allocate adequate funds for the scheme implementation to streamlined cash flow mechanism. Establishing a regular system for revising package rates and incentives will enhance private hospital engagement and service quality.

10. On the basis of the views of the stakeholders it is required to improve coordination between government agencies, hospitals and insurance providers. This collaborative approach will streamline processes to better align with the goal of the scheme.

11. The present study identified areas for enhancing scheme implementation by addressing stakeholder concerns. Given the scheme's reliance on coordination among multiple stakeholders to cover beneficiary enrolment, service provision and claim settlements by insurance companies.

SECTION V

9.5 Scope for Future Research

The future studies on Ayushman Bharat Scheme may consider the following:

1. A longitudinal analysis on health and economic outcomes of Ayushman Bharat beneficiaries in Haryana.

2. A comparative analysis of the effectiveness of Ayushman Bharat Scheme in Haryana with other states.

3. Cost-benefit analysis and financial sustainability of Ayushman Bharat Scheme in Haryana.

4. Evaluate quality of healthcare services provided under Ayushman Bharat Scheme and its correlation with patient satisfaction and health outcomes.

CHAPTER-X
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APPENDICES

ANNEXURE-I

S.No. | | | |

Dear Sir/ Madam,

I am research scholar of Mittal School of Business, Lovely Professional University. I am conducting research on "An Empirical Evaluation of the Ayushman Bharat Scheme in Haryana". Kindly spare your valuable time to give your response to the various questions mentioned in the questionnaire. The responses given by you will be kept confidential and your participation will be appreciated.

Research Scholar

Dr. Anurag Garg

Section I: Socio-Demographic Profile of the Respondent

S.No	Question	Response	Coding
1	Gender	Male=1 Female=2	
2	Age	15-30 years 31-45 years 46-60 years Above 60 above years	
3	Educational Qualification	No formal education=1 Primary school=2 Middle school =3 Secondary school=4 Senior secondary school=5 Graduation & above=6	
4	Type of Occupation	Unemployed Unskilled worker =1 Semiskilled worker=2 Skilled worker =3 Clerical=4 Shop owner=5 Semi-professional=6 Professional=7	
5	Family Type	Nuclear family=1 Joint family=2	
6	Religion	Hindu=1 Muslim=2 Sikh=3	
7	Category	General=1 Other Backward Class=2 Scheduled Tribe =3 Scheduled Caste=4	
8	Income (yearly)	2-6K 6-18K 18-30K 30-45K 45K-60K 60k-1.25L >1.25L	
9	District	Panchkula =1 Mewat =2 Rohtak =3 Karnal=4 Hissar =5	

Section II (a) :Awareness About Ayushman Bharat Scheme

S. No	Question	Response	Coding
1.	Are you aware of Ayushman Bharat Scheme?	Yes=1 No= 2	
2.	Source of Awareness	Friends and family=1 Social media=2 Local health centres=3 Others=4	

Section II (b) : Extent of awareness of the Ayushman Bharat Scheme among beneficiaries

Variables	Categories	Yes	No
Ayushman Bharat Scheme components	Coverage amount		
	Card portability		
	Treatment package		
	Diagnostics covered		
	Transportation expenses		
	Knowledge of empaneled providers		
	Post-discharge benefits		
	Number of beneficiaries per family		
	Addition of new family member		
	Grievance Mechanism		
	Treatment without E-card		
	Age limit of the dependents		
Regarding the eligibility criteria of the families	Do not know about eligibility		
	Only SC/ST households are eligible		
	Landless families who derive major income from daily labor are eligible		
Ayushman Bharat health card	Ayushman Bharat health card is required for treatment		
	Ayushman Bharat card is available from Government hospitals		
	Ayushman Bharat cards are made for a fee		
Families covered in Ayushman Bharat Scheme-PMJAY	All members of the family		
	Elderly		
	Do not Know		

Variables	Categories	Yes	No
Variables	**Categories**		
Ayushman Bharat-PMJAY utilization	Each family member needs a separate card		
	Benefits can be always availed only with an Ayushman Bharat card.		
	Emergency treatment is made easier with the Ayushman Bharat card.		
	Non-residential use of Ayushman Bharat Health Insurance Scheme.		
Use of the AB-PMJAY program in advance	There is no need to renew the scheme		
	There is no need to pay premiums for the AB-PMJAY		
	For Ayushman Bharat Health Insurance, there is no need for a pre-health check-up.		

Section II (c) : Extent of awareness of the Ayushman Bharat card usage and processes among beneficiaries

Variables	Categories	N (%)
Ayushman Bharat-PMJAY utilization	Each family member needs a separate card=1 Benefits can be always availed only with an Ayushman Bharat card=2 Emergency treatment is made easier with the Ayushman Bharat card=3 Non-residential use of Ayushman Bharat Health Insurance Scheme=4	
Use of the AB-PMJAY program in advance	There is no need to renew the scheme =1 There is no need to pay premiums for the AB-PMJAY=2 For Ayushman Bharat Health Insurance, there is no need for a pre-health check-up=3	

Section III (d) : Extent of awareness of the Ayushman Bharat card usage and processes among beneficiaries

Variables	Categories	Response
Ayushman Bharat-PMJAY utilization	Each family member needs a separate card	
	Benefits can be always availed only with an Ayushman Bharat card.	
	Emergency treatment is made easier with the Ayushman Bharat card.	
	Non-residential use of Ayushman Bharat Health Insurance Scheme.	
Use of the AB-PMJAY program in advance	There is no need to renew the scheme	
	There is no need to pay premiums for the AB-PMJAY	
	For Ayushman Bharat Health Insurance, there is no need for a pre-health check-up.	

Section IV: Utilization of Health Care Services Under Ayushman Bharat Scheme

S.No	Question	Response	Coding
1	Have you utilized health care services under the scheme?	Yes=1 No=2	
2	Type of health facility utilized?	Public=1 Private=2	
1	Distance covered to visit health facility	<10 km=1 10-20 km=2 >20 km=3	
2	Service satisfaction for healthcare centers	Good =1 Fair=2 Bad=3	
3	Doctors' visiting time and participants' access to healthcare services	8am -1pm=1 10am-5pm=2 24X7=3 Cannot Say=4	
4	Provision of free medicine	Yes=1 No=2	
5	Type of registration	Out patient=1 In patient=2	
6	Common ailments	Fever=1 Pregnancy=2 Hospitalization=3	
7	Repeated health care utilization under the scheme	Yes=1 No=2	

Section V: Rate your level of awareness about Patient Satisfaction Survey

Sr. No.	Patient Satisfaction Survey	Strongly Disagree (1)	Disagree (2)	Moderate (3)	Agree (4)	Strongly Agree (5)
1.	I satisfied with Ayushman Bharat Scheme -PMJAY enrolment process					
2.	I am satisfied with information and guidance provided under AB-PMJAY					
3.	I am satisfied with access to hospitals under Ayushman Bharat Scheme					
4.	I am satisfied with access to hospitals under Ayushman Bharat Scheme					
5.	I am satisfied with provision of requisite services / treatment under Ayushman Bharat Scheme					
6	I am satisfied with requisite services/treatment in public and private hospitals					
7	I am satisfied with the ease of hospital admission process under Ayushman Bharat Scheme					
8	There is a ease of hospital admission process in public and private hospitals					
9	There is cleanliness and hygiene of hospitals					
10	There is a discriminate treatment by healthcare staff under the scheme					
11	Knowledge of empanelled health care providers					
12	There is an availability of adequate infrastructure in hospitals					
13	Improved quality of life from scheme utilization					
14	Satisfaction of services provided under the scheme					
15	I will recommend Ayushman Bharat Scheme to others					

ANNEXURE-II

S. No. | | | |

Dear Sir/ Madam,

I am a research scholar of Mittal School of Business, Lovely Professional University. I am conducting research on "An Empirical Evaluation of the Ayushman Bharat Scheme in Haryana". Kindly spare your valuable time to give your response to the various questions mentioned in the questionnaire. The responses given by you will be kept confidential and your participation will be appreciated.

Research Scholar

Dr. Anurag Garg

Section I: Basic Information of the Stakeholders

S. No	Question	Response	Coding
1	In which capacity are you involved in the Ayushman Bharat scheme	Government official =1 Insurance provider =2 Private Hospital administrator=3 Public Hospital administrator=4 Healthcare worker=5	
2	Duration of involvement with scheme	0- 6 months =1 6 months – 1 year =2 1 year to 2 years=3 > 2 years =4	
3	Do you have sufficient manpower to deal with day-to-day activities related to the scheme?	Yes=1 No=2	
4	Do you have any prior experience of working in health care sector?	Yes=1 No=2	

Section I: Rate your opinion of insurance providers on the implementation of AB scheme in the state

Question	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree	Cannot say
Implementation of the AB scheme statewide has been smooth						
Coordination of state with central government has been effective						
Coordination between govt. agencies, insurance providers and hospital administrators has been efficient\						

Section II: Rate your opinion of government officials on the fund availability and cash flow for the Ayushman Bharat scheme in the state

Question	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree	Cannot Say
Sufficient funding is available for the implementation of Ayushman Bharat Scheme						
There is scope for misallocation of funds in the cash-flow for the scheme						
Cashflow in the scheme is timely and smooth						

Section III: Rate your opinion of Government officials on the overall scheme cover, packages and incentives

Question	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree	Cannot say
Retaining the empanelment of private hospitals has been challenging						
Hospitals are adequately equipped to accommodate the scheme beneficiaries						
Household insurance cover is usually enough to cater to majority of the patients' needs						
Health benefit package provided for treating patients under the scheme is adequate						
Healthcare providers are adequately incentivised for treatment provided under Ayushman Bharat Scheme						

Section IV: Rate your opinion of administrators of hospitals (public & private) on the admission and treatment provided to beneficiaries in empanelled hospitals.

Particular	Hospital Type	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree	Cannot say
There is sufficient participation in the scheme	Public						
	Private						
Participation in the scheme has been profitable	Public						
	Private						
Treatment of beneficiaries of the scheme has increased workload	Public						
	Private						
Assessment and management of patients varies when the patient is a beneficiary of the scheme	Public						
	Private						
There is resistance from healthcare workers in providing treatment to scheme beneficiaries	Public						
	Private						
Participation in the scheme hampers management of the other patients	Public						
	Private						
Manpower assigned is adequate for the scheme	Public						
	Private						

Section V: Rate your opinion on the claims settlement process

Question	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree	Cannot say
Claims are processed smoothly						
Paperwork is heavy for processing treatment & claims for the scheme						
Faulty/Fraudulent claims are a concern						
At higher claims ratios, there is a change in the claim approving behaviour of the Insurance Company						
Adjudication process is satisfactory for the scheme						

Section VI: Rate your opinion of on digitization processes under the scheme

Question	***Strongly Disagree***	***Disagree***	***Moderate***	***Agree***	***Strongly Agree***	***Cannot say***
Ayushman Bharat IT portal is robust						
Process of online submission of claim is easy for the scheme						

Section V: How can the Ayushman Bharat Scheme be improved to better address healthcare needs in Haryana?

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Viewpoint

Role of blockchain technology in boosting *Ayushman Bharat* scheme implementation in India

In National Health Policy 2017, *Ayushman Bharat* (AB), a ground-breaking public health insurance scheme was conceptualized by the Hon'ble Prime Minister, which aims to achieve its goal of Universal Health Coverage (UHC) and a mission statement - Health for all by 2020.

Taking a holistic approach to health, AB addresses primary, secondary and tertiary health care (including prevention and promotion). As part of its continuum of care approach, AB integrates two interconnected components *(a)* Health and Wellness Centers (HWCs) to strengthen and comprehensively deliver Primary Health Care (cPHC) services to the population at large and; *(b) Pradhan Mantri Jan Arogya Yojana* (PMJAY) scheme for hospitalization services (both secondary and tertiary level) for bottom 40 per cent of families in India[1].

There has been a lot of discussion regarding AB's limitations (Claim Frauds, Low package price, weak hospital empanelling criteria, out-of-pocket expenditure of beneficiaries, monetary sustainability of the scheme). However, there are also potential solutions that may be discussed to improve the viability of the programme or any publicly funded health services[2]. IT solutions have helped fuel the growth of Indian healthcare with the advent of IoT (Internet of Things)-driven smart medical devices, personal healthcare apps, telemedicine, artificial intelligence for clinical decision making, online pharmacies for convenience, and price comparisons. An integral part of the discussion often omits the possibility of transportable or intraoperative Electronic Medical Records (EMRs) which primarily serve as a platform for creating a patient bill. Due to this, most patients pay *a la carte* for the services they consume (doctor's time, drugs, radiology reports, procedure, *etc.*)[3,4]. Clinical guidance can also be provided by more advanced electronic medical records, wherein patient's electronic and organized file travel with them to their village Primary health center (Health & Wellness Center), which further should improve the quality of care and ensure they receive proper follow up. As a result, the Government of India (GoI) would be able to track and pay for clinical outcomes, thereby improving cost containment and quality assurance. The success of any Government-funded scheme depends on the optimum utilization of funds and avoiding any wasteful expenditure. The optimum utilization of resources may be seen while development or upgradation of AB-HWCs. Installation of Solar Panels for electricity may be seen as one of the cost effective utilization of funds[5,6].

Similarly, establishment of checks and balances to contain costs or stop unnecessary services will optimize the fund utilization. Blockchain technology, which is receiving a lot of attention, might be used to facilitate a national medical record system and serve as the foundation for a centralized, robust medical record system. A blockchain-based EMR system generates a confidential access code that is only available to the patient ensuring data integrity[7,8].

The blockchain technology

A new technology has emerged that can be attributed to cryptography and other theories that can provide transparency, immutability, decentralization, and consensus[9]. Several application domains, such as crypto currency (Bitcoin, Litcoin, Namecoin *etc.*) and decentralized applications (DApps), have demonstrated that block chain can be a fundamental technology[10].

A block chain is a record of a peer-to-peer transaction made by linked immutable transaction blocks and shared in a network. Every node of the network has a copy of the distribution ledger, which is a type of database which is shared, replicated, and synchronized within a network. The distribution ledger records the transaction of data among the network"[11]. As a result of Block chain technology, information ownership and integrity can be verified without relying on a single central

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Challenges in blockchain implementation

Implementing blockchain in India's healthcare system presents with possible drawbacks and limitations like scalability, interoperability and legal compliance[28,29].

However, these limitations can be exceeded by focusing on specific pilot projects with defined goals before scaling nationwide, collaborating with stakeholders to define interoperable data formats and standardized protocols for seamless integration with existing system, utilizing hybrid blockchains and improved scalability compared to public blockchains[15,30,31].

Legal issues can be addressed by engaging with policymakers to create regulations that encourage innovation while addressing privacy and security concerns, implementing robust encryption and access control mechanisms to comply with existing data protection laws.

National Health Authority (NHA) is working cohesively with Ministry of Health & Family Welfare (MoHFW) (*https://nha.gov.in*) as well as Ministry of Electronics & Information Technology to develop *Ayushman Bharat* Digital Mission (ABDM) (*https://abdm.gov.in*). The main aim ABDM is to develop the essential backbone for supporting the integrated digital health infrastructure of the country. Furthermore, it also aims at bridging the existing gap between the different stakeholders of healthcare ecosystem through building digital highways. GoI has engaged with different partners, both public as well as private to foster integration of digital platforms in healthcare with ABDM application programming interface (APIs). This partnership will help to bridge the existing gap among different stakeholders of healthcare ecosystem[23-24].

To start with Government based organization (C-DAC: Centre for development of Advanced Computing) has been tasked to work on the blockchain based app for *Ayushman Bharat*, which will not only promote the 'make in India' vision of the government but will also help to limit the cost and breach of data to foreign concerns. The cost of this project can be recovered from the various stakeholders as well as beneficiaries over a period of time, without adding an extra visible burden on them.

Overall, it can be concluded that blockchain implementation in the Indian healthcare system can be categorized into three tiers. Tier-I consists of patients and physicians, tier-II consists of healthcare organizations, and tier-III consists of the government. Blockchain EMR systems offer a number of benefits, including improved patient outcomes, greater transparency, digital payments and prevention of payment frauds, streamlining of pharmaceutical chain and a better research potential. Hence, integration of blockchain technology in the *Ayushman Bharat* scheme in India will definitely help in its better implementation and success.

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Original Article

Awareness, Attitude, and Perception toward Organ Donation in General Population of Haryana, India

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Abstract

Introduction: Organ donation is defined as an act of giving one or more organs, without compensation, for transplantation to another person the shortage of organ donation remains one of the biggest barriers globally to the organ transplantation process. The state of Haryana has in the recent past grown leaps ahead in terms of medical tourism, but according to recent data by the MOHAN Foundation, Haryana is among the poorest performers in organ donation, more specifically cadaveric organ donation. This study aimed to assess the attitudes and awareness of organ donation in the general population of Haryana and to find out the barrier to the low organ donation numbers in the state. **Materials and Methods:** This study was a community-based cross-sectional study carried out among the general population of Haryana. A questionnaire was administered to 500 randomly selected people above the age of 18 in the chosen population. The data were coded and analyzed using Microsoft Excel and SPSS software. **Results:** A large number, 40.6% (203/500), of the participants in the survey were unaware of the term "organ donation." Only 24.5% (72/293) of participants were able to correctly identify that "organ donation" was possible from both cadavers and living human beings. 98.6% (289/293) of the participants of the survey were unaware of any legislation regarding organ donation. A dismal 27.3% (80/293) of participants were willing to donate their organs after death. Of those unwilling, 60.1% (128/213) reported that they did not want to donate because of their religion. Of those willing to donate, 28.7% (23/80) reported that they would only donate to a person of the same religion. **Conclusion:** The overall levels of awareness about the organ donation and acute shortage of organ donors in Haryana as well as awareness about the prevalent low rates themselves remain low. There are various religious biases leading to negative attitude toward organ donation.

Keywords: Attitudes, awareness, organ donation, perception, transplantation

Introduction

Organ donation is defined as an act of giving one or more organs, without compensation, for transplantation to another person.[1] It is the most preferred treatment for many of end-stage organ diseases as it offers a better quality of life and has better long-term survival benefits.[2] It can help give a new lease of life to many and yet it is a complex multifactorial issue. Organ donation can widely be divided into live organ donation: when the organ is retrieved from a healthy living person, who is a near relative, and deceased organ donation: when the organ is retrieved from a person declared brain stem dead. In India, the rules for organ donation were laid down under the Transplantation of Human Organs Act, enacted in 1994. Under this act, donation of organs by deceased persons was made legal; and the transplantation between unrelated live individuals was made illegal.[3]

The shortage of organ donation remains one of the biggest barriers globally to the organ transplantation process, but India lags far behind the western world. Despite the 1.5 lakh annual accident victims in India who are diagnosed as brain stem dead, the organ donation rate is a dismal 0.86 per million population. The total number of deceased donors in India in 2020 was only 1105.[4]

The state of Haryana has in the recent past grown leaps ahead in terms of medical tourism, but according to recent data by the

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Brief Communication

Policy Suggestions for Transplantation of Organs in India: Use of Blockchain Technology to Manage Organ Donation

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Abstract

One of the most honorable acts of humanity is the donation of an organ or organs to save the lives of patients with severe diseases that necessitate organ replacement. Organs can be donated by people who are alive as well as dead. India has seen a noteworthy upsurge in organ donation following the death of the brain in recent years. There are various legal, clinical, ethical, and technical constraints implicated in the current organ donation and transplantation systems in terms of registering recipients, matching donors with recipients, removing organs, delivering organs, and transplanting organs. An end-to-end system is essential to ensure an impartial and competent organ donation and transplantation process. Use of blockchain technology in order to better manage organ donation and allocation can be one of the most efficient ways to remedy this situation. The article proposes blockchain-based solution to ensure complete decentralization, security, traceability, privacy, and trustworthiness in the donation and transplantation of organs. By performing confidentiality, safety, and privacy analyses and linking our projected resolution with the prevailing one, we evaluate the performance of the suggested solution. Adopting the above-mentioned measures will lead to the creation of block chain platforms or hyper ledger fabric frameworks, streamlining organ donation and allocation processes, which will benefit India as it moves toward the digital future in health care.

Keywords: Blockchain technology, organ donation, transplant, Transplantation of Human Organ Act

Introduction

One of the most honorable acts of humanity is the donation of an organ or organs to save the lives of patients with severe diseases that necessitate organ replacement. Organs can be donated by people who are alive and well, and organs which will not negatively affect their health, such as kidney, part of the liver, or bone marrow. Apart from this, organs can also be donated after an individual's death, whether cardiac death or brain death.

Until the enforcement of, the Transplantation of Human Organ Act (THOA) in 1994, India was the most common source of organ trade in the world. Although there has been a gradual decline with the enactment of the legislation, there is still a looming threat from the illegal underground market. There is a need for a fundamental change in the way that the Indian organ network is operated to ensure its sustainability.

In order to better manage organ donation and allocation, using blockchain technology can be one of the most efficient ways to remedy this situation.

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Figure 1 shows the procedure for the system of organ donation.

Literature Survey

Immediately finding a recipient and securely transferring the organ after it has become available is the utmost critical aspect of organ donation. It was possible to implement machine-to-machine communication in which all of these devices communicated lacking any human intervention, resulting in a faster response time.

As part of this service, users are provided with conveniences as well as transactional services. It is already being used in some

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Effect of Video Assisted Teaching (VAT) on Awareness, Knowledge and Attitude towards Organ Donation and Transplantation in a North Indian State

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Abstract

Introduction: Video-assisted teaching (VAT) is an effective means of intervention in motivating toward a particular medico-social goal. We evaluated the efficacy of a VAT intervention in caregivers of patients at a polyclinic in Haryana, India. **Objectives:** To asses efficacy of VAT in changing attitude towards organ donation. **Method:** One hundred and fifty participants each from rural and urban backgrounds were chosen randomly. A standard set of questions consisting of 9 positively framed and 11 negatively framed questions was prepared. The participants were subjected to an initial evaluation with the questionnaire, followed by VAT, after which the same questionnaire was repeated. **Results:** An increase in favorable responses was noted post-VAT, both in urban and rural populations. In particular, the favorable response to negatively framed questions improved significantly after the VAT, as seen after a Z-test for paired proportions before and after VAT. **Conclusion:** The findings of the present study suggest that VAT might be a useful adjunct in motivational sessions for organ donation, especially in removing negative prejudice toward organ donation.

Keywords: Attitude, awareness, knowledge, organ transplant, video-assisted teaching

Introduction

More than 15,000 solid organ transplants were carried out in India in the year 2023,[1] which is still below 1 donor per million population.[2] Knowledge, attitude, and practice remain the principal barrier to transplant programs across India.[3,4] Although the awareness of organ transplant as a viable treatment strategy has been on the rise, there is still an alarming lack of knowledge regarding brain death, both in urban and rural population.[4,5] For this reason, majority of organ donations in India are still directed donations toward a family member, and deceased donors are only a small fraction of all donations (1619 out of 12,259 in 2021[6]). Various socioeconomic factors, such as age, gender, religion, type of family, and income, have been found to be associated with difference in transplant awareness.[3]

The importance of effective communication in transplant awareness programs is well established.[7] The efficacy of video tutorials on attitude toward transplantation has been assessed by several studies in the past; the study by Molmenti *et al.* reported a significant gain in transplant intent (odds ratio 1.70) following video tutorials in New York city residents.[8] Similar findings were reported by Selvanathan *et al.* on high school students.[9] However, no such study is reported on the complex Indian society, where apart from education, the religious and cultural outlook also shape the attitude toward transplantation.

The objective of the present study was to assess the knowledge and attitude among urban people of Haryana and rural people of Haryana (RPH) before and after video-assisted teaching (VAT) as well as to find out the association of knowledge and attitude among urban people and RPH regarding organ donation with selected demographic variable.

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Original Article

The Association of Brixia Scoring with the Clinical Severity and Need for Invasive Ventilation in Covid-19 Pneumonia Patients - A Prospective Cross-sectional Study

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ABSTRACT

Imaging is essential for managing COVID-19 pneumonia. In resource-limited settings, chest radiography is the only practicable imaging modality. The *Brixia* radiographic scoring system, an objective method of assessing pulmonary involvement, is yet to be studied in India. (a) To study the association between the clinical severity of COVID-19 patients with their *Brixia* scores and, (b) to evaluate the utility of the score as a predictor for invasive ventilation. Peripheral rural hospital by Indian Armed Forces; Cross-sectional study. A thousand patients diagnosed with COVID-19 and hospitalized were classified as having a mild, moderate, and severe disease based on their least oxygen saturation ($SpO2 > 94$: mild, between 90-94: moderate, and <90: severe) recorded. The highest *Brixia* score was calculated for each patient. The mean *Brixia* scores of the three groups were compared. The *Brixia* score of each intubated patient was calculated as was the mean score of all intubated patients. Statistical analysis was performed on SPSS software. Seven hundred fifty-six (756) patients were classified as mild, 104 as moderate, and 140 as severe with a mean *Brixia* score of 0.12, 2.35, and 10.9, with a standard deviation of 0.66, 2.98, and 2.66, respectively. The difference in means between these groups was statistically significant ($p < 0.0001$). The median *Brixia* score of 13 for the intubated patients was significantly higher than for the non-intubated. The clinical severity of the patients and their requirement for invasive ventilation correlated well with their *Brixia* scores. The *Brixia* system may be usefully incorporated into our Medicare systems.

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KEYWORDS: *COVID-19, pneumonia, radiography, scoring system*

INTRODUCTION

The ongoing Corona Virus Infectious Disease-19 (COVID-19) pandemic has dealt a major impact on public health and consequently the health-delivery systems worldwide. The inequitable distribution of resources between and within countries has compounded the problem, and the diagnosis and management of COVID-19 patients in resource-constrained developing nations and small peripheral hospitals have been challenging.

Imaging plays an important role in the management of COVID-19 pneumonia. Though Computed Tomography (CT) has greater resolution and hence higher sensitivity in detecting pulmonary parenchymal infiltrates and is also indispensable in detecting extra-parenchymal conditions like pulmonary thromboembolism, chest radiography scores over CT in terms of portability, availability, affordability, lower radiation dose, and repeatability to assess disease severity and monitor progression.[1]

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Original Research Article

Chemical oxygen generator for emergency use in a resource poor settings: A prototype

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ABSTRACT

Regular supply of pure oxygen is the need of the hour to be prepared for the fresh waves of COVID-19. The cost of such oxygen supplies should be economical to reach out to the masses & avoid unwelcome burden on the national economy. A requirement has always been felt to identify an alternate source of oxygen generation with readily available raw materials which can ensure its cost effectiveness and last mile oxygen availability through independent generation capabilities.

Chemical generation of oxygen has been the go-to technology for portable oxygen generation. However, the cost of production and controlling the reaction has generally been uneconomical for commercial applications. The authors undertook a task to build up a prototype of chemical oxygen generator which did not require compressed gas. It on the principle of dissociation of Sodium per carbonate (SPC) into sodium carbonate and hydrogen peroxide. Hydrogen peroxide so produced interacts with catalyst MnO_2 which further decomposes to produce oxygen. A cast iron tank with a reaction chamber at the bottom is fabricated where upper tank consists of water and space for storing gases. The flow of the water is regulated to control the speed of the reaction.

The chemical mixture of sodium percarbonate and manganese dioxide is tightly packed in a cloth bag. Oxygen release valve is kept at the top of the tank which is connected via a pipe to the standard *oxygen flow meter* to check the quantity of oxygen as well as the oxygen mask for the patient.

This equipment, has a *definite potential* to be the *game changing indigenous solution for production of oxygen* in the fight against COVID especially in remote and difficult to access areas as well as areas without electricity.

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An Assessment of Preparedness of Wellness Centers under Ayushman Bharat Pradhan Mantri Jan Arogya Yojana in Haryana

Introduction

With the slogan "Healthy India, Prosperous India," Government of India aims to promote long-term sustainable development goals (SDG). In keeping with these goals and objectives, the Indian government developed a public health insurance scheme and named it-Ayushman Bharat Pradhan Mantri Jan Arogya Yojna (AB-PMJAY). This scheme paves the way to UHC by protecting the health of low-income and vulnerable populations by lowering their financial burden during catastrophic hospital episodes and increasing their access to high-quality health treatments.[1]

The Indian government revealed intentions to convert already existing primary health centres (PHCs) and sub health centers (SHCs) into 150,000 HWCs. These HWCs, which have been renamed as Ayushman Arogya Mandir (AAM), are well-placed to provide comprehensive primary healthcare (CPHC), which includes services like healthcare delivery, human resources, funding, community engagement, ownership, and governance multiple-choice questions that had been based on a variety of modules, study materials, and guidelines.

Collection of data

Standardized tools for facility assessment, such as the Service Availability and Readiness Assessment[3] or the Primary Health Care Performance Initiative tool, were used. These tools cover the various aspects of facility readiness, such as infrastructure, equipment, human resources, and service delivery. The surveyors conducted interviews with staff, observe facility operations, and reviewed documents such as registers and reports.[4,5]

The study was done in compliance after ethical committee clearance and administrative consent was obtained from state, district, and block health officials before the assessments. Before conducting interviews, participants provided verbal informed consent. The collected data were analyzed using the appropriate statistical software.

Table 1: Additional challenges faced by the scheme

Challenge area	Observations made
Staffing	Shortage of trained healthcare staff, lack of qualified healthcare professionals, including doctors, nurses, and pharmacists; which has resulted in a lack of quality care and long wait times for patients
Infrastructure	Inadequate infrastructure of HWCs, lack of basic facilities like clean drinking water, electricity, and proper sanitation facilities. Some HWCs are in remote or inaccessible areas, making it difficult for patients to access healthcare services
Technology	HWCs are required to maintain EHRs; however, many HWCs in Haryana lack the necessary technology and infrastructure, viz computers, internet connectivity, and trained operators to manage EHRs
Community participation	Community participation is essential for the success of schemes such as Ayushman Bharat, as it helps to increase awareness, reduce stigma, and promote preventive healthcare. However, community participation has been limited in some areas due to a lack of awareness and education
Supply chain management	HWCs are responsible for procuring and managing medical supplies. However, the supply chain management process is often cumbersome, leading to delays in the delivery of essential medicines and equipment

Source: Authors creation based on primary survey data. EHRs: Electronic health records, HWCs: Health and Wellness Centers

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Conflicts of interest

There are no conflicts of interest.

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Original Article

Financial Implications of Organ Transplant and Advantages of Covering it in Ayushman Bharat

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Abstract

Introduction: Organ transplantation imposes a growing financial burden on patients who require medical care, which was not accounted for in the Ayushman Bharat Pradhan Mantri Jan Arogya Yojna (AB—PMJAY) till 2024. Fewer chronic organ failure patients opted for Organ Transplant in view of financial constraints. **Methods:** A qualitative study employing focused group discussions was carried out across 14 transplant hospitals in Haryana, targeting individuals with experience in organ transplantation. Additionally, in-depth interviews were conducted to evaluate the costs and benefits of the procedure, along with the complexities and challenges associated with it. **Results:** Nearly 50% of patients had been battling their condition for over six months while awaiting a transplant. Additionally, post-organ transplant, 70% of recipients reported their quality of life as equal to or above average. Our study also found that 40% of patients received treatment in public hospitals, whereas 60% relied on borrowed finances to cover their medical expenses. **Conclusion:** It is essential for the government to introduce programs that strengthen healthcare, extend life expectancy, and enable beneficiaries to fulfill their responsibilities effectively. Recently, the organ transplant package has been incorporated into the Ayushman Bharat Scheme. With proper execution, this initiative can help individuals manage their medical expenses and alleviate financial burdens.

Keywords: Ayushman Bharat, below poverty line (bpl), financial burden, organ transplantation, healthcare accessibility, medical expenses

Introduction

In our country, the majority of patients requiring organ transplants are unable to afford the substantial expenses associated with the procedure.[1] Transplant costs are primarily borne by patients, many of whom have limited insurance coverage.[2,3] According to the National Health Accounts Report (2019–2020), Out-of-pocket-expenditure (OOPE) account for 47.1% of India's total healthcare spending, significantly surpassing the global average of 18.12%. This financial burden disproportionately affects individuals in the lowest wealth bracket, as highlighted by National Sample Survey Office data from the 2017 to 2018 rounds.

To address this, India launched the Ayushman Bharat program in 2018, aiming to provide universal health coverage to over 10.74 crore underprivileged families.[4,5] The scheme offers insurance coverage of up to ₹5 lakh per family per year for secondary and tertiary care hospitalization. Designed for portability, cashless transactions, and paperless services, Ayushman Bharat ensures seamless healthcare access through a network of impaneled hospitals. A significant enhancement is its coverage of transplant costs, directly reducing financial strain and potentially preventing families from falling into economic hardship.[5-7]

In addition, the Government of India introduced two major health initiatives to tackle the issue of high OOPE among low-income and marginalized populations:

1. Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana
2. Ayushman Bharat Digital Mission.

Despite these efforts, OOPE continues to account for nearly 70% of healthcare spending in India, leaving a large

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Original Article

Cost–benefit Analysis of Introducing Organ Transplant in the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana

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Abstract

Introduction: Solid organ transplantation causes an escalating financial burden of medical care, which was not included in the AyushmanBharat – Pradhan Mantri Jan Arogya Yojna (AB-PMJAY), leading to a lesser number of patients opting for organ transplant, especially from lower socioeconomic strata (below poverty line) population. **Methods:** A qualitative study based on focused group discussion was conducted across 14 transplant hospitals in Haryana, focusing on individuals with exposure to organ transplantation. In-depth interviews were conducted to assess the costs and benefits of organ transplantation, along with the associated challenges and intricacies. The study provided a deeper and more nuanced understanding of the implementation dynamics and cost factors that may influence the success of the transplant process. **Results:** Postorgan transplant, approximately 75% of recipients rated their quality of life as equal to or above average. **Discussion:** It is imperative for the government to launch initiatives that provide better medical care, enhance longevity, and enable recipients to fulfill their responsibilities effectively. The organ transplant package is a recent addition to the ambit of the AB scheme. If executed properly, this initiative has the potential to assist individuals in handling their healthcare costs and reduce their financial strain. **Conclusion:** The inclusion of Organ Transplantation in AyushmanBharat – Pradhan Mantri Jan Arogya Yojna (AB-PMJAY)is a landmark decision in India's quest for health equity ensuring that lifesaving treatments are not just a privilege for the affluent but a right for all citizens.

Keywords: Ayushman Bharat, below poverty line, cost–benefit analysis, organ transplantation, out-of-pocket expenditure

Introduction

The world is becoming more technologically advanced in every field, including health and medicine. People are becoming aware of different diseases and their treatments,[1] thereby increasing the longevity and life expectancy. Treatment for many nontreatable conditions has now become a realistic possibility. Solid organ transplantation has advanced over the past decade to the point at which it is now a realistic form of treatment for the irreversible failure of many vital organs. While organ transplantation is becoming increasingly successful, the cost of the procedures is still very high.[2] Solid organ transplant activities are largely driven by the private sector in the country. Majority of patients requiring transplant cannot pay Out Of Pocket Expenditure(OOPE) for long-term medical costs of transplant.[3]

Launched in 2018, Ayushman Bharat (AB) aims to provide universal health coverage. It targets over 10.74 crore underprivileged families, offering them an insurance cover of up to Rs. 5 lakh per family per year for secondary and tertiary care hospitalization. The scheme's design focuses on portability and cashless and paperless services, making healthcare accessible across a network of empaneled hospitals.[4] The integration of organ transplantation into

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Original Article

Out-of-pocket payments & catastrophic healthcare expenditure for non-communicable diseases: Results of a State-wide STEPS survey in north India

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***Background & objectives*: Non-communicable diseases have been designated as 'public health priority' globally, and they are accountable for debility, morbidity, and mortality. Thus, the present study aims to estimate the out-of-pocket payment, catastrophic healthcare expenditures and household wage loss.**

***Methods*: Field research was conducted with an adapted survey questionnaire. Data from 576 individuals from various healthcare facilities in Punjab were collected using a convenience sampling approach. The out-of-pocket and catastrophic healthcare expenditures (CHE) were estimated using descriptive statistics and indices, *viz*., headcount overshoot and mean positive overshoot. Lastly, logistic regression models were applied to identify determinants of catastrophic health expenditure.**

***Results*: The study findings showed that most respondents incurred a high out-of-pocket payment for inpatient care. Further, at any threshold level, the incidence of catastrophic health was highest among diabetic patients. The intensity of catastrophic healthcare expenditure with diabetes and hypertension exceeded the five per cent threshold bracket. Logistic regression results revealed that the odds of incurring catastrophic healthcare expenditure were highest among respondents diagnosed with diabetes, chronic obstructive pulmonary disease (COPD), and stroke.**

***Interpretation & conclusions*: The study recommends that the government health insurance scheme '*Ayushman Bharat-Mukh Mantri Sehat Bima Yojana* (AB-MMSBY)' must include outpatient and pre- and post-diagnostic costs incurred by respondents diagnosed with cardiovascular disease (CVD), COPD, and diabetes in Punjab. Therefore, respondents with diabetes mellitus (*i.e*., specifically type-1 patients) must be covered under health insurance benefits.**

Key words Catastrophic healthcare expenditure - diabetes mellitus - healthcare utilisation - India - non-communicable diseases - out-of-pocket payments

Globally, non-communicable diseases (NCDs) are considered a 'Public Health Priority', being accountable for huge mortality and morbidity[1,2]. The burden of NCDs is expected to increase globally due to rapid environmental changes, rising global populace, demographic transitions, and lifestyle modifications[3].

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TRANSPLANTATION OF ORGANS AND THE USE OF BLOCK-CHAIN TECHNOLOGY TO MANAGE ORGAN DONATION

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Abstract

There are various legal, clinical, ethical, and technical constraints implicated in the current organ donation and transplantation systems in terms of registering recipients, matching donors with recipients, removing organs, delivering organs, and transplanting organs. An end-to-end system is essential to ensure a impartial and competent organ donation and transplantation process. The paper proposes a private Ethereum blockchain-based solution to ensure complete decentralization, security, traceability, privacy, and trustworthiness in the donation and transplantation of organs. By performing confidentiality, safety, and privacy analyses and linking our projected resolution with the prevailing one, we evaluate the performance of the suggested solution.

Introduction

India has seen a noteworthy upsurge in organ donation following the death of the brain in recent years. The offering of organs is a culpable offence in the event of brain death. After cerebrum death was acknowledged, it became possible to begin kidney transplants, as well as heart, liver, and lung transplants. One of the most honorable acts of humanity is the donation of an organ or organs in order to save the lives of patients with true diseases that necessitate organ replacement. The moment the body gets infested with disease, urgent organs, such as the kidney, the lungs, the heart, the pancreas, the liver, and the digestive tract, turn out to be non-functional, thereby making life despicable, and generally leading to the demise of the individual. It is possible for anyone to become infected. Life can be saved by making an organ donation. In the 1950s, organ transplantation became a reality and saved thousands of lives, as well as improved the quality of life for individuals suffering from long-term illnesses. According to the circumstances of the giver, they may be living, dead, or, in the case of certain nations, brain-dead. Donations must be made by people who are alive and well, and organs which will not negatively distress their health are accepted, like kidneys, livers, lungs, and bone marrow. It is not necessary to have a maximum or minimum age limit to donate an organ,

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Army's Western Command Hospital Awarded 'Best Emerging National Transplant Retrieval Hospital'

CITY | Ajay Sura | TNN | Aug 3, 2024, 22:10 IST

The Command Hospital of Army's Western Command in Chandimandir received national recognition as the 'Best Emerging National Transplant Retrieval Hospital' during the 14th Indian Organ Donation Day. Since launching its organ transplant program in 2014, the hospital has performed 75 transplant procedures, setting milestones in military hospi

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wcasing excellence in organ donation and retrieval practices.