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Health Insurance Coverage in India: A Secondary Data Analysis of Socio-Economic and Regional Disparities Using NFHS-5

by

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PGDM (Hospital and Health Management) 2024-26



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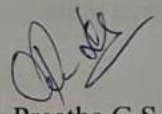
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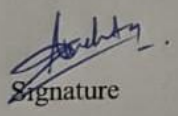
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A.2 About the Organization

International Institute of Health Management Research (IIHMR),Delhi is quality institution fully dedicated to education, research, training, and consultancy in the area of health management. It was established with the aim of strengthening healthcare system through skilled professionals, the institute has also played a significant role in developing managerial capacity in the healthcare sector of India.

IIHMR Delhi is part of the IIHMR group, which has a strong presence in health management education and research. The institution focuses mainly on creating professionals who can effectively manage healthcare organizations and contribute to improving public health systems. It offers postgraduate and doctoral programs in hospital and health management and a range of training and capacity- building activities.

The institute's interdisciplinary approach is known to combine management principles with public health.

The curriculum is designed to impart the students with theoretical knowledge and practical exposure. Focus is given to real world learning through internships, field visits, research projects and case based teaching methods. This helps students to understand the complexities of health care systems and to develop problem-solving skills.

IIHMR Delhi also actively engages in research and consultancy projects in collaboration with government bodies, international organizations, and private sector stakeholders. These projects focus on areas such as health system strengthening, health financing, healthcare

quality and policy development. Through such initiatives, the institute contributes to evidence based decision - making in the healthcare sector.

Vision of IIHMR Delhi is to be a globally recognized institution for excellence in health management education, research and training. Its mission is to develop competent professionals and generate knowledge that can improve the performance of healthcare system. The institute emphasizes values such as integrity, professionalism, innovation and commitment to public health.

In terms of infrastructure IIHMR, Delhi provides a conductive learning environment with well equipped classrooms, library resources, and access to digital learning platforms. The institute also helps students in gaining practical exposure through internships in reputed healthcare organizations, enabling them to apply their academic knowledge in real-world settings.

As a student of the International Institute of Health Management Research, Delhi, doing a dissertation is an important part of my course. This study on *"Health Insurance Coverage in India: A Secondary Data Analysis of Socio-Economic and Regional Disparities Using NFHS-5"* has been done as part of that requirement. During the program I have learned about different aspects of the healthcare system, which helped me to understand this topic better. It also helped in looking at how health insurance coverage is different across various socio-economic groups and regions in India.

A.3.1 Acknowledgement

I express my sincere thanks to my mentor Dr. Preetha G.S for her continuous guidance and support with constructive feedback throughout the course of this dissertation. She was able to identify the gaps and push for clearer thinking. It made the process more rigorous and challenging at times but ultimately more meaningful.

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Working on secondary data, especially a big data set like NFHS-5 was not that easy. There were phases of confusion especially while understanding variables and analysis and I am thankful for the support received during those stages.

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Abbreviations

NFHS-5 – National Family Health Survey Round 5

IIPS – International Institute for Population Sciences

OOP – Out-of-Pocket Expenditure

PMJAY – Pradhan Mantri Jan Arogya Yojana

UHC – Universal Health Coverage

WHO – World Health Organization

MoHFW – Ministry of Health and Family Welfare

GOI – Government of India

SES – Socio-Economic Status

HIC – Health Insurance Coverage

OOPE – Out-of-Pocket Expenditure

CHE – Catastrophic Health Expenditure

NSSO – National Sample Survey Office

SPSS – Statistical Package for the Social Sciences

IR – Individual Recode

HH – Household

SDG – Sustainable Development Goals

Chapter 1: Introduction

1.1 Background of the Study

Healthcare financing in India has been a perennial issue of concern for policy makers, researchers and public health practitioners since decades. While the country has achieved tangible progress in expanding healthcare infrastructure and launching large-scale welfare programs, the financial burden of accessing healthcare continues to affect a large propor-tion of the population. Health care costs are not routine for many households, particularly those with low and volatile incomes. These can be disruptive events that change patterns of saving and borrowing, even the long-term economic stability.

The healthcare system of India is described by the continued dependence on Out of Pocket Expenditure (OOPE). This means that in many cases the people have to pay for the healthcare services when they use them, instead of prepaid financial protection mechanisms such as insurances. The cost of treatment add up quickly [1,2] which can be especially pro-nounced during hospitalisation or treatment of chronic illnesses. There is something about this structure that is inherently unfair. A well-off family in the city might be able to absorb the shock of unexpected medical costs without major disruption. But a low-income rural family may delay treatment, borrow money, or reduce spending on such basic needs as food and education. So, in this sense, healthcare costs are not just medical issues but also social and economic issues. Health insurance was one way to deal with this financial vulnerabil-ity.

In general , health insurance is designed to pool risk among more people to disperse out the cost of health care services. Instead of people paying the total cost of illness at the time of illness, the financial cost is shared collectively through contributions or government fund-ing [3]. The core idea seems simple. But creating an equitable and accessible insurance systems in a country that is socially and economically diverse as India is far more complex.

The healthcare insurance in India was traditionally limited to the organised sector. Employee's State Insurance Scheme (ESIS) and Central Government Health Scheme (CGHS) were mainly for the salaried employees and government employees [4]. A large part of the population, especially workers in informal jobs, was still excluded from formal financial protection systems.

Over the last two decades there has been a gradual move towards wider coverage. Publicly funded health insurance schemes were introduced to improve access to health care for economically vulnerable groups. Schemes such as Rashtriya swasthya bima yojana (RSBY) sought to cover hospitalization costs for below poverty line households whereas newer schemes like Pradhan Mantri Jan Arogya Yojana (PMJAY) aimed at providing financial protection on a much larger scale [5]. These initiatives are often discussed in the context of Universal Health Coverage (UHC), a notion promoted by the World Health Organization (WHO). UHC stresses that people should be able to access the health services they require without being forced into financial difficulty [6]. India's commitment to achieve Sustainable Development Goals (SDG 3) on health and well-being in particular, has further strengthened policy emphasis on insurance expansion and healthcare accessibility.

However, even with these attempts, the Indian healthcare financing still faces tremendous challenges. To be sure, insurance coverage has grown over time, but enrollment alone does not equal meaningful protection. Research has shown that insured households may also incur substantial OOPE because of exclusions, co-payments, drugs bought outside hospitals, or services that are not covered by insurance benefit packages [7,8]. There are also differences in insurance coverage by socio-economic and demographic groups. Income, education, occupation, gender and place of residence are the factors that influence awareness, enrolment and utilisation of insurance schemes. Urban populations tend to have more access to healthcare facilities and private insurance options, while rural populations may have

greater dependence on government-sponsored programs [9]. At the same time, the relationship between SES and insurance coverage is not always straightforward. Rich households might have private insurance or insurance through the employer and publicly funded schemes are more likely to target poorer households. The distribution is somewhat more involved. Hence, higher insurance coverage in some lower income groups does not imply lower inequality overall. Instead, it may be due to the selective use of welfare programs. But education is a big part of it too. Higher education level is associated with better knowledge about insurance procedures, eligibility conditions and rights to healthcare [10]. But government programs for automatic or household-based enrolment could help to close some gaps in education. So yes, awareness is important, but sometimes policy design can overcome barriers to information. Regional variation is another key aspect of the Indian health insurance landscape. States vary widely in their infrastructure, governance capacity, availability of health care workforce and efficiency of implementation in their health systems. In other states, insurance coverage and healthcare utilisation have increased more, but still face administrative barriers and limited access to healthcare [11]. Such differences mean that insurance coverage in India cannot be looked at at the national level alone. Ag-gregate statistics will obscure large regional inequalities. For example, a state may have fairly high enrolment rates but still have problems with quality of healthcare or utilisation of services. But in states with lower enrolment, primary care systems may be stronger and thus less reliant on hospitalisation-based insurance models. The International Institute for Population Sciences (IIPS) National Family Health Survey Round 5 (NFHS-5) provides an opportunity to examine these patterns in greater detail. The NFHS-5 is one of the largest nationally representative household surveys in India, and it contains extensive information on demographics, socioeconomic conditions and health care indicators [12].

NFHS-5 is not specifically for the purpose of studying health insurance but it has variables that enable researchers to explore HIC across population groups. The dataset's national coverage and large sample size are particularly helpful for identifying broad trends and disparities.

However, there are some limitations in the use of secondary data; Large data sets provide scale and statistical power but may not reflect lived experiences, motivations or barriers to healthcare decisions. For example, the data might tell us if someone has insurance but it won't necessarily tell us if they understand their benefits or are able to use them well." There is a gap between numbers and experience.

However, secondary data analysis remains very important in public health research, especially in the study of population level trends. If gathering primary data is time consuming or resource intensive, nationally representative datasets are a reliable and cost-effective alternative.

The present study is to analyse health insurance coverage in India by using NFHS-5 data with special emphasis on socio-economic and regional disparity. The study tries to go beyond the number and understand the pattern of coverage of insurance by different population groups and what the patterns tell us about financial protection and equality of healthcare in India.

1.2 Rationale for the Study

Health Insurance has been increasingly coming in the main-stream policy discus-sion in India over the past several years. The government advertising, health reform and public wel-fare campaigns, often highlight the importance of expanding coverage and lowering the financial burden. This creates a feeling at one level that India is moving towards com-prehensive financial protection in health care. But the more you start to scratch the surface of the issue, the more complex the picture seems. A major concern is that higher enrolment in insurance schemes does not necessarily translate into effective access to healthcare. Even if you have insurance, you may still face high costs for healthcare, problems with proce-dures and/or limited availability of services.

Hence, insurance coverage as a statistical indicator might not reflect the actual financial protection.

Ongoing OOPE remains a dominant theme in the literature despite the expansion of insur-ance schemes [13,14]. This suggests that problems in financing health care among the in-sured still exist. Formal coverage mechanisms frequently do not include medicines, outpa-tient consultations, transportation costs and diagnostic investigations.

The other problem is also unevenness of coverage distribution. Access to insurance varies greatly by SES, education level, occupation, and region of residence. Some groups are more capable of understanding, accessing and making use of insurance schemes, while oth-ers remain excluded either structurally or administratively [15].

Differences between regions make the situation more complex. States differ widely in healthcare infrastructure, governance efficiency, awareness campaigns and implementation capacity. Therefore, national averages can mask important regional differences.

Most of the existing literature is on specific insurance schemes or patterns of healthcare ex-penditure. Fewer studies comparatively attempt to explore wider socio-economic and re-

gional disparities in HIC using recent nationally representative datasets such as NFHS-5. The present study therefore, attempts to address this gap by analyzing NFHS-5 data to understand how health insurance coverage varies across socio-economic and regional groups in India. The findings may contribute to discussions regarding healthcare equity, financial protection, and the effectiveness of insurance expansion strategies.

1.3 Research Question

Using the PICOT framework:

- **Population (P):**Persons in the dataset of the National Family Health Survey-5 (NFHS-5) in India.
- **Intervention/Exposure (I):** Socio-economic and demographic factors such as education level, wealth status, place of residence and regional location.
- **Outcome (O):** Health Insurance Coverage (HIC) in population.

Research Question

How does Health Insurance Coverage vary across socio-economic and regional groups in India according to NFHS-5 data?

1.4 Objectives of the Study

Primary Objective

- To evaluate the status of Health Insurance Coverage in India using NFHS-5 data.

Secondary Objectives

- To explore the association between HIC and socio-economic factors e.g. wealth and education.
- To compare HIC among urban and rural population.
- To analyze regional variations in HIC across different states of India.
- To identify patterns and disparities in insurance coverage among different population groups.

Chapter 2: Literature Review

2.1 Concept of Health Insurance and Healthcare Financing

Health insurance is simply a way of spreading the costs of health care so that people do not have to meet the whole cost when they become ill. The idea behind health insurance is pretty clear-cut. People pay money in, either directly in premiums or indirectly in taxes, and the money is then used to pay for medical treatment when it is needed. But in practice health insurance schemes are rarely simple. Their success depends on the way they are organized, who is covered, what is covered and whether health services are actually available. Health insurance has been developed all over the world as a means of reducing the financial risks of illness. In the past, many countries relied initially on out-of-pocket payments where households paid for treatment from their own The basic idea is quite simple. A fund of money is built up, contributed to by the people either directly in the form of premiums or indirectly in the form of taxation, and then used to pay medical costs when they occur. But health insurance systems are rarely simple in practice.

Their effectiveness depends on their design, the people involved, the services they cover and the actual availability of health care facilities. Sickness insurance has been developed around the world to reduce the financial risk of illness. Historically, many countries have first adopted direct payment systems in which treatment is paid by the household from its own income. Policy makers eventually realized that illness could have serious economic consequences, especially for the poorer segments of the population. Therefore, different forms of risk pooling and prepayment systems emerged to distribute the costs of healthcare more equitably [1].

The World Health Organization (WHO) sees financial protection as a core element of Uni-

versal Health Coverage (UHC). According to WHO, people should have access to essential healthcare services without suffering financial hardship [2]. This definition sounds idealistic at first glance but it does point to a real problem in healthcare systems around the world. Access to treatment becomes deeply unequal when healthcare depends largely on a per-son's ability to pay. Different countries have adopted different models of health insurance. Some countries have tax funded universal healthcare systems while others rely on social insurance or private insurance models. For example, Consequently, various risk-pooling and prepayment schemes were developed to share the costs of health care more equitably [1].

According to the World Health Organization (WHO), financial protection is a key element of Universal health coverage (UHC). WHO recommends that people should have access to essential health care services without financial hardship [2]. This definition sounds idealistic on the face of it, but it highlights the real problem in the healthcare systems around the world. If healthcare is based on the ability to pay, then access to treatment is very inequitable. The models of health insurance were selected differently in different countries. Some nations have universal, tax-based health care systems, while others rely on social insurance or private insurance. For instance, Countries like the United Kingdom primarily finance healthcare through taxation, whereas systems in countries such as the United States are more dependent on employment-linked and private insurance mechanisms [3].

Low and middle-income countries like India usually have mixed systems in which public health care services, private providers and multiple insurance schemes operate simultaneously. Most insurance systems are based on the principle of risk pooling. Healthy people put resources in that can later be used to help people who get sick. This, in theory, reduces

uncertainty and protects households against catastrophic expenditure. But risk pooling is only effective if it is widespread and administratively efficient. Fragmented financing sys-tems, in which large sections of the population are uninsured, produce inequality in access and outcomes [4].Healthcare financing is a broader concept than India like many low and middle income countries has mixed systems with public healthcare services, private provid-ers and multiple insurance schemes operating simultaneously.

Most insurance systems are based on the principle of risk pooling. It's healthy people put-ting resources in that can help people that get sick. This theoretically reduces uncertainty and protects households from catastrophic spending. But risk pooling is effective only with broad participation and efficient administration. When significant segments of the popula-tion are uninsured, fragmented financing arrangements develop, resulting in unequal access and outcomes [4].

Healthcare financing is a broader concept than insurance alone. In the context of health care, it refers to the processes of raising, distributing, and spending funds. Common sources include taxation, insurance contributions, donor funding and direct household payments; In many developed health care systems prepayment mechanisms are prevalent, thus reducing the need for direct payments at the point of sickness. However, in countries with weaker public financing systems Out-of-Pocket Expenditure (OOPE) is often the source [5].

India is one such example where OOPE has been high historically. Despite the various pol-icy initiatives, a large share of healthcare expenditure is still met directly by households at the point of service utilization [6]. This creates a situation where medical treatment can quickly take on a financially destabilizing dimension, especially for economically fragile

families. The problem becomes more serious in cases of hospitalization, surgery, chronic disease management, or emergency care. A household may delay treatment, borrow money, or sell assets to pay for healthcare. In rural areas, people sometimes resort to informal borrowing from relatives or local lenders. These coping mechanisms are rarely documented in detail in national statistics, but they influence daily healthcare decisions for many families. Xu et al. examined patterns of health care expenditure globally and found that millions of households experience Catastrophic Health Expenditure (CHE) every year due to direct medical spending [7].

CHE generally refers to healthcare costs that exceed a certain proportion of household income or consumption expenditure, forcing families to sacrifice other essential needs. Similarly, Wagstaff and Doorslaer argued that excessive OOPE directly leads to impoverish-ment in many low- and middle-income countries [8]. Their work emphasized that healthcare costs do In rural areas people sometimes resort to informal borrowing from rela-tives or local lenders. Such coping mechanisms rarely show up in national statistics in a detailed way, but they shape everyday healthcare decisions for many families.

Xu et al. analysed the pattern of healthcare expenditure worldwide and estimated that millions of households are facing the burden of Catastrophic Health Expenditure (CHE) per year due to direct medical expenditure [7]. CHE is generally defined as when health care costs are more than a predetermined percentage of household income or consumption ex-penditure, which results in the deprivation of other basic needs of the household.

Likewise, Wagstaff and Doorslaer argued that high OOPE directly leads to impoverishment in many low- and middle-income countries [8]. Their work showed that healthcare costs do

not affect all populations equally. Poor households are more vulnerable as even relatively small medical expenses may account for a significant share of total household income. Healthcare financing is highly unequal across socio-economic groups in the Indian context. Balarajan et al. found that inequality in terms of healthcare access is not only dependent on income differences but also on structural issues such as geography, education, caste and distribution of healthcare infrastructure [9]. Hence, healthcare financing cannot be understood purely in economic terms. Social and regional inequalities play a major role in deciding who gets timely healthcare and who does not. Another important issue is the dominance of the private healthcare sector in India. Though public healthcare services are available across the country, a large number of households prefer or are dependent on private providers because of issues related to availability, waiting time, perceived

Healthcare financing in the Indian context is highly unequal across socio-economic groups. Balarajan et al. reported that inequality in access to healthcare is not only due to income disparity but also due to structural factors such as geography, education, caste and distribution of healthcare infrastructure [9]. Thus, the phenomenon of healthcare financing cannot be explained only in economic terms. Social and regional inequalities have a strong impact on timely healthcare and those who don't receive it. Another important issue is the dominance of the private health sector in India. There are public health services available throughout the country, but many households prefer or depend on private providers due to concerns related to availability, waiting time, perceived quality, or shortages in government facilities[10].

According to National Health Accounts data, medicines constitute a large part of Out-of-Pocket Expenditure (OOPE) in India [11]. Even when the costs of hospitalization are paid for, households still often incur out of pocket spending on medicines, diagnostics and out-

patient care. Therefore, having insurance cover isn't always a guarantee of full financial protection.

In order to address this issue, different forms of health insurance have been introduced in India such as social insurance, private insurance and government funded schemes [12]. Initial insurance schemes such as Employees' State Insurance Scheme (ESIS) and Central Government Health Scheme (CGHS) were primarily meant for government employees and formal sector workers [13].

However, a significant part of India's workforce is in the informal sector and was outside organized insurance coverage. In subsequent years the government introduced more comprehensive schemes like Rashtriya Swasthya Bima Yojana (RSBY) and later Pradhan Mantri Jan Arogya Yojana (PMJAY) for better access to healthcare among economically vulnerable population [14,15]. These programs led to a substantial rise in the number of people enrolled in insurance, but problems remain in terms of awareness, utilization and access to health care.

Studies have shown that insurance does not completely eliminate disparities in healthcare. However, access to healthcare and financial protection still varies by poverty, education, place of residence and availability of healthcare facilities [16]. Thus, information on the distribution of Health Insurance Coverage (HIC) across socio-economic and regional groups is important in assessing progress towards Universal Health Coverage (UHC).

2.2 Healthcare Financing in India

India has a mixed system of health care financing which includes public expenditure, pri-

vate expenditure, insurance-based financing and direct household payments. The financing mechanisms are still uneven and often inadequate for large sections of the population, despite the substantial growth of the Indian healthcare system over the past few decades.

The public expenditure on health care in India has been historically lower than many developed and even some developing countries [17]. In recent years, government healthcare spending has been growing steadily, but households still pay a large part of the healthcare bill directly. This reliance on Out-of-Pocket Expenditure (OOPE) continues to be among the most talked-about issues in the Indian public health literature.

Out-of-pocket expenditure accounts for a large share of the total health expenditure in India according to the National Health Accounts estimates [18]. In practice, this means that families often have to pay for consultations, medicines, diagnostic tests and hospitalization expenses from their own pocket, using their own income or savings. These costs can be a financial burden for households with weaker economies.

Shahrawat and Rao's research found that high OOPE is a major driver of Catastrophic Health Expenditure (CHE) especially in low-income populations [19]. In many cases, households meet medical expenses through borrowing money, selling assets and cutting expenditure on food and education. These coping mechanisms may reduce healthcare costs in the short term but may lead to greater financial insecurity in the long term.

Another important aspect of healthcare financing in India is the dominance of the private healthcare sector. Private hospitals and clinics account for a large share of outpatient and inpatient care use [20]. Private facilities are preferred by most households because of shorter waiting times, perceived better quality and more availability of services. But private health care services are often costly and add a huge burden on OOPE.

Public health services are widely distributed, but some areas still have problems with infra-structure, lack of personnel and quality of services [21]. Therefore, households might prefer private treatment even at the expense of incurring further financial burden. The Govern-ment of India has launched several health insurance schemes from time to time to alleviate financial hardship. Early programmes such as ESIS and CGHS focused primarily on formal sector workers and government employees[22]. Later, insurance schemes like Rashtriya Swasthya Bima Yojana (RSBY) and Pradhan Mantri Jan Arogya Yojana (PMJAY) were introduced to strengthen financial protection to the economically vulnerable sections.

However, despite these efforts, differences in healthcare financing among socio-economic and regional groups still exist. Wealthier households generally have better access to private insurance access and quality health care services while poorer households continue to be more dependent on publicly funded schemes and government facilities [23].

Researchers have also observed that the challenges of financing healthcare cannot be fully addressed by expanding insurance alone. Prinja et al. found that insured households may still have to pay a significant amount for medicines, diagnostics and outpatient services that are not adequately covered by insurance schemes [24]. Hence, health insurance coverage is not only about enrollment, but also about the scope of coverage and accessibility of healthcare services.

2.3 Evolution of Health Insurance in India

Health insurance in India has evolved slowly and in close correlation with the evolution of healthcare policies and economic structure of the country. In the early years of independ-

ence, health care was predominantly financed by government facilities and out-of-pocket expenditures. The coverage was small and was available mainly for the government employees and the workers in the organized sector.

One of the first formal insurance schemes in India was the Employees' State Insurance Scheme (ESIS), which was introduced in 1952 [25]. The scheme was intended to provide medical and social security benefits to the industrial workers and their families. At the same time, the Central Government Health Scheme (CGHS) was launched for government employees [26]. These schemes were important beginnings, but they reached only a small proportion of the population.

A major problem with early insurance schemes was that they depended on formal employment arrangements. As a large share of India's workforce is employed in informal occupations such as agriculture, daily wage labor and self-employment, a significant population remained outside organised financial protection systems [27].

Health care reforms and economic liberalization in the 1990s and the first decade of the 2000s increased the role of private health care providers and private insurance companies [28]. The Insurance Regulatory and Development Authority (IRDA) Act, 1999 enabled the entry of private sector into insurance markets which resulted in the development of com-mercial health insurance products [29].

However, private insurance was of great benefit to middle and higher income populations who could afford to pay premiums. Poorer households still relied on direct payments or government healthcare facilities.

Acknowledging these inequalities, the Government of India introduced publicly funded in-

surance schemes targeted towards economically weaker populations. Rashtriya Swasthya Bima Yojana (RSBY) launched in 2008 was one of the first major national programmes designed specifically for Below Poverty Line (BPL) households [30]. The scheme was designed to cut down the expenditure of hospitalization through cashless insurance cover.

During this period, a few state governments also initiated their own insurance schemes. Some schemes such as Aarogyasri, Andhra Pradesh, and Kalaignar Insurance Scheme, Tamil Nadu attempted to increase access to tertiary healthcare services among low-income populations [31,32]. These programs indicated an increasing policy concern for healthcare financing and financial protection.

The launch of Ayushman Bharat in 2018, especially through Pradhan Mantri Jan Arogya Yojana (PMJAY) [33] marked a major shift. PMJAY sought to extend secondary and tertiary healthcare to millions of economically vulnerable families across India. The scheme has broadened the public debate on health insurance and Universal Health Coverage (UHC) to a great extent.

But there is still debate among researchers as to whether increasing insurance coverage can reduce disparities in healthcare. Although some studies indicate that enrollment has increased dramatically, others contend that utilization and financial protection are still uneven across regions and population groups [34].

2.4 Universal Health Coverage and Health Insurance

The past two decades have seen universal health coverage (UHC) become a central goal of global health policy. UHC is defined by the World Health Organization as all individuals

receiving the health services they need without financial hardship [35]. There are three main dimensions to the concept: population coverage, service coverage and financial pro-tection.

Health insurance is often seen as a vital tool to achieve UHC, as it reduces dependence on direct household payments during illness. But UHC is much more than signing up for insurance. Good healthcare infrastructure, access, workforce availability and quality of services are equally important.

The discussions around UHC in India gained momentum following the recommendations of the High-Level Expert Group on Universal Health Coverage established by the Planning Commission [36]. The group stressed the need for equitable health financing and robust public health systems.

Researchers like Sengupta and Nundy argued that healthcare access in India remains unequal despite policy reforms [37]. Healthcare utilization patterns are still driven by socioeconomic status, geography, gender and caste.

Several studies have linked expansion of insurance schemes with progress toward UHC . Public-funded health insurance increased hospitalization use in vulnerable populations, Karan et al. found [38]. But the study also revealed that insurance alone could not fully eliminate OOPE.

Another problem is the focus on hospitalization-based insurance. Critics argue that many insurance schemes cover inpatient services, but outpatient care, preventive services and medicines are poorly covered [39]. Financial protection may be incomplete as outpatient spending accounts for a large share of household health spending.

In addition, UHC should be achieved through the balanced regional development of health care. States with less robust healthcare infrastructure may find it difficult to provide effective services even as enrollment in insurance improves [40]. Therefore, investments in health care delivery systems should complement health care financing reforms.

2.5 Socio-Economic Determinants of Health Insurance Coverage

Socio-economic factors greatly influence health insurance coverage (HIC) in India. Wealth, education, occupation, social class and employment status are factors that influence awareness, enrolment and utilization of insurance schemes.

Wealth is still one of the most important determinants of insurance access. According to studies by Devadasan et al. Higher income households are more likely to have private insurance and avail private health care services [41]. Poorer households, on the other hand, are often reliant on publicly funded schemes or are left uninsured.

In addition, in some areas, publicly financed insurance programs have expanded coverage among lower income groups. Rathi et al. reported relatively higher participation of economically weaker populations in government sponsored schemes [42]. But there was still variation in coverage quality and use of services.

Education status is also a major determinant of healthcare-related decision-making. Yellaiah stated that people with higher educational attainment are more aware of insurance procedures, healthcare entitlements, and scheme benefits [43]. Better education may also lead to more trust in formal health care systems.

Occupation status also affects access to insurance. Formal sector workers usually have the advantage of insurance products attached to their employment, whereas informal workers usually have no organized financial protection [44]. This presents major coverage challenges as the Indian workforce is largely informal.

Social inequality also determines access to insurance. Bonu et al. found that marginalized communities like Scheduled Castes (SCs) and Scheduled Tribes (STs) have lower healthcare utilization even though they are covered under some schemes [45]. Contributing factors are geographic isolation, less awareness, and administrative barriers.

Gender differences are also present in the patterns of insurance coverage. Patel et al. found that men were more likely to have employment-linked insurance due to their higher representation in formal employment [46]. Women can be more dependent on coverage mechanisms based on family or government support.

Overall, socio-economic inequalities continue to impact access to health care and financial protection in India. Comprehending these inequalities is important for evaluating the effectiveness of insurance expansion policies.

2.6 Rural–Urban Disparities in Health Insurance Coverage

Rural-urban disparity continues to be a major issue in Indian healthcare systems. Urban populations usually have better health care infrastructure, availability of hospitals and awareness about insurance program [47].

Rao et al. [48] found in their studies that urban households have higher likelihood of access to private insurance and organized health care facilities. Urban residents tend to have higher income levels, more opportunities for formal employment and better access to information

about insurance schemes.

In contrast, rural populations tend to rely on government health care services and publicly financed insurance schemes. [49] Keshri and Bhattacharyya find significant increase in rural enrolment under government sponsored insurance schemes in a number of states. But in fact health care use was still limited by infrastructure. Availability of empanelled health care facilities is a big challenge in rural healthcare. Garg and Karan found that even if households had insurance cards, they still had difficulty accessing covered services because of transportation barriers or the absence of hospitals nearby[50].

Access to healthcare in rural areas is also affected by a lack of healthcare workers. Public facilities in these areas often lack doctors, specialists, medications and diagnostic ser-vices [51]. "This could send families to private providers, even if it's more expensive. Migration also alters the insurance pattern between rural and urban. Migrant workers often face difficulties in accessing healthcare services outside their registration places [52]. Coverage continuity may be interrupted by transferability restrictions and administrative barriers. Results suggest that insurance coverage alone cannot solve health care inequality. It has to be supported by adequate health-care infrastructure and services available.

2.7 Regional Disparities in Health Insurance Coverage

One of the most conspicuous features of the Indian health care system is still regional disparities. Over the years, national health insurance coverage has expanded, but there are still big differences between states and regions in terms of health care services and insurance benefits. The country's unequal access to health care is a consequence of disparities in economic development, literacy rates, health care infrastructure, governance capacity, and pub-

lic health spending.

Compared to some states in the north and east [53], the southern states like Kerala and Tamil Nadu generally perform better on healthcare indicators. Increased literacy, more ro-bust public healthcare systems, and comparatively higher healthcare awareness contributed to better healthcare utilization in these regions. For instance, Kerala has traditionally shown better healthcare indicators due to consistent investments in primary health care, education and social welfare programs[54].

Tamil Nadu has also been well discussed in the public health literature due to its relatively organized health care delivery system and effective implementation of welfare based health programs [55]. Researchers have argued that strong administrative capacity and better healthcare infrastructure increase the effectiveness of insurance schemes and healthcare uti-lization.

On the other hand, some of the states in central and northern India are still wrestling with the issues of lack of healthcare infrastructure, low healthcare expenditure and poor access to services [56]. In these areas, rural populations may experience difficulty in gaining ac-cess to hospitals, specialists, diagnostic facilities and insured health care services. There-fore, even insured households may encounter barriers to health care use.

State-level policy differences further contribute to regional inequality. Some states have their own insurance schemes apart from national programs while others depend mainly on centrally sponsored initiatives[57]. For instance, the Aarogyasri scheme in Andhra Pradesh was acknowledged for enhancing access to tertiary healthcare among economically vulner-

able groups [58]. Similarly, the Chief Minister's Comprehensive Health Insurance Scheme of Tamil Nadu intended to increase financial protection through broader healthcare coverage [59].

These schemes, however, have worked very differently in different states. Researchers have pointed out that implementation quality, hospital empanelment, awareness generation, and administrative efficiency strongly influence the success of health insurance programs [60]. States with better governance mechanisms tend to have relatively higher levels of utiliza-tion and better service delivery outcomes.

Insurance coverage also varies by state, reflecting economic disparities. States with higher economic status generally have better healthcare infrastructure and higher expenditure on healthcare. States with lower economic status may face challenges in healthcare investment [61]. Such differences result in unequal opportunities of health care access and financial protection.

There is also regional disparity in the level of awareness of health insurance. Research has shown that people from economically developed and urbanized states are more aware of insurance schemes and healthcare entitlements [62]. Even when schemes are available, limited awareness and low literacy levels in less developed regions may impact on enrollment and utilization.

Another important issue is the availability of empanelled hospitals under insurance schemes. Several researchers observed that hospital distribution remains uneven across India, with better concentration of healthcare facilities in urban and economically developed

regions [63]. Thus, insurance coverage may exist in theory, but in practice insured healthcare services are not easily accessible for beneficiaries living in remote or underde-veloped areas.

Health care seeking behavior across regions may also be influenced by cultural and social factors. Traditional beliefs' variations, gender norms, awareness about healthcare, and trust in public healthcare institutions can affect healthcare service utilization and insurance bene-fits[64].

Studies based on the NFHS data have consistently documented large interstate variations in Health Insurance Coverage (HIC) [65]. "Some states have registered relatively high cover-age levels due to active execution of government sponsored schemes while others continue to exhibit low enrollment and utilization levels.

These findings indicate that regional inequality remains a critical issue in Indian healthcare financing. Enhanced national coverage of insurance may mask significant variation be-tween states and regions. Therefore, the importance of examining regional disparities in the context of NFHS-5 data is to know whether healthcare financing reforms are percolating to populations on an equitable basis in India.

2.8 Research Gaps in Existing Literature

There is a fair amount of literature on health insurance and healthcare financing in India, however, there are few gaps in existing research . Existing studies have provided valuable insights into healthcare expenditure, insurance enrollment, and utilization patterns, but many aspects remain unexplored , especially in the context of recent changes in health care policy and expansion of government-sponsored insurance programs.

One important limitation of the previous literature is that many studies are very narrowly focused. Researchers have considered Out-of-Pocket Expenditure (OOPE), expenditure or utilization of specific health insurance schemes individually [66]. While these studies are important, fewer studies have looked comprehensively at Health Insurance Coverage (HIC) across multiple socio-economic and regional determinants at the same time.

Another gap is the use of old data sets. Several previous studies [67] used NFHS-3, NFHS-4 or district level data before the major healthcare reforms like Ayushman Bharat and PMJAY. With the expansion of health insurance in India gaining pace in recent years, it becomes necessary to have updated evidence using NFHS-5 data to understand current patterns of coverage and inequality.In addition, many of the current studies have primarily focused on enrollment figures and have not sufficiently taken into account disparities along the lines of wealth groups, education levels, caste categories, religion, gender and place of residence simultaneously in a single analytical framework [68].

The combined effect of socio-economic and demographic factors is often not sufficiently examined as a result.What has received comparatively less integrated analysis in national level studies is regional disparity. Some research focuses on individual schemes or states, rather than interstate comparisons [69].

State-level studies have detailed local knowledge, but may not capture national differences in insurance coverage and healthcare inequality.Another major limitation is the difference between having insurance and having effective access to healthcare. Some researchers have argued that enrollment by itself does not ensure access to health care services or financial protection[70].

However, the beneficiaries still face barriers like unavailability of empanelled hospital in close proximity, lack of awareness regarding benefits, transportation issues, delayed settlement of claims and outpatient services.Many insurance studies also focus on financial protection through hospitalization, with less attention to outpatient expenditure and medicine costs [71].

Since outpatient care accounts for a significant proportion of household health expenditure in India, measuring hospitalization coverage alone may not provide a comprehensive measure of financial protection.

Moreover, there are relatively few studies on inequalities in HIC using secondary analysis of nationally representative NFHS-5 data. NFHS-5 provides large scale population based information on insurance coverage and demographic, socio-economic and regional indicators, thus making it an important dataset to understand disparities at the national level.

Another gap is methodological differences between the studies. Some studies are based on small sample surveys, scheme-specific evaluations or regional data, which may affect the generalizability [72]. Therefore, there is a need for nationally representative analysis that can identify wider patterns across India.The present study attempts to fill some of these gaps through a secondary data analysis using NFHS-5 data. This is different from many earlier studies, which have concentrated on either expenditure or individual schemes alone. This study looks at Health Insurance Coverage (HIC) across socio-economic and regional groups simultaneously.

The study also aims to provide updated evidence on the disparities in insurance coverage using recent national level dataThe study intends to contribute to the existing literature on healthcare inequality and financial inequality by analyzing the variables of gender, age, ed-

ucation, wealth index, religion, caste, place of residence and region. These findings can help us understand if more people are getting health insurance in a way. The findings can help us see if health insurance is really available, to all groups of people.

Chapter 3: Methodology

3.1 Study Design

The present study employed a quantitative cross-sectional study design with secondary data analysis. The study analyses the data from the National Family Health Survey (NFHS-5) . NFHS-5 being a nationally representative dataset with a wealth of information on demographic, socio-economic and healthcare related indicators across India, was considered appropriate for the secondary data approach. Secondary data use also allows for analysis of a very large sample population within limited time and resource constrains.

The present study has a descriptive and analytical approach to analyze the pattern of Health In-surance Coverage (HIC) across various socio-economic and regional groups.

3.2 Study Setting

The study is based on the nationally representative data collected from all states and union territories of India through NFHS-5 conducted during 2019–2021.

NFHS-5 was carried out by the International Institute for Population Sciences (IIPS) under the stewardship of the Ministry of Health and Family Welfare. The survey collected data from urban and rural households through standardized survey instruments.

The study relied on secondary data, so there was no direct involvement in the field setting and no primary interaction with the participants.

3.3 Study Population

The study population includes individuals included in the NFHS-5 data set with available data on health insurance coverage.

Inclusion Criteria

- Individuals covered under NFHS-5 dataset.

- Records with complete information related to health insurance coverage.
- Individuals with available socio-economic and demographic data.

Exclusion Criteria

- Records with missing or incomplete insurance information.
- Incomplete socio-economic or demographic variables relevant to analysis.
- Any duplicate records.

3.4 Data Source

Secondary data from NFHS-5 were used in this study. NFHS-5 is a large-scale, multi-round survey that provides data on population, health, nutrition and health care indicators across India.

The dataset was obtained from the official DHS/NFHS data repository following permission for academic use.

The Individual Recode (IR) file was used for analysis because it contains individual-level demographic and health-related variables relevant to the objectives of the study.

3.5 Sample Size

Since the study is based on secondary data analysis, no independent sample size calculation was performed.

The analysis included all eligible records available in the selected NFHS-5 dataset after applying inclusion and exclusion criteria. The final sample included approximately 724,115 individuals.

The large sample size increases the representativeness and statistical reliability of the findings.

3.6 Sampling Technique

The NFHS-5 used a two-stage stratified sampling design to select households.

In rural areas, the first stage was to select villages using probability proportional to size sampling and the second stage was to randomly select households. In the urban areas, the Census Enumeration Blocks (CEBs) were selected at the first stage and then systematic sampling was used to select households.

The sampling framework of NFHS-5 was followed in the present study.

3.7 Study Variables

Dependent Variable

- Health Insurance Coverage (HIC)

Independent Variables

- Place of residence (urban/rural)
- Educational status
- Wealth index

- **Search Strategy for Literature Review**

Relevant literature was searched using electronic databases including:

- PubMed
- Google Scholar
- WHO Library
- NFHS Official Reports

Search Keywords

The following search terms were used individually and in combination:

- “Health insurance coverage in India”

- “NFHS-5 health insurance”
- “Socio-economic disparities in health insurance”
- “Regional variation in health insurance India”
- “Out-of-pocket expenditure India”
- “Universal Health Coverage India”

Boolean operators such as AND and OR were used to refine search results.

Example:

“Health insurance coverage” AND “India” AND “NFHS-5”

- **Selection of Studies for Literature Review**

Inclusion Criteria

- Studies related to health insurance coverage in India.
- Studies published between 2010 and 2025.
- Peer-reviewed research articles.
- English language publications.
- Studies focusing on socio-economic or regional disparities.

Exclusion Criteria

- Editorials, opinions, and commentaries.
- Studies whose full-text is not availability.

3.10 Method of Data Extraction

Relevant variables related to health insurance coverage and socio-economic characteristics were identified from the NFHS-5 codebook before analysis.

Data extraction included:

- Insurance status

- Educational level
- Wealth index
- Place of residence

The extracted data was cleaned and coded prior to analysis to remove inconsistencies and missing values.

- **Method of Data Collection**

The study is based on secondary data, no primary data collection was done.

The NFHS-5 data were collected using structured questionnaires administered by trained field investigators using Computer-Assisted Personal Interviewing (CAPI) techniques. Relevant variables were extracted from the downloaded dataset for the present study and analyzed using SPSS software.

3.8 Data Analysis Plan

Data analysis was performed using IBM SPSS Statistics.

The analysis included:

- Descriptive statistics such as frequencies and percentages
- Cross-tabulation of insurance coverage with socio-economic variables
- Comparative analysis between urban and rural populations

Results were presented using tables, charts, and graphical representations.

- **Potential Biases and Mitigation Plan**

The study is based on secondary data, therefore there are some limitations and biases which could impact the results.

First, this analysis relies on self-reported information from NFHS-5, which may be subject

to recall bias or reporting errors. Participants may not always correctly identify the type or the extent of the insurance coverage available to them.

Second, secondary datasets limit the researcher to the variables already in place. Some factors such as perception towards insurance, barriers to utilization and quality of healthcare services could not be explored in depth.

Third, the cross-sectional nature of the data makes it impossible to determine causal relationships between the socio-economic variables and insurance coverage.

To minimize these limitations only complete and relevant records were considered in the analysis. The use of standardized procedures for the NFHS-5 and nationally representative sampling methods enhance the reliability and generalizability of findings.

- **Ethical Considerations**

The present study is based solely on secondary data obtained from NFHS-5 after receiving official authorization for academic purposes. There was no direct interaction with human participants.

NFHS-5 datasets are anonymized and do not contain any personally identifiable information, thus ensuring confidentiality and privacy of participants.

This study was conducted for academic purposes only and data were used in accordance with DHS data usage guidelines.

- **Expected Benefits of the Study**

The study may contribute towards better understanding of socio-economic and regional disparities in Health Insurance Coverage (HIC) in India. By looking at nationally representa-tive data, the research can provide insights into population groups that are still underinsured or excluded from financial protection mechanisms.

The findings may also help policymakers, public health researchers, and healthcare administrators identify gaps in current patterns of insurance coverage. Grasping these differences is key to enhancing equity in access to healthcare and bolstering progress towards Universal Health Coverage (UHC).

Further, the study can add to the existing literature by using recent NFHS-5 data to study the trends of insurance coverage simultaneously across several socio-economic dimensions.

CHAPTER-4: RESULTS

4.1 Overall Health Insurance Coverage

The data of 724,115 respondents included in the NFHS-5 dataset were analyzed in the study. Table 4.1 shows the overall distribution of Health Insurance Coverage (HIC) for the study population.

The findings indicated that 231,909 respondents (32.0%) had some form of health insurance coverage and 492,206 respondents (68.0%) had no health insurance coverage. This shows that although government-sponsored health insurance schemes are growing in India, a large proportion of population remains uninsured.

The results indicate that India's health insurance coverage is gradually improving and universal coverage has not yet been achieved. The gap between the insured and the uninsured continues to be large.

Covered by health insurance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	492206	68.0	68.0	68.0
	Yes	231909	32.0	32.0	100.0
	Total	724115	100.0	100.0	

Tabel: 4.1

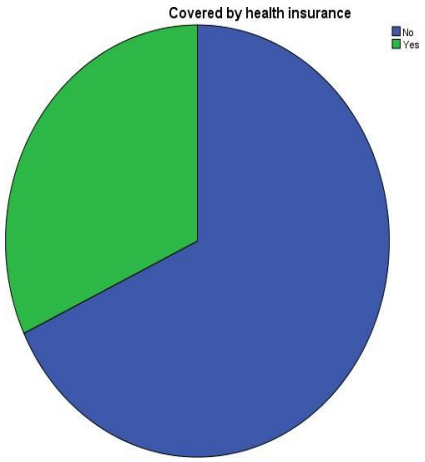


Fig: 4.1

4.2 Health Insurance Coverage According to Place of Residence (Uraban v/s Rural)

Table 4.2 Association between Health Insurance Coverage and place of residence i.e. Urban and Rural.

The findings reveals that 52,033 (29%) of the urban respondents were covered under health insurance while 127,502 (71%) of the respondents were uninsured. Health insurance coverage was present for 33% of respondents (179,876) in rural areas and 67% of respondents (367,704) were uninsured.

The findings indicate a slightly higher coverage of insurance among the rural respondents compared to the urban respondents. Rural residents accounted for a large share of the insured, accounting for 77.6% of the insured population. This pattern could be due to government-sponsored insurance schemes covering more of the economically vulnerable and rural populations.

Covered by health insurance * Type of place of residence Crosstabulation

			Type of place of residence		
			Urban	Rural	Total
Covered by health insurance	No	Count	127502	364704	492206
		% within Covered by health insurance	25.9%	74.1%	100.0%
		% within Type of place of residence	71.0%	67.0%	68.0%
	Yes	Count	52033	179876	231909
		% within Covered by health insurance	22.4%	77.6%	100.0%
		% within Type of place of residence	29.0%	33.0%	32.0%
Total		Count	179535	544580	724115
		% within Covered by health insurance	24.8%	75.2%	100.0%
		% within Type of place of residence	100.0%	100.0%	100.0%

Table: 4.2

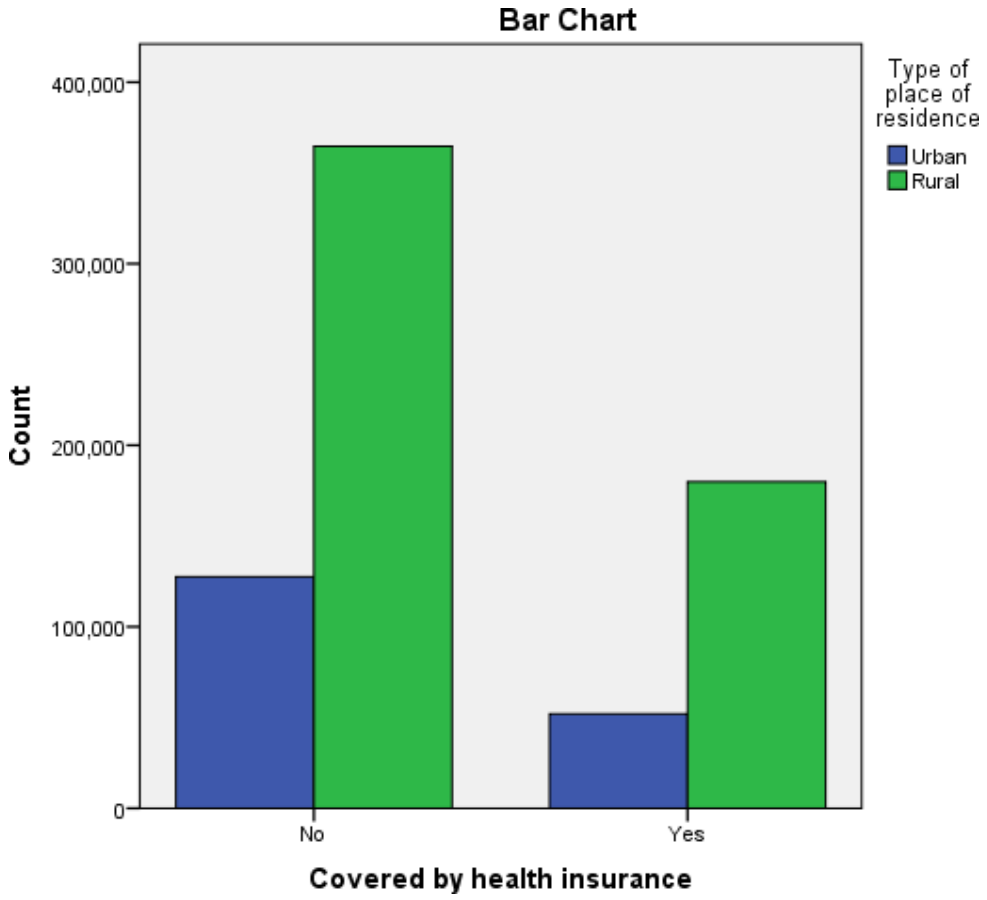


FIG: 4.2

4.3 Health Insurance Coverage According to Wealth Index

Table 4.3. Distribution of HIC by wealth quintiles.

The largest proportion of insured respondents was in the poorer wealth category (23.2%) followed by the middle wealth group (22.4%). The lowest-income respondents represented 20.4% of insured individuals . The highest-income group represented the lowest proportion (14.8%).

The results show that health insurance coverage was relatively higher among lower and middle socio-economic groups than the richest population group. This pattern may be relat-

ed to the expansion of publicly funded health insurance schemes targeted mainly at economically weaker households.

Covered by health insurance * Wealth index combined Crosstabulation

			Wealth index combined					
			Poorest	Poorer	Middle	Richer	Richest	Total
Covered by health insurance	No	Count	102627	106575	99629	94778	88597	492206
		% within Covered by health insurance	20.9%	21.7%	20.2%	19.3%	18.0%	100.0%
	Yes	Count	47217	53765	51876	44829	34222	231909
		% within Covered by health insurance	20.4%	23.2%	22.4%	19.3%	14.8%	100.0%
Total		Count	149844	160340	151505	139607	122819	724115
		% within Covered by health insurance	20.7%	22.1%	20.9%	19.3%	17.0%	100.0%

Table: 4.3

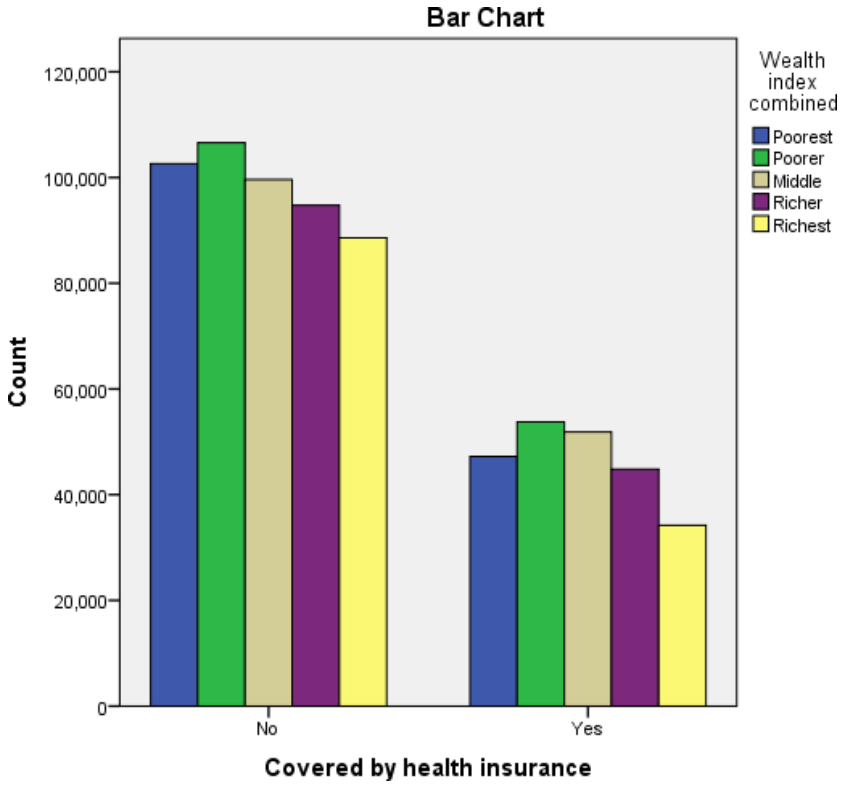


FIG: 4.3

4.4 Health Insurance Coverage According to Educational Status

Table 4.4 provides information on the association between HIC and educational attainment. The uninsured respondents largely attained secondary education (52.1%) and no formal education (22.1%). Among insured respondents, the secondary education group (49.0%) was also the largest group.

25.2% of the insured persons had no education, and 12.9% of the insured population had higher education. Results show heterogeneity of insurance coverage by educational category.

Covered by health insurance * Highest educational level Crosstabulation

			Highest educational level				
			No education	Primary	Secondary	Higher	Total
Covered by health insurance	No	Count	108798	55125	256482	71801	492206
		% within Covered by health insurance	22.1%	11.2%	52.1%	14.6%	100.0%
	Yes	Count	58506	29858	113530	30015	231909
		% within Covered by health insurance	25.2%	12.9%	49.0%	12.9%	100.0%
Total		Count	167304	84983	370012	101816	724115
		% within Covered by health insurance	23.1%	11.7%	51.1%	14.1%	100.0%

Tabel: 4.4

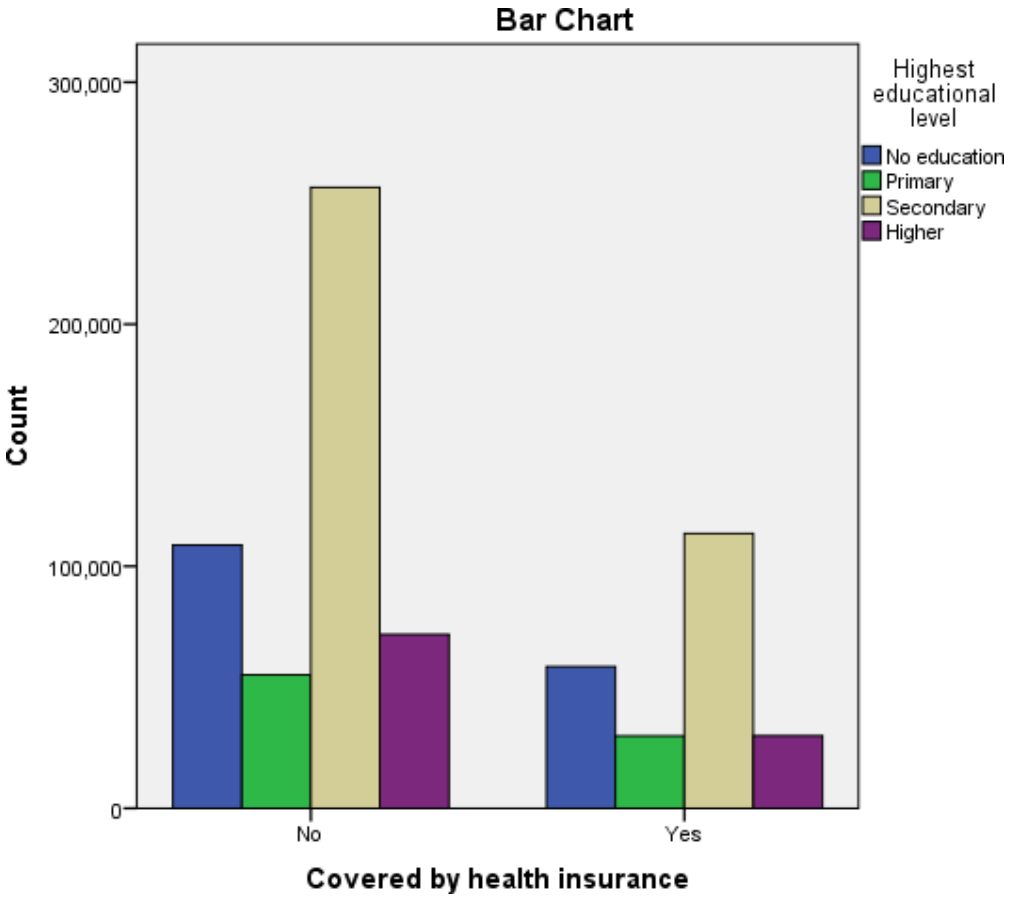

Bar Chart
300,000
200,000
100,000
0
Count
No
Yes
Covered by health insurance
Highest educational level
No education
Primary
Secondary
Higher

Fig: 4.4

Chapter 5

DISCUSSION

The present study is an attempt to examine Health Insurance Coverage (HIC) in India using NFHS-5 secondary data with special focus on socio-economic and regional disparities. The results revealed that although there has been a substantial increase in health insurance coverage over the years, a significant proportion of the population in India remains uninsured. Some form of health insurance coverage was reported by about a third of the respondents, while more than two-thirds were not covered under any insurance scheme. These results suggest that, despite growing policy attention on Universal Health Coverage (UHC), financial protection in health care remains uneven across India.

This issue is especially relevant in the Indian context as healthcare expenditure in the country still heavily relies on Out-of-Pocket Expenditure (OOPE). Earlier financial crunch due to medical expenses especially in hospitalization and chronic illness management [18,19]. Even today a single episode of serious illness can have a dramatic effect on household finances, especially among poorer groups. The current results, therefore, show that health insurance expansion has made some progress in terms of coverage but universal financial protection is still a work in progress.

The overall prevalence of HIC reported in the present study is largely consistent with previous studies at national level. Despite the growth in insurance schemes, Prinja et al. [24] argue that a large proportion of Indian households still rely on out-of-pocket healthcare payments. Similarly, Devadasan et al. argued that historically health insurance penetration in India was limited and fragmented, especially amongst low income and informal sector populations [41]. The current study is consistent with a similar trend where insurance cov-

erage is available but not enough at population level.

One key finding of the present analysis was the difference in HIC between rural and urban populations. Insurance coverage among rural respondents was slightly higher than among urban respondents. This result might be somewhat surprising at first glance, as urban populations tend to be better served by healthcare infrastructure, tend to have higher literacy levels and more access to private insurance products. However, this pattern can be explained by the increasing role of publicly funded health insurance schemes for rural and economically vulnerable households.

Programs like Rashtriya Swasthya Bima Yojana (RSBY) and PMJAY have mainly focused on financially weaker sections of society, most of which reside in rural areas [30,33]. Similarly, Keshri and Bhattacharyya found that rural populations were increasingly enrolling in government-sponsored insurance schemes [49]. Hence, the present findings may indicate improved outreach of welfare- based health insurance programs in rural India.

However, increased insurance enrollment in rural areas should not be assumed to mean better healthcare access or stronger healthcare systems. Previous studies have repeatedly pointed out the main health care challenges faced by rural India, including shortages of doctors, poor health care facilities, difficulties of transportation, and poor referral systems [50,51]. In many remote locations, insured persons can still find it challenging to access quality healthcare as there are few hospitals or empanelled facilities nearby. So, having insurance and actually making use of health care are not the same thing.

This gap between “paper coverage” and “effective healthcare access” has increasingly be-

come a concern in health policy debates. Garg and Karan highlighted that beneficiaries of insurance schemes often face practical hurdles such as lack of awareness, delayed treatment, expenses of transportation or non-availability of covered services [50]. Consequently, insured households could still face financial burden from healthcare.

The current study also identified differences in HIC by wealth category. A considerable number of insured persons were from the poorer and middle socio-economic groups. This finding may indicate that publicly funded schemes are serving to some extent economically vulnerable populations. Earlier government insurance schemes were designed specifically to increase access to healthcare for Below Poverty Line (BPL) households and weaker socio-economic sections [30].

These results are somewhat consistent with studies by Rathi et al who reported increased enrollment of low-income populations in government-sponsored insurance schemes [42]. Expansion of welfare oriented programs seem to have helped in inclusion of economically weaker sections in insurance systems.

However, the findings should be interpreted with caution. Enrollment in insurance among the poor households does not necessarily mean complete financial protection. Shahrawat and Rao reported that Catastrophic Health Expenditure (CHE) continues to affect vulnerable households even after insurance expansion due to many schemes not adequately covering medicines, diagnostics, outpatient care and indirect healthcare costs [19]. In practice, families may have to borrow money or sell assets in case of illness, even if they have insurance.

Also, even among the insured, differences in access to health care related to wealth may

persist. Higher income households have more freedom of choice of private healthcare providers, better hospitals and advanced treatment facilities [20]. Meanwhile, poorer populations may still rely on limited public health infrastructure. Thus, the persistence of inequality in health care systems may go beyond the act of enrolling in insurance itself.

The present study also found a significant association of educational status with HIC. Respondents with secondary and higher education made up a major share of insured. Education likely affects awareness of health care, understanding of insurance processes, and ability to navigate health care systems. People who are more educated might understand the benefits of the scheme better, be able to meet the documentation requirements and use health care services appropriately.

Yellaiah [43] reported similar findings and stated that educated populations have higher awareness and use of insurance services. Therefore, educational level may have an indirect effect on access to healthcare and financial protection.

But education alone is not enough to solve all the problems of health care. Several researchers have described access to health care as being determined by multiple interacting factors, including income, health care infrastructure, social position, and geographic location [60]. Even in educated households, access to affordable quality healthcare can become difficult, particularly in areas where the healthcare system is weak.

The findings also throw up another important issue of continued dependence on OOPE in India. Although insurance coverage has improved over the years, previous studies indicate that many insurance schemes are mainly focused on inpatient hospitalization, with inadequate coverage for outpatient expenditure [11,39]. Given the high share of household healthcare expenditure on outpatient consultations, medicines and diagnostics, insurance

coverage may not fully ease the financial burden.

National Health Accounts data also show that medicines form a large proportion of household health expenditure in India [18]. Thus, even insured households can still have substantial out-of-pocket costs for healthcare. This is particularly relevant for chronic diseases that require long-term medication and frequent outpatient visits.

Consequently, the current results add to previous evidence that increased insurance coverage does not always mean equitable financial protection. Researchers like Sengupta and Nundy have argued that reforms in healthcare financing need to be accompanied with strengthening of public healthcare systems and improvement in service quality [37]. Just expanding insurance without the presence of the healthcare infrastructure may produce only marginal gains in health care outcomes.

Regional differences also play a very important role in the consideration of the present findings. Previous studies have shown consistent interstate variations in healthcare infrastructure, healthcare financing, literacy, governance and insurance implementation [53-57]. The healthcare indicators and public healthcare delivery systems in the southern states like Kerala and Tamil Nadu are generally better, while many of the northern and central states are still grappling with healthcare infrastructure issues.

These differences are important because national averages often obscure large disparities across states. Some states perform relatively well in the implementation of welfare-based insurance programs while other states face challenges in terms of awareness generation, hospital empanelment and access to healthcare [58,59]. Thus, understanding patterns of

healthcare coverage in India needs to account for regional context.

Another thing to consider is the prevalence of private healthcare in the Indian health system. Previous studies have shown that many households still prefer private healthcare providers because of shorter waiting time, perceived better quality and greater availability of specialized services [20]. However, private healthcare is usually associated with high costs of treatment and thus contributes to OOPE.

Even under insurance schemes, patients may have to pay additional costs for diagnostics, medicines or procedures not fully covered under the benefit packages. So insurance can help with the financial burden but it will not eliminate it altogether. One key issue in financing Indian health care is the persistence of partial financial protection.

There are some limitations to the present study that need to be acknowledged. As the analysis was based on secondary NFHS-5 data, the study depended on the variables already available in the dataset. The study was primarily focused on HIC status and selected socio-economic indicators; therefore, a more detailed assessment of healthcare utilization patterns, quality of care, claim settlement processes and patient satisfaction could not be undertaken.

In addition, NFHS-5 only provides cross-sectional data, which limits the ability to establish causal relationships between socio-economic variables and insurance coverage. This study is more about associations and patterns than about direct causation. Some dimensions such as health care spending after insurance use or effectiveness of individual insurance schemes also remained outside the scope of the present analysis.

Despite these limitations, the study gives valuable insights into healthcare inequality and financial protection in India, using nationally representative data. NFHS-5 gives broad population-level information across various socio-economic and demographic indicators, which improves the reliability and generalizability of the findings.

This study finds some tangible progress by India especially among economically vulnerable sections through publicly funded programmes in increasing coverage for health insurance. Socio-economic and regional inequalities are still large. Insurance coverage has increased, but health care access and financial protection remain hard to achieve.

So it is perhaps not just about broadening insurance but a larger more strategic approach that will help us make real progress towards Universal Health Coverage (UHC) in India. There is a need to strengthen public health care infrastructure, create awareness about benefits of insurance, increase the number of health care providers, reduce out of pocket expenses for medicines and out-patient treatment and ensure equitable access to health care across the regions. Such measures can improve financial protection and reduce health inequality in the country.

CHAPTER 6

CONCLUSION

The present study tries to understand the Health Insurance Coverage (HIC) in In-dia based on secondary data of National Family Health Survey-5 (NFHS-5) focusing on the socio-economic and regional differences. The objective was to compare the differences in in-surance coverage between the groups and to explore whether the extension of health insur-ance schemes has led to equitable financial protection. The findings reveal that although India has made huge progress in expanding health insurance cover in recent times, there are huge variations across socio-economic, educational and regional categories.

One of the key findings was that although there are several government health insurance schemes, a large proportion of the population is still without insurance. Almost one third of the respond-ents reported some type of health insurance and 2/3 or more reported no cover-age at all. This suggests that despite many policy efforts towards Universal Health Cover-age, full financial protection in the health care sector has not been achieved.

The issue of inadequate insurance coverage is more pronounced in India where health costs continue to be met largely through Out-of-Pocket Expenditure (OOPE). Many families meet medical costs by drawing down savings, borrowing money or selling assets. One hos-pitalisation can mean financial ruin for families at the bottom of the income scale. Thus, health insurance is not just an administrative mechanism; it is an essential component of social and economic security.

The evidence also shows that the expansion of insurance coverage in India has not been uniform across groups. How much coverage you got was a function of wealth, education

and where you were living. Such differences highlight the ongoing impact of socio-economic inequality on access to health care and financial protection.
Analysis showed that most of the insured belonged to the poor and middle income stratum. This could be an indication of the growing coverage of the government funded insurance schemes such as Rashtriya Swasthya Bima Yojana (RSBY) and Pradhan Mantri Jan Arogya Yojana (PMJAY) that are intended to enhance access to healthcare for economically vulnerable populations. There is some evidence that these government programs have increased enrolment among low-income families.

But the results also underscore the fact that insurance alone does not ensure good health protection. The literature review is based on previous research that showed that insured households often have high health costs for medicines, diagnostics, transport and outpatient services. So being insured doesn't mean that you won't have money problems. In the Indian context, it is relevant to differentiate between 'insurance enrollment' and 'effective financial protection' in evaluating healthcare reforms.

This study also found important education differences in HIC.
The majority of the insured were respondents with secondary and higher education. This may suggest the role of higher education in creating awareness about health insurance schemes, understanding healthcare benefits and ability to navigate healthcare systems. Educated people may be more aware of welfare programs run by the government , and may have the skills to fill out the paperwork .

But education does not always mean access to health care. Well-educated populations may have such barriers as cost, availability of health care facilities or

regional facilities. Hence, health care inequality in India is a matter of multiple socio-economic and structural factors and not just on the level of education.

The study also found differences in insurance coverage by where people lived. The rural respondents had a slightly higher insurance coverage than the urban respondents. Urban areas have better healthcare infrastructure and access to private insurance and this finding might be sur-prising . But government health schemes for economically vulnerable rural populations could improve rural insurance coverage.

The government has many programs targeted to improve access to health care for rural and low income households. It appears that insurance coverage has grown over the years in rural areas. But greater rural enrolment doesn't necessarily mean better access to health care or better health systems.

Previous studies have indicated that rural communities still experience major issues in the health care system such as lack of infrastructure, lack of health care workers, transport issues and limited access to specialised services. That means even insured rural families might have a hard time getting good health care.

The findings are consistent with a broader concern in the public health literature that increasing insurance coverage alone will not be sufficient to achieve health care equity. It's not merely about the insurance cards. Availability of hospitals, affordability of medicines, access to health care facilities and awareness about health care rights are also important.

Another key finding of the study is the continuing significance of regional inequalities in Indian health systems. This analysis has been largely on a national

patterns, previous studies have found considerable variation across states in terms of healthcare infrastructure, insurance coverage, literacy and healthcare expenditure.

The two southern states of Kerala and Tamil Nadu have always shown better healthcare indicators, stronger public healthcare systems and more effective implementation of welfare-oriented healthcare programmes. Many states in the north and centre, on the other hand, continue to grapple with poor infrastructure and unequal access.

It is important to look at such regional differences because national averages can hide large differences between states. Some states are performing well in government sponsored insurance schemes and improving health care access while others are hampered by lack of awareness, inadequate facilities and poor coordination.

Therefore, the present study suggests that the reforms in healthcare financing in India should take into account not only the regional perspective but also the socio-economic context. Different governance, infrastructure, literacy and socio-economic factors in different states can lead to different results of uniform national policies.

The broader implication of the study is in terms of the role that public health systems play in the achievement of Universal Health Coverage (UHC). The findings indicate that simply expanding insurance schemes will not be enough unless they are accompanied by improvements in public healthcare infrastructure. Theoretically, insurance coverage could enhance financial access, but real healthcare service utilisation depends on the availability and quality of healthcare services.

Extending in-surance may not offer real benefits to many communities if health care facilities are understaffed, hard to reach, or poorly equipped. This should therefore be mutually reinforcing through better health financing and delivery of health services.

The study also highlights the significance of Out-of-Pocket Expenditure (OOPE) in the Indian health care system. The literature has documented that medicines and outpatient care continue to be the main driver of household healthcare expenditure. The bulk of insurance schemes are hospital based but health costs are high for many families even with insurance cover.

This is especially the case for chronic diseases that require long-term medication, repeated outpatient visits and regular diagnostic tests. Even if you have formal insurance coverage, these costs can be a financial burden. Therefore, future health care reforms may need to cover outpatient services and the cost of medication.

Another significant implication of the study is on the awareness of health insurance schemes. There may be lack of awareness about eligibility criteria, benefits, claim procedures and registered hospitals especially among vulnerable groups in various parts of India. This lack of awareness can be a handicap to effective use of insurance even for the insured.

Awareness raising is hence an important component of implementation of healthcare policy. Community education, easier processes and better sharing of information can improve the use of healthcare benefits available.

The results also suggest that health insurance should be viewed more broadly than as a financing instrument. Insurance coverage is linked to social protection, poverty reduction and inclusive human development. Insufficient protection in the health care sector can lead to greater economic inequality, because families have to spend more on health care expenses. Financial protection, on the other hand, can contribute to social stability and economic security.

The present study contributes to the existing literature by providing the latest evidence on HIC in India using NFHS-5 data. Many earlier studies used older data, before the time when big government insurance programs came along. The study therefore provides additional recent evidence on insurance coverage patterns and socio-economic inequalities.

One strength of the study is the use of a nationally representative data set. NFHS-5 is a large scale survey covering large and diverse population in India and provides information on demographic, socio-economic and health care variables. Use of representative data improves results in reliability and generalisability.

However, there are some limitations of the study that should be considered while interpreting the results. The study is based on secondary data analysis and the analysis is limited to the variables in the NFHS-5 data set. An in-depth analysis of in-surance benefits use, quality of healthcare received, experiences with claims or patient satisfaction could not be performed.

Moreover, the major focus of this study was the status of insurance coverage, not the health outcomes or performance of specific insurance schemes. It therefore cannot assess whether

insurance directly improved health or reduced household health
care expenditures.

Another limitation is the fact that the NFHS-5 data are cross-sectional. The dataset is a snapshot in time and hence we cannot infer any causality relationship between socio-economic variables and insurance coverage. Thus, the findings are associations and not direct causal impacts.

However, the study offers crucial insight into healthcare inequality and financial protection in India. These findings also reinforce that just increasing health insurance coverage alone will not be enough to eliminate the disparities in health care in the absence of concomitant improvements in the health care infrastructure, delivery of services and management of public health .

The study also recommends more inclusive and equitable health care policies in India. Future health care reforms should be directed at expanding the number of enrollees and improving the utilisation of health care services. Financial protection should ensure access, affordability and quality of care and continuity of treatment.

On ground, policymakers may have to strengthen the primary healthcare systems, upgrade the rural healthcare infrastructure, improve availability of medicines in public healthcare facilities and increase awareness regarding health insurance schemes. Improved coordination between the central and state governments can also improve efficiency of implementation.

Improving access and transparency in health care financing programs could also be

achieved through digital health systems and simple administrative procedures. Many eligible beneficiaries are being faced with hurdles due to lack of awareness and complex documentation process.

Therefore, healthcare systems should be more patient-centred and more easy to be navigated .

The study also highlights the need to address regional disparities in the Indian health care systems. The healthcare infrastructure and governance capacity across the states varies and therefore the policy implementation strategies need to be tailored to local socio-economic conditions. And insurance programs can be enhanced through state-specific planning and region-sensitive health care reforms.

Future studies can explore other features of health care financing and insurance utilisation in India. Further studies could look at, for example:

o Utilise patterns in the insured population
o Effect of insurance on health care costs
o Changes in public and private insurance programs
o Access to health care across state lines o Gender differences in health care utilisation
o Implementation of PMJAY at district level o Efficacy of
o Relationship between insurance coverage and health outcomes
o Patient satisfaction, quality of care and insurance plans

Longitudinal studies might also be helpful in assessing if increases in insurance coverage

result in lasting improvements in access to health care and financial protection. Further qualitative research could examine barriers to health care services for vulnerable populations.

Also, outpatient expenses and medicines are another area which needs more work." Current insurance schemes seem to be hospitalisation-centric and the larger issue of household healthcare costs needs to feature in future policy discussions.

We also need to pay more attention to the role of private healthcare providers in insurance systems. Private health care facilities continue to play an important role in health care delivery in India and the problems of affordability, transparency and regulation remain important. Future health care reforms will have to strike a balance between increased private participation and the need to ensure that patient interests are not compromised.

The findings of this study lend support to the notion that improving insurance enrolment alone will not necessarily result in equity in healthcare. Health care systems need to be effective and health care financing, infrastructure, management, access, awareness and quality of care need to be improved in a concerted manner.

India has made impressive strides in health insurance coverage in recent years. Reforms in health care financing have been raised in profile by publicly supported insurance programs, and enrolment has risen among the economically vulnerable. But there are still large social, economic and regional differences.

The path to Universal Health Coverage (UHC) in India is hard, but promising. But contin-

ued political commitment, stronger public healthcare systems and ongoing attention to socio-economic disparities will be needed to ensure equitable access to healthcare for all populations. First thing is we got to get more people insured.

To conclude, our study reveals that while Health Insurance Coverage in India has improved significantly over time, it is still not evenly distributed across various population groups. There are also big differences depending on wealth, education and place of residence. The results show that mere expansion of coverage will not guarantee both equitable access to care and sufficient financial protection.

The future health care reforms in India need to be more comprehensive and more integrated. This should be complemented by increasing insurance coverage, better health-care infrastructure, lower out-of-pocket expenditure, better access to health-care and equitable health-care services to all socio-economic and regional groups. Only such comprehensive efforts can help us take meaningful steps towards Universal Health Coverage and healthcare equity in India.

REFERENCES

1. World Health Organization. Universal health coverage (UHC) [Internet]. Geneva: WHO; 2021 [cited 2026 May 24]. Available from: https://www.who.int/health-topics/universal-health-coverage
2. World Health Organization. Tracking universal health coverage: 2021 global monitoring report. Geneva: WHO; 2021.
3. Mossialos E, Wenzl M, Osborn R, Anderson C. International profiles of health care systems. New York: Commonwealth Fund; 2021.
4. Savedoff WD, Gottret PE. Governing mandatory health insurance: learning from experience. Washington DC: World Bank; 2008. DOI: 10.1596/978-0-8213-7511-8
5. World Bank. World development report 1993: investing in health. New York: Oxford University Press; 1993.
6. National Health Systems Resource Centre. National Health Accounts Estimates for India 2019-20. New Delhi: Ministry of Health and Family Welfare; 2022.
7. Xu K, Evans DB, Kawabata K, Zeramdini R, Klavus J, Murray CJL. Household catastrophic health expenditure: a multicountry analysis. Lancet. 2003;362(9378):111-7. DOI: 10.1016/S0140-6736(03)13861-5
8. Wagstaff A, van Doorslaer E. Catastrophe and impoverishment in paying for healthcare: with applications to Vietnam 1993-1998. Health Econ. 2003;12(11):921-34. DOI: 10.1002/hec.776
9. Balarajan Y, Selvaraj S, Subramanian SV. Health care and equity in India. Lancet. 2011;377(9764):505-15. DOI: 10.1016/S0140-6736(10)61894-6
10. Sengupta A, Nundy S. The private health sector in India. BMJ. 2005;331(7526):1157-8. DOI: 10.1136/bmj.331.7526.1157
11. Peters DH, Yazbeck AS, Sharma RR, Ramana GNV, Pritchett LH, Wagstaff A.

Better health systems for India's poor. Washington DC: World Bank; 2002.

12. Rao KD, Peters DH, Bandeen-Roche K. Towards patient-centered health services in India. Health Res Policy Syst. 2006;4:19. DOI: 10.1186/1478-4505-4-19
13. Shahrawat R, Rao KD. Insured yet vulnerable: out-of-pocket payments and India's poor. Health Policy Plan. 2012;27(3):213-21. DOI: 10.1093/heapol/czr029
14. Joe W. Distressed financing of household out-of-pocket health care payments in India: incidence and correlates. Health Policy Plan. 2015;30(6):728-41. DOI: 10.1093/heapol/czu050
15. Yellaiah J. Awareness of health insurance in India: an empirical study. Int J Human-it Soc Sci Invent. 2012;1(1):6-11.
16. Barik D, Thorat A. Issues of unequal access to public health in India. Front Public Health. 2015;3:245. DOI: 10.3389/fpubh.2015.00245
17. Ministry of Health and Family Welfare. National Health Policy 2017. New Delhi: Government of India; 2017.
18. National Health Systems Resource Centre. National Health Accounts Estimates for India. New Delhi: Ministry of Health and Family Welfare; 2022.
19. Shahrawat R, Rao KD. Insured yet vulnerable: out-of-pocket payments and India's poor. Health Policy Plan. 2012;27(3):213-21. DOI: 10.1093/heapol/czr029
20. Patel V, Parikh R, Nandraj S, Balasubramaniam P, Narayan K, Paul VK, et al. Assuring health coverage for all in India. Lancet. 2015;386(10011):2422-35. DOI: 10.1016/S0140-6736(15)00955-1
21. Bhandari L, Dutta S. Health infrastructure in rural India. India Infrastructure Report. 2007;265-85.
22. Employees' State Insurance Corporation. Employees' State Insurance Act, 1948. New Delhi: Government of India; 1948.

23. Devadasan N, Criel B, Van Damme W, Lefevre P, Manoharan S, Van der Stuyft P. Community health insurance in India: an overview. Econ Polit Wkly. 2004;39(28):3179-83.

24. Prinja S, Chauhan AS, Karan A, Kaur G, Kumar R. Impact of publicly financed health insurance schemes on healthcare utilization and financial risk protection in India. PLoS One. 2017;12(2):e0170996. DOI: 10.1371/journal.pone.0170996

25. Government of India. Employees' State Insurance Scheme (ESIS) [Internet]. New Delhi: ESIC; 2020 [cited 2026 May 24]. Available from: https://www.esic.gov.in

26. Central Government Health Scheme. CGHS guidelines and services [Internet]. New Delhi: Ministry of Health and Family Welfare; 2021 [cited 2026 May 24]. Available from: https://cghs.gov.in

27. Gumber A, Kulkarni V. Health insurance for informal sector: case study of Gujarat. Econ Polit Wkly. 2000;35(40):3607-13.

28. Baru R, Acharya A, Acharya S, Kumar AKS, Nagaraj K. Inequities in access to health services in India: caste, class and region. Econ Polit Wkly. 2010;45(38):49-58.

29. Insurance Regulatory and Development Authority of India. IRDA Act 1999 [Internet]. Hyderabad: IRDAI; 1999 [cited 2026 May 24]. Available from: https://www.irdai.gov.in

30. Ministry of Labour and Employment. Rashtriya Swasthya Bima Yojana (RSBY) [Internet]. New Delhi: Government of India; 2015 [cited 2026 May 24]. Available from: https://www.rsby.gov.in

31. Fan VY, Karan A, Mahal A. State health insurance and out-of-pocket health expenditures in Andhra Pradesh, India. Int J Health Care Finance Econ. 2012;12(3):189-215. DOI: 10.1007/s10754-012-9118-z

32. Selvaraj S, Karan AK. Deepening health insecurity in India: evidence from National Sample Surveys since 1980s. Econ Polit Wkly. 2009;44(40):55-60.
33. National Health Authority. Ayushman Bharat PMJAY operational guidelines. New Delhi: Government of India; 2018.
34. Kumar RK, Chattu VK, Ahmed N, Bharati DR, Dora M, Stoklosa M. Health insurance coverage and its impact in India: an overview. J Family Med Prim Care. 2020;9(7):3557-64. DOI: 10.4103/jfmpc.jfmpc_414_20
35. World Health Organization. Universal health coverage (UHC) [Internet]. Geneva: WHO; 2021 [cited 2026 May 24]. Available from: https://www.who.int
36. Planning Commission of India. High Level Expert Group Report on Universal Health Coverage for India. New Delhi: Government of India; 2011.
37. Sengupta A, Nundy S. The private health sector in India. BMJ. 2005;331(7526):1157-8. DOI: 10.1136/bmj.331.7526.1157
38. Karan A, Yip W, Mahal A. Extending health insurance to the poor in India: an impact evaluation of Rashtriya Swasthya Bima Yojana on out-of-pocket spending for healthcare. Soc Sci Med. 2017;181:83-92. DOI: 10.1016/j.socscimed.2017.03.053
39. Mohanty SK, Srivastava A. Out-of-pocket expenditure and catastrophic health spending on maternal care in India. Health Policy Plan. 2013;28(3):247-58. DOI: 10.1093/heapol/czs057
40. Rao M, Rao KD, Shiva Kumar AK, Chatterjee M, Sundararaman T. Human resources for health in India. Lancet. 2011;377(9765):587-98. DOI: 10.1016/S0140-6736(10)61888-0
41. Devadasan N, Criel B, Van Damme W, Lefevre P, Manoharan S, Van der Stuyft P. Community health insurance in India: an overview. Econ Polit Wkly. 2004;39(28):3179-83.

42. Rathi P, Mukherji A, Sen G. Rashtriya Swasthya Bima Yojana: evaluating utilization, roll-out and perceptions in Maharashtra. Econ Polit Wkly. 2012;47(39):57-64.
43. Yellaiah J. Awareness of health insurance in India: an empirical study. Int J Humanit Soc Sci Invent. 2012;1(1):6-11.
44. Dror DM, Radermacher R, Koren R. Willingness to pay for health insurance among rural and poor persons. Health Policy. 2007;82(1):12-27. DOI: 10.1016/j.healthpol.2006.07.011
45. Bonu S, Rani M, Peters DH. Does use of tobacco or alcohol contribute to impoverishment from hospitalization costs in India? Health Policy Plan. 2005;20(1):41-9. DOI: 10.1093/heapol/czi004
46. International Institute for Population Sciences (IIPS), ICF. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS; 2017.
47. International Institute for Population Sciences (IIPS), ICF. National Family Health Survey (NFHS-5), 2019-21: India. Mumbai: IIPS; 2021.
48. Ministry of Health and Family Welfare. National Health Profile 2021. New Delhi: Central Bureau of Health Intelligence; 2021.
49. Keshri VR, Bhattacharyya S. Population coverage under publicly funded health insurance schemes in India. Clin Epidemiol Glob Health. 2020;8(2):572-8. DOI: 10.1016/j.cegh.2019.11.015
50. Garg CC, Karan AK. Reducing out-of-pocket expenditures to reduce poverty. Health Policy Plan. 2009;24(2):116-28. DOI: 10.1093/heapol/czn046
51. Bhandari L, Dutta S. Health infrastructure in rural India. India Infrastructure Report. 2007;265-85.
52. Mahal A, Karan A, Engelgau M. The economic implications of non-communicable disease for India. Washington DC: World Bank; 2010.

53. Rao KD, Shahrawat R, Bhatnagar A. Composition and distribution of the health workforce in India. Hum Resour Health. 2016;14:57. DOI: 10.1186/s12960-016-0160-9

54. Joe W, Kumar A, Rajpal S, Mishra US, Subramanian SV. Equal risk, unequal burden? Brunt of catastrophic health expenditure on poor in India. Health Policy Plan. 2018;33(4):444-53. DOI: 10.1093/heapol/czy011

55. Ghosh S. Publicly-financed health insurance for the poor. Econ Polit Wkly. 2014;49(43-44):93-9.

56. Peters DH, Bloom G. Poverty and access to healthcare in developing countries. Ann N Y Acad Sci. 2001;1136:161-71. DOI: 10.1196/annals.1425.011

57. Prinja S, Bahuguna P, Gupta I, Sharma A, Rana SK. Coverage and financial risk protection for institutional delivery. PLoS One. 2015;10(6):e0127881. DOI: 10.1371/journal.pone.0127881

58. NITI Aayog. Healthy States Progressive India Report. New Delhi: Government of India; 2021.

59. National Health Authority. PMJAY Annual Report 2021-22. New Delhi: Government of India; 2022.

60. Karan A, Yip W, Mahal A. Extending health insurance to the poor in India. Soc Sci Med. 2017;181:83-92. DOI: 10.1016/j.socscimed.2017.03.053

61. Rao M, Rao KD, Kumar AKS, Chatterjee M, Sundararaman T. Human resources for health in India. Lancet. 2011;377(9765):587-98. DOI: 10.1016/S0140-6736(10)61888-0

62. Yellaiah J. Awareness of health insurance in India. Int J Humanit Soc Sci Invent. 2012;1(1):6-11.

63. Baru R, Acharya A, Acharya S, Kumar AKS, Nagaraj K. Inequities in access to

health services in India. Econ Polit Wkly. 2010;45(38):49-58.

64. Patel V, Parikh R, Nandraj S, Balasubramaniam P, Narayan K, Paul VK, et al. Assuring health coverage for all in India. Lancet. 2015;386(10011):2422-35. DOI: 10.1016/S0140-6736(15)00955-1
65. International Institute for Population Sciences (IIPS), ICF. National Family Health Survey (NFHS-5), state fact sheets. Mumbai: IIPS; 2021.
66. Selvaraj S, Karan AK. Deepening health insecurity in India. Econ Polit Wkly. 2009;44(40):55-60.
67. International Institute for Population Sciences (IIPS). National Family Health Survey (NFHS-3), 2005-06. Mumbai: IIPS; 2007.
68. Bonu S, Bhushan I, Rani M, Anderson I. Incidence and correlates of catastrophic maternal health expenditure in India. Health Policy Plan. 2009;24(6):445-56. DOI: 10.1093/heapol/czp032
69. Fan VY, Karan A, Mahal A. State health insurance and out-of-pocket health expenditures in Andhra Pradesh, India. Int J Health Care Finance Econ. 2012;12(3):189-215. DOI: 10.1007/s10754-012-9118-z
70. Garg CC, Karan AK. Reducing out-of-pocket expenditures to reduce poverty. Health Policy Plan. 2009;24(2):116-28. DOI: 10.1093/heapol/czn046
71. Mohanty SK, Srivastava A. Out-of-pocket expenditure and catastrophic health spending on maternal care in India. Health Policy Plan. 2013;28(3):247-58. DOI: 10.1093/heapol/czs057
72. Kumar RK, Chattu VK, Ahmed N, Bharati DR, Dora M, Stoklosa M. Health insurance coverage and its impact in India: an overview. J Family Med Prim Care. 2020;9(7):3557-64. DOI: 10.4103/jfmpc.jfmpc_414_20

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Our AI writing assessment is designed to help educators identify text that might be prepared by a generative AI tool. Our AI writing assessment may not always be accurate (i.e., our AI models may produce either false positive results or false negative results), so it should not be used as the sole basis for adverse actions against a student. It takes further scrutiny and human judgment in conjunction with an organization's application of its specific academic policies to determine whether any academic misconduct has occurred.