

**MENTAL HEALTH INSURANCE IN INDIA**

A THESIS

SUBMITTED IN FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE

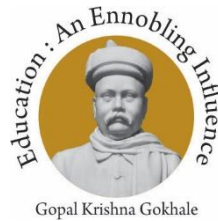
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IN

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AT



GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

**By**

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## **MENTAL HEALTH INSURANCE IN INDIA**

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## DECLARATION

I, Madhurima Ghosh hereby declare that this thesis on the topic entitled, "*Mental Health Insurance in India*" is submitted for the award of Degree of Doctor of Philosophy in Economics to the Gokhale Institute of Politics and Economics, Pune 411004.

It is an original contribution and has been completed during my tenure as a research scholar at Gokhale Institute of Politics and Economics, Pune. This thesis has not been submitted by me elsewhere for the award of any degree or diploma-part or full. The information gathered by me elsewhere for the thesis is original, true and factual. Such material as has been obtained from other sources has been duly acknowledged in the thesis. I hereby request, to consider the thesis for the award of the degree of 'Doctor of Philosophy'.



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**CERTIFICATE**

**(FORM 'A')**

CERTIFIED that the work incorporated in this thesis entitled "Mental Health Insurance in India" submitted by Madhurima Ghosh was carried out by the candidate under my supervision. It is an original contribution and has not been submitted elsewhere for the award of any other degree. Such material as has been obtained from other sources has been duly acknowledged in this thesis. I recommend that the thesis should be considered for the award of the degree of 'Doctor of Philosophy'.



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**- Madhurima Ghosh**

## ABBREBIATIONS

CMD	Common Mental Disorders
COI	Cost of Illness
DALY	Disability Adjusted Life Years
DSM 5	Diagnostic and Statistical Manual of Mental Disorders
ICD 10	International Classification of Diseases and related Health Problems
IPD	Inpatient Department
IRDAI	Insurance Regulatory and Development Authority of India
LMICs	Low- and Middle-Income Countries
MHCA	Mental Healthcare Act
MHI	Mental Health Insurance
NHM	National Health Mission
NMHS	National Mental Health Survey
OPD	Outpatient Department
PMIs	Persons with Mental illness
SMD	Severe Mental Disorders
WHO	World Health Organization
YLD	Years Lived with Disability

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

In recent years, health planners in India have emphasized the need to broaden health insurance coverage as a critical element of the nation's healthcare reform and poverty alleviation strategies (La Forgia & Nagpal, 2012). Physical health and mental health are the two sides of the same coin. Overall health cannot be achieved by neglecting mental health. While mental illness often feels isolating and deeply personal, it is also a significant public health concern. Poor mental health profoundly affects the productivity of the workforce by absenteeism and lackadaisical work (Langlieb & Kahn, 2005). Mental illness induced DALY is a severe problem across the world. Correct treatment of mental illness at the right time is thus imperative and in recent times at least 20% of Indian households slipped into poverty due to out-of-pocket expenditure on treatment for mental illnesses (Yadav et al., 2023). The high treatment cost, sometimes due to the chronic nature of the illnesses, is not supported by insurance coverage. Several private insurers included HIV AIDS and other chronic non communicable diseases like diabetes, cancer and heart problems under healthcare coverage; however mental illness has been a taboo among the insurance companies. Stigma, lack of awareness prevents many policyholders to seek treatment. Of late, MHCA Act 2017 is a force majeure to include mental illness under health insurance coverage. Providing mental health insurance to the diseased requires robust survey and database of cost calculation, cost benefit efficacy and a feasible premium calculation. Also, stigma associated with mental illness (Shidhaye & Kermode, 2013) complicates the issue of self-disclosure and readiness in paying the premium. Economics of treatment cost of severe and chronic mental illnesses is necessary now and the current thesis describes the methodology, survey and results of treatment cost calculation.

According to van Hees et al. (2019), SDG Target 3.4 aims to decrease premature deaths from non-communicable diseases by one-third through prevention and treatment by 2030, while also promoting mental health and well-being. Health For All does not ring true if there is a lack of mental health insurance. In a just and equal world mental health should be at par with physical

health. Inequalities exist and disparity results from excluding mental health insurance. Recognizing the importance of mental health coverage, the government has included mental health insurance in the Ayushman Bharat scheme. This initiative aims to make mental health services more accessible and affordable, ensuring comprehensive healthcare for all. By integrating mental health into a broader health insurance framework, the government is taking significant steps towards addressing the mental health needs of the population. Insurance can significantly facilitate access to mental health care by providing individuals with the financial means to seek and afford necessary services. With mental health often carrying associated costs for therapy, medications, and other treatments, insurance coverage helps alleviate the financial burden on individuals, making mental health care more accessible.

Health insurance serves as a safeguard, offering benefits for covered sickness or injury at a predetermined cost, mitigating the financial impact arising from specific health risks. It acts as a protective measure against unplanned medical expenses and the potential loss of income (Kumar et al., 2019). The accessibility and affordability of sufficient healthcare play a fundamental role in ensuring the well-being of both individuals and society as a whole. The Indian healthcare system is experiencing significant changes driven by rising incomes, heightened health awareness among the population, reduced bureaucratic obstacles, price liberalization, and the emergence of private healthcare funding (Kaur, 2019), mental health has slipped down in the priority list. However Covid 19 and lockdown has redirected the focus on mental health (Xiong et al., 2020) by increasing depression, unemployment, bereavement and anxiety about the future.

The research endeavors to assess the prevailing mental health insurance policies in developed nations and explore their adaptability within the Indian framework. Additionally, the study involves estimating the treatment costs associated with both common and severe mental illnesses in private clinics in India. An actuarial model for calculating premiums in this context is required. The ultimate goal is to offer insights into potential enhancements for mental health insurance in the Indian context. The research culminates with a set of suggestions and recommendations derived from the findings.

Mental health insurance study has a profound effect on policy makers, healthcare practitioners, patient groups and private insurers (Singh, 2021). The assessment of cost-effectiveness in

therapeutic interventions, encompassing both pharmacological and psychological approaches, requires a comprehensive examination. The costs associated with mental health are diverse, spanning social care, family support, and various levels of healthcare such as primary, secondary, and tertiary care. In the context of establishing a viable mental health insurance system in India, it is crucial to undertake a thorough reflection and review of cost calculations to ensure success and operational efficiency.

## **1.2 Background**

The insurance sector in India has undergone significant growth and transformation in recent decades. Health insurance in India is a growing sector, following life and automobile insurance. Key factors driving the growth of the health insurance market in India include the expanding middle class, rising hospitalization costs, expensive healthcare, digitization, and increased awareness (Dutta, 2020). Additionally, regulatory reforms and liberalization have played a key role in fostering competition and innovation within the market. The growth of India's insurance sector began in the early 2000s with government-initiated reforms aimed at liberalizing the industry. The formation of the Insurance Regulatory and Development Authority of India (IRDAI, 2000) further enhanced the regulation and oversight of insurance activities. The IRDAI has since implemented various measures to enhance consumer protection and ensure fair practices in the insurance sector.

Furthermore, the advent of digital technology (Hailemariam 2017), has led to the creation of online insurance platforms. These platforms have simplified the process of comparing and purchasing insurance policies, contributing to increased accessibility and availability of insurance products in India (Maurya & Mintrom, 2019). The regulatory framework established during this period opened the door for private sector participation and foreign direct investment, fostering heightened competition and innovation. Consequently, insurance companies have diversified their offerings, providing a broader range of products and services tailored to individual customer needs. Examples include health insurance policies covering medical expenses and travel insurance protecting against trip cancellations or lost luggage. This expansion has not only granted consumers more options but has also driven the industry to

continually enhance and innovate to remain competitive in the market (Mohandoss, 2017) (Bijal AS,2019).

Although insurance penetration in India lagged behind that of other countries, there was a noticeable increase in awareness regarding the significance of insurance. This was attributed in part to public awareness campaigns and financial literacy programs, resulting in a growth in the number of policyholders. Recognizing the potential in the untapped rural market, insurers began to focus on developing microinsurance products tailored to the needs of underserved populations (Chisholm in 2017). Insurance companies established partnerships with banks, adopting the distribution channel known as bancassurance. This strategic move enabled insurers to leverage the extensive network of banks and access a broader customer base.

Despite the progress made, the vast untapped market in India presented significant growth opportunities, particularly in the realms of health and life insurance, where awareness of the necessity for coverage continued to escalate (Mirach et al., 2019). The rising disposable income of the middle-class population in India also played a crucial role in fueling the industry's growth. This demographic, increasingly attuned to financial matters, sought comprehensive insurance solutions to secure their own and their families' futures. It's imperative to acknowledge the dynamic nature of the insurance sector, which has the potential to evolve rapidly.

### **1.3 Mental health and Economic Burden in India**

India, with its large population and diverse demographics, faces a significant mental health burden that requires immediate attention. Mental illness, commonly referred to as mental health disorders, encompasses a broad spectrum of conditions affecting an individual's cognitive, emotional, and psychological well-being. Ranging from mild to severe, these conditions include disorders like depression, anxiety, bipolar disorder, schizophrenia, among others. The impact of mental illnesses extends to thoughts, feelings, and behaviors, often disrupting daily functioning, relationships, and overall life quality. Diagnosis is generally based on the criteria specified in the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders) and the ICD-10 (International Classification of Diseases and Related Health Problems). These guidelines offer a comprehensive catalog of mental disorders and their diagnostic criteria, aiding mental health professionals in accurate identification and classification.

According to the National Mental Health Survey of India (NMHS 2014 - 2015), the point prevalence of psychiatric disorders stands at 10.6%. Additionally, individuals with mental illness face significantly higher mortality, with a pooled relative risk of 2.22 (Walker et al., 2015). Despite the substantial prevalence, morbidity, and disability associated with mental disorders, there is a substantial treatment gap, ranging as high as 70% to 92%. The burden of mental illness in India is a pressing public health concern that encompasses a range of disorders and conditions, impacting individuals, families, and society as a whole. Mental illnesses have substantial economic consequences. They contribute to reduced workforce productivity, increased healthcare costs, and heightened rates of disability. The economic burden of mental illness in India is substantial, with losses in both personal income and national productivity. According to a report by the World Economic Forum and Harvard School of Public Health (2011), it was projected that mental health issues alone would impose a financial burden of \$1.03 trillion on India from 2012 to 2030. The World Health Organization (WHO, 2020) suggests that addressing prevalent mental disorders is anticipated to have a positive impact on national income in the long term.

#### **1.4 Current Scenario of MHI in India**

Mental health insurance in India has gained prominence in recent years as a crucial aspect of healthcare coverage. Historically, mental health was often neglected in the country's healthcare landscape. However, with evolving societal awareness and policy reforms, there has been a gradual shift towards recognizing the importance of mental health insurance. The Mental Health Care Act of 2017 (MHCA, 2017) was passed in India in order to ensure that those suffering from mental disease are provided with the same standard of care as those who suffer from physical illness across the board in terms of healthcare delivery. In accordance with Section 21(4), insurers are mandated to allocate resources for mental illness treatment on par with those established for physical disease. This policy underscores the integration of mental health services into the broader healthcare system, with the goal of enhancing accessibility and affordability. Through the provision of insurance coverage for mental health services, individuals can pursue necessary treatments without facing financial burdens. Furthermore, the policy acknowledges the significance of early intervention and prevention, stressing the importance of readily available mental health services to address issues before they escalate. This paradigm shift is evident in the

growing number of insurance plans that now incorporate mental health coverage within their benefits packages. Including mental health coverage has helped reduce the stigma surrounding mental health issues, normalizing the acknowledgment of these services and encouraging individuals to prioritize their mental well-being. (James 2019).

In 2020, the Insurance Regulatory and Development Authority of India (IRDAI) issued guidelines that made it mandatory for insurance companies to incorporate coverage for mental illnesses in their health insurance policies, establishing it as a standard feature. These guidelines play a crucial role in facilitating individuals' access to treatment and support for mental health conditions through their insurance coverage. By ensuring mental health coverage as a standard provision, these guidelines contribute to breaking down barriers and fostering increased awareness about the significance of mental well-being.

Many mental disorders can begin before the age of 18 (Kim-Cohen et al., 2003) , identifying risk factors and providing early treatment across the population is crucial for alleviating the burden on health systems and improving quality of life. India's suicide rate is of 14.04 per lakh population in 2019 ranking it 49th globally (GBD 2019), with suicide being the leading cause of death among individuals aged 15–39 (Vijayakumar et al., 2022). This underscores the urgent need to address the low awareness and stigma surrounding mental health issues among younger populations and to develop strategies that involve community and society-wide approaches. The implementation of comprehensive plans ensures that individuals receive timely support and treatment, resulting in improved outcomes and enhanced overall mental well-being. Beyond addressing current issues, early intervention also acts as a preventive measure, curbing the progression of mental health conditions and mitigating the risk of potential complications. This underscores the importance of proactive and holistic approaches to mental healthcare.

The inclusion of mental health coverage in insurance plans can act as a catalyst, encouraging individuals to seek help without the fear of financial burden. This, in turn, facilitates timely treatment and helps mitigate the severity of mental illnesses. Furthermore, mental insurance coverage can promote preventive measures and wellness programs, contributing to overall mental well-being. Resources such as therapy sessions, counseling services, and medication

coverage provided by mental insurance empower individuals to proactively address their mental health concerns and maintain a healthier lifestyle.

Adopting a comprehensive approach not only benefits individuals personally but also holds potential for reducing long-term societal costs linked to untreated mental health conditions. In a systematic review (Roberts et al.,2018) observed that while having health insurance was often associated with increased utilization of health services for common mental disorders, the correlation was not always consistent. Additionally, the incorporation of alternative treatments in insurance coverage acknowledges the diverse range of effective therapies available. This approach empowers individuals to choose treatment methods that align with their personal beliefs and preferences, recognizing the importance of individualized care (Garg, 2019).

### **1.5 Research Gap**

This study aims to bridge crucial gaps in our understanding of "Mental Health Insurance in India." Mental health insurance is of paramount significance, particularly in light of the evolving healthcare landscape and the increasing acknowledgment of mental health as a vital part of overall well-being. The study seeks to explore and address key aspects related to the provision of mental health insurance in India, shedding light on the current scenario, challenges, and opportunities in ensuring comprehensive mental health care coverage. This research aims to provide valuable insights to the ongoing discussion on mental health, insurance policies, and the broader healthcare framework in India.

Sporadically across India some studies have been undertaken to calculate the treatment cost of common and severe mental illnesses such as depression and schizophrenia and several government schemes like Ayushman Bharat, Arogya Karnataka etc. have evolved to take care of the treatment cost incurred by mental illnesses. However, there is a gap in nationwide and statewide calculation of insurance premium based on treatment cost. There exists a need for a meaningful and robust dataset on the diversity of the mental illnesses and treatment cost. It needs to be investigated also, why stigma associated with the mental illnesses prevent the patients from self-disclosure and reluctance to approach the private insurers. Apart from few treatment cost calculations from hospital setups, there is paucity of data on chronic cost to treat mental

illnesses. Almost nothing has been studied to find out an implementable premium for mental health insurance.

Until the end of 2019, private insurers made no efforts to introduce mental health policies. Interestingly, the author observed that the COVID-19 lockdown in March 2020 changed this scenario. Public and private insurance companies began to include mental illness in their policies, providing coverage only in cases of hospitalization. Their policy brochures clearly state that any form of counseling, cognitive behavioral therapy, or psychotherapy that does not require hospitalization is excluded. However, a thorough search of the insurers' websites reveals a lack of specific mental illness plans. Therefore, there is a clear need for comprehensive research on treatment costs and premium calculations for mental illnesses in India.

Implementing products directly from developed markets may not be appropriate when the fundamental healthcare infrastructure in India is not conducive to such imports. It becomes essential to tailor products to suit the Indian environment, or even create a conducive environment for their successful implementation. Additionally, there is a notable dearth of work on risk cost estimations and pricing within the Indian health insurance landscape. To foster the development of mental health insurance effectively, it is crucial to establish mechanisms for accurate risk cost estimations and pricing strategies, aligning them with the available data. While the Indian health insurance sector is in its early stages, it is experiencing rapid growth, presenting an opportune moment for mental health insurance to play a pivotal and positive role in the structured expansion of the insurance industry.

### **1.6 Research Objectives:**

Based on the research gap, following are the objectives of the current study.

- 1) To study the occurrence rate of mental disorders in India
- 2) To review the mental health insurance plans in the developed countries of the world
- 3) To estimate the direct cost of treatment of mental health disorders
- 4) To develop a viable mental health insurance model

The first key research objective is to identify which illnesses afflict more and which are common to affect people and analyze the role of government schemes in addressing mental health situations in India. This includes assessing the effectiveness of existing government initiatives and understanding the extent to which they support mental health coverage. This research can provide insights into the impact of public policy on mental healthcare access and affordability.

A second research objective is to review the health insurance policies in the developed countries in supporting mental health medical expenses. This entails evaluating the diversity and scope of mental health coverage offered by them, including the range of mental health conditions covered, premiums, and reimbursement mechanisms. The study also investigates the barriers, if any, that different stakeholders such as patients, insurance companies, mental health professionals etc., face in accessing private mental health insurance. The objective is to find the basis for cost calculation from the existing data of mental health insurance products from other countries who are already practicing and providing insurance for mental illness.

The third research question will gauge the expenditure of patients for different common and severe mental illnesses in India in an outpatient service. According to a study published in Lancet, there are more than 19 crore people suffering from mental illness in India, their treatment is borne by out-of-pocket expenditure. Because of chronic nature many patients have to pay year after year. If mental health insurance is provided a huge section will be benefited for affordable treatment.

Furthermore, the fourth research objective is to develop a viable insurance model for mental illness. Finally, suggestions and policy recommendations will be based on the analysis of the study. The goal of these recommendations is to address and bridge current gaps and challenges in mental health insurance in India, concentrating on enhancing coverage, affordability, and accessibility for individuals seeking mental health services. The research endeavors to provide practical, evidence-based suggestions that can be implemented to bring about tangible improvements in the overall landscape of mental health insurance in the country. By providing actionable insights, the goal is to aid in the development of effective policies and practices that better cater to the mental health needs of the population, ultimately fostering a more inclusive and effective mental healthcare system in India.

## **1.7 Methodology**

Research methodology refers to the systematic and organized approach researchers use to conduct a study or investigation. It involves the principles, procedures, and techniques employed to gather, analyze, interpret, and draw conclusions from data in a rigorous and reliable manner. Research methodology is crucial in ensuring the quality and validity of research outcomes. It includes various components such as research design, data collection methods, data analysis techniques, and the philosophical framework guiding the study. These elements are chosen and applied based on the research objectives and the nature of the investigation. A well-defined research methodology provides the structure for conducting research, allowing for a systematic and methodical exploration of questions, hypotheses, or problems, ultimately leading to credible and meaningful research findings.

Researchers collecting data needed to make a meaningful analysis and concluded that in the study. The thump of data collection is a critical step in the research process. There are two basic ways for researchers to collect this data: primary and secondary data. The type of data collection method is based on research objectives. Primary data is the first-hand information gathered by the researchers; however, secondary data is already available, and can be downloaded and used as needed. This data can be found in sources such as newspapers, business journals, government statistics, and more. Both primary and secondary data are used for fulfilling the objectives of the proposal. The author has conducted primary surveys through questionnaires both online (due to Covid restrictions) and offline, and also conducted interviews with different stakeholders relevant to the research. Primary data leads to collecting first- hand information from questionnaires and interviews. The interviews were conducted either face to face or by telephone. The author has used both primary data and secondary data for this research. The author has used a mixed method using quantitative and qualitative statistics for analyzing the results.

## **1.8 Importance of the Study**

The significance of a study on "Mental health insurance in India" is multifaceted and holds critical importance for various stakeholders, including policymakers, healthcare providers, insurance companies, and the general population. Mental health insurance fosters healthcare equity by providing individuals with mental health conditions equal access to essential treatments, free from financial barriers. Including psychiatric disorders under insurance coverage will undoubtedly help reduce the treatment gap by mitigating the financial risks that families face. Affordability of care has been identified as a critical factor influencing treatment utilization among the various factors impacting the treatment gap (Gururaj., 2016). Including mental health coverage in insurance policies sends a powerful message, emphasizing that mental health is equally important as physical health and helping to shift societal perceptions. Recognizing the economic implications of mental health insurance is essential, as it unveils the cost-effectiveness of such coverage. Understanding how early intervention and access to mental health services can potentially reduce long-term healthcare costs and enhance overall economic productivity is crucial (Verma 2018). Research findings can serve as valuable tools for policymakers, offering insights to refine and improve mental health insurance policies.

This may involve regulatory adjustments, incentives for insurance companies, or targeted interventions to enhance coverage and access. Healthcare providers stand to benefit from these insights by gaining a better understanding of the financial dynamics associated with treating mental health conditions under insurance schemes. This knowledge can guide healthcare facilities in offering more comprehensive and accessible mental health services. Lastly, for insurance companies, the study can provide insights into the market demand for mental health coverage and associated risks, assisting in the development of more responsive and effective insurance products. This information can guide the development of more tailored and cost-effective insurance products. Public awareness about the availability and importance of mental health insurance can be improved through research findings. This can lead to more informed decisions among individuals and families regarding their healthcare coverage. The study can inspire further research and innovation in mental health insurance, potentially leading to the

development of new and improved insurance models that better serve the needs of individuals with mental health conditions.

### **1.9 Limitations of the Study**

The time available to perform the study is very short, covid lockdown created a barrier in the survey and the researcher confines the study only to the specific area, and other parts of India are not considered for the study. Sample size needs to increase to make the data feasible for an insurance premium. Furthermore, the primary data is more relied on for performing the research, hence the respondents may have provided biased responses to the questions.

### **1.10 Chapter Plan**

The following are the key indexations of the thesis.

The first chapter, i.e., Introduction sets the stage by introducing the research problem, objectives, and the significance of the study. It provides an overview of the research context and outlines the structure of the thesis.

The first chapter, titled Introduction, establishes the foundation by outlining the research problem, objectives, and the importance of the study.

The second chapter, Literature Review, examines the existing body of knowledge relevant to the research topic. It critically evaluates previous research, identifies gaps, and frames the theoretical framework for the study. This chapter explains the theoretical concepts and models that underpin the research.

The third chapter is on research methodology, here, the researcher describes the research methods and techniques used for data collection and analysis. This chapter is comprehensive and provides a clear rationale for methodological choices.

The fourth chapter interprets and analyzes the data, drawing conclusions and insights that address the research questions or hypotheses. The researcher discusses the findings in the context of the literature reviewed and the theoretical framework. It's where the significance of the research is emphasized.

The final chapter summarizes the key findings, discusses their implications, and provides specific recommendations for future research or practical applications. It also addresses the limitations of the study.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Mental Health

“Mental Health” (Huber et al., 2011) is that a person is able to effectively manage and navigate the typical challenges and pressures encountered in daily life, at the same time, they are also able to demonstrate a capacity for productive engagement in occupational pursuits and meaningful contributions to the larger societal context. The idea encompasses a number of different components of well-being, such as emotional, psychological, and social characteristics (Keyes, 2006). These aspects, when taken together, reflect an individual's ability to control their emotions, build positive relationships with other people, and make decisions based on accurate information. The idea of mental health includes more than just the mere absence of mental disorders (WHO, 2004); it also encompasses a total condition of equilibrium that allows individuals to fully realize their strengths, successfully traverse the challenges that life presents, and make significant contributions to society.

Self-esteem, self-awareness (Sutton A.,2016), and the capacity to successfully navigate and adapt to changes in one's environment are some of the additional aspects included in the idea of mental health. The World Health Organisation (WHO,2004) defines mental health as a condition of emotional well-being and optimal psychological well-being. An individual can recognize and harness their own capacities, effectively manage usual life pressures, engage in productive endeavors, and make meaningful contributions to their society. In other words, mental health is a state of well-being where an individual can recognize and utilize their own abilities. The definition just presented emphasizes the positive attribute of mental health, going beyond the simple absence of illness, to emphasize the presence of constructive characteristics and the ability to function.

Common mental disorders (CMDs) are a group of mental health conditions more common than others (Goldberg, 1994). CMDs, often referred to as "invisible disorders," are frequently underestimated by patients, caregivers, health professionals, and policymakers, despite their substantial impact on health burdens. They are marked by various anxiety and depression

disorders that can have a lasting effect on a person's life. Thirteen percent of disability-adjusted life years (DALYs) (Vigo et al., 2016) and thirty-four percent of years lived with disability (YLDs) worldwide are attributed to mental illness. It is estimated that 264 million people (3.6%) and 300 million people (4.4%) (WHO,2017) worldwide suffer from anxiety and depression, respectively, with low- and middle-income nations accounting for more than 80% of this burden. Untreated CMD patients (Priester et al., 2016) are more likely to suffer from illnesses, commit suicide, and die young. People with CMD have poor workability and are unable to carry out their jobs to the required standard (Boschman et al., 2012). The symptoms can last for months or years and range in severity from moderate to severe. It affects the affected person's mood or feelings. It disrupts day-to-day functioning and results in noticeable emotional anguish.

People suffering with severe mental illness (SMI), such as those with bipolar disorder (Beyer et al., 2004), schizoaffective disorder, major depressive disorder, and schizophrenia (Leucht et al., 2007), experience a mortality rate two or three times higher than that of the normal population, according to a number of reviews and research. People suffering from SMDs experience a wide spectrum of physical health issues. Although these illnesses are relatively common in the general population, they have a far bigger effect on those who have SMI (MAJ, 2009).

## **2.2 Mental Healthcare Act 2017**

The Mental Healthcare Act, of 2017 (MHCA, 2017), is a key piece of legislation that was enacted in India with the intention of addressing the ongoing and critical issues that are associated with mental health and the rights of those (Gupta & Sagar, 2021) who are affected with mental disorders. The aforementioned piece of legislation was passed into law on May 29, 2018, with the primary intention of building a complete legal framework with the purpose of promoting and protecting mental well-being, as well as upholding the rights of those who are afflicted with mental diseases. A large amount of emphasis is placed in the Act on both the treatment and care of those who suffer from mental disorders. Additionally, the Act emphasizes the highest value of the autonomy and dignity of these individuals. Measures relevant to the establishment of mental health services, protections against discriminatory practices, and the right to mental healthcare services that are both affordable and of good quality are all included in the statute (Basavaraju et al., 2019). To add insult to injury, it is essential to point out that the Act also mandates the formation of a Mental Health Review Commission. This commission will

be responsible for overseeing the implementation of the act and ensuring its effective enforcement. It has repealed the existing Mental Health Care Act of 1987. (MHCA, 1987).

Moreover, the Act places a strong emphasis on the decriminalization of suicide, recognizing that suicide attempts are often a manifestation of mental distress and should not be treated as a criminal offense. It mandates the government to take measures to reduce the mental health stigma and promote awareness and education regarding mental health. Additionally, according to the section 21 (4) of the Act, it is mandatory insurance companies to provide equitable coverage for mental health services, thereby ensuring access to necessary treatments and therapies.

### **2.3 Health Insurance in India**

In the setting of India, it is usual for health insurance plans (Dutta, 2020) to provide coverage for a variety of hospitalization bills. These expenses might include charges for lodging, fees for medical practitioners, costs associated with surgical procedures, and expenses incurred both before and after the patient is admitted to the hospital. One factor that helps to enhance policyholder convenience is the fact that several insurers provide cashless hospitalization (Amutha, 2023) services at hospitals that are part of their network. In India, the health insurance premium is influenced by various factors, including the age of the insured individual, the amount of coverage, any pre-existing conditions, and the type of coverage selected. Individuals from a wide variety of backgrounds are able to get health insurance coverage since the rates are not too expensive.

Throughout the previous few decades, the Indian health insurance market has seen significant expansion and development, therefore gaining a key position within the healthcare system of the nation. The steps taken by the Indian government have made a major contribution to the development of health insurance promotion. In India, the Pradhan Mantri Jan Arogya Yojana (PM-JAY), more generally known as Ayushman Bharat, is a noteworthy government-backed health insurance initiative. It is recognized as one of the biggest schemes of its type on a global scale. Through the execution of this programme, vulnerable families are given the opportunity to receive financial protection against the considerable expenditures connected with healthcare.

The following is a thorough collection of health insurance providers that are presently functioning in India:

- (1) National Insurance Co. Ltd.
- (2) SBI General Insurance Co. Ltd.
- (3) Bajaj Allianz General Insurance Co. Ltd.
- (4) Navi General Insurance Ltd.
- (5) Bharti AXA General Insurance Co. Ltd.
- (6) Liberty General Insurance Ltd.
- (7) HDFC ERGO General Insurance Co. Ltd.
- (8) Shriram General Insurance Co. Ltd.
- (9) Future Generali India Insurance Co. Ltd.
- (10) Manipal Cigna Health Insurance Company Limited
- (11) The New India Assurance Co. Ltd.
- (12) Max Bupa Health Insurance Company Ltd.
- (13) IffcoTokio General Insurance Co. Ltd.
- (14) Care Health Insurance Ltd.
- (15) Reliance General Insurance Co. Ltd.
- (16) Royal Sundaram General Insurance Co. Ltd.
- (17) The Oriental Insurance Co. Ltd.
- (18) Go Digit General Insurance Ltd.
- (19) Tata AIG General Insurance Co. Ltd.
- (20) Cholamandalam MS General Insurance Co. Ltd.
- (21) Acko General Insurance Ltd.
- (22) Edelweiss General Insurance Co. Ltd.
- (23) ICICI Lombard General Insurance Co. Ltd.
- (24) Kotak Mahindra General Insurance Co. Ltd.
- (25) Magma HDI General Insurance Co. Ltd.
- (26) Raheja QBE General Insurance Co. Ltd.
- (27) United India Insurance Co. Ltd.
- (28) Aditya Birla Health Insurance Co. Ltd.
- (29) Star Health & Allied Insurance Co. Ltd.
- (30) Universal Sampo General Insurance Co. Ltd.

## **2.4 Public and Private Health Insurance in India**

India's commercial health insurance industry, though relatively young, is experiencing rapid growth, exceeding 20% annually (Prasad & Ghosh, 2020). This sector includes private companies and public sector entities such as New India Assurance and United India Insurance, which provide health insurance on a commercial basis. Notably, public sector insurers account for more than half of the health insurance market in India (Prasad & Ghosh, 2020). In public health and health policy, it is suggested that health insurance can serve as a crucial safety net for low to middle-income citizens by mitigating emergency healthcare expenses across all social classes (Bawa & Verma, 2012). India, with its federal structure supported by both state and central governments, has launched several initiatives to provide healthcare services through various forms of insurance. A prominent example is the Rashtriya Suraksha Bima Yojana (RSBY), introduced in 2008 across 25 states to assist poor (BPL) households (Patel et al 2015). By 2014, nearly 36 million households had been enrolled in this program. Additionally, in 2018, the Ayushman Bharat: Pradhan Mantri Jan Arogya Yojana (PMJAY) was introduced to replace the RSBY program. The National Health Policy 2017 envisions health insurance as a crucial quality service aimed at increasing population coverage and reducing catastrophic health expenditures (Sharma, 2015). For individuals in formal employment, healthcare coverage is available through schemes like the Employees' State Insurance Scheme (ESIS) and employer-provided group insurance plans. However, workers in the informal sector and the self-employed, who lack access to government-provided health insurance, remain vulnerable to catastrophic healthcare expenses. Additionally, commercial health insurance products predominantly cover hospitalization, leaving basic primary and outpatient healthcare services unaddressed (Bhat et al., 2017).

Furthermore, there has been a rise in investments in the private sector, offering various health insurance plans that cover different aspects of healthcare (Mahal 2002). Under the National Health Mission (NHM), technical and financial support is provided to States and Union Territories to enhance their health systems through public-private partnerships tailored to each state's needs. States are also encouraged to contract or outsource health services to the private sector to improve efficiency and quality. Additionally, private sector participation in health systems is being bolstered by an expanding range of health insurance schemes. In India, private health insurance is a significant component of the country's healthcare ecosystem, offering

individuals and families the option to secure comprehensive medical coverage through private insurance providers. These policies are distinct from government-sponsored health insurance programs and are typically purchased by individuals or employers to safeguard against the high costs of healthcare, including hospitalization, medical procedures, and other related expenses. In India, there are several types of private health insurance programs, offering various coverage options to cater to the specific needs and preferences of policyholders. These policies may include family floater policies, individual health insurance, senior citizen health insurance, group health insurance, and specialized plans such as critical illness coverage.

## **2.5 Government Health Insurance Schemes**

The Indian government's major healthcare initiative, Ayushman Bharat, was launched in September 2018 under the name Pradhan Mantri Jan Arogya Yojana (PM-JAY). This ambitious initiative intends to offer financial security to vulnerable and economically disadvantaged sections of society by offering them access to quality healthcare services. PMJAY is a publicly funded health insurance scheme designed for socioeconomically disadvantaged rural populations and specific occupational groups within urban areas. It aims to cover 100 million households, approximately 500 million people, which represents about 40% of the country's total population (PM-JAY. 2020). The Pradhan Mantri Jan Arogya Yojana (PM-JAY) and Health and Wellness Centers (HWCs) are the two main pillars of Ayushman Bharat. Under the PM-JAY component, families identified as economically deprived are entitled to receive insurance up to INR 5 lakh in coverage annually for each family. The scheme covers around 1,350 medical and surgical procedures, encompassing nearly all secondary and most tertiary care services. Beneficiaries can access free treatment at public hospitals or empaneled private hospitals, with all pre-existing conditions included and no fees charged by the hospitals. This insurance coverage can be utilized for hospitalization expenses related to various medical treatments and procedures, including surgeries, diagnostics, and pre-and post-hospitalization care.

## **2.6 State Health Insurance Schemes**

The implementation of the PMJAY scheme is managed by the state governments. States have the option to continue their existing programs alongside the national program or integrate them with

the new scheme. For instance, Andhra Pradesh provides direct coverage, while Tamil Nadu and Gujarat combine their existing state schemes with PMJAY. Arogya Karnataka, state-specific healthcare initiative launched in the Indian state of Karnataka focuses on enhancing healthcare infrastructure, improving healthcare delivery, and offering convenient, reasonably priced healthcare services to the people of Karnataka. Furthermore, Arogya Karnataka also seeks to ensure that the economically disadvantaged population in Karnataka has access to financial protection against catastrophic healthcare expenses. Additionally, states like Maharashtra have introduced health insurance schemes such as the Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY), aiming to provide financial coverage to below-poverty-line families for medical expenditures. The Tamil Nadu state government in India has implemented various insurance schemes across different sectors to cater to the various needs of its citizens. One significant initiative is the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS), which offers financial coverage for a variety of medical treatments. Under this scheme, eligible beneficiaries can avail of cashless treatment in empaneled hospitals for various medical conditions, ensuring access to quality healthcare without a significant financial burden.

## **2.7 Mental Health Insurance in Developed Countries**

In developed countries, mental health insurance plans are essential in meeting the mental health needs of their populations. These plans aim to provide comprehensive coverage for mental health services, improve access to high-quality mental healthcare and decrease the stigma attached to mental illness. The United Kingdom provides healthcare services to its citizens through the National Health Service, which is funded by taxes (Papanicolas et al., 2019). Similarly, other developed nations like Germany, France, and Australia also offer almost universal healthcare coverage to their populations. Conversely, the United States of America operates primarily on an insurance-based healthcare system, where healthcare access is decided by the insurance policy obtained by the individual, their family, or their employer. Research conducted in the United States (Morrisey, 2014) has indicated that compulsory health insurance coverage for mental health services does not effectively enhance mental health outcomes or decrease the suicide rate (Klick & Markowitz, 2005), which serves as a key measure of mental health.

**Australia:** Australia offers a two-tiered system of public and private health insurance (Leach et al., 2012). Mental health coverage within health insurance plans encompasses services aimed at supporting mental health. This coverage includes consultations with psychiatrists, psychologists, and other mental health professionals, as well as treatments such as counseling sessions and prescribed medications. Private hospital insurance includes coverage for hospital accommodation expenses and contributes towards a portion of the medical fees. In contrast to typical pre-existing conditions, which typically necessitate 12 months of membership before coverage for hospital admission, psychiatric services, and rehabilitation, only necessitate a 2-month waiting period, even in cases where the condition existed prior to enrollment.

**United States:** The U.S. has a complex and fragmented healthcare system, with mental health insurance often integrated into general health coverage. Health insurance was classified into three categories: Medicaid (excluding private insurance), private insurance and other (including CHAMPUS, Medicare, military health care, coverage by TRICARE, Department of Veterans Affairs, or other forms of insurance). Medicare in the US provides coverage for mental health disorders. Medicare is divided into three parts : Part A( Inpatient Care or Hospital Insurance) , Part B ( Outpatient Care or Medical Insurance), Part D ( Prescribed Drug Coverage).Original Medicare consists of Part A , Part B and Part D can be added whereas Medicare Advantage mainly known as Part C consists of Part A, Part B and Part D ( all included) .

CHIP( Children’s Health Insurance Program) provides health insurance for children under the age of 19 whose families make more than what makes them eligible for Medicaid but not enough to purchase private insurance. It is a state and federal program. The following mental health benefits are covered by CHIP: prescription medications, emergency care, outpatient mental health therapy, and inpatient hospitalization.

Government-run health insurance programs, such as TRICARE and VA Health Care, are exclusively available to military personnel. These plans provide coverage for outpatient mental health treatments, psychiatric residential care for children and adolescents, emergency care, prescription medications, and inpatient hospitalization for 30 to 45 days per admission or per year. Additionally, they offer partial hospitalization for up to 60 days annually. VA Health Care

further provides intensive care management, psychosocial rehabilitation services, and supported employment. However, not all services are available at every location. It is not possible to purchase private insurance directly from state or federal sources.

**United Kingdom:** The National Health Service (NHS) in the UK offers comprehensive mental health coverage, offering a range of services from primary care to specialized psychiatric care. The initiative also includes the establishment of specialist mental health teams in emergency departments and clinically-driven evaluations of standards for urgent mental health care. **Vitality Health is a UK** based private health insurance company which provides coverage for mental disorders. Mental Health Cover includes unlimited talking therapy sessions, up to £1,500 worth of out-patient treatment, and up to 28 days of treatment in a hospital per year, as a day-patient or an in-patient. **Bupa By You** health insurance in the UK has rolled out improved mental health cover for customers. There are no time limits for the cover and they provide ongoing support even if the condition re-occurs. All mental disorders are covered except dementia, and learning, behavioral and developmental problems. They cover inpatient and day patient treatment as standard. There are other private insurance companies in the UK such as AXA, Aviva which also provide some coverage for mental disorders.

**Germany:** Germany has one of the best and most exhaustive health care systems in the world. As of 2023, individuals earning a gross salary below €66,600 per year or €5,550 per month are mandated by law to enroll in a public, statutory health insurance scheme through a provider of their preference. If the gross salary is more than the above-mentioned threshold then residents are liable to get private health insurance. While residing in Germany, you have three choices for health insurance: private health insurance from either a German or international insurance provider, the publicly regulated government health insurance scheme, or a combination of government health insurance scheme and additional private health insurance coverage. Similar to general inpatient care, the states oversee the planning of inpatient psychiatric services. Psychiatric outpatient departments offer another avenue for delivering mental health care. These departments operate within psychiatric hospitals authorized by the Accreditation Committee to offer psychotherapeutic services and outpatient psychiatric to insured individuals. Furthermore, public health offices offer social-psychiatric services (Achstetter et al., 2020), such as

counseling, home visits, social work, and crisis intervention, with a focus on assisting the most vulnerable individuals among the mentally ill.

**Switzerland:** Switzerland's mandatory health insurance ensures that all residents have access to quality medical care, with approximately 58 insurance companies to choose from (Schneeberger & Schwartz, 2018). The Swiss government monitors these insurers and negotiates reimbursement rates. Switzerland's approach could assist as a blueprint for developing a model of mental health care that guarantees access to necessary services, including a dense network of developing a model of mental health care and psychiatric inpatient facilities, all while keeping care affordable. Swiss residents have access to outpatient mental health services offered in diverse settings such as public clinics and private practices. Patients are responsible for a 10% copayment for these services, capped at a maximum of \$700 annually. As an illustration, in Zurich, the average cost of a 60-minute psychotherapy session with a psychiatrist is approximately \$200, with a \$20 copayment. (Busato et al., 2012).

**Singapore:** AIA in Singapore has the first ever insurance policy addressing mental disorders. It is named as AIA Beyond Critical Care which covers not only critical illnesses but also top five mental disorders which are Schizophrenia, Major Depressive Disorders (MDD), obsessive compulsive disorder (OCD), Bipolar Disorder, Tourette Syndrome. All these diseases are covered until the age of 75 years except Tourette Syndrome (until the age of 21 years). Pre-existing conditions are not taken into account and there is a waiting period of 3 years for another illness. Claim limit is 20% of the insured amount or up to a maximum of \$50,000 and the maximum number of claims per illness is 1

**China:** Starting in the early 2010s, China has attained universal health coverage by implementing social health insurance (SHI), ensuring that over 95% of the population has accessibility to the basic health insurance (Chen et al., 2022). China's SHI comprises two primary schemes: the Urban Employee Basic Medical Insurance (UEBMI) (Yip et al., 2012) and the Urban-Rural Residents Basic Medical Insurance (URRBMI) (Zhu et al., 2017). In China,

mental health disorders are covered by public health insurance schemes (Di Liang et al., 2018). It is evident that many developed countries have prioritized mental health significantly. Both government and private insurance companies have introduced various insurance solutions to reduce the financial burden of treating chronic illnesses. Moreover, the inclusion of outpatient care in these plans is a commendable step towards addressing mental health issues.

## **2.8 Need for Mental Health Insurance in India**

One of the most promising approaches to long-term mental health financing is to incorporate mental health into ongoing reforms to national insurance programmes (Chisholm et al., 2019), according to a recent analysis on the potential, difficulties, and strategies for financing mental health in nations with lower and moderate incomes. Although coverage under national, community, and social health insurance programs has been associated with higher use of healthcare services, as demonstrated by numerous systematic evaluations conducted in low- and middle-income countries (LMICs). (Spaan et al., 2012), it is unclear whether and to what extent these changes in financing translate into improvements in the implementation of mental health care (Prinja et al., 2017). The World Health Organization's Atlas study, which examined 171 nations, provides the most current assessments of their respective significance as compared with other sources of financing. Compared to just 3% of high-income nations, nearly 40% of low-income nations stated that paying for mental health care out of pocket was the main source of funding.

Furthermore, the cost of services for mental health is startlingly expensive, frequently plunging families into financial ruin. It is estimated that 85% of people with mental illnesses go to the private sector for treatment (Manjunatha et al., 2022), and the out-of-pocket expenses (OOPE) in the private sector are almost five times greater than those in the public sector. OOPE for those with mental illnesses comprises prescription drugs, travel expenses, psychiatrist fees, and lost income (Sivakumar et al., 2019) on the day of the doctor's appointment. Health insurance schemes play a vital role in averting catastrophic healthcare expenses and the resulting risk of falling into poverty (T et al., 2017), particularly in cases where the public health system fails to reach every citizen. In this light, India must provide financial security for individuals suffering

from mental disorders.

## **2.9 Prevalence of mental disorders in India**

In today's world, due to the changing lifestyles of people, there has been an increase in the worldwide burden of diseases. According to Ferrari et al. (2022), the number of Disability Adjusted Life Years (DALYs) worldwide attributable to mental diseases increased from 80.8 million in 1990 to 125.3 million in 2019. In 2019, mental health problems accounted for the seventh-highest number of disability-adjusted life years (DALYs), with most of them caused by anxiety and depression. Depressive Disorders were ranked second among the top-25 causes of Years of Life lived with Disabilities, followed by anxiety disorders in the 8th position (Ferrari et al., 2022). These statistics show that the prevalence of mental health disorders is increasing and it is obstructing individuals from living healthy and productive lives. The pervasiveness of mental disorders in India is a significant public health issue that demands attention. According to the India State-Level Disease Burden Initiative Collaborators, the impact of mental illness on disability-adjusted life years (DALYs) has nearly doubled from 2.5% to 4.7% between 1990 and 2017 (Sagar et al., 2020). This indicates a growing burden of mental illness in the country. The report estimates that 197.3 million Indians were suffering from some form of mental illness in 2017. Among them, 45.7 million individuals had depressive disorders, and 44.9 million had anxiety disorders. According to the report, mental disorders such as depression, anxiety, idiopathic developmental intellectual disability, followed by schizophrenia and bipolar disorder are the leading causes of YLDs. These numbers reflect the scale of the problem and highlight the need for increased awareness, intervention, and support for those affected, particularly in densely populated urban areas. Mental health problems are more prevalent in urban metropolitan areas of India, as indicated by the National Mental Health Survey of India conducted in 2014-2015. The study encompassed 12 states and surveyed 34,802 individuals, revealing that common mental disorders (CMDs) impact nearly 10% of the population.

An epidemiological study was initiated in Bangalore (Girimaji et al., 2005) to determine the prevalence rates of psychiatric disorders in children and adolescents among 2064 children aged 0-16 years. The prevalence rate of such disorders in India is reported to be 12.5% among

children within this age group. In India, major depressive disorder affected 35% of men and anxiety disorders affected 20% (Baxter et al., 2016). Among women, anxiety disorders were prevalent in 33% and major depressive disorder in 47%. In India, approximately 20% of adults are affected by psychiatric disorders (Math & Srinivasaraju, 2010), underscoring the necessity for mental healthcare priorities to transition from focusing solely on psychotic disorders to addressing common mental disorders at primary health centers. The prevalence of depressive disorders in India among adults is 5.25%, with the highest rates in 40-59 age groups, females (Arvind et al., 2019), and those living in cities with populations over 1 million. Approximately 33% of adolescents in slums of Lucknow (Chauhan & Dhar, 2019), India, suffer from severe mental health problems, with factors like gender, age, education, household economic status, caste, media exposure, and religion being significantly associated with these problems. Epidemiological studies (Ganguly, 2000) suggest national prevalence rates for all mental disorders in India are around 73 per 1000 population, with schizophrenia being consistent across cultures and time. Urban mental morbidity is slightly higher than rural rates.

Unfortunately, there is a significant treatment gap for mental disorders in the country. The National Mental Health Survey, 2015-16, reported treatment gaps ranging from 70% to 92% for various mental illnesses, with a gap of 85% for common mental illnesses and 74% for severe mental illnesses. This treatment gap stems from several factors, including a scarcity of mental health professionals (WHO, 2018) and inadequate infrastructure (Grover et al., (2012), social stigma (Pradhan et al, 2013) and discrimination (Shidhaye and Kermode 2013), lack of awareness, and the high cost of long-term treatment (Bloom et al, 2014), leading to an economic burden for individuals and families. There is a lack of mental health facilities especially in rural India and inadequate integration in the primary system of health care (Meghrajani et al.,2023). According to WHO research, there is a significant gap between the prevalence of mental diseases and the accessibility of care, with just nine mental health professionals per 100,000 individuals on average worldwide. Additionally, the distribution of these things varies greatly between nations; high-income countries have more than 50 people per 100,000, compared to less than one in low-income ones. One of the contributing factors to the treatment gap is the lack of financial coverage for mental illness. Indian insurance companies have traditionally excluded coverage for psychiatric disorders in their health insurance policies (Pattanayak & Sagar, 2016). The

prevailing health insurance schemes in India, which include government-subsidized schemes, social security schemes, and voluntary private health insurance schemes, approximately cover 70% of the population (Niti Aayog,2021).

## **2.10 Cost of Treatment of Mental Disorders in India**

The treatment cost of mental disorders in India is a pressing issue that affects families, individuals, and society as a whole. The sources presented state that the costs associated with mental diseases that manifest before adulthood are ten times more than those that do not. (Jain et al., 2012).The concept of the cost of illness (COI) encompasses the diverse impacts of a disease burden on society, extending beyond treatment expenses to include effects on life expectancy, morbidity, diminished quality of life, costs associated with premature death, and disability resulting from the illness (Jo, 2014). COI studies are considered a fundamental assessment method within healthcare systems, aiding in the identification of effective preventive and treatment strategies aimed at mitigating the economic burden posed by health issues.

According to the study conducted by Kondapura MB e.t., 2012, suggested that the expense of mental health treatments and services in India includes both direct and indirect costs. The direct costs encompass diagnostic and therapeutic costs, as well as other costs such as travel and living expenses. Indirect costs include the lost income of caregivers, a low level of education, and the burden of disability-adjusted life years (DALYs) from comorbidities.

In a study conducted it was found that the median monetary cost of the pathway to psychiatric care in Jaipur, India, was Rs. 3565 (Jain et al., 2012). In another study of 140 patients, it was found that the average monthly total cost of treatment of Indian Rupees (INR) 770 (Sarkar et al., 2017). For bipolar illness, the total monthly treatment costs were INR 750; for schizophrenia, they were INR 720; and for nonspecific nonorganic psychosis, they were INR 830. There were no discernible differences in treatment costs between the groups. On average, patients in India, were responsible for covering 22.8% of their treatment costs, with the hospital covering the rest. Patients typically spent around 12% of their per-capita income on direct treatment-related

expenses. The mean cost per psychiatric outpatient visit in Chattisgarh in India was INR 2643 for services from formal for-profit providers, INR 586 for informal private providers, and INR 400 for public services. (Garg et al., 2021).

The direct expenses associated with treating schizophrenia encompass hospitalization costs (both short- and long-term), expenses for outpatient follow-up visits, residential and day care fees, pharmaceutical interventions, laboratory tests, and social security payments (Tajima-Pozo et al., 2015). A study estimated that the cost of bipolar disorder was somewhat higher than the price of schizophrenia in a tertiary care general hospital in Delhi providing free medical facilities. Similar kind of study estimated the annual outpatient cost of 50 schizophrenic patients in India was US\$274; these were not significantly different from diabetes mellitus (Grover et al., 2005). Studies have estimated the costs of mental disorders, such as bipolar disorder and schizophrenia, in tertiary care hospitals and outpatient settings. However, due to the higher indirect costs associated with mental disorders (Sahitya and Reddy, 2018), it is challenging to accurately estimate the true economic burden of sickness. COI studies (Xu et al., 2003) are deemed crucial for informing policymaking, optimizing the utilization of healthcare resources, managing health problems effectively, and safeguarding both household and national economic health.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

In a broad sense, research methodology refers to the systematic and scientific approach adopted to address a research problem. This chapter explains the research methodology used in the study. The primary purpose of the methodology is to determine the approach for resolving the selected research problem, along with the methods, tools, and techniques utilized to arrive at a solution. The research methodology is structured to minimize errors in both data collection and data analysis. It acknowledges the possibility of different problems related to the same subject requiring diverse types of analysis and recognizes that there can be more than one approach to problem resolution. The selection of an appropriate methodology significantly influences the suitability, efficiency, and accuracy of the research process.

Continuing in the chapter, the research problem is delineated through the presentation of research questions and the statement of the problem. The research design outlines the strategy employed to investigate the problem. Within this chapter, the sampling plan furnishes information on the characteristics and selection criteria for the sample used in addressing the problem. Subsequently, the particulars of the data collection process for obtaining primary data are detailed. To assess the viability of the research plan and incorporate necessary adjustments, a pilot study was conducted. This chapter is further subdivided into: research design, sampling technique, focus group discussion, pilot study, final survey questionnaire and exploratory analysis.

#### **3.1 Data Collection Instruments**

Kothari and Garg (2015) emphasize the substantial role of a questionnaire in research design, considering it the core of the survey method. The selection of a questionnaire for this study was

based on its systematic utility as the most effective tool for eliciting responses and reactions from respondents. Similarly, as Bhattacharya (2021) asserted, a well-constructed questionnaire holds paramount importance in conducting surveys. Hence, the questionnaire was deemed the most efficient and cost-effective method for eliciting responses. The questionnaire was of multiple choice and open-ended questions.

The researcher utilized secondary data sourced from various records, journals, reports, annual reports, periodicals, books, and the internet, among other references, to gain insight into the topic. Several sources related to statistics include the National Family Health Survey India Report, the Annual Report of the Insurance Regulatory and Development Authority of India, the Handbook on Indian Insurance Statistics, and RBI bulletins. To carry out the review, the researcher conducted a search using keywords including "health insurance," "comprehensive insurance coverage," "insurance choices," and "mental health insurance" on international websites like Web of Science, PubMed and Scopus, and. In-depth information was acquired regarding the factors influencing consumer buying decisions concerning Mediclaim insurance, as well as the methodologies and analysis tools relevant to Mediclaim insurance. Subsequently, primary data was employed to obtain the necessary information for testing the research hypotheses. The collection of primary data involved the use of questionnaires, focus groups, and schedules with respondents, facilitated by a structured questionnaire. Respondents who willingly participated provided completed questionnaires. The questionnaire was chosen as the instrument for gathering research data from respondents.

### **3.2 Scope of Study**

The study was conducted from August 2020 to November 2023. This was an elaborative study which comprised all stakeholders of the health insurance industry and allied fields. The main stakeholders included mental health professionals, representatives from private insurance companies, persons with lived experiences, caregivers, policy makers and financial advisors who can play a significant role in the mental health insurance industry.

### **3.3 Sample Size**

The study was conducted in private clinics of four mega cities of India namely Kolkata, New Delhi, Bangalore and Pune which provided outpatient psychiatric services. The author has interviewed 100 mental health professionals consisting of psychiatrist (N=47), psychologists (N=28) and counselors (N=25) with the sole aim to understand the different costs involved for the treatment of common mental illnesses (depression, anxiety) and severe mental illness (Schizophrenia and Bipolar Disorder) for their patients. The patients are self-referred or referred by general physicians, friends or relatives.

### **3.4 Sampling Area**

The study was conducted in the four mega cities in India, Pune, New Delhi, Kolkata and Bangalore. Pune is globally recognized for its prestigious educational institutions and is the second-largest city in Maharashtra. Emerging as a burgeoning IT hub, Pune has a population of 2,935,745, boasting a density of 9,400 people per square kilometer. The capital of India, Delhi, closely follows Mumbai with an almost 11 million population. Delhi exhibits a high population density, reaching 29,260 people per square kilometer. Kolkata holds the distinction of having the highest population density in India, with a staggering 22,000 people per square kilometer. The city is home to a population of 4,631,400 and is renowned for its bustling streets. Bangalore has emerged as a prominent technology hub in India, attracting major IT companies to establish their presence in the city. The population of Bangalore is 5,104,050, and it boasts a population density of 12,000 people per square kilometer.

### **3.5 Pilot Study**

To eradicate any uncertainties, a preliminary survey involving 25 mental health professionals was carried out, and their responses were meticulously analyzed. Based on the findings, appropriate adjustments were made to refine the interview schedule. This final version of the interview schedule was then employed to gather the necessary data.

### 3.6 Data collection method and technique

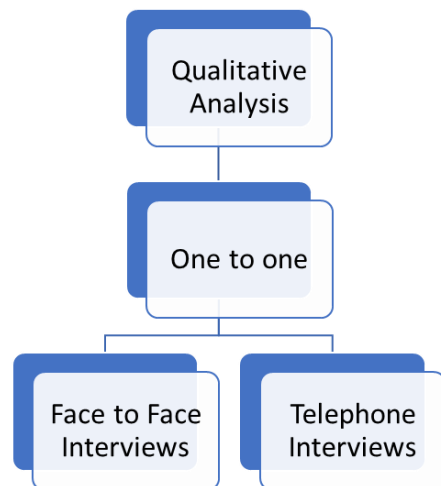
The study's objectives were realized through the collection and analysis of both primary and secondary data. The research comprises four sub-studies, each approached through both quantitative and qualitative designs. These sub-studies are interconnected, as they all center around the main objective. Moreover, the results obtained from the quantitative studies partially informed the qualitative ones.

**Table 1: Data Collection Techniques**

<b>Substudy</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Objective</b>	To review the prevalence of mental disorders in India and the role of government schemes in tackling the problem	To review the mental health insurance plans in the developed countries of the world	To estimate the direct cost of treatment of mental health disorders	To develop a viable mental health insurance model
<b>Approach</b>	Literature Review		Primary Data	
<b>Data Source</b>	Secondary Data		Primary Data	
<b>Time Collected</b>	August 2020 to September 2022		April 2021 to November 2023	
<b>Respondents</b>	Journals, Books and Internet		Interview 100 mental health professionals and one to one interview with 10 stakeholders	

### 3.7 Qualitative Data

Qualitative research is valuable because it allows for a deep exploration of a topic (Carlsen & Glenton 2011) . It is based on perspectives like social constructivism or symbolic interactionism, focusing on understanding through various methods of gathering and analyzing information. Participants were chosen for specific reasons related to the research question, and it is 'purposive' (Collingridge & Gantt 2008). The participants were chosen to generate detailed, concentrated information on the research question to enable the researcher and develop nuanced insights into the topic. The semi structured interview was conducted which covered a list of themes and questions and were open ended.



**Figure 1: Diagrammatic Representation of Qualitative Analysis**

In total, 10 individuals were enlisted for the research between September 2020 and November of 2023. There were 7 men and 3 women among the participants. These individuals were senior psychiatrists, of different organizations that are a part of implementing various mental health programs in India. Furthermore, there were participants recognized as policy advisors, whose function was primarily consultative. For example, they may advise policymakers on the necessity of certain programs and services or offer them input as members of advisory committees. Direct email invitations asking for participation was the method used to acquire participants.

Participating actively in the creation or execution of mental health policies and senior psychiatrist in India were the requirements for inclusion. Telephonic and face to face interview was conducted and consent was obtained.

These interviews were conducted for having a better understanding of the need for mental health insurance, aspects to consider while crafting the new products for the market, treatment costs, duration of treatment and determining the premium rates and underwriting policies (**Appendix 1**).

**Table 2: Participants for the Qualitative Analysis**

<b>Stakeholders Categories</b>	<b>Names</b>	<b>Designation</b>
Policy Maker	Dr Kishore Kumar	Director, The Banyan
Mental Health Professionals	Dr Nimesh Desai	Sr Indian Psychiatrist
Mental Health Professionals	Dr Smita Deshpande	Sr Indian Psychiatrist
Caregiver	Mr Amrit Bakshy	President of the Schizophrenia Awareness Association,Pune, Maharashtra
Insurance Agency	Mr Ashish Yadav	Sr Vice President, ManipalCigna Health Insurance Company Ltd.
Insurance Agency	Ms Anuradha Sriram	Chief Actuary, Aditya Birla Health Insurance Company Limited
Financial Expert	Dr Nachiket Mor	Indian banker
Mental Health Professional	Dr Mohan Agashe	Sr Indian Psychiatrist

Activist	Ms Binaifer	Director, Manav Foundation, NGO
Person with lived experiences	Dr Anil Vartak	Founder, Eklavya Foundation

The author conducted semi structured interviews with various stakeholders to identify the opportunities, obstacles and future action plans that can help the insurance companies to implement the Mental health insurance through refined products. These qualitative interviews aim to initiate a clear discussion on mental health insurance (MHI) in India by pinpointing opportunities, obstacles, and future strategies that will help insurance companies effectively implement MHI with well-designed products. The stakeholders include: mental health professionals, caregivers and persons with lived experiences, public health experts, insurance companies, policy makers and NGOs. Based on the interviews with the stakeholders, five main themes for the qualitative analysis were evolved: Need for mental health insurance in India, Design of the mental health insurance products, Premium rates and pricing, Marketability of the insurance product and Practical problems.

### **3.8 Quantitative Data: Semi-structured interview protocol for primary data collection and expert validation**

#### **Validation of the Questionnaire**

The study's primary data was acquired through meticulously crafted questionnaires administered to the mental health professionals. These questionnaires were purposefully designed to elicit comprehensive and relevant information from the respondents, addressing the study's objectives. The questionnaire focussed on the cost of treatment of common and severe mental illnesses in private clinics. The formulation of the questionnaires involved discussions with experts and a thorough review of existing literature to ensure their effectiveness.

The questionnaire's validity was assessed through different methods, with two commonly utilized procedures in the study:

1. Face Validity: This aspect assesses how well the questions appear to measure the intended variables or constructs.

2. Content Validity: It examines whether the questionnaire adequately covers all the crucial aspects of the construct under consideration. This method ensures that the questions encompass all the important dimensions or elements related to the variables being measured.

The questionnaire was sent to three experts- 3 psychiatrists and one of them was a senior research fellow to establish the validity of the questionnaire. Their suggestions and recommendations were incorporated in the final questionnaire. The questionnaire was circulated to the mental health professionals in Bangalore and New Delhi through Google form and email and post telephonic interview the data was filled in the questionnaire. This was done due to restrictions for Covid. The researcher personally visited the clinics and mental health professionals in Kolkata and Pune to collect the primary data (**Appendix 2**).

### **3.9 Treatment Protocols**

In developed nations such as the United States of America, Europe, and the United Kingdom, Clinical Guidelines have long been established as standard practice. These guidelines are formulated utilizing clinical diagnostic criteria, therapeutic practice guidelines, and disease management protocols. They serve as recommendations for healthcare professionals regarding the suitable treatment and care for individuals with particular diseases or conditions. These guidelines are founded on the most current evidence available, aiding healthcare professionals in their decision-making process. It's important to note that while Clinical Guidelines (Gopalakrishnan et al., 2014) provide valuable guidance, they are intended to supplement rather than replace the expertise and skills of healthcare professionals. Sharma et al., 2015 have observed that despite some successful methodologies for crafting Standard Treatment Guidelines (STGs) being well-documented in India, the landscape is cluttered with numerous clinical practice guidelines originating from insurers, professional bodies, individuals, and various other sources. Although there has been no systematic assessment of the quality of the Standard Treatment Guidelines (STGs) produced, reports indicate that they often lack in quality or consistency, and may even conflict with each other. As a result, prescribers are left with little confidence in their reliability.

The issues identified with Standard Treatment Guidelines (STGs) in India (Shetty et al., 2019) include the following: multiplicity, insufficient Indian evidence supporting guidelines, infrequent updates, inadequate customization based on healthcare levels, and ultimately, limited availability and accessibility. Numerous states and authorities across India have been formulating distinct Standard Treatment Guidelines (STGs), yet these documents are not readily accessible online. Ensuring that STGs are available online for free is crucial, as this could help integrate them more widely into clinical practice.

The author has used National Institute for Health and Care Excellence (NICE 2020) to ascertain STGs for mental health which can be used as standardized. Several other entities, including the Guidelines and Audit Implementation Network (GAIN), the Royal Colleges, and diverse professional organizations, are involved in developing clinical guidelines in England. However, the clinical guidelines established by NICE hold national recognition.

**Table 3: Treatment Protocol for CMDs and SMDs.**

<b>Disorders</b>	<b>Min. No. of Counseling Sessions</b>	<b>Min. No. of Psychotherapy Sessions</b>	<b>Min. Duration of Treatment</b>
Depression	6-8	6-8	6-9 months
Anxiety	6-8	6-8	9-12 months
Schizophrenia	8-12	10-15	12-24 months (follow up lifetime)
Bipolar Disorder	8-12	10-15	12-24 months (follow up lifetime)

Source: NICE Guidelines and mhGAP Intervention Guide 2.0

### **3.10 Analysis of Data**

The data acquired from the survey underwent thorough analysis and interpretation to meet our objectives. The information gathered through interview schedules proved crucial as it contained all the pertinent details essential for achieving our goals. To facilitate analysis using appropriate

statistical methods and interpretation, the data was tabulated. Microsoft excel was utilized for this tabulation, employing necessary tools whenever applicable.

### **3.11 Calculation of Premium - Pure Risk Premium**

The pure premium, also known as the risk premium, primarily consists of the combined impact of the frequency and average cost for each risk group or insured individual and the chosen coverage. Premium modeling involves calculating these effects separately and then multiplying them, which requires detailed information on these variables. Alternatively, premium modeling can be done using data on claims and exposure to determine the pure premium.

The pure premium aims to represent the amount per exposure needed to collect sufficient funds to cover anticipated claims. While determining the appropriate exposure variable is beyond the scope of this discussion, it is important to note that calculating premiums in monetary terms is the most common and straightforward approach. Additionally, other methods exist, such as calculating based on the average insured sum exposed.

The main aim of this thesis is to calculate the pure risk premium. In this paper, we will use the simplest premium calculation principle known as the pure risk premium, which are applied to life and some non-life insurance models. A premium calculation principle is a rule that determines the premium to be assigned to a given risk. A premium calculation principle delineates the guideline determining the appropriate premium to be allocated for a specific risk. Premium pricing for an insurance company relies on several key factors: the mortality rate, prevailing interest rates, and the company's expense factor. Generally the pure risk premium is calculated from:

$$\text{Pure Risk Premium (PR)} = \text{Probability of occurrence of the event} \times \text{Average cost of the occurrence}$$

One reason for modeling the pure premium in monetary units or as a rate is how the severity varies with the insured sum. This involves determining whether the severity is constant across different insured sum ranges or if the severity rate remains constant. Understanding and validating this distinction is essential for improving the accuracy of risk model predictions for premiums and rates.

## CHAPTER 4

### RESULTS AND DISCUSSION

#### 4.1 Qualitative Analysis

This part will explore the key themes and present the findings derived from the interview process and subsequent data analysis. All themes were interconnected and after analysis it emerged that providing insurance coverage for mental illness is the need of the hour. Through discussions with stakeholders from various interest groups, including mental health professionals and insurers, the author gathered opinions and ideas on the implementation of MHI products in India. These interviews provided an informal evaluation of the current infrastructure's readiness to support MHI execution. Additionally, we received feedback on design guidelines for product nature and pricing, and discussed strategies for raising awareness and disseminating information about MHI.

##### 4.1.1 Theme 1: Need for MHI

Psychological and psychiatric treatments were excluded from the insurance policies, however, after MHC 2017, IRDAI has instructed all the insurance companies to include mental health in the policies and treat mental health at par with physical health. Many of the respondents pointed to the fact that mental health is not given priority even today, even though they are of equal importance. They also felt that mental illness still remains a poorly understood concept in India. Stigma, lack of awareness, financial burden, out of pocket expenditure, lack of insurance coverage are some of the factors responsible for not prioritizing mental health. *“Mental health is not a priority when it comes to talking about it”* - Dr Mohan Agashe. *“The major burden for treatment of mental health is the cost of treatment which is entirely out of pocket”* -Dr Nachiket Mor

The major components of treatment are the direct costs- outpatient services, medicines, hospitalization, consultation fees, therapies, rehabilitation and residential costs, day care costs, food and travel and indirect costs include income loss of the patient and the caregiver. Majority

of the respondents felt that providing insurance coverage for outpatient services might reduce the financial burden of the families. More people will continue with the treatment and will reduce the treatment gap in the coming years.

*“As mentioned in the MHCA 2017, an empaneled institute can be public, private but more clarity is required whether the rehabilitation centers or day care facilities for mental health patients come under this category. I strongly think that every mental health establishment should be covered under insurance” - Mr Amrit Bakshy.*

Ms Binaifer, who is the director of the NGO, the Manav Foundation opined that many families abandon patients with mental illness due to poverty and sometimes life-long cost of treatment. Providing insurance will ease the cost of treatment since people requiring inpatient services for mental health is lower as compared to accessing outpatient services. Dr Nimesh Desai said *“Insurance should not be provided only for inpatient care but it must cover the outpatient services as well”*.

The mental health insurance market is in a nascent stage in India and insurance companies are providing coverage for hospitalization. The representatives from the insurance agencies mentioned that there is an increased risk of fraud and over hospitalization which can ultimately lead to adverse selection. Another practical problem mentioned is the lack of treatment protocol in India which can help the insurance companies to develop new products in line with the standard operating procedures. Mrs Smita Deshpande mentioned that WHO guidelines or NICE guidelines of the UK can be standard operating procedures, stating *“ WHO and NICE is following standardized procedures which can be used in the Indian context, since these guidelines have been developed independently assuring the quality.”* Dr Nimesh Desai suggested that ICD 10 is widely used by majority of the insurers globally.

#### **4.1.2 Theme 2: Design of the Product**

The theme helped to understand the views of the stakeholders about the new products which included various aspects of which disorders to include, whether it will be a standalone policy or

on a copayment basis and as a rider policy. All the mental health professionals opined that all mental illness including substance use should be included in the policy. Common mental disorders such as depression and anxiety should be included in the basic package while severe mental illness such schizophrenia may be covered as an additional package. No pre-existing conditions should be excluded from the policy. Most of the mental health professionals collectively said that it is very difficult to predict the onset of mental illness since it is influenced by a number of factors such as environmental, biological, social etc., and there are chances of having more than one mental illness at the same time.

MHCA 2017 decriminalizes suicides and it is assumed that the act is committed or tried under tremendous stress. Dr Kishor Kumar suggested that *“Suicidal ideation can be due to personal crisis and sometimes they have taken such stuffs for committing the act that they have to be in ventilation which is costly affair. Suicides should come under the safety net of insurance”*. One of the representatives from insurance companies, Mrs Anuradha Sriram mentioned that *“since MHCA 2017 has suggested to treat mental health at par with physical health, coverage should not be complexed and pre-existing conditions should be excluded”*.

Insurance companies stated that a number of factors such as age, gender, prevalence rate, morbidity, severity etc., has to be considered for designing the insurance products. Majority of the respondents opined that copayment can be one of the options and policy holders can bear up to 20% of the premium. It was also suggested that copayment should be determined based on the socio-economic condition of the policy holder. Dr Nachiket Mor suggested that *“including outpatient services should be affordable otherwise the main purpose of providing insurance will be subdued”*. Dr. Anil Vartak, person with lived experiences strongly believes that *“I think more people would be willing to avail mental health services, if the expenses are not out of pocket”*.

#### **4.1.3 Theme 3: Price of the Product**

Premium rates are calculated for any disorder based on the prevalence and incidence of occurrence of the disease. The latest mental health survey was conducted in 2015-16 and a lot has changed after Covid 19. Secondary data suggests the prevalence rate for any kind of mental

illness has increased. To develop a holistic approach towards mental health insurance, IRDIA has formed a five-member committee (May, 2023) to provide expert opinions on the coverage, inclusion, treatment protocol and other related topics. The calculation for the premium rates could be difficult in case of mental health since it is closely associated with gender, age, family history and personal habits. All stakeholders expect the insurance companies collectively agreed that mental health insurance should cover hospitalization and outpatient psychotherapy. Counseling and psychotherapy is expensive in India and people from lower income strata find it difficult to continue treatment due to the humongous costs. Dr Kishor Kumar said *“Counseling and psychotherapy are kind of medicine in mental health, then why should it be a problem to include in insurance? May be a fixed number of sessions should be included in the basic plan”*. Mr Ashish Yadav, representative from the insurance industry, mentioned *“Insurance market works on the motto “good faith” and it is expected from the policyholder to explicitly declare their past medical history..... family history.....If we don't initiate the process, we won't be able to determine its effectiveness.”*

Most of the mental health professionals were of the view to include comorbidities since many times it was seen that they are interrelated and suffer from more than one disorder. People suffering from depression show signs of anxiety attacks and vice versa.

#### **4.1.4 Theme 4: Marketability**

All the respondents agreed that there is lack of awareness and stigma which hinders people from seeking help. The dialogue around mental health in India is stigmatized and more awareness programs are required. The marketability of mental health insurance largely depends on the awareness among policyholders about mental illness and treatment procedures. The insurance companies suggested that nowadays social media plays an important role and hence the digital platform can be used for campaigning and sharing personal stories. The concept of mental health should be introduced in the schools, conducting awareness campaigns among lower socio-economic groups.

Dr Anil Vartak said *“ People know about diabetes, heart problems,.. But how many people know about mental illness? There are cases of suicides which we often hear but how many know what can be the reasons of committing suicides. More awareness among the general public should be*

*created and mental illness served under insurance should be propagated.*” Mrs Anuradha Sriram suggested that the underwriting has to be strong and inputs from the mental fraternity should be incorporated in the creating products for mental health insurance. This will reduce the asymmetric information.

#### **4.1.5 Theme 5: Practical Problems**

The majority of the respondents strongly agreed that there is a lack of budget and funding and pointed to the fact that mental health is not given the same priority as physical health. Mental health professionals also suggested that anti stigma efforts are lacking in India and social determinants play a significant role in preventing and treating mental illness in India. Mr Ashish Yadav, said, *“Government support is required for making mental health insurance successful in India and public private partnership with Ayushman Bharat can be a good example.”*

The aim of this section was to emphasize the findings that emerged from the conducted interviews. Overall, the interviews reflected a positive attitude toward MHI, providing hope and motivation for its proper and accurate implementation. To achieve parity between physical and mental illnesses, a nuanced approach to mental illness treatment is essential. One important recommendation is to include psychotherapy as an outpatient expense in various MHI products. Offering short-term, evidence-based psychotherapy can help millions of Indians manage common mental health disorders like anxiety and depression.

A key recommendation worth serious consideration is the creation of a separate regulatory authority comprising mental health professionals, policymakers, government officials, and insurance industry representatives. This body would ensure the optimal implementation of MHI. A dedicated overseeing body would be able to identify gaps, design flaws, and areas for improvement. Additionally, this collective could serve as the main authority for empanelment, dispute resolution, and ongoing research within the MHI framework.

## 4.2 QUANTITATIVE ANALYSIS

### 4.2.1 Estimating the Claim Probability

Mental disorders are one of the primary contributors to non-fatal disease burden in India, but there is a lack of comprehensive data on their prevalence, disease burden, and risk factors for each individual state. Common and severe mental health disorders observed in India include depression, anxiety disorders, bipolar disorder, schizophrenia, and substance use disorders (Math & Srinivasaraju, 2010). To arrive at the premium rate, it is important to understand the prevalence of mental disorder and its burden in India. The author has used the National Mental Health Survey statistics of 2014 - 2015 since this is the latest survey available. There are other meta analyses available online but that too capture data till 2017.

**Table 4: State Wise Prevalence of Mental Illness in India**

State-wise	Population (in crores) 2017	Common mental disorders	Severe mental disorders
Assam	3.12	5.30%	0.60%
Chhattisgarh	2.55	11.20%	0.80%
Gujarat	6.04	7.10%	0.40%
Jharkhand	3.29	10.80%	0.80%
Kerala	3.34	11.00%	0.40%
Madhya Pradesh	7.26	13.50%	0.40%
Manipur	0.28	13.30%	1.10%
Punjab	2.77	13.00%	0.50%
Rajasthan	6.85	10.10%	0.80%
Tamil Nadu	7.21	11.30%	0.50%
Uttar Pradesh	19.98	5.90%	0.30%
West Bengal	9.13	11.30%	2.30%
<b>India</b>	<b>133.87</b>	<b>10%</b>	<b>0.74%</b>

**Source: National Mental Health Survey - 2014-2015**

The treatment protocols practiced in psychiatry vary across the world but there are some important commonalities and universalities which are followed. The two major classification systems are DSM(The Diagnostic and Statistical Manual of Mental Disorders) 5 which is commonly used in research fields while ICD (International Classification of Diseases) 10 is a legally mandated health data standard. We have used the mhGap Intervention version 2.0, WHO for understanding the treatment protocol which has been validated by the mental health professionals in India.

The authors had to conduct a primary survey in order to estimate the cost of accessing mental health services in a private OPDs, since there are very limited studies conducted on this topic in India. Moreover, collecting data from mental health professionals in India is one of its first kinds in India, which helped the authors to estimate the pure risk premium rates for the mental disorders.

**Table 5: Cost of Treatment in Private Clinics**

S no	Consultation Fees	Follow-up Fees	Counseling cost per session	Psychotherapy cost per session	Medicinal Costs	Miscellaneous Costs
1	1400	1000	1100	1300	1300	8000
2	1000	800	1000	1250	1200	5500
3	1800	1000	1700	1500	1700	7000
4	800	700	800	1000	1600	4000
5	1000	800	1200	1350	1500	6700
6	700	600	1000	1100	1800	5500
7	600	400	2100	3500	1100	5000
8	1500	1000	1400	1600	1600	6000
9	1500	1300	1300	1500	1500	8550
10	1000	800	1500	1700	1600	8000
11	1650	1400	1250	1600	1500	6000
12	850	700	1000	1300	1700	6500
13	1200	1100	1200	1350	1600	5000
14	1500	1400	1500	1700	1300	7000
15	1200	1000	1000	1300	1350	4000
16	1320	1200	1500	2000	1700	6700
17	2500	2200	2500	3000	1300	5500
18	1000	500	1200	1700	2000	8550

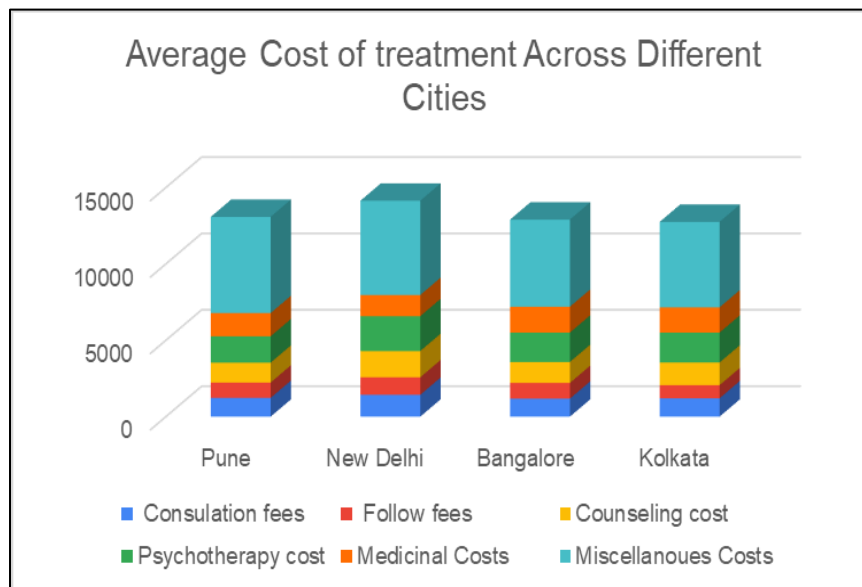
19	800	700	1000	2000	3000	8000
20	1200	1000	1000	2000	1400	6000
21	750	600	600	1500	1300	9000
22	1000	800	1000	1700	1500	3500
23	1500	1250	1400	2200	1250	5000
24	1500	1400	1500	1800	1000	6500
25	1400	1500	1800	2200	1200	6000
26	1800	1500	1800	2200	1000	7700
27	1200	1000	1500	2000	1500	7500
28	2000	1500	2200	2500	2500	5500
29	1500	1200	1800	2000	1500	6000
30	1000	800	1200	1600	1000	4500
31	1200	1000	1700	2500	1650	5000
32	1500	1200	1500	1700	850	9000
33	1500	1200	1700	1800	1200	3500
34	1000	800	1600	2500	1500	5000
35	1500	1200	2000	2300	1200	6500
36	1500	1200	1800	3000	1320	6000
37	2500	2000	3000	3500	2500	6500
38	1500	1200	1600	2500	1000	5000
39	1000	800	1200	2500	800	7000
40	1100	1000	1500	1900	1200	4000
41	1500	1200	1700	2000	750	6700
42	2000	1500	1800	2200	1000	8000
43	1200	1000	1500	2500	1500	8400
44	1500	1200	1800	2300	1500	7000
45	1000	800	1500	2200	1400	5500
46	1200	1000	1600	2000	2830	5000
47	1000	800	1700	2000	1500	7500
48	1500	1200	1700	2500	900	7000
49	1500	1200	1800	2500	1000	6000
50	1500	1200	1800	2400	1500	4500
51	2830	2500	2000	2500	1000	6000
52	1500	1400	1200	1900	1500	4500
53	900	800	1000	1700	750	5000
54	1000	800	1000	1600	750	4500
55	1500	1300	1200	1500	2500	5000
56	750	700	1000	1500	1500	9000
57	750	700	1000	1700	1400	3500
58	1000	900	1100	1700	1800	5000
59	1000	800	1100	1600	1850	5000

60	700	600	1200	1800	2000	7000
61	1000	800	1200	1900	2200	4000
62	1000	800	1100	1500	2000	6700
63	1500	1300	1800	2000	1700	5500
64	1200	1100	1600	2200	1800	8000
65	1200	1100	1500	2500	1900	7700
66	1000	800	1500	2200	1750	4500
67	1000	900	1300	2000	1500	4000
68	900	700	1400	1600	1700	9000
69	2130	2000	2500	2700	1700	7500
70	850	700	1200	1800	1600	8000
71	800	700	1200	1800	1800	3750
72	1200	1100	1500	2000	1900	5000
73	1200	1150	1400	1900	1500	5000
74	750	600	1300	2000	2000	5000
75	1800	1500	2000	2500	2200	4500
76	800	500	1000	1500	2500	7000
77	1000	800	1200	1400	1900	8500
78	700	1000	1500	1800	2200	3500
79	600	900	1500	1850	2000	4500
80	1500	900	1700	2000	1600	4000
81	1500	1200	1800	2200	2700	5500
82	1000	1100	1700	2000	1800	7000
83	1650	800	1500	1700	1800	5500
84	850	800	1600	1800	2000	8000
85	1200	600	1500	1900	1900	7700
86	1500	1000	1600	2000	1800	6500
87	1200	600	1400	1750	1700	4500
88	1320	700	1300	1800	1500	4000
89	2500	800	1200	1600	1600	4500
90	1000	800	1500	2000	1500	3500
91	800	1000	1800	2300	1600	7000
92	1200	500	1300	1900	1400	6500
93	750	500	1200	1700	1300	5000
94	1000	1200	1700	2500	1200	5500
95	1500	1200	1600	2500	1500	5000
96	1500	1000	1500	2000	1100	7000
97	2000	1000	1800	2100	1000	4000
98	1000	500	1100	2600	1700	6700
99	800	1000	1600	2300	800	5500
100	1200	1000	1500	1800	1200	3500

**Table 6: Average Cost of Treatment of CMDs and SMDs in 4 mega cities in India**

Cities	Average Consultation fees	Average follow fees	Average counseling cost	Average Psychotherapy cost	Medicinal Costs	Miscellaneous Costs
Pune	1227	1006	1302	1726	1520	6300
New Delhi	1428	1148	1720	2284	1384	6172
Bangalore	1178	1030	1372	1924	1692	5706
Kolkata	1203	856	1484	1960	1652	5596

**Figure 2: Average cost of treatment across different cities in India**



**Table 7: Descriptive Statistics**

Descriptive Statistics	Consultation Fees	Follow-up Fees	Counseling cost per session	Psychotherapy cost per session	Cost of Medicines	Miscellaneous Costs
Mean	1259	1010	1470	1974	1562	5944

Median	1200	1000	1500	1950	1500	5750
S. D	436	360	375	457	457	1529
Max	2830	2500	3000	3500	3000	9000
Min	600	400	600	1000	750	3500

The cost calculation was done in Indian Currency (INR) and only direct costs are calculated. The average consultation and follow up fees are 1259 INR and 1010 INR respectively. The average counseling and psychotherapy cost are 1470 INR and 1974 INR respectively. The average medical costs per month is 1562 INR and one-time miscellaneous cost is 5944 INR. The maximum average consultation fee is 2830 INR and minimum is 600 INR. The maximum average follow up fees is 2500 INR and minimum is 400 INR which is a quarterly affair. The maximum average counseling fee is 3000 INR and minimum is 600 INR. Similarly for psychotherapy, the maximum average cost is 3500 INR and minimum is 1000 INR. The average maximum medicinal costs are 3000 INR and minimum is 700 INR. The average maximum miscellaneous costs are 9000 INR and minimum 3500 INR. The treatment protocol is explained in the previous chapter.

**Table 8: Treatment Protocol**

Disorders	Average no of counseling	Average no of Psychotherapy	Average treatment duration
Depression	6-8	6-8	6-9 months
Anxiety	6-8	6-8	9-12 months
Bipolar Disorder	8-12	10-15	12-24 months (follow-up lifetime)
Schizophrenia	8-12	10-15	12-24 months (follow-up lifetime)

The cost of treatment is estimated for CMDs and SMDs using the treatment protocols. The formulas are explained below:

1. The first consultation is a onetime cost.

2. The follow-up fee is calculated as the average consultation fee multiplied by the number of follow ups which is 4(quarterly in a year). There is lifetime follow-up in case of SMDs in case of non-remission.
3. The counseling cost is calculated as the average counseling cost multiplied by the number of sessions in a year which is 8 in case of CMDs and 12 in case of SMDs.
4. The psychotherapy cost is calculated as the average counseling cost multiplied by the number of sessions in a year which is 8 in case of CMDs and 15 in case of SMDs.
5. The medicinal cost is calculated by multiplying the average monthly cost and 12 months.
6. The miscellaneous costs is calculated by multiplying the average cost and 12 months. The miscellaneous cost is generally estimated once per patient.

**Table 9: Cost of Treatment of CMDs and SMDs in Private OPDs**

<b>Disorders</b>	<b>Common Mental Disorder (Depression and Anxiety)</b>	<b>Severe Mental Disorder (bipolar disorder and Schizophrenia)</b>
First Consultation fees	1259	1259
Follow up fees (Quarterly)	4040	4040
Counseling cost	11792	17640
Psychotherapy cost	15792	29610
Medicinal Cost (Monthly cost)	18744	18744
Miscellaneous cost (one time cost)	5944	5944
<b>Total cost (Yearly)</b>	<b>57571</b>	<b>77237</b>

The yearly total cost of CMDs and SMDs are **57,571 INR** and **77,237 INR** respectively per patient. This expense is entirely out of pocket expenditure which creates financial burden for the patients and families.

#### 4.2.2 Estimating the Claim Cost

With the help of these outpatient costs, the author has tried to estimate the pure risk premium model for mental disorders. Pure risk premiums are those premiums that result in no loss or no profit. The formula to calculate pure risk premium:

$$\text{Prevalence of mental illness} \times \text{Yearly cost of treatment}$$

**Table 10: Pure Risk Premium Calculation**

<b>Disorders</b>	<b>Prevalence Rate*</b>	<b>Yearly cost of treatment</b>	<b>Pure risk premium (Yearly)</b>
Depression	3.30%	57571	<b>1900</b>
Anxiety	3.30%	57571	<b>1900</b>
Bipolar Disorder	0.60%	77237	<b>463</b>
Schizophrenia	0.30%	77237	<b>232</b>

**\*Source for Prevalence Rate is Global Burden of Mental Health**

A premium load is an extra fee added to the standard premium that a policyholder pays. It is customary in the insurance industry to apply premium loads to specific policies or coverage options. The main reasons for a premium load are to cover administrative and underwriting expenses and to offer additional benefits or services to the policyholder. Understanding premium loads is crucial for those seeking insurance coverage in India.

Calculating a premium load involves assessing the risk factors related to the insured individual or the coverage provided. These risk factors can include age, health status, occupation, lifestyle choices, and past claims history. Insurance companies employ actuarial methods and statistical data to accurately evaluate potential risks. Premium loads can be determined either as a percentage of the regular premium or as a fixed amount. In this study the author has used a percentage of the pure risk premium as loading to create a demo model.

For example:

Standard premium rate = 10,000 INR

The premium loading offer = +50%

The adjusted premium rate = 15,000 INR

**Table 11: A Pure Risk Premium Loading Calculation**

<b>Disorders</b>	<b>Pure risk premium (Yearly)</b>	<b>40% Margin</b>	<b>50% Margin</b>	<b>70% Margin</b>	<b>90% Margin</b>
Depression	1900	2660	3990	6782	<b>12887</b>
Anxiety	1900	2660	3990	6782	<b>12887</b>
Bipolar Disorder	463	649	973	1654	<b>3143</b>
Schizophrenia	232	324	487	827	<b>1572</b>

#### **4.3 State- wise Difference in Pure Risk Premium**

The NMHS 2014 - 2015 has estimated the prevalence rate of CMDs and SMDs in 12 states of India. Based on the prevalence rate, the researcher has estimated the pure risk premium across the 12 states. (Source: National Mental Health Survey, 2014 -15)

**Table 12: Prevalence of CMDs and SMDs in India**

<b>State-wise</b>	<b>Common mental disorders</b>	<b>Pure Risk Premium of CMD</b>	<b>Severe mental disorders</b>	<b>Pure Risk Premium of SMD</b>
Assam	5.30%	3,051	0.60%	463
Chhattisgarh	11.20%	6,448	0.80%	618
Gujarat	7.10%	4,088	0.40%	309
Jharkhand	10.80%	6,218	0.80%	618
Kerala	11.00%	6,333	0.40%	309
Madhya Pradesh	13.50%	<b>7,772</b>	0.40%	309

Manipur	13.30%	<b>7,657</b>	1.10%	<b>850</b>
Punjab	13.00%	<b>7,484</b>	0.50%	386
Rajasthan	10.10%	5,815	0.80%	618
Tamil Nadu	11.30%	<b>6,506</b>	0.50%	386
Uttar Pradesh	5.90%	3,397	0.30%	232
West Bengal	11.30%	<b>6,506</b>	2.30%	<b>1776</b>
<b>India</b>	<b>10%</b>	<b>5,939</b>	<b>0.74%</b>	<b>573</b>

Since the prevalence rate in different states of India are different, the pure risk premium is also different. The high prevalence of mental health disorders in India underscores the urgent need for effective interventions and support systems to improve the population's mental well-being. Commonly observed conditions include depression, anxiety disorders, bipolar disorder, schizophrenia, and substance use disorders.

#### 4.4 Gender Perspective

Gender disparities in India significantly affect mental health, with women encountering distinct challenges that make them more susceptible to mental health issues. Issues like domestic violence, sexual abuse, unequal power structures, restricted access to education and employment, and societal pressures can amplify stress, anxiety, and depression among women. While health insurance policies aim for fairness, they often adjust premium costs based on gender differences in disease prevalence and disability rates.

**Table 13: Pure Risk Premium Calculation w.r.t Gender**

<b>Gender</b>	<b>Prev %</b>	<b>Yearly cost of treatment</b>	<b>Pure Risk Premium</b>
Males	13.90%	57571	<b>8002</b>
Females	7.50%	57571	4318

This is a quite interesting finding of the research that the males have to pay a higher premium rate as compared to the females. Men and women exhibit similar prevalence rates for certain mental illnesses, such as bipolar disorder. Significant biological differences, including hormones and brain structure, can influence the risk of developing specific mental disorders. Additionally, environmental factors contribute to sex-based variations in risk, diagnosis, progression, and treatment of some mental illnesses. These factors include trauma and violence, gender roles, treatment-seeking behaviors, poverty, social status, and coping mechanisms. Women continue to face challenges related to mental health and often suffer in silence.

#### 4.5 Age

Age serves as a significant predictor of mental illness across populations, regardless of whether individuals reside in rural or urban areas.

**Table 14: Pure Risk Premium Calculation w.r.t Age groups**

Age group	Prev %	Yearly cost of treatment	Pure Risk Premium
18 - 29	7.5	57,751	4,331
30 - 39	14.6	57,751	8,432
<b>40 - 49</b>	<b>18.4</b>	<b>57,751</b>	<b>10,626</b>
50 - 59	16.1	57,751	9,298
60 and above	15.1	57,751	8,720

Although health risks increase with age, the likelihood of benefiting from insurance coverage decreases. The working population in the age of 40 to 49 years have to pay the maximum premium.

## CHAPTER 5

### DISCUSSION & CONCLUSION

#### 5.1 Discussion

Health insurance plays a crucial role in advancing Universal Health Coverage (UHC) by enhancing healthcare accessibility and providing financial security. Across Low- and Middle-Income Countries (LMICs) (Van Hees et al., 2019), various types of insurance exist, differing in providers (government versus private sector), coverage scopes, and beneficiary scales. Nonetheless, limited acceptability and reluctance to pay premiums (R et al., 2019) in many LMICs constrain health insurance coverage. This reluctance heightens the risk of excluding vulnerable populations who cannot afford premiums, potentially leaving them without crucial healthcare protection. Furthermore, older adults, individuals with disabilities (Van Hees et al., 2019), and those with chronic conditions may face challenges enrolling in insurance schemes, with their specific needs potentially not adequately addressed by existing programs.

#### Major Findings:

1. Age plays a crucial role in economic decision-making, particularly in the health insurance sector. Health insurance plans and policies are largely determined by the age of the insured. Insurers typically set age criteria for entering into contracts, generally ranging from 3 months to 65 years. In some instances, this limit extends to 70 years, while in a few cases, there is no age restriction for policy renewals. The average life expectancy in India is around 70 years. In our study, it is found that the prevalence of mental disorders is among all the age groups starting from 18 years. Although health risks increase with age, the likelihood of benefiting from insurance coverage decreases. Consequently, older individuals tend to reduce their insurance coverage. Life expectancy has increased over the years. Early intervention at the initial onset of mental disorders can lead to significant improvements in various outcomes (Fusar-Poli et al., 2017). This age group experiences the lowest rates of hospitalization and out-of-pocket healthcare expenses, allowing insurance premiums for teenagers and young adults to be very affordable. Additionally,

risk-pooling is highly effective for this demographic. Starting insurance coverage at a young age also helps develop a habit of maintaining health insurance.

2. Multi-morbidity (Barnett et al., 2012) and depression present significant challenges to health systems, especially in low- and middle-income countries. Depression, one of the leading causes of disability globally, significantly contributes to the overall disease burden (WHO,2021). Recent estimates by the National Statistical Office (NSO) indicate that India's elderly population (aged 60 and above) is expected to grow by 41% from 2021 to 2031 (NSO, 2021). When depression goes unrecognized and untreated, especially in conjunction with other chronic illnesses, it can significantly harm overall individual health.
3. Gender is a crucial component of the biopsychosocial model, highlighting the impact of biological variables on how individuals respond to both mental and physical illnesses. In our study, it was found that men have to pay more premiums than women. A cross-sectional study conducted in a community healthcare setting managed by a tertiary hospital in Southern India discovered that 44.8% of reproductive-age women were affected by common mental disorders (CMDs) (Nair et al., 2021).
4. The significance of health insurance can be assessed by examining the adverse consequences of being uninsured. Individuals without health insurance are more likely to neglect their health needs compared to those who are insured. They often encounter numerous barriers when trying to access health services. Research indicates that parents' insurance status influences their children's use of health services. Additionally, having health insurance increases access to health services, thereby altering utilization rates. Implementing Universal Health Coverage is an advantageous option.
5. Research conducted in various countries revealed a significant increase in the prevalence of mental health issues among the general population during the COVID-19 pandemic (Wu et al., 2021). In Sweden, studies from the early phase of the pandemic indicated higher rates of depression, anxiety, and insomnia compared to pre-pandemic levels, mirroring findings from other nations (McCracken et al., 2020). In another study, it was assessed the prevalence of mental health symptoms at different time intervals following a COVID-19 diagnosis in a tertiary hospital in North-East India (Nongpiur et al., 2023). And the findings of the study confirmed that COVID-19 infection can lead to various

adverse mental health issues. So it is evident that the rate of prevalence has increased post Covid and it is high time that insurance is provided for its treatment.

6. Universal health insurance is a crucial factor in ensuring access to health services. Its primary mission is to eliminate significant barriers to healthcare, particularly for vulnerable populations. As healthcare costs rise, a growing number of people require substantial support through insurance. Health insurance provides protection for individuals with limited financial resources or those needing increased health services.

Health insurance is intricate due to various factors such as exclusions, waiting periods, deductibles, co-payments, and sub-limits. While some of these features are essential to prevent adverse selection and moral hazard, the complexity inherent in standard health insurance products can be mitigated, such as by minimizing exclusion restrictions. The majority of health insurance schemes and products available in the Indian market typically do not cater to mental disorders. Standardization of the health insurance packages aids in simplifying the product. Two important highlights of this research are - **(1) inclusion of outpatient benefits will reduce financial burden and (2) combination product of OPD and IPD benefits will improve healthcare utilization.**

A package that includes both inpatient and outpatient services for mental health disorders can help reduce extremely high healthcare costs that exceed a certain portion of household income. These costs can limit spending on other important needs and push families, especially those from lower-middle-class backgrounds, into poverty. Offering outpatient services alongside inpatient care is also beneficial because most people use outpatient services regularly each year, even though only a small number require hospitalization.

Private health insurance relies on the concept of risk susceptibility. Insurers require precise information about the probability of individuals falling ill and the expected income loss due to post-illness care to set premiums accurately. However, individuals usually have better insights into their own health risks than insurers, creating an information asymmetry that allows them to conceal pre-existing conditions (Arrow, 2014). Increased enrollment of "bad risks" (Arrow, 2014)—those with a higher likelihood of illness—leads to adverse selection, potentially destabilizing the insurance market. To counteract this, insurance companies may either raise

premiums or practice "cream skimming." Raising premiums can cause healthy individuals to leave the market, as the costs of insurance surpass the perceived benefits for them. A larger sample size also helps reduce financial risks from unexpected outliers that significantly differ from the expected average. Additionally, insurers can collaborate with healthcare providers at all levels and create incentives to strengthen their relationships. This approach aims to improve efficiency by reducing redundancy, such as avoiding unnecessary tests, and encouraging patients to receive timely and appropriate care.

The high costs associated with sales and distribution in health insurance contribute significantly to the product's overall price. Discussions within the industry have highlighted the necessity of revising current distribution strategies and the retail nature of health insurance to decrease customer acquisition expenses. The mental health insurance product can be brought into the market as “**add-on**” to the existing policies and as a standalone policy which will reduce the distribution cost. Currently, agencies and brokers are permitted by the IRDAI to earn commissions of up to 15%, which adds to the premiums. Standalone health insurers face commission expenses of 12.5%, while the health insurance segments of private insurers incur an 8.5% commission as a percentage of premiums collected. Lowering these costs could lead to substantial reductions in premiums. To achieve this, the distribution strategy should prioritize targeting specific groups such as organizations, teacher associations, and trade unions to promote health products. Targeting groups tend to lower the average distribution cost per policy compared to targeting individuals. Additionally, placing greater emphasis on digital channels for selling health insurance can help cut commission expenses.

From this research it is found that the average yearly cost of treatment of CMDs and SMDs ranges from 57571 INR to 77237 INR. According to estimates from the National Statistical Office (NSO), India's per capita net national income at current prices for 2022-23 is INR 172,000 INR. Hence, the yearly cost of treatment of mental disorders in India is significantly high. Direct expenses including consultation fees, medication costs, and transportation costs, can pose substantial financial hurdles to accessing mental health services, particularly in LMICs like India, where healthcare financing relies primarily on patient payments (Charu C Garg, Anup K

Karan, 2008). Out-of-pocket payments represent a significant challenge for accessing and utilizing health services, constituting approximately 40% of healthcare expenditures for individuals in low- and middle-income countries (Sriram & Albadrani, 2022).

Individuals who struggle with mental illness frequently experience financial hardships that discourage them from getting the help they need (DE HERT et al., 2011). (Math & Srinivasaraju, 2019) made an effort to calculate the price of mental health treatment in India. The study assumed that if treatment is taken at a government run hospital, the cost of treatment would be Rs 100 per month and this cost would be 10 to 15 times more in case of private clinics. Hospital stays and indirect expenses, however, were not taken into consideration. A recent survey conducted by an NGO in Bengaluru examined the expenses associated with long-term care for persons with mental illness (PMIs), comparing costs between NGOs, the private sector, and different care centers. Monthly expenditures for PMIs at these centers ranged from Rs. 7000 to Rs. 60,000 (Srinivasan, 2018). The National Mental Health Survey of India 2015 - 2016, which was conducted recently, revealed a greater financial crisis associated with providing care for individuals with mental illness, primarily in the form of out-of-pocket expenses. The families had to pay almost three times as much per month as previously reported by the researchers, primarily for treatment and transportation to receive care, the researchers discovered (Gururaj et al., 2016). Global healthcare systems strive to make sure that people can get essential services at reasonable costs (WHO, 2010). The majority of high-income nations have health insurance programs that handle problems fairly and give most people access to reasonably priced medical care (Thomson et al., 2009). The most frequent reason for being unable to work is mental illness; each year, mental health-related disability insurance claims are expected to be paid out for USD 15 billion.

The pure risk premium in case of Schizophrenia is 1572 INR, Bipolar Disorder is 3,143 INR and for depression and anxiety it is 12,887 INR which is commercially viable. The OPD benefits can be ceiled for reducing the cases of adverse selection. Considering that standard health underwriting models use simple binary differences, risk assessment in relation to mental health presents a significant problem. They frequently regard mental health issues as the presence or absence of sickness, failing to adequately consider the complex nature of mental health. This has

historically led to mental health services being either excluded or completely denied coverage. Several studies reported that access to health insurance for mental illness have improved physical health leading to decline in death rates (Franks, 1993), effective and timely utilization of health services (Wagstaff et al., 2009). Critical Care plans of the insurance companies have started covering mental health in the policies offering coverage for hospitalization. There is some evidence that claims increased with the start of the pandemic, particularly among younger cohorts, notwithstanding the lack of statistics on the comparable costs suffered by health insurers as a result of differences in programme design across different markets. According to a Clarify Health report, there was a notable increase in the number of inpatient (IP) admissions associated with mental health in children, particularly in teenagers (Clarify Health Institute, 2022). In 2021, there were 48 admissions per 1,000 admissions connected to mental health, which was 30 admissions in 2016. According to a Canadian study, over one-fifth of all claimants had mental health issues. This percentage has steadily increased from 18.1% in 2016 to 20.8% in 2020 as a result of the pandemic and larger de-stigmatization campaigns that have improved service uptake (HBM Plus 2021). A 2021 study conducted at a major financial services company in the UK found that establishing a comprehensive mental health support system resulted in significant benefits: a 41% decrease in absenteeism, a 9% reduction in mental health claims, a 13% decrease in overall costs, a 16% decrease in average claim costs, and most notably, a 60% improvement in user outcomes.

The overall cost of health insurance is further increased beyond actuarial estimates (based on projected claims costs) due to high operational and administrative expenses. For standalone health insurers, operational costs represent approximately 25% of the total premiums collected, largely driven by the expenses of processing claims. To reduce premiums, insurers must enhance operational efficiency. This can be achieved through increased use of analytics, standardized data formats for smoother data management, digital tools to streamline operations, and achieving economies of scale through higher volumes, all of which can help lower operational expenses.

## **5.2 Conclusion**

The main goal of this thesis is to give a detailed overview of current mental health insurance plans in India and other countries. Ultimately, it aims to create a practical insurance model that meets the specific needs of the Indian people. This study is important because it can bring hope

and assurance to many people dealing with mental health issues. While the implementation of an insurance model may not directly alleviate the disease burden, it holds the promise of alleviating the considerable stress experienced by patients, their families, and caregivers.

There is a lot of potential in transforming the underwriting, claims, and data analytics operations. Ongoing underwriting innovations offer key insights on scaling up these methods, such as using multivariate instead of binary queries. For example, should someone get risk-free mental health benefits if they have fully recovered from a mental health issue and haven't had a relapse in several years? If a candidate for mental health benefits had only ever experienced one depressive episode in their lifetime, would it be fair to deny them benefits? In spite of their high level of functioning, should someone with a mental health diagnosis—such as bipolar disorder—be denied coverage or subject to risk loading? These inquiries must be taken into account along with the circumstances and life events of the individual, such as employment status and bereavement, and whether they are currently undergoing treatment. In order to make decisions on the degree of risk exposure, insurers might take into consideration the synergy between mental illness and poor physical health when population-level data is available.

This study is centered on elucidating the pivotal role of insurance in addressing the challenges associated with mental illness. By delving into the significance of insurance coverage for individuals grappling with mental health issues, the research aims to underscore the potential transformative impact such financial support can have on the overall well-being of affected individuals. Through a comprehensive exploration of the subject, this study aims to promote the importance of mental health insurance as a crucial part of overall healthcare, helping to create a more supportive and inclusive environment for people dealing with mental illness.

The proposed insurance model aims to encourage people to report mental health issues early and actively. By offering coverage to individuals, it is anticipated that more patients will feel inclined to seek professional help from psychiatrists and counselors. This, in turn, has the potential to contribute significantly to the reduction of stigma associated with mental health, fostering a more supportive and understanding societal environment. Despite the persistent efforts of the Insurance Regulatory and Developmental Authority of India, the Mental Health Insurance Act of

2017 has yet to be effectively implemented by Indian insurers. While Ayushman Bharat, a flagship government healthcare initiative, acknowledges and supports certain treatment costs related to mental illnesses, its reach remains limited.

### **5.3 Key Highlights**

1. Firstly, reducing the asymmetrical information between the applicant and the insurer is the main goal of providing mental health information during the underwriting stage. However, the possibility of divergent expert viewpoints makes diagnosing mental health issues more difficult than physical ones. A diagnosis from a general practitioner might differ from that of a psychiatrist. Additionally, an applicant might exaggerate or underreport their condition when self-reporting.
2. Secondly, underwriters have to determine whether a disease is really a risk or if it's just a typical, one-time response to a negative life event like a bereavement when disclosure is there. Though it might be feasible to take a more sophisticated approach for risk assessment and inquire deeply on situations like loneliness, underwriters are rarely any more informed about the likelihood that a customer will experience a mental health issue down the road.
3. Thirdly, it is challenging to attain uniformity in underwriting judgements due to a lack of data regarding the industry's benchmarking of mental health disorders. Price issues have also arisen as a result of this. While population-level data has proven useful in certain nations as a point of comparison, in other countries the procedure is made much more difficult by the absence of trustworthy data on prevalence, frequency, and severity.
4. Fourthly, although the DSM and ICD classifications offer claims administrators a benchmark for diagnosis, there is a potential for subjectivity when it comes to particular diagnostic criteria. This problem is made even more difficult by the fact that developing countries like India lack standardized treatment guidelines (STG), leading to a wide range of procedures.
5. Lastly, it is important to closely examine the nature of mental health claims, which can take two forms: primary claims, where the policyholder's main diagnosis is related to

mental health, and/or secondary claims, where a primary physical health issue is exacerbated by a mental health condition.

The COVID-19 pandemic, shifting geopolitical landscape, and the cost-of-living crisis create a relentless cycle of uncertainty, distress, and economic pressures. This cycle has ramifications for both physical and mental health. It's becoming more and more obvious that managing this dynamic and complicated terrain of hazards calls for more than simply "grit" or "fortitude"; rather, it necessitates a wide range of treatments that help individuals psychologically, physically, and financially. With one in eight individuals globally suffering from mental health issues, we could be on the verge of a crisis with dire social and economic repercussions. A noteworthy observation is the lack of a nationwide directive mandating the calculation of premiums and the provision of insurance for patients grappling with both common and severe mental illnesses. The findings of this thesis are anticipated to serve as a catalyst, compelling policymakers to institute such a directive. The ultimate vision is to establish a systematic and inclusive approach to mental health insurance, ensuring that individuals across the nation have access to the necessary financial support for their mental health treatments.

#### **5.4 Suggestions and Recommendations:**

The following suggestions and recommendations are made based on the research:

1. Stringent rules and regulations should be implemented by the government to oversee both public and private insurance agencies.
2. Insurance companies have the potential to introduce standardization within the health insurance industry, particularly concerning coverage for mental illness..
3. It is imperative for insurance companies to establish a minimum treatment protocol for mental illness, collaborating with mental health professionals for guidance.
4. Compiling and advancing nationwide morbidity data is essential, encompassing both inpatients and outpatients, categorized by specific causes. It is crucial to include average inpatient duration and cost per episode, aligning with established practices in other

countries. This foundational data is indispensable for insurers, forming the basis for the implementation of a viable national scheme or any comprehensive health coverage initiative.

5. Establishing a structured public-private collaboration is imperative to deliver universal and comprehensive healthcare to all.
6. Mental health insurance policies must be designed to suit the Indian market and stand alone policies must be avoided presently.

#### **5.4 Recommendations:**

1. Policies can be distinguished based solely on the approach taken towards the treatment of pre-existing conditions. For instance:a) Complete exclusion of coverage for pre-existing conditions;b) Inclusion of coverage after a specific duration, such as two years from the commencement of the policy;c) Provision of coverage after a specified period since the last episode, for example, five years.
2. Policies can be defined by the presence of deductibles, which may be specified as either an amount per claim or per year. Additionally, policies may incorporate coinsurance or co-payment clauses, such as 80:20 or 90:10.
3. A significant product for the Indian market could be the combination of basic medical expense contracts featuring internal sub-limits along with major medical contracts incorporating corridor deductibles.
4. Tailored products should be developed for distinct segments of the population, with a differentiation between Premium and Economy products. This consideration is essential, given the substantial variation in treatment costs across diverse geographical areas, particularly in metropolitan and rural areas.
5. The notable disparities observed between insurance coverage in developed countries and India pertain to outpatient charges, consultation fees, prescription drugs, therapy charges, and similar aspects. To address these gaps, comprehensive coverage can be conceptualized, encompassing all these elements, initially focusing on group business.
6. Third-party administrators (TPAs) can deliver outpatient services by establishing connections or forming partnerships with state-of-the-art polyclinics in major

cities/towns. There is a potential to engage in negotiations with these outpatient care providers regarding the rates for the treatments they provide.

7. For the high-paying segment, managed care products can be introduced, offering comprehensive coverage.

## **5.5 Limitations of the Study:**

This study, while valuable, is not without its limitations. A crucial constraint is the lack of a longitudinal and multicenter approach with a larger sample size, which would undoubtedly enhance the precision of cost calculations for treatment and pure risk premiums. A more expansive study design would allow for a more thorough and accurate understanding of the financial aspects associated with mental health care.

The sample size employed in the National Mental Health Survey (NMHS) 2014-15, consisting of only 34,000 individuals spread across 12 states, falls short in capturing the true magnitude of the pervasive issue of mental health in India. Given the diverse nature of mental illnesses, with over 200 classified forms and the potential coexistence of two or more conditions, obtaining accurate prevalence and morbidity figures becomes paramount, particularly when viewed through the lens of insurance considerations. India's diverse population poses a unique challenge, rendering a "one size fits all" approach ineffective as a policy solution. Mental health insurance demands a nuanced and tailored strategy that accounts for the multifaceted nature of mental illnesses and the varying healthcare needs across different demographic groups.

The data collection for this study spanned from May 2020 to March 2022, a period characterized by the pervasive COVID-19 restrictions. Due to the limitations imposed by the pandemic, a significant portion of the data acquisition process necessitated the use of telephone-based methodologies, to ensure the safety and well-being of the researcher and participants, ensuring the research endeavor remains consistent and reliable.

It's essential to recognize that mental health insurance is still a relatively nascent domain for insurance companies. As these companies accumulate a more substantial number of claims over time, they will be better positioned to refine and develop a robust, comprehensive product. Patience and a data-driven approach are key as the industry evolves to meet the specific demands of mental health coverage in a diverse and dynamic national context.

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## **Appendices**

### **Appendix 1: Interview Questions on Mental Health Insurance to different stakeholders**

Theme: Need for Mental Health Insurance

1. Why do you believe mental health insurance is essential in today's healthcare landscape?
2. Can you share any statistics or evidence that highlight the growing need for mental health coverage?
3. How does the lack of mental health insurance impact individuals and society as a whole?
4. What are some of the barriers people face in accessing mental health care without insurance?
5. How can mental health insurance contribute to overall public health and economic stability?

Theme: Design of the Product

1. What key features should be included in a mental health insurance plan to ensure comprehensive coverage?
2. How should mental health insurance address different levels of care, from outpatient therapy to inpatient treatment?
3. What role do mental health professionals and stakeholders play in designing an effective insurance product?
4. What considerations should be taken into account for integrating mental health services with general healthcare within the insurance plan?

Theme: Price of the Product

1. What factors should be considered when determining the pricing of a mental health insurance plan?
2. How can insurers balance affordability for consumers with the costs of providing comprehensive mental health services?
3. How can pricing strategies be developed to ensure long-term sustainability and profitability for mental health insurance products?

Theme: Marketability

1. What strategies can be used to effectively market mental health insurance to potential consumers?
2. How can awareness and understanding of mental health insurance be increased among the general public?

3. How can mental health insurance be positioned as an essential part of overall health and wellness plans?
4. What partnerships or collaborations can enhance the marketability and reach of mental health insurance products?

These questions should help guide an in-depth discussion on the various aspects of mental health insurance, providing insights into its necessity, design, pricing, and marketability.

**Appendix 2: Cost of receiving treatment for mental disorders in India in Private clinics: To analyze the cost of treatment of mental disorders such as Depression, Anxiety, Schizophrenia, Bipolar Disorder, Developmental disorder**

- 1) Name of the Practitioner
- 2) Degree of the Practitioner
- 3) Process of diagnosis: Clinical History / Psychometry
- 4) Depression: Psychotherapy/ Counseling/ Hospitalization/Medication
- 5) Consultation fees of doctor:
- 6) Follow up fees of doctor:
- 7) Treatment Duration for Depression: Less than 6 months/ 6 m to 1 yr/ 1yr to 2 yrs/Lifelong
- 8) No of psychotherapy: Less than 6 / 6 to 10/ 10 to 15
- 9) Cost of psychotherapy per session:
- 10) No of Counseling:
- 11) Cost of counseling per session:
- 12) Hospitalization: yes/ no
- 13) Average days of hospitalization
- 14) Cot of hospitalization
- 15) Electroconvulsive therapy (ECT): Yes/ no
- 16) Cost of ECT per session
- 17) Miscellaneous costs:
- 18) Is it treatable or curable?
- 19) Follow up frequency:
- 20) Medicines prescribed:
- 21) Monthly costs of medicines:

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