THE DYNAMICS OF HEALTH INSURANCE AND CHRONIC DISEASE MANAGEMENT IN INDIA

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Abstract

Diabetes Mellitus represents a massive and growing chronic illness burden globally, with India accounting for one of the highest numbers of affected adults. This metabolic disorder necessitates continuous, often expensive, care due to its long-term complications affecting the cardiovascular, renal, and ocular systems. Given the nation's growing chronic illness burden and the potential for severe cardiovascular and renal complications, specialized health insurance policies provide two distinct enrollment models for Type 1 and Type 2 diabetics: Plan A, requiring pre-acceptance screening for immediate complication coverage, or Plan B, waiving screening but imposing a mandatory 12-month waiting period for critical ailments. For long-term protection like term insurance, underwriting is significantly more stringent; Type 1 applicants are almost universally declined, while Type 2 acceptance depends heavily on quantifiable control (HbA1c), resulting in premium loadings that can reach 100% for moderate risk. Despite these tailored financial solutions, low market penetration persists. Sustainable growth requires enhancing product transparency, integrating sound economic and actuarial principles, and fostering collaboration among stakeholders to effectively mitigate the financial volatility inherent in chronic disease management. This paper thus seeks to examine the tailored risk assessment criteria and corresponding premium structures designed to manage the significant financial volatility associated with Diabetes Mellitus in India.

KEY WORDS: Health Insurance, Diabetics, Chronic Disease, Risk Factors, Coverage

Introduction

Diabetes Mellitus, a syndrome characterized by chronic hyperglycemia and abnormalities in the metabolism of carbohydrates, fats, and proteins due to deficiencies in insulin secretion, action, or both, represents a major chronic illness burden globally, particularly in emerging nations like India. This disease is frequently linked to long-term

consequences that affect vital systems, including the heart, blood vessels, kidneys, eyes, and hands. Type-2 diabetes is the most frequent form of the disease worldwide. The prevalence of diabetes has seen a steady rise over the past few decades. Globally, the International Diabetes Federation (IDF) estimates that approximately 500 million individuals have diabetes, a figure projected to rise by an additional 30% by the year 2045. Diabetes is a common cause of illness, a lower standard of living, and early death, projected to account for around 10% of the world's all-cause mortality in the 20 - 99 age groups. In India, the prevalence is high, with the IDF estimating that 8.9% of adults accounting for 77 million cases had diabetes in 2019, making India the nation with the second-highest number of diabetics worldwide. The causes in India are complex, stemming from hereditary and environmental factors such as obesity linked to improving living standards, consistent urban migration, and alterations in lifestyle. This scenario requires a corresponding shift in healthcare priorities and the utilization of advanced data for planning and prioritizing health initiatives.

Evolution of the Indian Health Insurance Sector

Health insurance is emerging as the most important and fastest-growing portfolio in the non-life insurance sector in India. This growth is driven in part by unsatisfactory healthcare provisions in public systems, leading middle-class individuals with rising incomes to increasingly rely on private healthcare, despite the financial burden. The liberalization of the insurance sector led to the introduction of new and innovative health products designed to tap into this vast potential market. Significant regulatory changes have stimulated market development. These changes include allowing life insurers to offer pure health insurance products without a death benefit cover, a major departure from past practices. Furthermore, stand-alone health insurers are now permitted to engage the services of agents licensed for life or non-life distribution, allowing them to widely exploit distribution channels to offer more affordable health insurance products. Despite the proliferation of products and suppliers, the Indian health insurance market faces fundamental challenges. Only 1% of households are currently insured with health cover, indicating a long way to go in terms of penetration. Moreover, the sector has historically suffered high incurred claim ratios, such as 157.79% for public sector companies and 103.42% for private sector companies in 2006-07. This has led to losses, sometimes attributed to inflated medical bills, unhealthy liaison between physicians and testing labs, and collusion between patients, doctors, and intermediaries, resulting in sharp increases in Group Mediclaim premiums. The rising healthcare costs, increasing by 20% every year, exacerbate the situation.

Specialized Health Coverage for Diabetic Patients

In recognition of the high prevalence and financial risk associated with chronic conditions, health insurance companies have substantially evolved to include coverage for pre-existing conditions like diabetes. This inclusion represents a major move toward more inclusive and comprehensive healthcare coverage. Specialized plans, such as the Diabetes Safe Insurance Policy, are specifically designed to cover individuals diagnosed with both Type I and Type II Diabetes Mellitus. Eligibility for such specialized health insurance is

typically limited to persons aged between 18 years and 65 years. Coverage can be taken on an Individual or a Floater basis, the latter restricted to a family of self and spouse, provided at least one person has Diabetes Mellitus. Available Sum Insured options typically range from Rs. 3 Lakhs up to Rs. 10 Lakhs.

Plan Options and Waiting Periods: Specialized diabetic health policies typically offer two variants distinguished by the requirement for pre-acceptance medical screening, which dictates the waiting period for diabetes complications:

- **Plan A (Medical Screening Required):** This plan mandates a pre-acceptance medical examination. In return, it offers coverage for diabetes complications—including ailments related to the Cardio Vascular System, Renal System, Diseases of the eye, Diabetic Peripheral Vascular Diseases, and Foot Ulcer from day one. If the policy is accepted, the company covers 100% of the medical screening expenses. This plan usually carries no sub-limit restrictions on cardiovascular complications.
- **Plan B (No Medical Screening Required):** This plan requires no pre-acceptance medical examination. However, coverage for diabetes complications is subject to a waiting period of **12 months** of continuous coverage. This plan typically features sub-limits for cardiovascular complications, such as limits ranging from Rs. 2,00,000 for a Rs. 3,00,000 Sum Insured, up to Rs. 4,00,000 for a Rs. 10,00,000 Sum Insured.

For non-diabetic conditions covered under the policy, both plans are subject to standard waiting periods: 30 days initial waiting period (except for accidents), 24 months for specified diseases, and 36 months for pre-existing diseases. Standard health insurance plans often impose a waiting period of 2 to 4 years for diabetes coverage.

Benefits and Outpatient Care

Both Plan A and Plan B include coverage for in-patient hospitalization, emergency ambulance charges (up to Rs. 2,000 per policy period), day care procedures, and AYUSH (Ayurveda, Unani, Sidha, Homeopathy) treatment up to the sum insured.

Specific benefits under these plans include:

- **Dialysis Expenses:** Covered up to Rs. 1,000 per sitting for up to 24 consecutive months.
- **Artificial Limbs:** Covered up to 10% of the Sum Insured following amputation, provided the amputation claim is admissible.
- **Kidney Transplant:** Donor expenses for kidney transplantation are payable if the insured is the recipient, subject to sum insured availability.
- **Outpatient Expenses:** Both plans cover the cost of Fasting, Post Prandial, and HbA1C tests (once every six months, up to Rs. 750 per event, total Rs. 1,500 per policy period). Other expenses like medical consultation, diagnostics, medicines, and

drugs are covered up to defined limits, with Plan A generally offering higher limits than Plan B.

Term Insurance Underwriting and Pricing: The underwriting process for diabetic applicants seeking term insurance is rigorous. Underwriters view diabetes as a chronic condition carrying long-term risks, especially related to heart and kidney health.

Type 1 diabetes applications are almost always declined. For **Type 2 diabetes**, the outcome depends heavily on the control demonstrated by the applicant. Key medical indicators reviewed include HbA1c, fasting and random blood sugar tests, sugar/glucose in urine, Body Mass Index (BMI), and blood pressure.

Applicants with HbA1c levels of 5.7–6.4% (pre-diabetic) are typically asked to complete a medical questionnaire and receive a counter-offer with some premium loading. Those with HbA1c between 6.5%–8% often face high premium loadings, sometimes up to 100%, or postponement of the proposal. Levels above 8% or the presence of complications (retinopathy, nephropathy, or co-morbidities like hypertension) usually lead to rejection. Furthermore, if an applicant has just started insulin, the proposal is likely postponed until stability is proven. Long-term insulin use, even with consistent HbA1c levels, often results in application rejection. To mitigate premium costs, applicants are advised to get private medical tests done, stabilize their condition, and only apply when their health reports are favorable. Submitting declined or withdrawn applications can negatively impact future prospects across other insurers, as these are recorded in industry databases.

Actuarial and Risk Management Considerations

The practice of underwriting health insurance presents unique actuarial and business challenges compared to life insurance. Health insurance claims experience is often volatile and subject to large, rapid changes, which can lead to rapid increases in premium rates, sometimes causing public perception that insurer are profit mongering. Insurers must be cautious when offering premium guarantees due to the unanticipated high levels of claim escalation observed in various markets. A crucial difference lies in the concept of an insured event: medical indemnity reimbursements are based on the occurrence of medical expenses, rather than the occurrence of morbidity. A customer may choose to undergo an expensive procedure if the cost is covered by insurance, which they might otherwise avoid if they had to use personal savings. This highlights the risk of customer discretion regarding claim severity.

Effective health insurance management requires detailed data, as morbidity is only one claim driver; medical practices and provider capacity often drive claims experience more significantly. Since health insurance involves a high volume of small claims, requiring efficient and timely back-office claim payment systems is essential for maintaining customer satisfaction.

Due to the complexity and regional variation of health risks in countries like India, reliance on overseas underwriting manuals is discouraged. Because less established knowledge exists regarding the exact impact of specific risk factors on medical costs, insurers often rely heavily on product exclusions and waiting periods, rather than complex premium loadings, to manage risk exposure.

Policy, Program and Market Future

Addressing the chronic illness burden requires effective policy implementation. Programs in India include the Cardiovascular Risk Reduction in South Asia (CARRS) diabetes care delivery model, the Diabetes Tele Management System, and training for public sector doctors in diabetic care. Initiatives like the Prevention, control, and screening for common non-communicable diseases (NCDs) program target individuals over 30 for screening and provide free essential medicines, including insulin, to the poor and needy. However, critics note that these initiatives sometimes lack updated data on outcomes, outreach activity, or substantial evidence to back their success. Notably, the critical role of insurance providers is often completely missing in these overarching government policies.

For the market to grow sustainably there is a need for simplicity of concept in product design so that benefits are clearly understandable by policyholders. Companies should describe the practical implications of cover in simple language, avoiding obscure medical terminology. Product design should encourage sensible medical practices and utilization through risk-sharing features such as co-pays and excesses. Looking forward, there is a need to integrate economics with health insurance. Empirical studies and methodologies are necessary to integrate findings into pricing models, as blindly following actuarial principles can lead to a loss-making portfolio, especially given that disease patterns vary greatly across states. The application of behavioral economics suggests that people tend to prefer smaller, sooner pay-offs, leading to higher claims in the first year of a policy. This concept has been successfully applied in some new health insurance products where a stipulated waiting period (e.g., four claim-free years) is required for pre-existing disease coverage.

Ultimately, while health insurance is expected to be the next big wave in the Indian insurance sector, its growth depends on building consumer confidence that the supply side is robust enough to cater to the needs of the people. This requires an integrated approach to solve problems, moving beyond viewing health insurance merely as a subject of insurance and medical care toward viewing it as a part of macroeconomics.

Conclusion

The widespread escalation of chronic conditions, particularly Diabetes Mellitus, poses a defining challenge to global healthcare systems, with India grappling with one of the world's largest diabetic populations. This metabolic disorder, characterized by chronic hyperglycemia, necessitates continuous and costly medical management due to its severe potential to trigger complications in the renal, cardiovascular, and ocular systems.

Consequently, ensuring financial protection for these individuals is paramount. The insurance industry has responded with specialized products, such as the Diabetes Safe Insurance Policy, acknowledging the need for comprehensive coverage for pre-existing diseases. These offerings employ distinct underwriting methodologies. Individuals agreeing to a mandatory pre-acceptance medical screening (Plan A) secure immediate coverage for major complications, including ailments of the Cardio Vascular System, Renal System, and Diseases of the eye. Conversely, those opting to forgo upfront screening (Plan B) must endure a 12-month waiting period before complications are covered. This difference in risk assessment directly translates to plan costs, where plans requiring medical screening generally possess lower premiums than those without. For non-specialized products like term life insurance, underwriting is significantly stricter, often leading to declinations for Type 1 diabetics and imposing substantial premium loadings, potentially up to double the standard rate, for Type 2 diabetics whose condition is not optimally managed.

Despite the introduction of these tailored products, the overall penetration of health coverage in the Indian market remains minimal, covering only about 1% of households. This low adoption, coupled with historically high claims ratios and rising annual healthcare costs, points to underlying structural issues. Furthermore, existing governmental efforts targeting diabetic care, such as the CARRS model and NCD screening programs, often operate without adequate data to validate their success or outreach effectiveness. Crucially, these large-scale policies frequently neglect to incorporate the specific function and capacity of insurance providers, leaving a void in integrated health financing strategy.

Moving forward, the sustainable growth of the health insurance sector requires a shift in approach. Insurers must prioritize simplicity and transparency in product design, using plain language to explain benefits and avoid technical ambiguity that leads to customer grievances. From an actuarial standpoint, managing volatility demands adopting regional empirical studies to localize risk pricing, acknowledging that disease morbidity varies across different states. Additionally, leveraging insights from behavioral economics, such as recognizing the tendency toward heightened claim frequency in initial policy years, is essential for designing effective risk-sharing mechanisms like waiting periods and co-pays. Ultimately, transforming the health finance landscape depends on an integrated framework that views insurance not merely as a transactional tool for sickness, but as a macroeconomic pillar supporting the nation's human capital.

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