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DEMAND FOR HEALTH INSURANCE

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Abstract

The lack of demand for health insurance, despite high levels of out-of-pocket expenditures and forgone care in India, is baffling. To understand why this is the case, we break down the demand for insurance into factors that affect (i) the value people associate with health insurance and the intention to buy, and (ii) the translation of this intention to actual purchase and renewal of insurance. Based on a study of the theoretical and empirical literature, we conclude with a set of hypotheses that looks at how demand for health insurance can be fostered by targeting both the components of demand (intention and action), through well-designed awareness measures and nudges to overcome the various behavioural biases involved.

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1 Introduction

In most developing countries, a substantial portion of health care costs is met directly by individuals paying out of their pockets. With nearly two-thirds of all its health spending funded by out-of-pocket (OOP) expenditure (Baeza et al., 2019), India is one of the prominent cases of OOP dominated health systems. High OOP expenditures force about 7% of the population into poverty annually (Kumar et al., 2015). At the same time, data from the 75th round of the National Sample Survey finds that for 12% of the population, healthcare needs remained unmet[1] (Mahapatro et al., 2021). These large out of pocket expenditures and instances of foregone care beg the question: why isn't there a greater demand for health insurance? Is it the case that people perceive no value in health insurance or is it that they do perceive value but fail to act upon this perception[2]?

In order to understand the relation between attitudes, intentions and behaviour, Fishbein and Ajzen developed the *Theory of Reasoned Action* (TRA). According to this framework, attitudes and subjective norms together influence one's intention to perform a behaviour. They later expanded this framework as the *Theory of Planned Behaviour* (TPB), which added perception of control as an additional factor that influenced both the intention as well as the final behaviour itself (Ajzen, 2012, 1985). TRA and TPB propose that behaviours/ actions should be correlated with intentions. Research building on this framework has identified that while intentions are a necessary condition for behaviour, intentions alone are not the sole predictors of behaviour. This discrepancy observed between intention and behaviour forms what is called the intention-action gap. Taken together, TRA, TPB and the notion of intention-action gap provides a framework to understand what influences a certain action or behaviour.

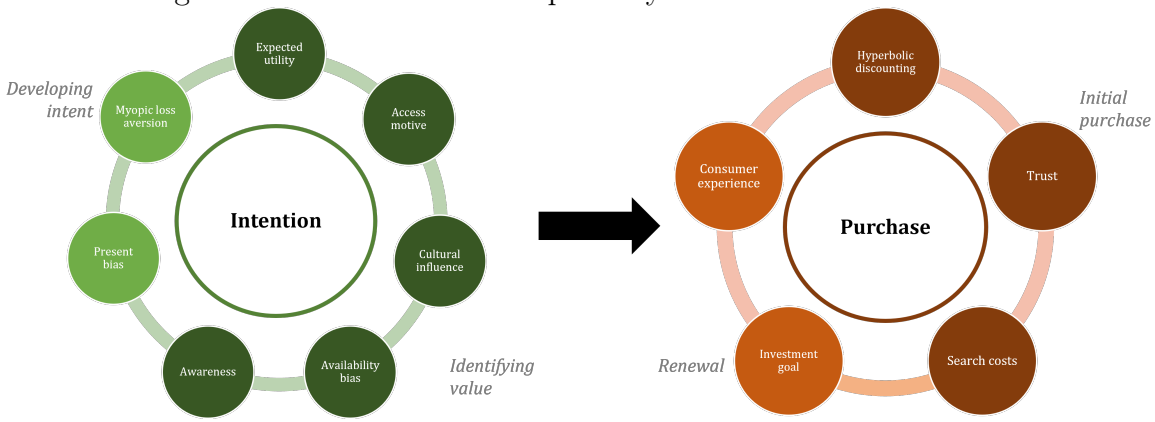
In this note, we apply this framework to study the demand for insurance. We start by breaking down the demand for insurance into its components: (1) the intention to buy insurance, and (2) the conversion of this intention into action, which means the actual purchase of insurance (see figure 1). We then attempt

[1] Unmet healthcare need is defined as the persistence of a healthcare need that has not been adequately met. Limited ability to pay (occasioned by the lack of insurance) has been identified as a key reason for this (Mahapatro et al., 2021).

[2] The perception of value in insurance and its subsequent purchase are also dependent on both the supply of suitable insurance products and the availability of high-quality healthcare facilities. It could even be the case that high OOP expenditures are coming from those who are insured but do not use their insurance because of the poor quality of healthcare that that insurance typically covers. We do not take up such supply-side factors for consideration in this paper but assume rather that the supply side is functioning properly, and still there continues to be a lack of demand, and it is this lack that we concern ourselves with.

to build a comprehensive understanding of the different factors that influence the intention and action in this domain.

Figure 1: Intention to action pathway of health insurance



2 Intention to buy insurance

2.1 Appreciating the value of insurance

The intention to buy insurance starts with identifying value in it. General economic theory has focused on the welfare benefits of insurance to understand if there is a reason for individuals to demand insurance in principle. Expected utility theory suggests that insurance derives its value from an individual's preference for certainty over risk (Friedman & Savage, 1948). Accordingly, when faced with the prospect of losing income or wealth by chance, individuals will be willing to pay a certain small premium to protect against a risky large loss[3]. The more averse individuals are to risk, the greater would be the value they see in insurance. Expected utility theory has remained the dominant economic explanation for insurance demand. However, it does not really factor in the value of healthcare itself in the demand for health insurance. Nyman (1999) tries to address it through what he calls the 'access motive' to demanding health insurance. According to this, insurance provides the ability to access care that was previously inaccessible and hence forgone. The value of insurance, then comes from the value of the medical care that it makes accessible (Nyman, 1999).

While providing a rationale for why consumers would demand insurance, these theories assume consumers who are rational, aware of their risk perceptions and have the foresight to determine the amount of care they may use- these supposed traits are quite different from what is observed among consumers in reality. Numerous factors, including the socio-cultural contexts they are placed in and their behavioural biases, make individuals respond to health insurance in a way not predicted by theory. Even the degree of risk aversion is contingent on multiple individual characteristics such as gender, age, family status, education other than income category. For instance, studies provide evidence that women are more likely to be more risk-averse than men and make safer choices (Outreville, 2014).

Further, cultural dimensions can have an influence on the perception of financial products and the decision to buy them (Dragos et al., 2020; Hofstede, 1995). In collective cultures, where there is an inherent sense of mutual responsibility for one another, individuals turn to the larger community for support in times of need. Such a societal model of care, in some sense, functions as implicit insurance. This leads to a reduced perception of risk and a receding of an individual sense of

[3]In reality, owing to high distribution costs, the premium paid by individuals is a lot higher than what is actuarially fair. Additionally, low caps on the insurance claim can reduce the effective payout received by the consumer. Therefore, the final economic value of insurance to consumers could be much lower than the premium paid.

responsibility to provide for risk, thus leading to a lower, if at all any, perceived value in insurance.

The ease with which instances of health need occurrences can be brought to mind can also play a role in how individuals ascribe a value to insurance. This availability bias helps people assess the probability of needing insurance using available information (Kahneman & Tversky, 1979; Kunreuther et al., 2013). This could be based on a personally experienced negative health event, or even knowing someone who has suffered from a negative health event. A 2019 study conducted across 11 countries (Innocenti et al., 2019) showed that individuals who either experienced a health event or knew someone who has were 25% and 40% more likely to form an intention to purchase insurance.

A more obvious barrier to appreciating the value of health insurance is the lack of awareness about insurance itself. While individuals may value consumption smoothing and access to care, the lack of sufficient information can prevent them from associating these benefits with insurance. This poor understanding of insurance and its benefits is not limited to the poor and illiterate; even educated middle-class individuals have trouble understanding insurance (Ahlin et al., 2016) and differentiating between different types of insurance and investment products (Ahmed, 2013). Communities, which individuals are a part of, are observed to have an influence on the awareness and eventual uptake of insurance by members. For instance, a study conducted in Maharashtra (Ontiveros & Platteau, 2017) found that membership in self-help groups (SHGs) was associated with greater uptake. This was directly linked to the fact that SHGs and the NGO tied to them actively worked to build awareness among members.

2.2 Developing an intention to purchase

Having awareness of and an appreciation for the value of insurance is a necessary but not sufficient condition for developing the intention to purchase insurance. Health insurance decisions are intertemporal in that the costs and benefits occur in different periods. This activates certain behavioural biases in customers that prevent them from developing an intention to purchase.

While expected utility theory assumes that individuals take decisions based on an *expected* state in the future, *prospect theory* suggests that for intertemporal decisions, individuals use their current state as the reference point leading them to be *biased towards their present* as it is more real and concrete whereas the future is hypothetical and abstract (O'Donoghue & Rabin, 1999; Ananth et al., 2021). *Prospect theory* also proposes that individuals are risk averse when it comes to

gains and risk seeking when it comes to losses. To illustrate, if faced with the prospect of a sure gain of Rs. 100 over a 50% chance of getting Rs. 200, an individual is likely to be risk averse and choose the first option. However, if faced with the prospect of a sure loss of Rs. 100 over a 50% chance of losing Rs. 200, the individual is likely to choose the risk of losing Rs. 200, over the sure loss, indicating a *myopic loss aversion*. Losses are treated as more painful than gains are pleasurable, in intertemporal decisions. Hence, individuals are likely to take the risk of a future loss over the sure payment of a premium today (Kahneman & Tversky, 1979; Schneider, 2004; Benartzi & Thaler, 1995). The risk of the future loss is assessed by individuals based on their present state, i.e., the possibility of a negative health event in the future is determined by individuals based on their current state of health. If they assess themselves to be healthy in the present day, they may expect that state of health to not deviate by much in the future and will then be less likely to develop an intention to purchase insurance.

3 Purchase of insurance

3.1 Initial purchase

Once individuals have an intention to purchase insurance, the next step involved is the actual purchase of insurance itself. A set of behavioural and contextual factors determine whether the awareness and appreciation for insurance will translate into the purchase of health insurance.

Often individuals do not make decisions in their best long-term interest, because they tend to discount the future hyperbolically, i.e., they are likely to place less weight on future pay offs as this future becomes more distant (Dasgupta & Maskin, 2005; Strotz, 1955). This essentially means that individuals procrastinate and keep putting off the purchase of insurance even when they have developed an intention to purchase. While discussing discounting, Strotz (1955) also notes that the more 'sophisticated' individuals, who are self-aware, acknowledge this hyperbolicity and are more likely to purchase insurance as a commitment device. Ito & Kono (2010) document the uptake of micro health insurance by low-income households in Karnataka and find a higher likelihood among these sophisticated hyperbolic discounters to buy insurance.

The lack of trust in insurance can cause individuals to not purchase insurance even when they have formed an intention to purchase. This lack of trust is higher if there is a history of default associated with insurance. India's current stand-alone health insurance market with a claims ratio of 64% (Insurance Regulatory and Development Authority of India, 2020) (Insurance Regulatory and Development Authority of India, 2020) does little to build consumer confidence in the market. In addition to trust in the scheme and its management, trust in healthcare providers has also been widely documented to influence the purchase of insurance (Kotoh et al., 2018; Kumi-Kyereme et al., 2017; Dror et al., 2016; Kibambila, 2017). A study conducted in Andhra Pradesh and Gujarat (Cole et al., 2013) evaluating the uptake of rainfall insurance in drought prone regions found in-person visits by familiar and trusted NGOs to increase uptake. Where individuals have low financial literacy the involvement of a trusted third party builds greater confidence. In a study of community-based health insurance (CBHI) in Bihar and Uttar Pradesh, Dror et al. (2018) found that communities, through what the authors call the 'social effect' (Dror & Firth, 2014), play an important role in building trust for insurance as well as influencing individuals to align their stance with the group opinion.

Yet another barrier to individuals purchasing insurance is the search cost associ-

ated with it. Kunreuther et al. (2013) note that when the costs associated with getting information on loss probabilities and insurance premiums are high relative to the value that individuals see from collecting that information, they may simply choose not to search and remain uninsured. Insurance is a rather complex product, often riddled with hidden costs and terms. This makes it all the more difficult for individuals to determine the prices they will face as well as the value of benefits they will receive (Liebman & Zeckhauser, 2008). This high search cost has been documented in anthropological accounts of customers navigating the online health insurance exchange in US (Mulligan, 2017). Other than the efforts required to choose a suitable policy, the choice-making itself overwhelmed customers, because of the multiple factors they needed to consider (employment fluctuations, health needs and changing income) while assessing their ability to pay. Considering the complexity associated with choice-making, consumers found it preferable to consult enrolment specialists over applying online. One possible solution that has been proposed to the complexity costs of having to sift through the fine print of insurance contracts is to offer "free care" at the point of healthcare delivery after a premium has been collected upfront. Managed care models largely operate in this fashion (Mor, 2021). Yet another barrier to purchasing is the status quo bias: when faced with highly consequential choices and changed conditions, individuals are likely to find it more convenient to stick to their current status and not change anything (Liebman & Zeckhauser, 2008).

3.2 Renewal of insurance

The purchase of insurance indicates a one-time demand for insurance. However, for this demand to be sustained over a period of time, consumers must renew their insurance contracts from time to time. Therefore, it is equally important to understand the factors influencing the consumer's decision to renew. Any barriers that could exist for renewal, may not necessarily be the same as those for the purchase of insurance itself (Bhat & Jain, 2007).

The goal that consumers associate with insurance may determine whether they renew insurance or not. For instance, insurance is often viewed through an investment lens rather than as a protective measure. Getting through a year without having a major medical expenditure and without having the need to collect on their insurance is ideally the best possible scenario for a consumer. However, for those who associate an investment value with insurance, having a year go by without collecting on their policy can lead to regret for having purchased insurance in the first place (Kunreuther et al., 2013). This regret can act as a barrier to renewing insurance. Panda et al. (2016) study the renewal rates for three CBHI schemes in rural Bihar and Uttar Pradesh and find that renewals were higher for

those who faced a health risk in the previous year, compared to those who did not. Ontiveros and Platteau in their 2017 study in Maharashtra also find evidence to indicate that myopic households, given their short time horizons, dropped out of insurance schemes due to disappointments with no payouts in a year. CBHIs like Uplift Mutual in India have tried to overcome this problem by providing regular preventive care check-ups, giving members a concrete benefit before the next renewal cycle as a kind of substitute for no insurance payouts (Uplift Mutuals, 2021).

Consumer experience with insurance is another key determinant to whether they will renew insurance. These experiences can include the accessibility of services, the handling of problems during service delivery, assistance in accessing healthcare when needed and the ease of claims processing. If the consumers' satisfaction level with the experience is low, they may find no value in renewing the insurance contract (Bhat & Jain, 2007). Closely related to this is consumers' expectations from insurance itself. A mismatch of their expectation of benefits and what is actually offered can also reduce the interest in insurance, preventing renewal. The Panda et al. (2016) study find that within the group of people who had health shocks, those whose claims were settled within 19 days renewed their policy while those who received funds after 27 days did not. Moreover, there was also a difference in the amount of money reimbursed out of the total claim which was 33% for those who renewed and 23% for those who opted out.

4 Discussion and Conclusion

In this note, we have examined both existing theoretical explanations as well empirical evidence to trace the intention-action pathway of insurance. The awareness of insurance and an appreciation of its value create the intention to buy insurance. Following the appreciation of insurance as a valuable product for financial and health risk protection, the first-time purchase and subsequent renewals are subject to overcoming numerous barriers, both behavioural and contextual.

The intertemporal nature of insurance and its value as a tool for health risk protection makes the intention and purchase decisions closely resemble that of preventive care. In both cases, individuals are making investments in terms of cost and effort for either covering against a possible future risk or investing in the prevention of such a risk in the first place. Prioritisation of well-being and an appreciation of preventive measures are hence similar to the appreciation of insurance products as they are poised towards long-term health interests and financial prudence. A study of the barriers and motivators to preventive care can hence inform the demand problem of health insurance. We therefore hypothesise that:

Hypothesis 1: Consumers will appreciate the value of health insurance if they are made aware of such value through suitably designed awareness programs.

This will be tested through the following research questions:

1. What behavioural barriers prevent consumers from appreciating the value of health insurance? Can a study of the barriers associated with the appreciation of preventive care offer any insights in this regard?
2. Would consumers be better able to appreciate the value of insurance if it were being offered through a managed care model that guaranteed access to preventive and primary (curative) care?
3. What are the implications of our answers to the above questions for the design of an awareness and appreciation program among consumers for health insurance?
    (a) What role can primary care physicians (PCPs), pharmacists and community health workers play in such a program?
    (b) What has been the experience of CBHIs in creating awareness and appreciation for insurance?
    (c) What role can mass media awareness campaigns play to increase awareness and appreciation for insurance?

Behavioural biases may still crop up in the purchase decision, despite valuing insurance as a risk protection instrument. Addressing them along with other factors is essential to nudging individuals to overcome such barriers or remove certain non-behavioural barriers. Hence, we hypothesise that:

Hypothesis 2: Conditional on appreciating the value of insurance, consumers will purchase insurance if "nudged" to overcome biases and if provided with simple and comparable options. Their experience of using these products will determine whether they renew their insurance contracts or not.

This will be tested through the following research questions:

1. How can plans be simplified for easy comparison and choice? Will simpler and more easily comparable plans lead to greater purchase?

2. Could managed care models offering "free care" reduce or eliminate the complexities that consumers experience in navigating indemnity insurance, and thereby induce higher take up?

3. How does the channel of sale affect demand? What role can be played by PCPs, pharmacists, CBHI entities and community health workers, with whose aid consumers also came to appreciate the value of health insurance? Are they better placed to assist the purchase of insurance than financial service providers?

4. Can effective grievance redressal mechanisms and regulatory oversight inspire confidence in consumers to renew insurance?

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