

**CSEP RESEARCH** 

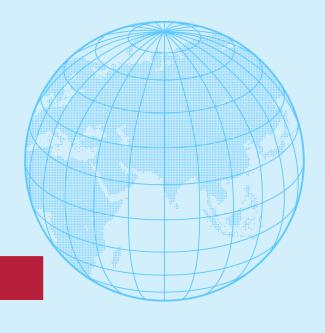


WORKING PAPER - 63 OCTOBER 2023

# A Report on Voluntary Health Insurance in India

A Bridge Towards Universal Coverage?

Madhurima Nundy Pankhuri Bhatt



Copyright © Madhurima Nundy, and Pankhuri Bhatt

Centre for Social and Economic Progress (CSEP) CSEP Research Foundation 6, Dr Jose P. Rizal Marg, Chanakyapuri, New Delhi - 110021, India

#### Recommended citation:

Nundy, M. and Bhatt, P. (2023). A Report on Voluntary Health Insurance in India: A Bridge Towards Universal Coverage? (CSEP Working Paper 63). New Delhi: Centre for Social and Economic Progress.

The Centre for Social and Economic Progress (CSEP) conducts in-depth, policy-relevant research and provides evidence-based recommendations to the challenges facing India and the world. It draws on the expertise of its researchers, extensive interactions with policymakers as well as convening power to enhance the impact of research. CSEP is based in New Delhi and registered as a company limited by shares and not for profit, under Section 8 of the Companies Act, 1956.

All content reflects the individual views of the authors. The Centre for Social and Economic Progress (CSEP) does not hold an institutional view on any subject.

CSEP working papers are circulated for discussion and comment purposes. The views expressed herein are those of the author(s). All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including copyright notice, is given to the source.

Designed by Umesh Kumar

## A Report on Voluntary Health Insurance in India

A Bridge Towards Universal Coverage?

#### Madhurima Nundy

Fellow Centre for Social and Economic Progress New Delhi, India

#### Pankhuri Bhatt

Research Analyst Centre for Social and Economic Progress New Delhi, India

The authors thank Nachiket Mor, Amrita Agarwal and Ajay Mahal for their insights and feedback that helped improve the paper. The authors also thank the internal reviewers Rakesh Mohan, Laveesh Bhandari, Debarpita Roy and Constantino Xavier for their sharp observations and comments.

#### **Table of Contents**

Abbreviations	
Executive Summary	
1. Introduction: Universal Health Coverage and health insurance	
2. Voluntary health insurance and its scope in the context of UHC	
2.1 Demand for Voluntary Health Insurance	
2.2 Challenges and successes in VHI: Country experiences	
3. Health insurance landscape in India	
3.1 Overall expenditure and coverage through health insurance schemes	
3.2 Expansion of Health insurance in India: State, markets and VHI	
Health insurance schemes in India (central and state government)	
Health Insurance Markets - VHI and its expansion	
Penetration of health insurance in India	
Classification of insurer by sector.	
Classification by business	
Profitability and efficiency of commercial VHI	
3.3 Depth of coverage and benefits under health insurance in India	
3.4 Regulatory frameworks for health insurance in India: Gaps and challenges	
Licensing and reporting requirements	
Regulation of premiums.	
Administrative management and commission expenses in commercial VHI	
Product development and benefit standards	
Disclosures, consumer complaints, and appeals	
Hospital and provider payment regulation	
Equivalence of Premiums and Risks	
Mitigation strategies	
Subsidisation	
4. Conclusions: Proposed pathways towards UHC	
4.1 VHI as a component and interim measure towards UHC.	
4.2 Governance and regulation of insurance schemes: Institutional reforms	
4.3 Supply-side restructuring and demand-side budgeting	
4.4 Summing up	
Bibliography	57
List of Tables	
Table 1: Key features of Voluntary Health Insurance	11
Table 2: Classification of VHI.	
Table 3: Current Health Expenditure (2018–19 & 2019–20) by Health Care Financing Schemes	
Table 4: State-wise number of households with one insured member	
Table 5: Government Health Insurance Schemes in India – Features and design	
Table 6 – Health insurance schemes by sector	
The of Treath insurance senemes by sector	10
List of Eigungs	
List of Figures	
Figure 1: Three dimensions of UHC	
Figure 2: Health insurance penetration (% insurance premium to GDP)	
Figure 3: Health insurance density (In rupees) - ratio of premium to population (per capita premium)	
Figure 4: Market share in premiums underwritten	
Figure 5: Percentage share in premium (of total Rs.73,000 crores) and number of lives covered by business (percentage of total)	
Figure 6: Gross premium growth (in millions) vs. number of lives covered (in millions)	
Figure 7: Net Incurred Claim Ratio of Health Insurers – sector wise	
Figure 8: Public sector health Insurers - Gross Premiums and Profit & Loss (In Rs. Crore)	38
Figure 9: Public sector insurers – Profit and Loss in Health Insurance vs General Insurance (Rs. Crore)	38
Figure 10: Claim ratio - Business wise split	
Figure 11: Performance of the commercial health insurance sector in India (2006 – 2019)	
Figure 12: Health Insurance Landscape in India	53

#### **Abbreviations**

CAG	Comptroller and Auditor General of India
CBHI	Community-based insurance schemes
CGHS	Central government health scheme
CMIE	Centre for Monitoring Indian Economy
ECHS	Ex-servicemen contributory health scheme
EOM	Expense of management
ESIS	Employee state insurance scheme
ILO	International Labour Organization
IRDAI	Insurance Regulatory Authority of India
LMIC	Low- and middle income country
NFHS	National Family Health Survey
NHA	National Health Authority
NSS	National Sample Survey
OOPE	Out-of-pocket expenditure
OP	Out-patient Out-patient
<b>PMJAY</b>	Prime Minister's National Health Insurance Scheme (Pradhan Mantri Jan Arogya Yojana)
RELHS	Retired Employees Liberalised Health Scheme
RHS	Railway Health Service
RSBY	National Health Insurance Scheme (Rashtriya Swasthya Bima Yojana)
SECC	Socio-economic and caste census
TPA	Third-party administrators
UHC	Universal health coverage
VHI	Voluntary health insurance
WHO	World Health Organization

#### **Executive Summary**

This paper presents a detailed review and analysis of India's health insurance landscape, with a focus on voluntary health insurance (VHI). This review aims to provide various stakeholders (especially providers, employers, insurance companies, pharmaceutical firms, and government and non-government policy thinkers) an assessment of all the factors to be considered when envisioning expansion of health care coverage for the population by enhancing financial protection through insurance. In the quest towards attaining universal health coverage (UHC), insurance has become a dominant financing model globally. Most high-income countries have a national insurance scheme as in Germany and Canada, or a national health service funded through general taxation as in the United Kingdom (UK). In low- and middle-income countries (LMICs), due to the low priority accorded to health as well as budget constraints, health financing is fragmented. Financing includes a mix of mandatory insurance schemes for the formal sector, voluntary insurance schemes (mostly commercial and privately managed, but could be managed by the public sector as well) for those not covered by a mandatory insurance, targeted insurance schemes for the poor, and a high proportion of out-of-pocket (OOP) spending. Voluntary Health Insurance is therefore, one of the insurance schemes covering the population.

The health insurance experiences of various countries reveal that VHI, in its commercial form, plays a supplementary, complementary or substitutive role. Overall, on an average, 10% of a country's population is covered by VHI (mostly in its substitutive form). Voluntary health insurance that is subsidised by the government can play a role in increasing demand for insurance, providing coverage to the "missing middle" or the informal sector, especially in LMICs. Country experiences on coverage of the missing middle demonstrate that government subsidies as prepayments are key to creating demand and achieving universal coverage of this section, as seen in China and Thailand. This section concludes that VHI is unlikely to play a dominant role in the path to UHC and needs to be well regulated by the government in order to be integrated with the overall health insurance landscape.

In the section on India's health insurance landscape, we observe that India has diverse revenue sources for financing health. Health care in India suffers from deep fragmentation, including the fragmentation of financing pools, payers, providers, and governing structures. The system is also cost inefficient, resulting in high out-of-pocket expenditure (OOPE) and health inequities in terms of access and outcomes. Given that in the quest towards UHC, insurance is set to become the dominant form of financing, this section describes and analyses India's health insurance landscape in detail, and more importantly, the role of VHI in this scenario. We construct this landscape based on various available data sources and find that 46% of the population is covered by some scheme of medical insurance which is mostly indemnity-type plans for in-patient services, and hence shallow. These schemes broadly include: social health insurance, involving employee-employer based pooling, provided by the public sector (CGHS, ESIS, ECHS and so on); voluntary health insurance (VHI) which is commercial insurance purchased by individuals and private sector employers (group insurance) and; government (centre and state)-sponsored targeted insurance schemes for the poor (Pradhan Mantri Jan Arogya Yojana currently being the main central programme).

The health insurance market in India has expanded in the last two decades and has introduced many private insurers. India now has 36 general insurance, 24 life insurance, and 7 standalone health insurance companies that provide health insurance. There are only five public insurance companies (four general insurance and one life insurance company). While health insurance penetration and density has increased over time, the breadth and depth of coverage remains low and shallow. Furthermore, despite the numerous health insurance schemes available across the country, the health insurance market has still not matured enough. There are too many players with weak regulation in place. At present, 46% of the population is covered under insurance schemes, with varying depths of coverage. Those in the formal sector (government and private) enjoy better health insurance coverage than those covered by government sponsored/subsidised schemes (PMJAY and state-sponsored schemes) and individual VHI schemes. Data shows that government-sponsored schemes are poorly funded while attempting to cover a large proportion of the population, resulting in shallow coverage. In contrast, formal sector employees have greater depth of coverage with more robust funding. This indicates the regressive nature of financing and inequities in coverage.

All types of health insurance schemes face regulatory and governance challenges, but these need to be strengthened in order to minimise insurance-related market failures. The space for commercial VHI has expanded over the last few decades with the expansion of the insurance market, but VHI financing is regressive and faces considerable market failures in India. The country's regulatory mechanisms in health insurance are not robust. Several gaps and challenges in the regulation of commercial insurance schemes continue to exist, along with weak regulation in pricing of premiums as well as costs levied by private providers. As such, there is a growing need for a separate vertical monitoring only health insurance within the Insurance Regulatory Authority of India (IRDAI). Administrative and commission costs for insurance companies and agents exceed 40% which is very high and impacts insurance claims. The public/consumers are ill-informed and lack knowledge about insurance policies; grievance redressal is mostly limited to claim rejections. There is no standardised benefit package. India's health insurance landscape is therefore fraught with adverse selection and moral hazards, and high costs and inequities across class and region. This defeats the purpose of universal accessibility and equity. These challenges need to be underscored before coverage is expanded with the objective of financial protection through insurance.

Given the consistently low levels of government investment, and that only 46% of India's population is covered by some form of health insurance, alternative forms of health financing to expand coverage to the missing middle class need to be strategically thought out in order to improve financial protection. India could explore the potential of expanding VHI, making it more accessible, provided that is well regulated and supervised. At present, other country experiences show that VHI (funded either by public and private funds or both) plays a marginal role in total health expenditure, but can be used to bridge the gap in coverage.

The paper concludes that only substantive tax-based financing, consolidated risk pools, strong regulation of insurers and providers to minimise market failures, and restructured service delivery, can enable mandatory universal coverage. However, thoughtfully expanded and government-managed VHI could serve as an interim stepping stone towards more comprehensive publicly-financed universal coverage in the long run.

The key takeaways from this paper are –

- In India, around 46% of the population is covered by some form of health insurance. This includes social health insurance schemes, government-sponsored insurance for the poor, employer-provided insurance, and commercial VHI. However, the coverage is highly fragmented and inequitable.
- Globally, VHI plays a marginal role in total health expenditure, but can help bridge coverage gaps. It is unlikely that UHC can be achieved through VHI alone, due to challenges like adverse selection, high administrative costs, and inequitable access.
- India could strategically expand regulated VHI on an interim basis to extend coverage to the "missing middle" that is not covered by government insurance or employer schemes. The government needs to substantially increase public financing, merge insurance pools, strengthen regulation, and restructure health care delivery and other supply-side issues. The reforms have to be systemic.
- The paper argues that India can expand regulated VHI to bridge coverage gaps in the short-term, but universal mandatory insurance, financed more through taxation and consolidated pools, is needed for equitable universal coverage in the long run.

# 1. Introduction: Universal Health Coverage and health insurance

Governments across the world are restructuring their health systems towards attaining universal access in health coverage, in order to reduce citizens' financial burden. Different pathways have been adopted by countries to attain universal health coverage (UHC), determined by varying contexts— socio-political, economic, demographic and epidemiological. The road to UHC has been a gradual process in some instances, while in other cases the shifts have been transformative. In low- and middle income countries (LMICs) with high out-of-pocket expenditures (OOPEs), progress towards attaining the UHC goals of financial protection as well as universal access to comprehensive, equitable services has been gradual. Therefore, the path taken towards UHC is important.

Another important component of UHC is financing health services. The World Health Organization (WHO) has identified three stages of financing health care: generating funds or revenue; pooling funds; and purchasing health services. Broader tax-based financing is considered the most progressive form of mobilising and generating funds in health financing, as it takes equity into consideration. However, in low-resource settings where the tax base is low, financing health services is a challenge. The way health services are financed is also determined by the government's priorities and political motives linked to the same. In light of the global endorsement of UHC, many countries have expanded health coverage by introducing various health insurance schemes, including universal mandated schemes, targeted schemes, and voluntary schemes. Through these mechanisms, financial protection has increased for a proportion of the population. Who the beneficiaries are and the extent of coverage depends not only on the scheme's financing design and benefits provided, but also the larger contexts within which such decisions are made.

Health insurance is a financing system that involves prepayment and pooling of funds for risk-sharing, transferring financial risk from an individual to a pooled group through a contract. It has two basic functions. These are, first, to secure financial access to health care for individuals for primarily curative treatment in an event of a disease or injury. Second, health insurance protects against the potential adverse economic impact of seeking services for treatment of diseases or illnesses (El-Sayed et al,

2018). Public or social health insurance enforced by the government is financed through taxes and/ or employer and employee contributions. Further, for VHI, the decision to obtain coverage is made privately by individuals, households, or private companies (Mathauer & Kutzin, 2018). For instance, in private health insurance, individuals or a group of individuals are willing to pay a fee called "premium" as a pre-payment to an insurance company pooling similar risks, and insuring them for health-related expenses (Anita, 2008). However, VHI is not always privately provided. Some governments also provide insurance coverage by allowing a particular section of people (mostly those who are self-employed) to join voluntarily. This is done either by directly collecting premiums (for instance, Indonesia's national health insurance scheme), or indirectly granting tax allowances to purchase VHI.

Health insurance schemes offer a shift from the traditional focus on supply-side financing (funding for line-item budgets for public health services, health programmes, staff training and improving supply chains) to that of the demand-side. In recent years, demand-side financing has gained precedence as it responds to the needs of the population, which is critical to universal access to health. The Thai experience demonstrates that a transition from supply side to demand side budgeting reduced the practice of allocating funds by discretion and enhanced the transparency and accountability to its citizens. Further, a comprehensive benefit package improved financial protection for the population and reduced OOPE (Tangcharoensathien et al, 2020a). The aim of UHC is to create a larger pool for cross-subsidisation, leading to equitable distribution of resources. A larger pool is possible when health insurance is universal and mandatory. However, health insurance, in many instances, can create fragmented pools with varied levels of benefits across these pools. In India, several insurance schemes with different designs and varied benefits cater to different segments of the population.

In this paper, we first conceptualise VHI and its scope. Next, we examine VHI in the context of other countries, to understand when it developed into a major scheme, or whether it was abandoned. We then outline and analyse India's health insurance land-scape using data from National Health Accounts, the National Family Health Survey, government scheme websites, and the latest Insurance Regulatory and Development Authority of India (IRDAI) annual report on insurance penetration and commercial

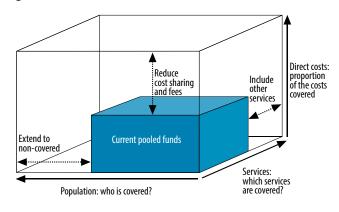
insurance spread. We discuss key issues and challenges regarding insurance regulation in India, and conclude with an examination of the potential and limits of expanding VHI in India. The findings and analysis in this paper aim to provide various stakeholders within the industry, as well as policy makers, an assessment of all the factors to be considered when conceptualising and envisioning expansion of health coverage for the population through insurance in India.

# 2. Voluntary health insurance and its scope in the context of UHC

As illustrated in Figure 1, the three dimensions to be considered for UHC are: breadth of coverage (population covered); depth of coverage (benefits and services provided) and height of coverage (proportion of costs covered) (WHO, 2010a). Health insurance is one of the financing mechanisms through which these dimensions can be addressed.

Most developed countries have UHC in some form, for instance, the United Kingdom's (UK's) National Health Service (NHS) that covers the entire population through general taxation, national health insurance that is managed by several private sickness funds in Germany and funded through mandatory employee-employer contributions.

Figure 1: Three dimensions of UHC



Source: WHO 2010a.

In many high-income and upper-middle income countries, mandated health insurance schemes are managed and operationalised by a single-payer national health insurance (NHI) system. With a larger proportion of the population engaged in formal employment, these funds are generated through

mandatory employer–employee contributions (social health insurance) and government subsidies or tax funds for the poor population. Services not covered by the NHI (mostly specialised) may be supplemented by voluntary private insurance schemes accessible to the upper classes who can afford them, as seen in Canada and South Korea.

In LMICs where the proportion of informal labour is high, provision of universal coverage is difficult due to the low tax base. The challenge here is to provide coverage to the informal sector and their dependents—what has come to be known as the "missing middle"—assuming that those below the poverty line and those in the formal sector are covered by targeted welfare schemes and employer-employee insurance schemes, respectively. Therefore, these countries have more fragmented systems of financing, that is, different insurance schemes managed by different actors or a single agency managing multiple pools, with varied benefits and depth of coverage. These may or may not be universally accessible and equitable. Depending on the countries' capacity, motives and priorities, health insurance could be either mandatory or voluntary. Typically, the poor have free access to health services and are covered by government financed non-contributory1 insurance schemes, as seen in the case of India's Pradhan Mantri Jan Arogya Yojana (PMJAY)—literally translated to Prime Minister's Public Health Insurance Scheme that seeks to provide financial protection to 500 million people below the poverty line. This kind of coverage can be classified as mandatory considering that all those who are eligible (identified as "poor") are included by default.

Globally, for-profit private/commercial health insurance has been synonymous with VHI. The expansion of commercial for-profit health insurance across countries has been seen in the post-liberalisation era of the 1990s. In LMICs, this coincided with the rise of the middle classes, which created the space and demand for VHI, in the absence of universal health services and due to high OOPE. The demand now mostly stems from the self-employed or those in the private sector without coverage; some private sector companies do purchase insurance policies for their employees, which also falls under VHI. Thus, such gaps in demand are filled by the private insurance market.

<sup>&</sup>lt;sup>1</sup> Government-sponsored non-contributory health schemes are also categorised as health insurance schemes.

Apart from commercial forms of VHI, governments that do not possess adequate funds or do not prioritise health, could introduce newer forms of voluntary public insurance schemes. These are in the form of premium contributions by individuals willing to purchase insurance that may or may not be supplemented by government subsidies. This is introduced for the "missing middle" who are not covered by any statutory insurance scheme. However, the scheme is administered by the government or a third-party private entity, and tax allowances may be granted for participation in the insurance scheme. Thus, VHI can be funded and administered by both private and public sources.

There are also voluntary community-based health insurance (CBHI) schemes seen in LMICs where the poor lack coverage under any health scheme. These are micro-insurance schemes, aimed towards the poor and vulnerable population, which are managed by non-profit organisations and involve community participation. However, such schemes are far and few between.

The key features of VHI are listed below in Table 1.

#### 2.1 Demand for Voluntary Health Insurance

The success of VHI depends on a considerable demand for participating in the scheme. A larger number of people enrolled would mean that a larger pool of resources is generated. This would ensure success of a VHI, which is dependent on a greater uptake of the scheme, patient satisfaction and profit margins for the insurance companies. Voluntary health insurance centres around risk perception; if risk perception is higher, the demand for health insurance will also be higher. However, the value of voluntary insurance depends not only on risk perception but also on the availability of funds to purchase insurance, especially if the premium amount is paid by the individual, with no government subsidies. Most of the literature on what constitutes demand for health insurance borrows from consumer behaviour theory in a market setting, where consumers maximise their utility which is dependent on price, income and preference. However, health insurance decisions are not entirely based on utility alone, due to future uncertainty (Schneider, 2004). Individuals will voluntarily opt for health insurance if it is offered at a premium less than the expected expenses (Schneider, 2004; Pauly et al, 2008). This is the expected utility theory.

An alternative to expected utility theory is prospect theory (Kahneman & Tversky, 1979), which

describes how an individual or household's decisions are influenced by their current status when approaching a specific decision. In the context of health insurance, the theory suggests that people opt for insurance based on their future gain or loss perspective, and not because of uncertainty. Those without coverage decide whether to buy health insurance or remain uninsured, whereas those with insurance decide whether to renew their health insurance, change the amount of coverage or cancel a policy (Kunreuther et al, 2013). Hence, given a premium level, individuals will first assess their health risk at the current status quo level, and eventually deviate from it. They may or may not decide to buy health insurance, depending on their gain or loss prospects (Schneider, 2004; Panda et al, 2016; Ashraf & Nambiar 2021). An extension of prospect theory suggests that individuals or households give different weight to the probability of falling ill or any health event. A younger population might not see the value in health insurance when compared to older people who might be suffering from chronic conditions and perceive the risk of illness and hospitalisation in the future. Commercial insurance companies keeps premiums high or bars older people who are high-risk category from purchasing insurance, and keeps premiums low for those at low-risk, mostly the younger population. While this is regressive, individuals might also decide to purchase insurance at a younger age, in order to maintain continuity in their enrolment as they progress to the high-risk category.

Demand is determined by demand-side factors such as socioeconomic status, culture, household size, gender, health status, knowledge of and information on health insurance, and trust, as well as supply-side factors like benefit design, enrolment procedures, and access to and availability of health services. Overall, a population needs to be informed of the advantages of ensuring financial protection by being insured. Government participation and subsidies, tax exemptions along with educational campaigns have been used to increase enrolment in VHI. While subsidies and tax benefits have been generally effective in raising enrolment, studies have observed these are neither always feasible nor can be considered long-term sustainable solutions, especially in LMICs (Thomas, 1994; James & Acharya, 2022). Furthermore, knowledge and educational campaigns interventions may be needed to be increased on a larger scale. However, given the poor understanding of health insurance principles in LMICs, these alone may not sufficiently increase

Table 1: Key features of Voluntary Health Insurance

Health system financing	Key Features	Challenges to UHC and policy issues for alignment			
Revenue	Prepayment in the form of premiums.	Who sells insurance and at what price?			
collection	Premiums are not related to income,	Do tax incentives affect the price and uptake?			
	generally based on individual risk rating as perceived by the insurer and hence regressive.	Premiums are regressive and dependent on ability to pay. How can premiums be made progressive in VHI? Could they be linked to			
	Government may or may not subsidise.	income rather than individual risks?			
Pooling	Small and fragmented pools and limited redistributive capacity.	What proportion of the population is covered by VHI and how are premiums set?			
	Adverse selection in pooling where	What exclusions do insurers make?			
	people with higher health risks will be more inclined to purchase voluntarily. At the same time, private insurers tend to cover those with minimum risks.	Can the government contribute to the VHI pool by subsidising for the missing middle, in order to create demand and expand the pool?			
Purchasing of health care / medical	Purchasing power is limited due to small pool size and there is a limited set of medical services covered.	Who purchases health/medical services and what are the purchasing mechanisms? What benefits does VHI provide and at what cost?			
services	VHI has its own management, purchasing and contractual arrangements with providers. This will differ from scheme to scheme.	How do insurers ensure efficiency (including quality) by providers, in administration and delivery of health services? Regulation and pricing is important especially when the private sector is involved.			
		How does the system ensure that overdiagnosis and overtreatment does not occur (supplier-induced demand) especially when the system is dependent on private provisioning.			
		How transparent are the provider payment systems?			
Benefits and service use	VHI mostly focuses on curative services through private providers.	How does one make VHI comprehensive and equitable in terms of coverage and access?			

Source: Adapted from Thomson (2010) and Mathauer and Kutzin (2018).

enrolment in insurance programmes. Thus, interventions should use a combination of approaches to address the financial barriers faced by individuals and households when enrolling in health insurance (James & Acharya, 2022).

## 2.2 Challenges and successes in VHI: Country experiences

According to literature, VHI can be classified based on the different characteristics of the public health system, particularly the extent of public coverage and statutory policies. Voluntary health insurance has various classifications: substitutive, complementary, supplementary and duplicative (Table 2) (Mathauer & Kutzin, 2018; ILO 2019; Thomson & Mossialos, 2004).

There is very little information on the proportion of population that VHI is able to cover globally. However, in its substitutive role, VHI coverage is generally below 10% in LMICs (Mathauer and Kutzin 2018). While VHI plays a marginal role in most countries, its proportion to the total health expenditure is increasing gradually. This growth can be seen in LMICs where there is an increase in the

middle classes willing to pay premiums in anticipation of illness-related risks. They are also more informed on the availability of private insurance companies and are able to purchase insurance. In higher income countries with government-administered UHC, VHI is mostly complementary or supplementary; the case of the United States (US) is an exception.

Determining premium pricing for VHI is particularly difficult because of the absence of competing objectives related to affordability, equity, adverse selection, and moral hazard. The premium amount is determined by actuarial analysis and is based on data on the extent of the benefits package, cost of each unit of this package, probability of an event, and the administrative cost in implementing the programme. Usually the premium amount is risk rated, which can be regressive since poor and aged populations face higher illness risk and must pay higher premiums, making it inequitable. These are generally used for individual health plans. Income-rated premiums are less regressive, as the higher the income, the higher the premium. If the group is big and the insurance design permits, there could be some scope for cross-subsidisation. In community-rated premiums, the amount is a flat rate for all members in a particular geographical area. When there are a large number of enrolments, income and community ratings are more appropriate mechanisms to determine the premium amount (MOHFW, n.d.).

The literature on insurance, especially VHI, lists out several challenges. Adverse selection in VHI is a common phenomenon wherein more high-risk individuals purchase insurance. Insurance companies counter this by introducing age-capping, such that older persons, who are high-risk, are either excluded or made to pay high premiums, and/or people with pre-existing illnesses are not covered for services directly linked to their medical conditions. Commercial insurance companies benefit from enrolling low-risk individuals. Therefore, VHI, might keep many individuals away from joining the scheme, that is, those who are high-risk or unable to pay high premiums. At the medical service provider end, there is a supply-induced demand where the provider behaviour (especially the for-profit provider) involves supplying more services than required, with insured individuals also seeking more services than if they were uninsured. Here too, disincentives like co-payments are introduced by insurance companies in order to create some financial barriers and offset the moral hazard problem (Mathauer & Kutzin, 2018). Among other challenges, VHI encounters higher administrative costs than statutory health insurance schemes, due to the costs associated with underwriting and other bureaucratic tasks to assess risks, premium rates, and review claims (Mathauer & Kutzin, 2018).

These phenomena also play out in several countries with government-initiated VHI. For instance, Indonesia has a single-payer system that administers the national health insurance. The poor are covered through government subsidies, and those engaged in formal employment are covered by employeremployee contributions. The government encourages the "missing middle" (those in the informal sector) to purchase insurance by paying premiums into the national health insurance pool. While the insurance scheme is mandatory for the poor and formally employed, it is voluntary for the informal sector, with high premium rates for this group. The challenge lies in persuading individuals and families to avail insurance by paying the premium. Adverse selection occurs and many individuals do not purchase premiums annually. This has led to individuals joining the scheme when they face a health issue, thus leading to deficits (Nundy & Bhatt, 2022a).

The experiences of China, Turkey, and Thailand clearly demonstrate the importance of equity and need for governments to allocate funding for health care financing. China introduced a multi-payer system, and covers its population via three insurance schemes: a medical assistance scheme for the very poor; urban employee insurance scheme for the formally employed and; urban-rural resident insurance scheme for the self-employed, unemployed and those in the informal sector. While on paper, the resident insurance scheme is voluntary, its coverage for this population is almost universal due to the over 80% government subsidy, with only a small proportion of premium paid by individuals. Door-todoor campaigns are carried out at the local level to enrol people into the programme. Furthermore, the substantive government subsidies also encourages citizens to enrol themselves in the scheme. The government must have the fiscal capacity to sustain the insurance, since it contributes a higher proportion of the premium amount as subsidy. The first step was to include entire population, even if coverage was shallow and then increase the depth of coverage as funding were made available. China implicitly stated that the government would be responsible for basic healthcare, while non-basic services or rare diseases could be left to private insurance coverage. This is

**Table 2: Classification of VHI** 

VHI Role	<b>Key Features</b>	Advantages	Challenges	Country example
Substitutive	This covers the population that is either not covered by publicly financed schemes or is allowed to take their mandatory contributions out of the compulsory insurance system.	Reduces burden on government health budgets.	Restriction in choice of insurance coverage for some population groups that are not part of a public or social insurance scheme; or they are given the choice to opt out of public insurance scheme and enrol in a private voluntary scheme.	Chile, Egypt, Germany, United States, Indonesia, India.
Complementary	This pays for some services that are covered by the mandatory system, like co-payments or those excluded from the statutory insurance benefits.	Access to services not covered under social or statutory health insurance schemes.	May create a financial obstacle for individuals, especially those whose income is just above the threshold for any exemptions from user charges, restricting their access.	Canada, Germany, Israel, Netherlands, Switzerland, France, Ghana.
Supplementary	Offers enhanced access (for instance by bypassing queues/ waiting lines), high quality inpatient amenities, or more freedom to choose healthcare providers in comparison to those covered by the statutory system.	Better choice of health services and providers. Faster access.	May increase inequalities in access where it enables people to bypass waiting lists in the public sector or better access to health services or providers.	Australia, Brazil, Egypt, India, Ireland, Israel, Japan, Kenya, the Republic of Korea, South Africa, Switzerland, Taiwan, China, Mexico, Malaysia, Ghana.
Duplicate	Provides coverage to additional services or providers already covered under the publicly financed health insurance. However, does not allow an exemption to enrolees from contributing to publicly financed health insurance.	Better choice of health services and providers.	Duplicate coverage from two different insurance schemes i.e. excess coverage/ policies that cover the same risk.	Mexico, and Ghana.

Sources: Thomson and Mossialos (2004), Mathauer and Kutzin (2018), and ILO (2019).

promoted by the government, therefore lending credibility to some private insurance companies that people can trust. The government provides citizens with credible information on schemes and encourages them to voluntarily enrol themselves, in order to supplement their public insurance coverage. This principle is similar to that followed by a number of European countries, wherein a uniform package is provided under the public insurance programme, leaving room for private insurance to supplement the same (Nundy & Venkateswaran, 2022).

Therefore, country experiences with the missing middle demonstrate that government subsidies as prepayments are critical to achieve universal coverage of this group; this is difficult when premium collection relies on individuals in the informal sector. As seen above, government subsidies play a significant role in China and Thailand (Nundy & Venkateswaran, 2022; Nundy & Bhatt, 2022b). Indonesia, Philippines and Vietnam target the poor, near poor and vulnerable by providing free services, and cover the formal sector through social insurance schemes, while the rest of the population is required to contribute voluntarily to enroll in the national health insurance scheme. This leads to challenges in achieving universal coverage (Yip 2019). Brazil, Mexico and Thailand had thus, abandoned VHI for the population employed in the informal sector and realised the value of attaining universal coverage through general taxation (Tandon, n.d.).

Voluntary health insurance can eventually be made mandatory. For instance, in Chile, the entire population is required to choose between public and private coverage, and must contribute to the same, regardless of the option selected. Likewise in Germany, substitutive private health insurance is classified as compulsory pre-payment. Anyone who opts out of social insurance has to enrol in a private insurance scheme. Further, since 1994, the population covered under substitutive private health insurance cannot revert back to public coverage after the age of 55 (Thomson & Mossialos, 2019). Netherlands's dual system of public and voluntary private insurance was replaced with a single compulsory health insurance scheme. Now, private insurers are mandated to accept every resident and provide basic government-designed health insurance packages (Blumenthal & Hsiao, 2015).

Depending on the role of VHI, it could pose opportunities and risks for equitable progress towards UHC. When privately run and managed, VHI can be skewed towards providing access only to a section of

population that is able to afford the premiums with low risks. This creates issues regarding equity in access, as well as class segregation where the lower-income group is unable to purchase premiums unless subsidised by the government, while high-income groups can afford the same. It also has an impact on the increase in utilisation of services by a particular section of society. Another challenge with voluntary private insurance schemes is that they are weakly regulated, especially in LMICs, and usually do not fall within the purview of the Ministry of Health. This is usually undertaken by a general insurance regulatory body that does not have health-specific knowledge and may not be in sync with the country's health sector policies and UHC objectives. Voluntary health insurance that is dominated by the private insurance market can be successful only if there is a substantial middle class, and capacity for regulation by the government (Thomson, 2010).

The literature suggests that while VHI is unlikely to play a dominant role in the progress towards UHC, it can play a complementary role alongside other statutory insurance schemes. For it to be equitable, it needs to be integrated with other schemes to provide a similar depth of coverage. If governments design VHI equitably and bring it into a common pool, cross-subsidisation may be possible, especially if premiums vary by income group. Cross-subsidisation would also be possible if the pool is larger with a greater uptake in VHI enrolment, and a single agency combining and administering the insurance schemes. (Thomson, 2010).

## 3. Health insurance landscape in India

This section attempts to understand India's health insurance landscape: its spread and coverage, the insurance schemes by the central and state governments, expansion of health insurance, depth of the schemes, and issue of regulation. This gives us a sense of the context within which expansion of VHI has occurred.

### 3.1 Overall expenditure and coverage through health insurance schemes

India has diverse revenue sources for financing health. In this context, the different sources of revenue and schemes in India's current health insurance landscape are considered. We also look at where we are headed in terms of insurance coverage,

Table 3: Current Health Expenditure (2018–19 & 2019–20) by Health Care Financing Schemes

c No	Einancing Schames	2018-	19	2019-	20
3.110	Financing Schemes	In Rs crores	In %	In Rs crores	In %
1	Union Government (Non-Employee)	43,540	8	54,717	9.2
2	Union Government (Employee)*	17,479	3.2	14,969	2.5
3	State Government (Non-Employee)	71,774	13.3	79,136	13.3
4	State Government (Employee)**	5,272	1	7,056	1.2
5	Urban Local Bodies	8,076	1.5	8,667	1.5
6	Rural Local Bodies	7,273	1.4	7,293	1.2
7	Social Health Insurance Schemes***	19,944	3.7	23,957	4
8	<b>Government Financed Health Insurance****</b>	12,680	2.4	13,809	2.3
9	Employer-based Insurance (Private Group Health Insurance)	21,676	4	25,881	4.4
10	<b>Private Individual Health Insurance</b>	17,525	3.2	19,957	3.4
11	<b>Community-Based Insurance</b>	13	0	39	0
12	Non-Profit Institutions Serving Households	9,367	1.7	10,231	1.7
13	Resident Foreign Agencies Schemes	1,098	0.2	1,023	0.2
14	Enterprises	16,956	3.1	18,197	3.1
15	All Household Out-of-Pocket Payment	2,87,573	53.2	3,08,727	52
16	Total	5,40,246	100	5,93,659	100

Source: National Health Accounts, 2018-19; 2019-20.

as well as the implications for universal access and coverage. Finally, we attempt to understand more feasible models of insurance to attain universal coverage, and the role of VHI in this process.

Per the National Health Accounts, financing through insurance, as a percentage of current health expenditure, was 13.3% in 2018–19, increasing to 14.1% in 2019–20. Meanwhile, OOPE remained high at 52% of total health expenditure (Table 3). Compared to some other LMICs, India lags behind in terms of coverage through insurance.

According to the Centre for Monitoring Indian Economy (CMIE), the percentage of Indian households with at least one insured member increased from 10% in 2014 to 34% in 2020, based on the Consumer Pyramids

Household Survey, Aspirational India Survey, and Household Income Survey (Agrawal & Ganesan, 2022).

A comparison of state-level data between the National Family Health Survey 2015-16 (NFHS-4) and NFHS-5 (2019–21) shows an increase, over four years, in households with at least one member insured under any health insurance scheme, from 28.5% to 32% (Table 4). Regional variations in coverage are also present; Andhra Pradesh, Rajasthan and Chhattisgarh appear to have more number of households covered.

The NFHS-5 (2019-21) data reveals that 40% of urban households had some health insurance coverage, while penetration had increased to 30% of rural households by 2020.

<sup>\*</sup>Current expenditures on Defence Medical Services (Rs 14,685 crores), Railway Health Services (Rs 5,043 crores) and the rest is any reimbursements made by union government departments through central services (medical attendance) (for 2019–20).

<sup>&</sup>quot;Incl. expenditures on employees through medical allowance/reimbursements by state government departments."

<sup>&</sup>quot;Incl. Central Government Health Scheme (CGHS), Ex-servicemen Contributory Health Scheme (ECHS) and Employee State Insurance Scheme (ESIS).

<sup>\*\*\*\*</sup>Incl. expenditures on PMJAY, RSBY and state-specific health insurance schemes.

### 3.2 Expansion of Health insurance in India: State, markets and VHI

To understand VHI expansion in India, we first need to examine the context in which it has occurred. For this, we review the existing health insurance schemes (central, state and voluntary), and examine data from insurers (public and private) aggregated by the IRDAI. This data examines the penetration of insurance, classification of insurers by sector and business, and claims ratio showing profit margins.

## Health insurance schemes in India (central and state government)

Since before Independence, insurance schemes have existed in India in a limited capacity for workers. The debates around social insurance took shape in 1943 when the government appointed a committee headed by Professor B.P. Adarkar to frame a health insurance scheme for industrial workers in India. During the course of his report, Professor Adarkar examined the

working of the Indian Workmen's Compensation Act and Maternity Benefits Acts, and made a strong case for merging them into a unified and integrated health, maternity and employment injuries insurance scheme. This scheme covered only factory labour: textile, engineering and all mineral and metals. It formed the basis of the Employee State Insurance (ESI) Act of 1948 and was constituted by the Ministry of Labour. Following independence, all central government employees were covered under the Central Government Health Scheme (CGHS) constituted by the Ministry of Health. Similarly, state government employees received health coverage in their respective states. The rest of the population, which comprised the majority, had no financial protection. The public health services were supposed to be free at the point of delivery but were severely underfunded, giving space for the growth of an unregulated heterogenous private sector. Over time, private health services became the first point of contact for many, including the poor, leading OOPE to reach as high as 80% of total health expenditure in the 1990s.

Table 4: State-wise number of households with one insured member

States	NFHS-4 (% of households) 2015–16	NFHS-5 (% of households) 2019–21
Jammu & Kashmir	4	14
Himachal Pradesh	26	39
Punjab	21	25
Chandigarh	21	33
Uttarakhand	20	63
Haryana	12	26
Delhi	16	25
Rajasthan	19	88
Uttar Pradesh	6	16
Bihar	12	17
Sikkim	30	28
Arunachal Pradesh	59	29
Nagaland	6	22
Manipur	4	16
Mizoram	47	51
Tripura	58	37
Meghalaya	35	69
Assam	10	67
West Bengal	34	34
Jharkhand	13	51
Odisha	48	48

States	NFHS-4 (% of households) 2015–16	NFHS-5 (% of households) 2019–21
Chhattisgarh	69	72
Madhya Pradesh	18	38
Gujarat	23	45
Dadra & Nagar haveli	31	57
Maharashtra	15	23
Andhra Pradesh	75	80
Karnataka	28	32
Goa	16	73
Lakshadweep	3	68
Kerala	48	58
Tamil Nadu	64	67
Puducherry	33	30
Andaman & Nicobar	6	2
Telangana	66	69
All India Average	28	32

Source: NFHS-4 (2015-16) and NFHS-5 (2019-21).

In the past two decades, India has seen a proliferation of central and state government-sponsored health insurance schemes. In 2003, the central government implemented the Universal Health Insurance Scheme (UHIS), offering financial risk protection to below the poverty line (BPL) population at a subsidised premium rate. The coverage for hospitalisation was Rs 30,000 with the government subsidising two-thirds of the premium amount, which varied depending on the family size. It is still available to BPL and non-BPL families, with the premium amount varying from Rs 100 to Rs 200 for a family, and the government subsidising Rs 200-400, depending on the family size. The uptake of the scheme was negligible, covering only 3.7 million individuals by 2008-09. This was mainly due to a lack of awareness about insurance, as well as a lack of government effort to increase enrolment following its launch. However, this scheme laid a strong foundation for several government-funded insurance schemes launched by states, and the Rashtriya Swasthya Bima Yojana (National Health Insurance Scheme) (RSBY) launched by the central government (Hooda, 2020).

Health is a state subject in India and several states experimented with insurance schemes at the turn of the 21<sup>st</sup> century. In 2003, Karnataka launched its first government-funded scheme called Yeshasvini Cooperative Farmers Health Care Insurance. The scheme provided comprehensive and affordable medical ser-

vices to farmers and members of cooperative societies in rural Karnataka, and was implemented by a trust constituted by the state government. A small contribution was made by the cooperatives, and they were able to negotiate packaged hospital services at reasonable rates. However, the scheme suffered from a stagnating member base and shallow benefits package design (La Forgia & Nagpal, 2012). Following this, in 2007, Andhra Pradesh launched the pro-poor Rajiv Aarogyasri Health Insurance Scheme, which was designed to provide secondary and tertiary health benefits to BPL households. While the scheme successfully covered a large number of targeted beneficiaries and reduced catastrophic expenditure, it was unsuccessful in providing free health care. The depth of services was shallow, and people continued to pay out-of-pocket (Hooda, 2020).

In 2008, the central government launched the RSBY, which was one of India's largest government-financed health insurance schemes. The RSBY provided financial security and access to medical services to BPL families and other vulnerable population. The scheme covered a maximum of five members of a family, with a small contribution of Rs 30 from individuals and a government subsidy in the range of Rs 400 to Rs 600. It covered hospitalisation, day-care services, and maternity coverage up to a limit of Rs 30,000 per annum. However, many studies have highlighted implementation and operational chal-

lenges affecting the scheme. While hospitalisation rates had increased, people were still incurring high OOPE especially in empanelled private hospitals. A rise in unnecessary hospitalisation was reported in several states. There was absence of robust regulatory mechanisms especially for accreditation of hospitals and grievance redressal for beneficiaries (Selvaraj & Karan, 2009; Das & Leino, 2011; Rajasekhar et al, 2011; Nandi et al, 2012; Devadasan et al, 2013; Rent & Ghosh, 2015; Karan et al, 2017). Several states introduced the RSBY, and some launched their own versions of the scheme. Overall by 2017, there were around 33 government-funded health insurance schemes in various states that were largely meant for poor households and the informal sector to some extent (Hooda, 2020).

As targeted schemes, they faced impediments in means-testing to identify eligible members. Studies on the RSBY have identified enrolment as one of the biggest bottlenecks in its effective implementation. Further, there was substantial variation in enrolment across states, districts and villages (varying from 28% to 46% of eligible households) (Rajasekhar et al, 2011; Dror & Vellakkal, 2012; Jain, 2011; Palacios et al, 2011; Grover & Palacios, 2011). Limited awareness and understanding due to lack of detailed information by the government about these schemes was another fundamental impediment (Nandi et al, 2012; Patel et al, 2013; Narasimhan et al, 2014; Patel & Unadkat, 2018). Often, beneficiaries of the scheme had limited awareness about their eligibility and enrolment status, entitlements, and information about health facilities empanelled under the scheme. Households that had experienced health shocks were also more likely to enrol (Dasgupta et al, 2013).

In 2018, the central government launched the Pradhan Mantri Jan Aarogya Yojana (PMJAY)<sup>2</sup> under Ayushman Bharat<sup>3</sup> for socio-economically poor rural households and some selected occupational category of the urban population. It was administered by an autonomous government agency— the National Health Authority (NHA). The scheme is targeted towards the bottom 40% of India's population (the poorest and most vulnerable), or about 500 million people. It subsumed the previous RSBY scheme and other state health insurance schemes, except in West

Bengal, Odisha, Telangana and Delhi, which had opted out of the central scheme. The scheme provides coverage for cashless treatment up to Rs 5 lakh for each family member on a family-floater<sup>4</sup> basis. It covers around 1,573 medical procedures across 23 specialties at the secondary and tertiary care level and allows beneficiaries to avail services from all public or empanelled private hospitals (Prinja et al, 2023). The Economic Survey of 2021 revealed that although a short time had elapsed since the launch of PMJAY, there were some positive outcomes such as "greater penetration of health insurance, reduction in infant and child mortality rates, improved access and utilisation of family planning services, and greater awareness about HIV/AIDS" (Ministry of Finance, 2021).

As with the RSBY, even under the PMJAY, beneficiaries in Bihar and Haryana, for example, had inadequate information about the scheme's coverage, benefits and cashless nature (Dash & Muraleedharan, 2019). Several studies on the PMJAY's predecessor schemes have highlighted the drawbacks in their effective implementation, despite substantial investment from states and the national government; however, few lessons have been learned from them. For instance, ineffective enrolment processes, lack of awareness and understanding about the schemes and their correct administration processes are some common bottlenecks present in the implementation of several health insurance schemes in India (Bauhoff & Sudharsanan, 2021). Most of these schemes cover only in-patient services. Factors like access to hospitals, waiting times, and quality of care also have an impact on their effective functioning. Analyses of the RSBY, state level schemes and even the PMJAY indicate that over half of the empanelled hospitals under various schemes are located mostly in urban areas. The concentration of hospital facilities places serious limitations on accessibility to services and reveals inequities in insurance benefits (Hooda, 2020). Finally, the correct administration of a scheme, ensuring the provision of appropriate services and covering other costs associated with hospitalisation, also determines its effective functioning and impact. Often, private hospitals charge beneficiaries for covered benefits, in order to extract higher payments from them. For instance, several studies of state

<sup>&</sup>lt;sup>2</sup> PMJAY – Prime Minister's National Public Health Insurance Scheme

<sup>&</sup>lt;sup>3</sup> Ayushman Bharat literally translates to "Bless India with a long life." Under the aegis of the National Health Authority (NHA), Ayushman Bharat consists of the following centrally driven programmes: PMJAY, development of health and wellness centres (HWCs) and the National Digital Health Mission (NDHM).

<sup>&</sup>lt;sup>4</sup> Family-floater health insurance could cover all members in the family under a single plan. The sum insured applies to all family members.

health insurance schemes have indicated incidents of overcharging and underprovision of services by empanelled hospitals, or instances of beneficiaries incurring expenditure on medicines and diagnostics that should have been provided under the scheme (Jain 2019). The administration of the PMJAY also varies across states. It is often implemented in the form of two alternative institutional arrangements, namely: a trust-based model and insurance based model. Per the trust-based model, the autonomous State Health Agency (SHA) purchases services directly from the empanelled providers. For the insurance-based model, the SHA enters into a contract with an insurance company to insure beneficiaries and pay providers based on a pre-defined list of services (Furtado et al, 2022).

Apart from the central and state sponsored health insurance schemes for the poor, the India's current health insurance system also has employer-mandated social health insurance (SHI) schemes. These include the Central Government Health Scheme (CGHS), Retired Employees Liberalized Health Scheme (RELHS), Railway Health Service (RHS), Ex-Servicemen Contributory Health Scheme (ECHS) for

retired armed forces personnel, and Employees' State Insurance Scheme (ESIS) for workers and their families in the organised sector with an annual income of Rs 1,80,000 or less (Sarwal, 2015). Other government institutions, like the Reserve Bank of India (RBI) and public-sector undertaking companies and banks have their own mandatory insurance coverage for all employees and retired employees. Some of these use the public insurance companies to pool resources. Taken together, these schemes cover around 10% of the population, with ESIS providing the larger share of coverage. While providing more comprehensive coverage for both outpatient and inpatient services, the ESIS and CGHS schemes have been marred by decades of mismanagement, poor infrastructure, doctor shortages, and weak governance, thus limiting their impact. This fragmentation demonstrates the inefficient nature of insurance coverage. These social insurance schemes are each administered by their respective ministries.

Table 5 summarises the design and other features of government-sponsored and social health insurance schemes.

Table 5: Government Health Insurance Schemes in India – Features and design

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
1	<b>Central Gov</b>	ernment financed health in	surance scheme		-						
1.1	PMJAY	Proposed to cover 500 million individuals (100 million households) below poverty line (40% of the total Indian population) based on socio-economic caste census (SECC) data of 2011.  As of May 2023, 233 million individual health cards were issued to scheme beneficiaries from 33 states/UTs implementing the scheme. 50% AB-PMJAY card recipients are women.  About 50 million cards were issued to scheme beneficiaries through states' own IT systems.	Rs 7,200 crores (as per 2023 budget).	Approx. Rs 144 per person, assuming PMJAY aims to cover 500 million individuals.	More than 29,000 hospitals: 14,781 public hospitals and, 14,501 private hospitals.	Cashless cover of up to Rs 5 lakks for inpatient services at secondary and tertiary care hospitals per household per year, including pre- and post-hospitalisation services up to 15 days.	Achievements Since its inception in 2018 till May 2023, about 49 million hospital admissions were authorised, with expenditure exceeding Rs 53,000 crores. Of the total empanelled hospitals, almost 50% are private hospitals.  Challenges Reluctance among private hospitals to join PMJAY due to low treatment package rates; huge variation across states in both awareness and enrolment. States with a long track records of implementing insurance programmes are performing relatively well, while large backward states are lagging.	Health care providers are contracted at a predecided lumpsum price. Providers are also incentivised through additional payment if they are certified, by accreditation authorities, as having an improved quality of services. The states have the freedom to fix rates and decide on payment mechanism and use of generated revenue of public hospitals empanelled under the scheme.	Tax-based budgetary allocation (no premium contribution).	A total of 1,949 medical procedures are available under PMJAY. States can also retain certain health benefits packages under the scheme for public hospitals and offer additional services.  The National Health Authority has introduced differential pricing based on the type of city and level of care.  High end drugs diagnostic procedures like MRI, CT scans have been removed from the benefit package to ensure their cost is not included in the primary treatment package. These are provided separately.	National Health Authority (NHA) is the apex body responsible for implementing PMJAY, and has been entrusted with the role of designing strategy, and building technological infrastructure.  There are two models of implementation under PMJAY- Trust Model and Insurance Model.  In the Trust model, state health agencies (SHAs) in the form of a society/trust have been set up by respective states. SHAs have full operational autonomy over the implementation of the scheme in the state, including extending the coverage to nonbeneficiaries.  Under the insurance model, the states use the public/private sector health insurance companies to pool funds. The insurance company is responsible for empanelling hospitals, processing claims, and managing the funds allocated for the scheme.

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
2	State Govern	ment financed health insu	rance scheme – St	ate ( Not affili	iated to PMJAY)						
2.1	Yeshasvini Health Insurance Karnataka (this is apart from PMJAY scheme for BPL in Karnataka)	3.3 million individuals have registered for the scheme. It is for farmers in Karnataka who are members of co-operative societies registered with the Department of co-operatives. (This covers over 19% of Karnataka's population).	Rs 300 Crores (budget as of 2022).	Approx. Rs 900 per person.	Over 900 empanelled hospitals out of which 460 are private hospitals.	The scheme provides cashless inpatient treatment for 1,650 procedures.  Beneficiaries can avail a maximum of Rs 5 lakh per annum in any empanelled hospitals.	Since 2003–04 to 2014–15, around 1.5 million beneficiaries had availed OPD services and 0.7 million beneficiaries had undergone surgeries.  The scheme was relaunched in November 2022.  Challenges  Reluctance among major private hospitals because rates fixed for different treatments are very low, and inconsistencies in reimbursements by state government.	Network hospitals enter into contract at pre-determined tariff rates for each service.	Members of rural cooperative societies or SHGs will pay an annual premium of Rs 500 for a family of maximum four members. Members of cooperative societies in urban areas will pay a premium amount of Rs 1,000 for a family unit of a maximum number of four persons. The government will bear the premium amounts for SC/ST families.	The scheme offers coverage for 1,650 medical conditions.	The scheme is a partnership between the Department of Cooperatives, Government of Karnataka.

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
2.2	Biju Swasthya Kalyan Yojana (BSKY), Odisha  (Biju Health Insurance Scheme)	47.9 million beneficiaries (11.95 million households).  Converged the existing schemes like Rashtriya Swasthya Bima Yojana (RSBY), Biju Krushak Kalyan Yojana (BKKY- I, II) and Odisha State treatment fund (OSTF).	Rs 1,350 crores (budget as of 2023).	Approx. Rs 309.5 per person.	Total number of hospitals empanelled are 9,273, of which 8,530 are public hospitals and 743 are private.	Free and cashless treatment in all state government health facilities and empanelled private hospitals provided under BSKY to families with BKSY card, BPL Card, Antodaya Anna Yojana Card or an annual income of up to Rs 50,000 in rural areas and Rs 60,000 in urban areas.  Free health care is provided in empanelled hospitals through annual health coverage of Rs 5 lakh per family per annum, and for women the coverage can go up to Rs.10 lakh.  Beneficiaries can avail services in both the government (outpatient and hospitalisation cover) and empanelled private health institutions for inpatient, after referral from public hospital.	Achievements As of 2023, around 35.6 million cards were issued.  In 2022, total number of treatment done were around 66 million, of which 65.4 million were conducted in public hospitals and rest in private hospitals.  Challenges  Implementation of the scheme is encountering issues such as pending claims of private hospitals, and the cost of treatment fixed by the government is considered low and unworkable for private hospitals.	The empanelled private hospitals are paid for services through package rates, while, government hospitals receive bulk payments.	Tax-based budgetary allocation by state government (no contribution).	The BSKY provides financial support for around 4,036 medical treatments and compensates for approx. 255 surgical procedures.	The State Health Assurance Society (SHAS), Department Of Health and Family Welfare, is the nodal agency responsible for implementing the scheme.  Under the scheme, regular weekly/ monthly reviews of claims and medical audit by both TPAs and SHAS has helped identify duplication issues, and provide feedback to hospitals about discrepancies and changing provider behaviour.

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
2.3.	Swasthya Sathi Scheme, West Bengal	Over 75 million beneficiaries (24 million families) are covered (with no cap on the number of family members).	As of 2022, the budget allocated for the scheme was around Rs 17,576.9 crore.	Approx. Rs 2,343 per person.	Over 2,400 hospitals are empanelled across private and public institutions.	The scheme provides comprehensive and free family-floater health cover (covers entire family under a single plan) for secondary and tertiary medical care up to Rs 5 lakh per annum. The treatment must entail hospitalisation.	Achievements Over 5 million hospitalisations have been registered till the end of April 2023.  Challenges Delays in private hospitals receiving reimbursement from the government after providing treatment to card holders. As a result, private hospitals are refusing patients. Further, many hospitals are refusing patients because the packages are not "attractive" for the private hospitals.  Concerns over sustainability of the scheme as the number of beneficiaries under the scheme is too comprehensive and government is facing fiscal constraints with regard to payment for treatments to all citizens of the state.	Govt. pays empanelled hospitals at the predetermined package rates.	The entire premium is borne by the state government with no contribution from the beneficiary.	A smartcard is issued, in the name of a female member in the family, which allows for cashless treatment, paid for by the government. Private hospitals are required to charge subsidised rates for treatment under the scheme.	Swasthya Sathi Samiti, is the State Nodal Agency for implementation of the Swasthya Sathi scheme, for providing related services.  Public insurance companies are selected as insurance partners— National Insurance Company is selected as the Insurance Partner in 6 Districts (Cluster-I), Oriental Insurance Company in 9 Districts (Cluster-II), and United India Insurance Company in 8 Districts (Cluster-III).

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
3	Employer pr	ovided public insurance scl	hemes in India		_						
3.1.	CGHS	4.26 million beneficiaries across India.	Rs. 4,640 crore (revised budget 2022-23).	Approx. Rs.10,892 per person.	cGHS has its own 334 allopathic wellness centres and 97 AYUSH centres /units.  CGHS has empanelled 1,622 private hospitals and 240 diagnostic centres in different cities to provide indoor treatment facilities and carrying out investigations	Cashless facility treatment in empanelled hospitals and diagnostic centres outpatient treatment, including issuance of medicine.	Achievements As of 2022, CGHS as an organisation, has widened its network and is now functional in 75 cities across the country.  Challenges CGHS dispensaries provide out-patient services but health education, screening and other preventive and promotive services are not offered as a routine.  The scheme exhibits demand-side moral hazard with over 83% of hospitalised patients reported to be self-referred and most patients prefer to bypass the dispensaries and directly avail private specialist services. There is no gatekeeping.	Private facilities are paid based on fixed package rates, which are finalised through an open bidding process, for each service.  Empanelled hospitals, in turn, are reimbursed by the MoHFW.	CGHS facilities are funded by budgetary support from MoHFW, mandatory contributions by serving employees from their salaries and, voluntary contribution from pensioners. The contributions from pensioners who wish to join the scheme could be one time in ten years or on an annual basis, depending on pay grade.  Contributions from salaried employees range from Rs 250 to Rs 450 per month.	The CGHS benefit package is very comprehensive, without any exclusions, co-payments, deductibles or annual limits of cover.  Entitlement is the same irrespective of contribution, though eligibility to hospitality-linked inpatient facilities is pay-related. Services include outpatient consultations and medicines, diagnostic tests and inpatient services.  Since 2003, CGHS has permitted dispensaries to directly purchase medicines from the open market. Local purchase is done at retail prices.	The CGHS operates under the leadership of the MoHFW through Directorate General (DG). The hierarchical structure of the CGHS from DG to the dispensary level, involves zonal / regional directors, sourced from the central health services. However, CGHS regulations are highly centralised with limited financial and administrative autonomy.

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
3.2	ESIC	131.6 million beneficiaries.	Rs 13,763 crores (Expenditure for 2020–21 includes cash benefits, medical expenditure and administrative costs).	Rs 1,046 per person.	Over 159 ESI hospitals, 1,502 ESI dispensaries, 308 ISM units, 1,287 private outpatient care providers, diagnostic centres, and other recognised institutions.	The scheme covers workers with monthly income not exceeding ₹21,000 (no wage ceiling for workers with disabilities). Medical care is also provided to retired and permanently disabled insured persons and their spouses.	Achievements  Infrastructure under ESIC scheme is rapidly expanding, with over 23 new 100-bed hospitals across India. Further, beneficiaries under ESIC scheme can also avail treatment under AB-PMJAY.  Challenges  ESIC does not have enough medical facilities to support the large, enrolled population.  It has legacy systems and lacks modern facilities and risk management architecture.	Network hospitals enter into contracts at pre-determined package rates for each services.	ESIC is a contributory scheme and is constituted by employers paying 3.25% of wages and employees contributing 0.75% of wages. The state governments contribute 1/8th of the expenditure of medical benefit within a per capita ceiling of Rs.1,500/- per insured person per annum. Any additional expenditure incurred by the state government, over and above the ceiling and not falling within the shareable pool, is borne by the them.	ESIC provides outpatient treatment, domiciliary treatment through residential visits, specialists consultation, inpatient treatment (hospitalisation), free supply of drugs. dressings and artificial limbs, aids, and appliances, imaging and laboratory services, integrated family welfare, immunisation, RCH & other national health programmes, ambulance service or reimbursement of conveyance charges, medical certification and special provisions.	ESIS is regulated by ESI corporation under the Union Ministry of Labour and Employment.

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Purchase of services	Financing	Benefit package	Regulating body
3.3	ECHS	Over 5.5 million beneficiaries (as of 2022).	Rs 4,897.64 crores (expenditure for 2022–23).	Rs 8,904 per person.	its own polyclinics designed to provide out-patient services and provides referrals to secondary and tertiary facilities either in the defence hospitals or empanelled private hospitals. Around 3,158 private empanelled medical facilities.	The Scheme provides allopathic and AYUSH services to ex-servicemen pensioners and their dependents through a network of ECHS hospital facilities.		Network hospitals enter into contracts at pre-determined package rates for each services.	The one-time contribution amount for ECHS member varies from Rs 30,000 for recruits to Rs 1,20,000 for officers. Ex-servicemen who have retired prior to 1st January 1996, war widows and war disabled, including those disabled in internal security duties, are exempted from payment of ECHS contribution. The government contributes the rest.	Outpatient and inpatient services across ECHS institutions and inpatient services in empanelled hospitals.	The ECHS Central Organisation is located at Delhi and functions under the Chief of Staff Committee (COSC), Ministry of Defence.

Source: Press Information Bureau (https://pib.gov.in/); BSKY Dashboard (https://bskydashboard.odisha.gov.in); TNN (2022); ESIC Financial Estimates and Performance Budget 2021–2022 (https://www.esic.nic.in/attachments/publicationfile/49061dd4eb03d051634a6c2dfc2859aa.pdf); Central Government Health Scheme (https://www.cghs.nic.in/); Committee on Estimates, Seventeenth Lok Sabha. (2023); Ex-Servicemen Contributory Health Scheme (www.echs.gov.in).

### Health Insurance Markets – VHI and its expansion

In 1999, as part of the wider economic reforms, the Insurance Regulatory and Development Authority of India (IRDAI) Act was passed, permitting private sector and limited foreign participation in the private health insurance market, and establishing the statutory regulatory body, the IRDAI, in 2000. Prior to 2000, the government had monopoly over all forms of insurance. Now, several private companies as well as public sector companies offer commercial health insurance. The coverage mostly includes hospitalisation-based indemnity contracts (compensation made on losses) as primary products (Ashraf et al, 2022). Over the past two decades, the insurance market has evolved with increasing demand for insurance from the growing middle class.

With an aim to boost the growth of the private insurance market, the IRDAI liberalised the tariff<sup>5</sup> rates for general insurance in 2007 (PricewaterhouseCoopers, 2007; North 2020). This gave insurers autonomy over pricing of their products, leading to an increase in the number of players in the health insurance industry. From only four public general insurance companies and one life insurance company in 1999, India now has 36 general insurance companies, 24 life insurance companies, and 7 standalone health insurance companies (IRDAI 2022).

A variety of VHI policy types are available today: individual health insurance, which covers hospitalisation costs of only one person, and family floater plans for any family member, including parents, spouse, and children; senior citizen insurance, specifically for citizens above the age of 60 years; critical illness insurance, wherein a lumpsum amount is granted to an individual in case they are diagnosed with a critical illness from a pre-set illness list; and group health insurance, which provides coverage to a group of people under the same plan– mostly employees engaged in private or quasi-private employment (Bakshi, 2021).

The following section provides an analysis of the latest IRDAI data. The IRDAI data aggregates individuals covered under state and centrally sponsored

insurance schemes, PSUs that use the public and private insurers to administer its schemes, and individuals/groups purchasing VHI schemes. It does not include ESIS, CGHS, ECHS, RELHS and RHS data, as these schemes are administered through separate agencies under their respective ministries.

#### Penetration of health insurance in India

According to the 2021–22 IRDAI data, 520.4 million lives were covered under 22.6 million health insurance policies, which was approximately 36% of the population. The extent of insurance penetration and density are often used to gauge the level of development of the insurance sector in a country (Figure 2 and 3).6 Both metrics have consistently improved for India, with health insurance penetration almost doubling from 0.16% to 0.31% over the last seven years and the health insurance density more than tripling from Rs 153 to Rs 516 in the same time period (IRDAI 2022).

The total health insurance premium collected by insurers during 2021–22 was around Rs 73,000 crores, and has grown by 25% compared to that of 2020–21 (IRDAI 2022). The overall premium collections have increased more than 3.5 times since 2014–15 (IRDAI Annual Reports).

#### Classification of insurer by sector

Health insurers are classified based on three sectors: public sector insurers which include government-owned health and general insurers; private sector insurers, which are for-profit private entities that offer health and general insurance services and; standalone health insurers, which are companies that only offer health insurance services.

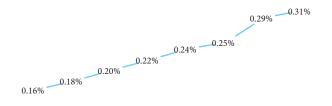
A strong growth in the overall health insurance premiums underwritten was witnessed in all the three sectors, however private sector insurers—general and standalone—grew at a much faster pace in comparison to public sector insurers. As seen in Figure 4, all insurance sectors have experienced growth, but the market share of public sector insurers has reduced from 73.2% to 47% over the last seven years (IRDAI Annual Reports). This market share loss of public

<sup>&</sup>lt;sup>5</sup> Liberalisation of the tariff involves eliminating the tariff structure or allowing flexibility in the fixed premium rates so that insurance companies are able to set premium rates that commensurate or correspond to the consumers' risk behaviour.

<sup>&</sup>lt;sup>6</sup> According to the IRDAI Annual Report, 2021–22: "Insurance penetration is measured as the percentage of insurance premium to GDP, insurance density is calculated as the ratio of premium to population (per capita premium)".

sector insurers was captured by standalone health insurers.

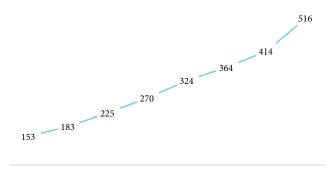
Figure 2: Health insurance penetration (% insurance premium to GDP)



2014-15 2015-16 2016-17 2017-18 2018-19 2019-20 2020-21 2021-22

Source: IRDAI Annual Report, 2022.

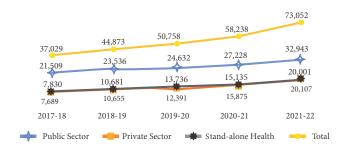
Figure 3: Health insurance density (In rupees) - ratio of premium to population (per capita premium)



 $2014\text{-}15 \quad 2015\text{-}16 \quad 2016\text{-}17 \quad 2017\text{-}18 \quad 2018\text{-}19 \quad 2019\text{-}20 \quad 2020\text{-}21 \quad 2021\text{-}22$ 

Source: IRDAI Annual Reports (various years).

Figure 4: Market share in premiums underwritten



Source: IRDAI Annual Report, 2021-22.

#### Classification by business

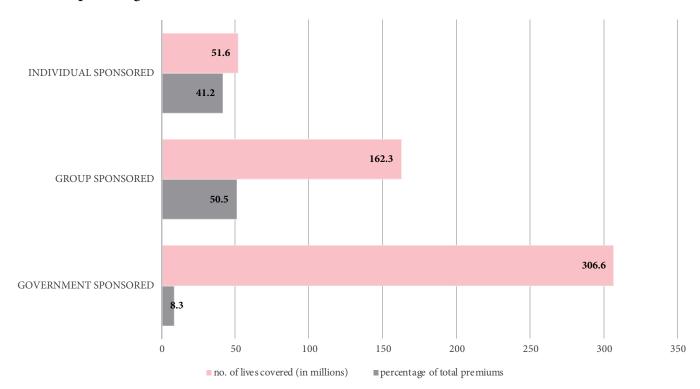
The IRDAI classifies commercial health insurance into three business categories: government-sponsored policies covering beneficiaries under schemes like state insurance and the PMJAY; group policies purchased by employers for employees; and individual policies bought directly by individuals. Group insurance and individual insurance premiums form a larger share of overall premiums collected, and fall within the realm of VHI.

Figure 5 shows that a large number of individuals are covered under government schemes, but with lower premiums collected, compared to group or individual insurance schemes. The number of individuals covered by government-sponsored insurance was more than 300 million in 2020-21 (21%), with those in the group business category at around 160 million (a mix of mandatory and voluntary insurance) (11%). The individual business category, which is completely voluntary insurance, covers 51 million lives, representing only about 3.6% of India's population (IRDAI 2022). The total number of lives covered across all three business categories represents about 36% of the population.

The gross premium split across these three business categories indicates that only 8% of the overall pie accounts for government-sponsored businesses, where as they include almost 59% of the individuals covered by any form of insurance. This reveals the low depth in coverage for government-sponsored insurance compared to commercial health insurance. Group businesses on the other hand account for 51% of the total pie in terms of gross premium and 31% of the total lives covered. Individual insurance schemes, account for a 41% of the total gross premium, while accounting only for 10% of the total lives covered (Figure 5).

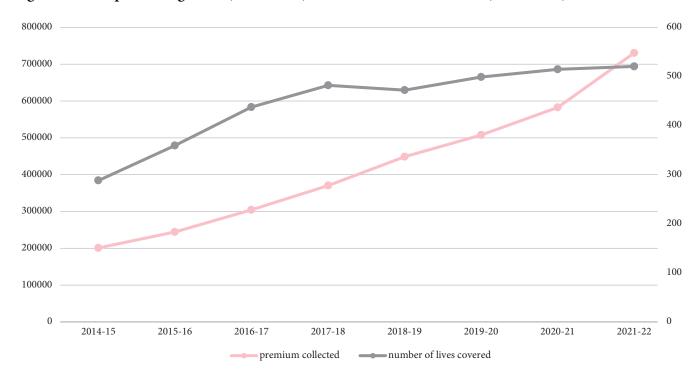
The growth in the total premiums collected was accompanied by an associated rise in the total number of people covered under health insurance policies. The total number of individuals covered has increased from 288 million in 2014–15 to 520 million in 2021–22. The last few years have witnessed a plateauing of the growth in the number of people covered after a significant growth period from 2014–15 to 2017–18 (IRDAI Annual Reports) (Figure 6).

Figure 5: Percentage share in premium (of total Rs.73,000 crores) and number of lives covered by business (percentage of total)



Source: IRDAI Annual Report, 2021-22.

Figure 6: Gross premium growth (in millions) vs. number of lives covered (in millions)



Source: IRDAI Annual Reports.

Five states—Maharashtra, Karnataka, Tamil Nadu, Gujarat and Delhi—contributed to 66% of the total health insurance premium in 2021–22, while the rest contributed to the remaining 34% (IRDA Annual Report 2021-22), indicating that the coverage is unequal across India. This finding is different from the NFHS data on insured households. This could be because data from states administering government-sponsored insurance through a trust model is not available.

### Profitability and efficiency of commercial VHI

As per Kumar et al, "the incurred claim ratio is equal to the value of all the claims paid by the company, divided by the total premium collected during the same period. Claim settlement ratio is the total settled claims divided by the total claims filed." The incurred claim ratios for public sector insurers have remained above

100% for the past several years indicating a deficit (Kumar et al, 2011).

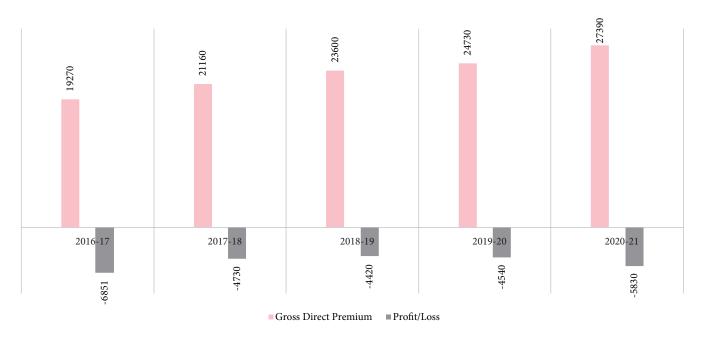
However, private and individual health insurers have typically incurred claim ratios less than 100%, leaving out margins for profits and other expenses. A low claim ratio could indicate that the insurer is either charging the customer higher premiums or settling fewer claims, which could be sub-optimal from the insured/patient point of view. In 2021-22, a sudden increase in the net claim ratio of health insurers across sectors—public, private, and standalone—was also observed, coinciding with the timeline of the second Covid-19 wave in India. Public sector insurers with a claim ratio of over 100% have consistently incurred losses in the last decade; the four public sector insurers incurred a cumulative of around Rs 5,830 crores in 2020-21, and have been facing consistent losses over the last five years (Figure 8).

126% 122% 108% 101.54% 105% 104% 84% 82% 81% 81% 80% 63% 63% 2015-16 2016-17 2017-18 2018-19 2019-20 2014-15 2020-21 2021-22 Public sector insurers ■ Private sector insurers Standalone health insurers

Figure 7: Net Incurred Claim Ratio of Health Insurers - sector wise

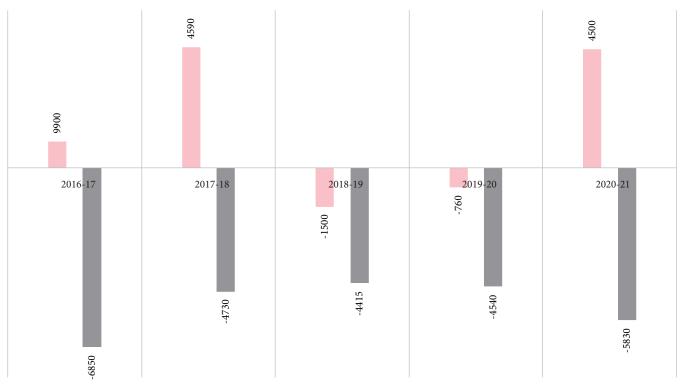
Source: IRDA Annual Reports.

Figure 8: Public sector health Insurers - Gross Premiums and Profit & Loss (In Rs. Crore)



Source: CAG Report 2022.

Figure 9: Public sector insurers - Profit and Loss in Health Insurance vs General Insurance (Rs. Crore)



 $\blacksquare$  Profit/Loss - General Insurance excluding health

■ Profit/Loss - Health Insurance

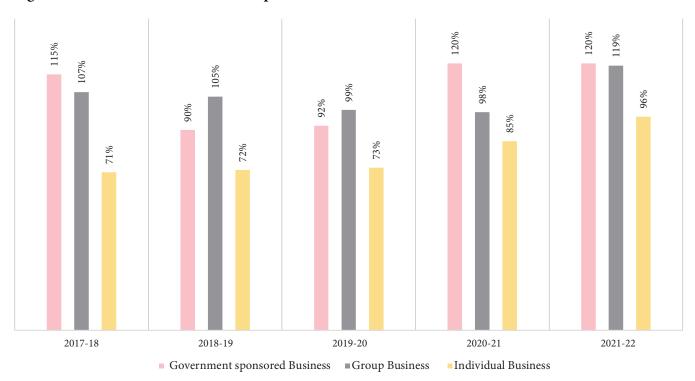
Source: CAG Report, 2022.

Excluding health insurance, public sector insurers have a profitable general insurance business. They have been profitable in three of the last five years, sustaining marginal losses in two. The profits from their general insurance business helps cross-subsidise the losses incurred in the health insurance business. Figure 9 presents the profits and losses incurred in the general and health insurance arms of public sector insurers over the last five years.

The business-wise split of claim ratio (Figure 10) suggests that most of the losses incurred in the health insurance industry are contributed by govern-

ment-sponsored and group businesses, which typically tend to have a claim ratio over 100%. However, this does not indicate that those covered are receiving full reimbursements of their claims. Rather, this is an issue of a greater number of lives covered by lower premiums or risk pools; hence, the loss incurred is more for government-sponsored schemes. Conversely, individual businesses have lower claim ratios, and are hence a profit source for the insurers. The claim ratios across the business categories have increased post the COVID-19 pandemic.

Figure 10: Claim ratio - Business wise split



Source: IRDAI, Annual Reports.

A Report on Voluntary Health Insurance in India: A Bridge Towards Universal Coverage?

Table 6 – Health insurance schemes by sector

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Financing	Benefit package	Regulating body			
Health	Health insurance schemes by sector and community based insurance scheme												
1.1	Public sector commercial health insurance	372 million lives covered (as of 2020-21).  (Overlaps with some who are covered under PMJAY/state health insurance schemes etc.).	Rs 27,230 crore gross premium for 2020–21.  Commission expenditure: Rs 1,890 crore; operating cost: Rs 14,150 crore; underwriting loss: Rs 20,443 crore  (As of 2022).	Approx. Rs. 731 per capita.	4 public or government health insurance companies with network of hospitals.	Lifelong renewable plans. Depending on the plan purchased, coverage for hospitalisation will be provided.	Challenges Steady decline in the market monopoly of India's public or government health insurers. Public sector insurers' market share reduced from 63% in 2016 to 42.23% in 2021, and finally to 37.85% in 2022.  Among the public health insurance companies, only New India Assurance incurred profit. The other three, United India Insurance, National Insurance Company, and Oriental Insurance Company, suffered losses of Rs 6,926 crore in FY22.	Policyholders' monthly/annual premiums fund commercial policies.	Benefit package will vary according to the plan and the company.  Oriental Insurance Company also offers daycare, and maternity and childcare coverage, free health care check-ups (after the lapse of some fixed claim free years), coverage for Homeopathic and Ayurvedic treatment (National Insurance Company), coverage for pre and post-hospitalisation services	IRDAI; public sector insurers have their own internal auditors to look at the functioning.			
1.2	Private sector general insurance companies providing health insurance (group or individual)	95.2 million lives covered.	Rs 15,880 crore premium collected for 2021-22.  Commission expenditure: Rs 2,117 crore; operating expenditure: Rs 21,690 crore; underwriting loss: Rs 8,158 crore.	Rs 1,668 per capita.	25 private or group health insurance companies with network of hospitals.	Private or group health insurance companies provides cashless coverage to a group of people, also extended to the family members in some cases.  Prices of the premium are comparatively less than independent or standalone health insurance.  Covers hospitalisation services (some companies fix maximum claim limit over OPD treatment).	Challenges Among the 20 private general insurers studied by CAG, 13 reported net profit and the rest incurred losses.  Out of the five stand-alone health insurers, studied by CAG, only one reported net profit while others incurred losses.	Policyholders' monthly premiums fund commercial policies.  Over Rs 20,107 crore premium underwritten (as of 2022)	Benefit packages vary according to plan and coverage. Covers most chronic conditions that require hospitalisation but might not cover pre-existing conditions.	IRDAI			

No.	Schemes	Number of Beneficiaries	Total pool (in Rs)	Cost per person	No. of hospitals empanelled	Benefits	Achievements and challenges	Financing	Benefit package	Regulating body
1.3	Standalone private health insurers (group or individual)	47.7 million lives covered (2020-21).	Rs 15,135 crore (2020–21).  Commission expenditure: Rs 3,263 crore;  Operating cost: Rs 4,925 crore; underwriting loss: Rs 2,758 crore.	Rs 3,172 per capita	7 standalone insurance companies	Since insurers just deal with health, there is scope for variations in coverage especially for critical illnesses and chronic conditions that require long-term care.	Challenges Out of the five stand-alone health insurers, studied by CAG, only one reported net profit while others incurred losses.	Policyholders' monthly premiums fund commercial policies.  Over Rs 20,001 crore premium underwritten (as of 2022)	Benefit packages vary according to plan and coverage. Covers most chronic conditions that require hospitalisation but might not cover pre-existing conditions.	IRDAI
1.4	Community-based health insurance (CBHI) scheme	13 million (as of 2018).		There are more than 50 CBHI schemes in India	Provides coverage for mostly inpatient or hospitalisation services. Provide coverage only to a pre-defined limit (or cap/ ceiling)	CBHI schemes provide limited financial protection, with low premium rates. Given their non-profit status they are often provided on a subsidised basis by public commercial Insurers.	Challenges Pool of people insured is not big, benefit package is not comprehensive.	There are different financing models of community-based schemes in India.  In some, members of self-help groups (SHG) pay enrolment fees and/or nominal premiums.	Package will vary as negotiated by the NGOs managing the scheme.	Usually self-regulated.  IRDAI's microinsurance regulations allows NGOs, SHGs, MFIs, and cooperative societies to distribute microinsurance products as agents of commercial insurers (IRDAI, 2015).  However, IRDAI's report observes that the share of microinsurance business distributed in this manner to the total insurance business continues to remain extremely low.

Source: IRDAI Annual Reports various years.

### 3.3 Depth of coverage and benefits under health insurance in India

As shown in Tables 5 and 6, benefit packages mostly centre around inpatient services, but vary across schemes. The three mandatory social insurance schemes-the ESIS, CGHS, and ECHS that cover about 140 million people (with the former covering 130 million)-managed by the respective ministries are more comprehensive than the government-sponsored PMJAY and state health insurance schemes. The three schemes provide curative services, both outpatient and inpatient, and have their own network of health centres and hospitals, as well as private sector diagnostic centres and hospitals empanelled for provision of services. Among the three, the CGHS and ECHS seem more comprehensive with lower co-payments by patients, while those insured under the ESIS appear to make more co-payments. The CGHS and ECHS are also inefficient and inequitable in terms of costs, thus keeping expenditure very high. The number of people covered are low, while the total pool of funds is higher than that of any other insurance scheme. The ESIS, however, has much less funding but covers a greater number of people. The CGHS, which has a coverage of only 4.2 million, has a funding Rs 4640 crore (Table 4). The share of pooled revenue in government-sponsored insurance schemes for the poor—like the PMJAY and state insurance schemes—is very low compared to the sheer number of lives they attempt to cover, whereas individual and group VHI schemes have a higher amount of premiums for lesser number of lives covered, as discussed in the previous section. The financing is clearly regressive, raising concerns about the financial protection of the poor and equitable resource distribution across income levels. These get further exacerbated by weak regulation, as discussed in the next section.

Government-sponsored insurance schemes vary at the state-level. There have been innovations in states to broaden the coverage beyond the BPL category, to the informal sector as well. States like Karnataka, Andhra Pradesh, Kerala, Goa, Maharashtra, Punjab, Madhya Pradesh and Chhattisgarh have attempted to extend coverage to some section of the population in the unorganised sector who might not be BPL but are from a low-income category in the informal sector (Kumar & Sarwal, 2021). Several state governments, like those of Meghalaya, Odisha, West Bengal, Tamil Nadu, Karnataka, Gujarat and more recently Kerala, have attempted to implement universal health insurance schemes, but their coverage varies. Due to this immense variation, no recent evaluations of the success of these schemes have been conducted. Most

of the schemes focus on inpatient services requiring hospitalisation. Poorer states like Bihar, Jharkhand, Rajasthan, and Assam have limited their schemes to the BPL population under the PMJAY, and have not yet attempted to expand their scope to the population above the poverty line (APL). Covering the "missing middle" has been a challenge in most states. For instance, in Andhra Pradesh, the Arogya Raksha Health Scheme attempted to cover hospitalisation expenses up to Rs 2 lakh per individual for 3.2 million APL families each year, with an annual premium of Rs 1,200 per person for those not covered by any other scheme. If the individual wished to cover their family (including spouse, parents and two children), then the premium amounted to Rs 7,200. This was a voluntary scheme that had very few takers due to the high premiums, and was unable to retain the few individuals who enrolled (Mannuru, 2019).

Within India's commercial VHI, two main types of plans are offered: indemnity plans and fixed-benefit plans. Indemnity plans provide coverage for hospitalisation expenses up to the maximum sum assured. In fixed benefit plans, the policyholder is compensated for a lumpsum amount upon detection of the illness (Dubey, 2021). India's health insurance market is dominated by hospitalisation-based indemnity polices. The market is further segmented based on coverage type, age group, duration, and so on. Most health insurance businesses set their own parameters for evaluation and underwriting, based on which they fix the quotation rate.

Recently, the Indian health insurance business has seen a flurry of pro-consumer product innovation. Several health insurance companies are now offering cashless outpatient treatment, and covering preventive care services, which is rare. In 2016, the IRDAI released a "Guideline on wellness features/benefits," which governed the provision of wellness and preventive health services under health insurance policies. The guidelines incentivised policyholders to inculcate preventive and wellness habits in their lifestyles, in order to receive additional benefits from their health insurance policies (Jenkins et al, 2020).

However, outpatient and preventive care are still not part of basic health insurance coverage. Most companies extend outpatient cover under a cashless scheme by payment of some additional premiums or only as discounts on outpatient treatments (Gambhir et al, 2019). Experts argue that claim management would become more difficult if outpatient care was covered fully, since doctor visits are more frequent than hospitalisations. Further, issues like fraud pertaining to

billing and uniformity in outpatient services for claim assessment and payment are additional impediments in standardising outpatient cover in health insurance policies (Gambhir et al 2019).

Group health insurance offers more coverage, extra benefits, and lower premiums compared to individual plans. However, individual health insurance companies have distinguished themselves in the market by incorporating innovative products, flexible benefit plans, specific disease plans, newer health technologies and simplified operational processes (Kulkarni, 2018; Nayak et al, 2019; 2022). However, public sector health insurance plans are often preferred for their greater long-term stability and dependability, despite often lagging behind private group and standalone health insurance in terms of adopting and offering innovative or newer products.

### 3.4 Regulatory frameworks for health insurance in India: Gaps and challenges

If India pursues expanding health insurance, especially VHI, it must minimise market failures and establish robust regulatory frameworks. Regulation of health insurance in India has been the weakest link in the health insurance ecosystem and its governance.

Regulatory intervention in health insurance is based on the rationale of mitigating the adverse impact of its specific market failures, namely, information asymmetry, moral hazard, and adverse selection. Regulations are generally of two types: economic and social. The former is concerned with the regulation of competition and monopolies, while the latter is directed towards promoting the social objectives of fairness, redistribution and equity in health services (De Wolf & Toebes, 2016). Regulatory measures must balance economic efficiency in the insurance market with equity, affordability, and access.

The scope of health insurance regulation depends on the role of VHI in the market (as a primary or alternative financing source) and its autonomy in health financing. Experiences emerging from various countries suggest that VHI is not the means to achieve UHC, rather it serves as an auxiliary instrument. The economic regulations are given below.

## Institutional and procedural elements of insurance regulation

Institutional and procedural elements of regulation are constituted by regulatory bodies to control and monitor the activities of insurance actors and alter their conduct. A few countries have created an altogether standalone, or independent health insurance agency. For instance, in Chile, the Superintendence of Health supervises and regulates private and public insurers (the National Health Fund), as well as public and private health providers. While Mexico's Ministry of Health promulgates regulations, the government has constituted a bifurcated oversight system that breaks down the supervisory and regulatory responsibilities into two components. The National Insurance and Surety Commission, which supervises Mexican insurance providers, regulates the health insurance entities. The Secretariat of Health supervises the services and products offered by these health insurance entities and monitors their compliance with health standards (Brunner et al, 2012). Similarly, China, Thailand and Indonesia have established a single autonomous government agency that monitors and regulates multiple health insurance schemes and acts as the purchaser of medical services.

In India, the IRDAI is responsible for the general oversight and supervision of the insurance sector, of which the health insurance segment is also a part. However, there is a growing case for creating a separate vertical for health insurance. The rationale behind this is that health insurance is an area of specialised expertise and complex operations, requiring knowledge of clinical management and health care operations. This was echoed by an expert committee on health insurance in 2015, which stated:

"A focused regulatory oversight and control is necessary as health insurance business is being carried out by all insurers—life, non-life, and standalone health insurers. The Committee suggests that the Authority consider forming an exclusive vertical or department for Health insurance and bring all Health insurance issues – Life, Non-life Insurance, and Health Insurance companies. Only then a level playing field and a consistent approach to regulatory aspects for the development of health insurance can be facilitated." (Bhaskaran, 2021)

Here too, there are fragmented actors monitoring and regulating individual schemes— the National Health Authority for the PMJAY, and the ministries of health and labour for the CGHS and ESIS respectively.

### Licensing and reporting requirements

Health insurance regulations should also ensure that only appropriate players or insurance institutions get involved in the sector. Licensing and reporting requirements are necessary to protect consumers' interests, and are generally used to determine who is allowed to engage in private insurance operations. Through licensing, insurance regulatory bodies gather information on institutions' financial soundness and management competencies. This includes information on adequate start-up capital of a financial institution, whether it has an appropriate risk management system in place, presence of appropriate reporting and governance structure, and appropriate control systems, including actuaries, auditors, etc, and financial information like solvency ratio, loss ratio, profitability, etc. (Brunner et al, 2012). Some countries also have additional health insurance-specific requirements as well. For instance, in Ghana, health insurers are required to submit "the proposed health providers and facilities, the health insurance benefits available under the scheme, and the proposed minimum premium contributions" (Brunner et al 2012).

A key reason for low health insurance penetration in India is the minimum capital requirement of Rs 100 crore, which is very high compared to global standards. This requirement does not leave room for the entry of multiple players into the market, such as micro health insurance companies (*Business Standard*, 2022). Off late, the IRDAI has sought to reduce the minimum capital requirement norms, especially for standalone health insurance companies (Sinha, 2015).

### Regulation of premiums

Premium standard regulation involves assessing whether premiums are fair, non-discriminatory, and that the way they are set does not violate any legal standards. Some countries like Australia, Germany, and Ireland require insurance companies to disclose information on the premium level. Some US states also require insurers to file information on premiums for prior approval (Brunner et al, 2012).

In India, the price of individual health insurance is based on age-band pricing, that is, policyholders belonging to the 26–30 or so age group pay an identical premium amount. As they move from one age band to another, the premium amount increases substantially (Bhaskaran, 2021). This causes insurance companies to revise the premium amount in blocks of two to four years. The spike in the premium amount is further compounded by high medical inflation. According to a paper by the actuarial and consultancy firm Milliman, medical inflation along with age-band pricing can inflate premium amounts by 50% on renewal (Aggarwal & Buckle, 2020).

Often, retail health insurers engage in the practice of predatory pricing, wherein the premiums are initially kept low to attract more policyholders. However, ageband pricing forces them to increase the premium amount sharply. This may lead to selective termination, where young and healthy policyholders opt out of the scheme, while the less healthy continue. To address instances of predatory pricing, the IRDAI, in its 2013 regulations on health insurance, mandated a lock-in period for premium prices for the first three years of a new policy's launch, with an annual revision permitted thereafter (Business Standard, 2016). However, this regulation has not been an effective long-term measure because as claims pick up eventually, insurers are forced to induce price-corrective measures. Some insurers also try to conceal huge premium hikes through relaunches, wherein they withdraw an existing product and, in its place, launch a new one equipped with additional benefits but with the premium price revised. This causes existing customers to either opt out of the policy or continue with the existing product (Bhaskaran, 2021).

Currently, the IRDAI lacks effective regulatory measures to combat such prohibitive pricing tactics that compel vulnerable and old people to opt out of health insurance coverage. In 2015, a health insurance committee was set up to examine the health insurance framework, and recommended that "premium hikes be pegged to an inflation benchmark with Consumer Price Index plus 3% being the cap. This would allow for an automatic increase in premiums to take care of medical inflation year on year. Anything beyond this would require IRDAI approval" (Bhaskaran, 2021). However, this recommendation was not implemented. Further, this also suggests that the IRDAI lacks an appropriate data-gathering mechanism to capture more accurate pricing of health insurance

policies. The committee also suggested that the IRDAI implement an entry-based pricing, where risk is assessed at the age of entry into the risk pool. This would incentivise younger population to join the risk pool. However, this practice has not yet been adopted due to the dearth of data with the insurers (Bhaskaran, 2021).

## Administrative management and commission expenses in commercial VHI

Aside from claim payment, the administrative management costs and commission costs are other key expense areas for insurance companies. Administrative expenses include costs related to "salaries, training, buildings, equipment, IT soft and hardware, maintenance, utility charges and other operational costs (e.g., paper, printing material)" (WHO, 2010b). Another way of classifying administrative expenses is to group them as "transaction-related costs (premium collection, claims to process), benefits management (plan design, quality assurance, performance assessments), selling/marketing costs (underwriting, advertising, sales commissions), and regulatory/compliance costs (taxes, reserve requirements)" (WHO, 2010b).

While commercial health insurance companies employ various cost-containment mechanisms, potential cost savings through efficient management of administrative costs are often overlooked. High administrative costs are indicators of inefficiencies in the insurance business. They indicate that a large portion of the premiums collected goes into administrative expenses rather than the pool to settle claims, which is the core functionality of insurance; this often results in higher premiums than necessary.

Another key source of expenditure for insurance companies is commission expenses for agents. Commission expenses refer to the fees, as a percentage of the premium, that an insurance company pays to an insurance agent or broker in exchange for selling insurance policies. Commission fees are part of the insurance companies' distribution costs, which are expenses that a company incurs on the marketing and sale of its products or services. Commission costs in the health insurance sector are generally very high in India, and can go up to 40% of the premiums collected. These are recurring costs incurred annually and places huge pressure on health insurance pricing. Therefore, administrative management and commission expenses together with claim incurred expenses that are more than the net health insurance premium earned, lead to underwriting losses for health insurance companies.

An underwriting loss for an insurance company indicates losses incurred on claim payouts and other accounted expenses (ET Bureau, 2021). It is calculated as follows: "Underwriting profit/loss = net premium earned - (claim settled + commission and management expenses incurred)" (Dutta, 2020). Incessant underwriting losses are detrimental to an insurance company's sustainability. Figure 11 indicates that India's commercial health insurance sector has witnessed a consistent rise in premiums collected over the years. However, expenses on claims payments, as well as commission and management expenses have also grown equally, resulting in underwriting the losses that the health insurance sector is consistently incurring (Dutta, 2020). This makes the system inefficient.

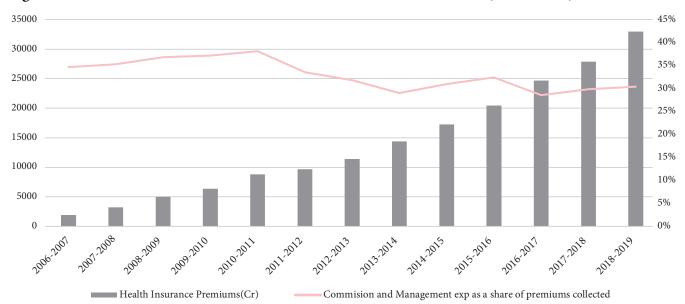


Figure 11: Performance of the commercial health insurance sector in India (2006 – 2019)

Source: Dutta (2020).

As a means to bring down the cost of insurance and make insurance products more affordable to customers, the IRDAI has proposed regulations on the expense of management (EoM) and commission. The regulator has proposed a limit of "30% of gross written premium in that financial year as EoM limit for general insurers and 35% in case of standalone health insurers" (Panda, 2022). However, even this is considered high, according to some experts.

#### Product development and benefit standards

Regulatory interventions are necessary to ensure transparency and thereby facilitate "informed choices, effective price competition, and the efficient allocation of resources (ill-informed markets do not generally produce optimal outcomes)" (Brunner et al, 2012).

For insurance policies, this translates into a question of whether regulations should design benefit packages or mandate the inclusion of certain benefits. Alternatively, regulations can also require a standardisation of benefit packages, in order to ensure easy comparisons and reduce insurance companies' ability to risk-select. Further, defining the scope of the benefits package helps attract low-risk populations as well as discourage enrolment of high-risk individuals, by excluding certain services. For instance, South Africa requires insurance companies to offer a minimum benefits package, covering a comprehensive range of diagnostics and treatment services, including treatment

of HIV /AIDS, but has limitations on some interventions like chemotherapy (Brunner et al, 2012). Likewise, many US states also mandate all policies to offer one of several standardised benefit packages.

In the IRDAI's early years, regulation of health insurance products saw few reforms, and health insurance was provided largely in the form of group insurance. In 2004, the first retail health insurance indemnity product was approved by the IRDAI. However, it did not differ much from the standard government policies. This was due to the absence of a robust regulatory ecosystem for health care. According to Bhaskaran (2021), "hospitals were unregulated, there were no coding standards or protocols in place. Data was [not] readily available to effectively underwrite policies." More focus was also placed on other lines of insurance such as fire, marine, and motor insurance, as these were tariffed and prices were dictated by the regulator, making these portfolios more profitable (Bhaskaran, 2021).

In 2013, the IRDAI developed the first set of guidelines on health insurance, introducing the standardisation of health insurance terms, and notable changes such as "making lifetime renewability of health insurance compulsory, making entry age compulsory till 65 years and also prohibiting claims-based individual loading" (Bhaskaran, 2021). With basic standardisation rules in place, the health insurance segment witnessed a growth in the proliferation of standalone health insurers, with greater customisation of policies. Health insurance policies began to include additional features like maternity coverage, coverage of international hospitalisation, and so on. However, many of the recent reforms in health insurance products were the result of external factors, by way of court interventions, customer complaints, and reforms in public health financing schemes. For instance, the comprehensive coverage provided by the PMJAY along with the 2018 Delhi high court judgment on the removal of ambiguities surrounding exclusions in insurance, nudged the IRDAI to constitute a working group to look at exclusions in health insurance. The result was the 2020 IRDAI guidelines on rationalisation and standardisation of general terms and clauses in health insurance policies. The guidelines stating that standard individual health insurance provided by health insurance companies should cater to the basic health needs of its customers, providing coverage ranging from a minimum 1 lakh up to a maximum sum insured of Rs 5 lakh. This product was to be named as Arogya Sanjeevani Policy (IRDAI, 2020). This product was to be named as Arogya Sanjeevani Policy (IRDAI, 2020). However, the policy contains exclusions akin to those of a retail indemnity health insurance product. Further, it also allows insurers to include sub-limits on room rents and co-payment clauses, in order to control pricing and keep a check on adverse selection. According to insurance experts, given the medical inflation, a minimum insurance sum of Rs 10 lakh has become necessary (Bhaskaran, 2021).

## Disclosures, consumer complaints, and appeals

Disclosures in the insurance sector are necessary to promote consumer awareness of risks, quality, and relative prices of health insurance policies. In most countries with VHI, insurers are required to comply with disclosure requirements, and in some cases, governments also distribute health insurance information, such as specific information on a benefits package, premium rates, consumer rights, etc.

The IRDAI publishes annual reports, along with the handbook of statistics that carries industry data including the health portfolio. Further, it displays consumer-centric information like salient features and exclusions. However, there is scope to further segment and standardise the manner in which insurers share data. For instance, health insurance data is currently not segregated based on age bands. Likewise, current data on claims settlements looks at

the percentage of claims settled, and not the amounts involved (Bhaskaran, 2021).

The consumer complaint rate is often used as a metric to measure the quality of products and services offered under any health insurance scheme. While India has one of the highest complaint rates, this is in comparison to high-income countries where the insurance market has matured (Malhotra et al, 2018). Consumer complaints on health insurance are often due to the rejection of legitimate claims; of the 4,890 total complaints handled by the insurance ombudsman in 2021-22, the majority related to health insurance claim rejections (Kulkarni, 2022). Weak regulations governing claims and consumer grievances are a common cause of high consumer complaint. For instance, the current IRDAI regulations on claim settlement only stipulate the period within which health insurance claims are to be settled and the manner in which documents are to be submitted (Malhotra et al, 2018).

Furthermore, consumers tend to lack information about the insurance policy. Companies often do not share complete policy documents with the consumer, often leaving out crucial information from the policy document. For instance, the FY 2019-20 annual reports of the insurance ombudsman indicate that unclear terms and conditions under health insurance policies give rise to complaints (Bhaskaran, 2021). To ensure that the health insurance sector is more customer-friendly and reduce the occurrence of illegitimate claim rejections, the IRDAI 2020 guidelines prohibit health insurance companies from rejecting claims if the policy has been renewed for eight years continuously. Further, insurance companies cannot reject claims based on non-disclosure or misrepresentation (Saxena, 2022). Dispute resolution is also a lengthy process due to a lack of insurance ombudsmen to facilitate the quick disposal of consumer grievances. There are only 17 ombudsman offices across India with weak powers. Major insurance companies can exercise much influence on the dispute resolution process, and often overlook or ignore the ombudsmen's judgments (IRDAI, 2022).

### Hospital and provider payment regulation

Some would argue that hospital and providerpayment regulations do not fall within the ambit of health insurance regulation. However, regulation of hospitals, doctors and provider payments has proven to be the biggest impediment in this regard. Passive insurance arrangements with hospitals contribute towards substantial cost escalation. Patients and health insurance companies have often complained about instances of overcharging by hospitals. Provider-charging practices also impact the amount offered through insurance. Studies have indicated that insurance can lead to an increase in payment when providers charge or raise their prices (Gertler & Solon, 2002).

Many developed countries have policies and regulations in place to govern provider fees, payment amounts, and care delivery. For instance, the Netherlands has constituted a single provider network that serves both public and privately funded citizens. Private providers are mandated to negotiate fee schedules set by the government (Gress et al, 2002). In several US states, under managed care plans, insurance companies selectively contract with providers, requiring the latter to bill the insurance companies rather than patients. These managed care contracts with providers stipulate the provider fees, billing requirements, and timeliness of billing, thus reduces financial uncertainty (Sekhri & Savedoff, 2006).

The IRDAI has been motivated to intervene in private hospital regulation to address issues such as price inflation and unnecessary treatments. In 2022, it issued a new order that mandated health insurance and general insurance companies to access a national list of doctors being developed under the aegis of the National Digital Health Mission. This allows health insurers to deal with doctors directly to settle claims, and also leverages the health professional registry to build the network of doctors providing outpatient and other services (Bhattacharjee, 2022). The IRDAI has also empowered insurance companies, through its advisory to the Board of Insurers, to consider the minimum resources and infrastructure benchmark criteria before empanelling network hospitals.

However, private and public insurance companies have established their practices to develop standardisation of treatment protocols, based on various categories of health conditions. This enables them to decide a standard negotiated cost for packages based on health conditions. The medical care provided is usually documented and audited by third-party administrators (TPA) who determine the amount to be provided by the insurer and OOPE to be borne by the user. These agencies also attempt to negoti-

ate and reduce the reimbursements to hospitals, and have thus often been criticised by the hospitals as well (Bhasin, 2015; Hunter et al, 2022).

Social regulations are essential to ensure that the overall policy objectives of equity, affordability, and access to health services are met. In the retail health insurance sector, insurers often engage in the medical underwriting process, which examines a policyholder's health and claim history before accepting, and adjusting the premium decisions according to this information. Such screening procedures are essential to combat market failures arising from adverse selection. To promote insurance coverage, especially among those with a higher risk than average, countries use various mechanisms to maximise access to VHI.

#### **Equivalence of Premiums and Risks**

Competitive markets tend to equalise the premium amount and an insurer's expected costs for each insurance contract. Equivalence of premiums and risks means that "the insurer's expected costs of a health insurance contract are equal to the expected medical claims plus the loading fee, which covers the expected costs of matters such as the administration of contracts and claims, health care purchasing, building up solvency reserves and a compensation for risk-bearing" (van de Ven et al, 2023). An insurer generally uses the following strategies to equalise the premium amount and expected costs for each contract:

Risk Rating: Under the risk rating mechanism, premiums are differentiated by adjusting the premium per insurance product, that is, different premiums for the same insurance product. Risk rating could lead to wide variations in the premium amount for different individuals, as their expected health costs also vary tremendously. For instance, in adjusting risks for age, the highest premium amount would be substantially high. This may result in healthier customers opting out of buying health insurance, as the cost will be higher than the potential benefit, while sick or vulnerable individuals may still continue to buy insurance, leading to higher levels of risk in the pool. Community-rated risk is redistributive and tends to promote equity among individuals with higher and lower health risks, but may further exacerbate this problem, leading to greater adverse selection (Sekhri & Savedoff, 2006; Preker et al, 2013; van de Ven et al, 2023).

Risk segmentation and Risk selection: These are the other two strategies to equalise the premium amount and expected costs. In risk segmentation, insurance products are adjusted based on their coverage and benefits package to attract individuals from different risk groups, with different premium amounts accordingly. Risk selection involves adjusting risks to the premium amount of a given product by excluding pre-existing conditions from coverage. Risk selection is undesirable as it incentivises the insurers to prefer lower-risk consumers, while risk segmentation may lead to further segregation in the market, with high and low-risk consumers choosing different health insurance products with different premiums (van de Ven et al, 2023).

#### Mitigation strategies

As a result of the risk rating, risk segmentation and risk selection strategies, coverage in the competitive health insurance market may become unaffordable, defeating the goal of accessibility. Hence, countries have adopted various strategies to mitigate risk, namely, risk equalisation measures and late-joiner penalties (Brunner et al, 2012). Under the risk equalisation mechanism, "insurers with higher-risk profiles receive a transfer of funds from insurers with lower-risk profiles" (Brunner et al, 2012). The equalisation method is based on certain characteristics of the population, namely, age, gender, health status, and community. This type of mechanism is found in many developed countries with private insurance markets, such as Germany, Ireland, Australia, Netherlands, and the US. Some countries allow higher premiums to be charged as penalties to individuals who delay purchasing health insurance until they are sick. For instance, in Australia, a lifetime community rating plan was introduced, wherein those above 30 years of age were mandated to pay a premium amount over the base rate, for each year that they remained uninsured (Colombo & Tapay, 2003).

#### Subsidisation

Subsidising health insurance premiums can have complex economic and fiscal implications, both negative and positive. Depending upon the objectives and prevailing socioeconomic circumstances, subsidised health insurance coverage may reduce the risk of poor patients accruing substantial OOPE. Introducing health insurance subsidies can also reduce the impact of adverse selection, as it increases the pool of insured individuals. Subsidised VHI can also create

a positive fiscal externality, as it reduces the burden on the public health system and other public health resources. It may benefit health care providers too, as with increased coverage, medical spending also rises, leading to an increase in revenue (Kaiser Foundation, 2020). Further, subsidised health insurance can help the government offset the cost of providing medical care to uninsured persons. (Blavin, 2017). Several studies have suggested that subsidising premiums for a specific population, such as informal workers, has effectively reduced expected costs and increased enrolment (Asuming, Hyuncheol, & Armand, 2020; Banerjee et al 2021; Levin, Polimeni, & Ramage, 2016; Thornton et al, 2010). It also induces a positive behavioural response towards future enrolment decisions (J-PAL 2021).

However, an inefficiency arising from the provision of subsidised health insurance is the risk of increased moral hazard. The insured population may purchase excessive health care because they do not have to bear the full cost. The excessive demand for healthcare due to moral hazard can further increase healthcare prices, leading to high government expenditure. To counter this, the government limits reimbursements to health care providers or allocates care directly. Health care providers could respond by engaging in creative accounting strategies and other non-productive behaviour to raise revenues (Miron, 2017).

Hence, a health insurance subsidy policy can become more expensive, although its positive externalities are significant. As such, interventions in the form of well-designed and implemented cost control measures, such as limited benefits package, insurance with fixed parameters, and healthcare facilities with fixed fees are required, along with mechanisms to detect and prevent fraud and leakages.

# 4. Conclusions: Proposed pathways towards UHC

Over the last two decades, there have been several debates on the provision of UHC in India. These debates have, as in the global context, ranged from universal access through general taxation to universal coverage through insurance schemes, with a focus on finding ways to include the informal workforce in LMICs, which constitutes the "missing middle."

As seen in the preceding sections on health financing in India, it is marked by severe fragmentation, leading to inefficiencies and inequities in access to health services. Fragmentation is seen in terms of: sources of revenue generation and risk pools; provisioning, with immense variation in quality of services and; the presence of multiple actors and institutions that results in fragmentation in governance. Fragmentation affects continuity in care, and has created an iniquitous system. India has notionally a three-tier public health service system that should be available and accessible to the entire population for free. However, given the continuous low government investment in health over the decades, the public health service systems lack infrastructure, resources (financial and human) to serve the entire population, and is not always free at the point of delivery. The upper-income quintiles have opted out of the public sector. However, a large proportion of the population without the means to purchase private healthcare are still dependent on the public health service system, but are driven to spend on private health services in the absence of adequate public health facilities in their vicinity. This has clearly created a two-tier system of delivery, which is inequitable. Given that OOPE has been high for several decades and is gradually lowering, insurance, as a demand-side health financing mechanism, is seen as a dominant form of revenue generation and also provides financial protection against catastrophic health expenditure. However, one needs to rethink the design of existing health insurance schemes, especially in the context of UHC, with a shift towards greater equity through better financial protection, and increase in breadth and depth of coverage.

As seen in the preceding sections, health financing in India is highly fragmented, resulting in inefficiencies and inequitable access to health services. It can be classified as follows:

- i. Centre- and state-run social insurance schemes for formal sector employees in government, and low-income workers in formal employment (Compulsory and contributory– CGHS, ESIS, ECHS, and for state government employees). This covers 10% of the population;
- ii. Centre- and state-sponsored targeted insurance schemes for those below the poverty line, and in some cases, those above the poverty line or nearpoor, to accommodate proportion of the "missing middle" (Mandatory PMJAY and other state health insurance schemes). This should cover over 40% of the population but as of now covers 21%;

- iii. Employer-managed group health insurance for private sector employees/PSUs by public or private commercial insurers (could be mandated but in essence voluntary). This covers 11% of the population;
- iv. Public and private sector insurance companies providing commercial health insurance schemes for individuals (voluntary), covering around 4% of the population;
- v. Community/co-operative-based health financing scheme by non-profits/SHGs/micro-credit groups for the vulnerable population in informal labour (voluntary); coverage is negligible.

Above classification under points ii, iii, and iv cover 36% of the population but with varying depth of coverage. This means if we include (i), almost 46% of the population is covered by some form of health insurance. Some overlaps and exclusions are to be expected, as some people with formal insurance might also opt for VHI as a supplement, but such cases would be few. State insurance schemes administered by trust models are not covered in any of the databases, therefore, percentage covered under that do not figure here. We can say that VHI contributes to coverage of a small proportion of the population (includes those covered by individual and group insurance). There is huge variation in the depth of coverage, which is mostly shallow, but more so for the government-sponsored schemes. This brings forth the inequities in the insurance schemes that favour people in higher-income groups. There are also inefficiencies in the system, which have raised the cost of health care and have kept OOPE high. Figure 12 attempts to bring out the complexity of the structure of the insurance landscape in India and the multiple actors involved.

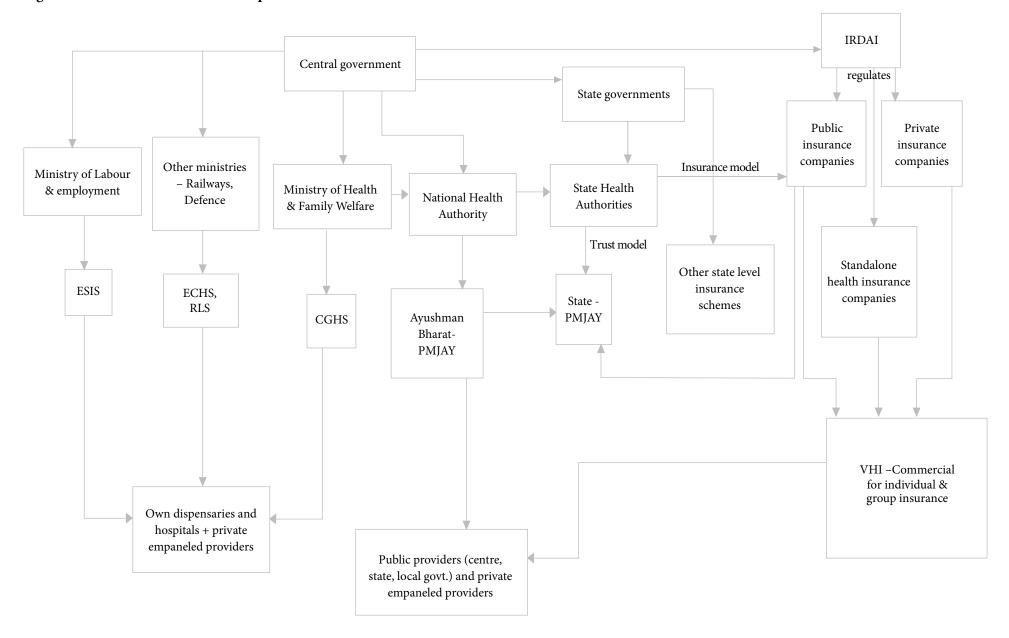
### 4.1 VHI as a component and interim measure towards UHC

Given the government's low commitment towards health spending over the past decades, we contend that this trend will persist, albeit with marginal increases. Until there is a substantial increase in government spending on healthIndia may need to explore the possibility of expanding VHI and making it more accessible to its population. In its

<sup>&</sup>lt;sup>7</sup> Employee-based group insurance schemes could be mandated by the employer, but participation of the informal workforce will remain voluntary, because of their impermanence and contract-based employment, and once leave employment, they are no longer covered under any scheme.

A Report on Voluntary Health Insurance in India:
A Bridge Towards Universal Coverage?

Figure 12: Health Insurance Landscape in India



present form, VHI operates on a commercial basis, primarily catering those who can afford to purchase expensive policies, while excluding individuals who are deemed high risk due to factors like age or pre – existing illnesses. In this regard, the government could facilitate the expansion of VHI by making it more accessible to the "missing middle". However, this would require a strong regulatory intervention to address inherent market failures.

Broadly, three major types of insurance can provide universal coverage to the population:

- i. Insurance for the formal and organised sector (mandatory – private and public; and contributory between employee and employer) which is already available to the population, but is fragmented and needs to be strengthened and made more cost-efficient and equitable.
- ii. Coverage of the missing middle, which includes VHI (voluntary contributory but in a progressive way based on income rating). This insurance would cover individuals across income-groups, as well as those who leave formal employment.
- iii. Insurance for the people below the poverty line who are being covered by the PMJAY and other state health insurance programmes (mandatory—government-sponsored and non-contributory).

It is assumed that formal sector employees receive adequate coverage through social health insurance supplemented by VHI. However, the informal sector, including the poor, needs more comprehensive coverage in terms of outpatient and inpatient services. As such, the pool needs to be larger in order to be successful, and requires merging of the different voluntary insurance schemes so that some extent of cross-subsidisation is possible.

Earlier insurance schemes by the government—especially the RSBY, and more presently, the PMJAY—indicate that there is poor awareness of the concept of insurance among the people. Sensitising the population of the same, along with door-to-door campaigns are important in raising awareness. There is a need to strategically increase demand and ensure that more people avail the benefits of insurance schemes. This can be done by increasing the depth of services and including outpatient services in the scheme, along with inpatient services, and also subsidise premiums for those above poverty line based on income. The

government needs to be more proactive in creating awareness, increasing enrolment, regulating providers, and administration of the scheme.

Correct enrolment also would mean effective means testing. Many eligible households have still not enrolled in the PMJAY due to the lack of community outreach, and hence, low awareness. As of now the PMJAY covers the BPL population, based on the 2011 socio-economic and caste census (SECC), which is outdated; there needs to be a new census update. Government subsidies could be progressive, that is, provision of a 100% subsidies to the poor and none to those from the top income quintile group. The subsidies for the groups in between can vary according to their income levels. A recent study by Mor and Shukla (2023) in the Lancet shows immense variation in per capita expenditure on health by states. Bihar spends Rs 556 per capita (per annum), while for Arunachal Pradesh this figure is Rs 9,450. Yet, neither provide UHC, revealing not only gross inequities but also gross inefficiencies in health care provision. According to their calculations, Rs 2,000 (at 2018 price) per capita is a reasonable estimate of the amount needed to offer UHC (Mor & Shukla, 2023). The central government needs to support states that require the funds, but the allocation of these funds are based on the states' epidemiological and demographic characteristics, and hence might differ. Funds for the informal sector (poor, near-poor, and non-poor) could be pooled at the state-level, along with central and state subsidies. Those wishing to enroll could pay premiums voluntarily, but need to be well-informed about government subsidies as well. Adverse selection could be minimised by targeting coverage of a larger population.

While those with the means to afford a private insurance premium can purchase it as supplementary insurance, the government needs to make public voluntary insurance accessible to all, and gradually move towards providing comprehensive services. The initial step should be towards universal coverage, even if the package of services is shallow. Then, the depth of services will need to be gradually expanded to cover outpatient services as well, which will require some restructuring of the supply-side. The focus should be on minimising adverse selection by providing those are yet to be covered by any scheme with more access to voluntary insurance. As such, VHI could be seen as an interim measure in the progress towards UHC.

### 4.2 Governance and regulation of insurance schemes: Institutional reforms

The preceding section provides a detailed account of the gaps and challenges in the regulatory mechanisms of health insurance. These need to be addressed in the context of a publicly regulated system managing all schemes.

Regulations and authorities: As seen earlier, India's health insurance landscape is heterogenous with weak regulation, and beneficiaries do not seem to have much agency due to asymmetry of information. Weak regulation, especially when private-sector providers are involved, leads to overdiagnosis and unnecessary procedures, for instance, the increase in number of caesarean sections and hysterectomiesmany of which are avoidable. A positive association was seen between these procedures and insurance coverage, as well as private sector delivery. (Singh & Govil, 2021; Ghosh, 2021). At the consumer-end, adverse selection and moral hazard were identified as two risks that can cause insurance to run into deficits. To improve access to and expand VHI, addressing market failures, regulations of insurance companies and private providers will be critical. In India, private providers could be brought under the purview of UHC through insurance, given their large presence. The government could purchase services by introducing reforms in payment mechanisms, standardised pricing and protocols of treatment. To achieve this, rigorous systems need to be in place, including: standardised clinical protocols, standardised pricing across insurance schemes and standardised regulatory mechanisms. Strategic purchasing of services by the government from public and private providers also needs to be considered.

Establishing and operationalising regulatory frameworks under government stewardship must be a pre-requisite and necessary condition for expanding VHI. The regulatory challenges discussed in the preceding section provide much food for thought. Voluntary health insurance faces challenges of weak regulations, especially in LMICs. It does not fall under the purview of the Ministry of Health, but rather a general insurance regulatory body, which does not possess health-specific knowledge, and is thus not in sync with the health sector policies and UHC objectives, leading to fragmented financing. The same can be seen in India, where the IRDAI is responsible for regulating the voluntary insurance space. A separate body, within the health ministry, to

regulate health insurance schemes is necessary. This role might be played by the NHA along with IRDAI. The NHA at the centre and respective state health agencies (SHAs) or insurance companies (public or private) at the state-level might work as the purchasers of services through which the delivery system could be regulated. The purchaser (NHA) and provider (MOHFW) could take up two important aspects of health service delivery—financing and provisioning—overseeing the costs and quality of the providers (public and accredited/empanelled private providers).

In its current form, IRDAI has a limited role, restricted to standardising health insurance policies and regulating entry of private insurance companies into the market. IRDAIs capacities are not fully explored and realised. The IRDAI could play the role of the regulatory body with a separate sub-agency overseeing only health insurance (along with the NHA). Beyond standardising health insurance, it could pool funds, minimise fraud harming beneficiaries, generate/analyse provider data for evaluation and reforms to improve efficiency, enable experiments/innovation, and expand coverage. Data with the IRDAI and NHA should be made publicly accessible for evaluations, to encourage reforms in the sector.

Overall, expanding VHI involves increasing the demand for health insurance within a larger risk pool. This could be achieved by making the insurance premiums partially or completely subsidised for impoverished individuals and those in the informal sector who are poor and not covered by PMJAY; implementing income - rated contributions can allow cross - subsidisation, and standardising benefit packages, protocols and prices through negotiation with insurance companies and private providers. This can ensure effective regulation of the private sector as well. Lessons from the experiences of countries such as Indonesia, Japan, South Korea, China, Thailand, Chile and Mexico, provides valuable insights into enhancing VHI, subsidising health insurance premium for non-poor informal sector workers, establishing standardised packages across income groups, and establishing an independent insurance regulatory body responsible for pooling funds for the entire population while regulating insurance companies and health care providers.

While the various ministry insurance schemes need to be merged eventually, this is a politically sensitive issue. As CGHS which is the most privileged scheme might not want to merge with ESIS and other VHI schemes – but there must be a push towards merging some of the insurance schemes to further equity. Insurance schemes must be portable. No list is complete as migrants tend to be excluded due to their temporary location and eligibility reasons. At times, they attempt to deal with these exclusions from various schemes with the help of civil society organisations. Srivastava (2020) studies the vulnerable internal migrants and portability of social security and entitlements. He writes that most social security programmes have their own independent methods of determining eligibility, for instance, BPL identification, use of census and SECC (which have not been updated for over a decade now).

## **4.3 Supply-side restructuring and demand-side budgeting**

No financing can be sustainable unless the delivery system is reformed, especially one as fragmented as in India. While under Ayushman Bharat, the idea is that health and wellness centres will be established to strengthen primary level services and PMJAY would cater to inpatient needs of patients; there is no gatekeeping of services. The system is still arbitrary, leaving scope for costs and OOPE to increase, with unnecessary hospitalisations. The government has to gradually provide the population with free or nominally priced outpatient services, through its health and wellness centres spread across rural and urban areas. Instead of supply-side financing, funds could also be reallocated per capita from government budget for preventive and promotive services; these services should be provided mandatorily for all and should also be pooled.

#### 4.4 Summing up

This paper argues that while globally, VHI plays only a marginal role in health financing, India has strategic room to leverage the regulated expansion of VHI in order to provide interim coverage to the "missing middle" until the health care system can transition to truly universal coverage.

At present, India already has a health insurance coverage of 46%, but this is highly fragmented across social insurance, government schemes, employer policies, and VHI. Despite this coverage, extreme inequity persists, with high OOPE experienced by the poor and underserved.

Given the current landscape, expanding regulated VHI can serve as a pragmatic stepping stone to extend coverage rapidly to portions of the missing middle. However, the paper has underscored that VHI alone cannot equitably achieve universal coverage. Market failures like adverse selection require strong government stewardship.

Truly universal coverage will require the government to substantially increase public financing, consolidate risk pools, implement strict regulation of insurers and providers, and restructure health care delivery with a strong emphasis on primary care.

In the interim, strategic VHI expansion can bridge coverage gaps and reduce financial hardship for millions who are not covered by social insurance or state schemes. However, it must be situated in the roadmap towards mandatory universal coverage under a unified national health system. The timelines and benchmarks on this roadmap remain unclear and require further elaboration. Future research should include studying this possible model of expansion of coverage, and introduce pilots of various models in some districts and conducting evaluations before expansion.

The complex challenges of India's health system require bringing together access, equity, quality, and efficiency. Expanding VHI in the short-term and laying the foundations for integrated universal coverage in the long-term is a balancing act India must perfect to truly uplift the health of its population.

### **Bibliography**

Aggarwal, R. & Buckle, J.. (2020). Medical inflation and health insurance products in India: Current practices and the way forward, *Milliman.com*. Retrieved from https://us.milliman.com/-/media/milliman/pdfs/articles/medical-inflation-and-health-insurance-productsin-india.ashx

Agrawal, N., & Ganesan, P. (2022). Health insurance ownership in India. Dvara Research. Retrieved from https://www.dvara.com/research/blog/2022/08/05/health-insurance-ownership-in-india/

Ahangar, A., Ahmadi, A., Mozayani, A., & Dizaji, S. (2018). Why are risk-pooling and risk-sharing arrangements necessary for financing healthcare and improving health outcomes in low and lower middle-income countries. *Health*, *10*(1), 122-131, 10.4236/health.2018.101010.

Alkenbrack, S., Jacobs, B., & Lindelow, M. (2013). Achieving universal health coverage through voluntary insurance: what can we learn from the experience of Lao PDR?. *BMC Health Services Research*, *13*, 521. https://doi.org/10.1186/1472-6963-13-521

Anita, J. (2008). Emerging health insurance in India: An overview, 10th Global Conference of Actuaries. Retrieved from http://115.112.202.200/downloads/gcadata/10thGCA/Emerging%20Health%20 Insurance%20in%20India-An%20overview\_J%20 Anitha.pdf.

Ashraf, H., Ghosh, I., Kumar, N., Nambiar, A., & Prasad, S. (2022). Pathways to reimagining commercial health insurance in India, *Frontiers in Public Health*, https://www.frontiersin.org/articles/10.3389/fpubh.2022.1006483/full.

Ashraf, H. & A. Nambiar. (2021). Demand for health insurance. Dvara Research Working Paper Series No WP-2021-06. Retrieved from https://www.dvara.com/research/wp-content/uploads/2021/11/Demand-for-Health-Insurance\_WP06.pdf

Asuming, P.O., Hyuncheol, B.K., & Armand, S. (2020). Selection and treatment effects of health insurance subsidies in the long run: Evidence from a field experiment in Ghana. Working Paper, Retrieved from https://arxiv.org/pdf/2105.00617.pdf

Atherly, A. (2001) Supplemental insurance: Medicare's accidental stepchild. *Medical* 

*Care Research and Review*, 58(2),131–61, doi:10.1177/107755870105800201.

Bakshi, A. (2021). Voluntary health insurance in India: Trend analysis of public and private insurance companies. *MUDRA: Journal of Finance and Accounting*, *7*(1), 68–83, doi: 10.17492/mudra. v7i1.195416.

Banerjee, A., Finkelstein, A., Hanna, R., Olken, B. A., Ornaghi, A. & Sumarto. S. (2021). The challenges of universal health insurance in developing countries: Experimental evidence from indonesia's national health insurance. *American Economic Review*, 111 (9), 3035-63.

Barrett, G.F., & Conlon. R. (2003). Adverse selection and the decline in private health insurance coverage in Australia: 1989–95. *Economic Record*, *79*(246), 279–96. doi:10.1111/1475-4932.00104.

Bauhoff, S., & Sudharsanan, N. (2021). Evaluating health insurance programmes: An insurance cascade framework. *Economic & Political Weekly*, 56(23), 7–8.

Bhaskaran, D. (2013, September 30). Buy healthier insurance plans now, *Mint*. Retrieved from https://www.livemint.com/Money/x7s9hSgKzA05SvnQ7xVbBK/Buy-healthier-insurance-plans-now.html.

Bhaskaran, D. (2021). Commercial health insurance in India and the role of IRFDAI as a supervisor. Retrieved from https://inorder.in/wp-content/uploads/2021/06/5\_CHI-final.pdf.

Bhattacharjee, S. (2022, November 29). IRDAI tonic for health insurance: A regulator for hospitals and doctors. *Business Standard*. Retrieved from https://www.business-standard.com/article/finance/irdai-tonic-for-health-insurance-a-regulator-for-hospitals-and-doctors-122112901071\_1.html

Bhasin, T. (2015, July 6). Health insurance cos can no longer reject claims arbitrarily. *Rediff.Com*. Mumbai. Retrieved from https://www.rediff.com/business/report/perfin-health-insurance-cos-can-no-longer-reject-claims-arbitrarily/20150706.html.

Blavin, F. (2017). How has the ACA changed finances for different types of hospitals? Updated insights from 2015 cost report data. Research report. Urban Institute. Retrieved from https://www.urban.org/sites/default/files/publication/89446/2001215-how-has-the-aca-changed-finances-for-different-types-of-hospitals.pdf

Blumenthal, D., & Hsiao, W. (2015). Lessons from the East: China's rapidly evolving health care system, *New England Journal of Medicine*, *372*, 1281–85. doi:10.1056/NEJMp1410425.

Brot-Goldberg, Z. C., Chandra, A., Handel, B.R., & Kolstad, J.T. (2017). What does a deductible do? The impact of cost-sharing on health care prices, quantities, and spending dynamics. *The Quarterly Journal of Economics*, *132*(3), 1261–1318. doi:10.1093/qje/qjx013.

Brunner, G.G., Gottret, P., Hansl, B., Kalavakonda, V., Nagpal, S., & Tapay, N.H. (2012). Private voluntary health insurance: cConsumer protection and prudential regulation (English). Washington, D.C.: World Bank Group. Retrieved from http://documents.worldbank.org/curated/en/774881468149697802/Private-voluntary-health-insurance-consumer-protection-and-prudential-regulation.

Business Standard. (2022, April 8). IRDAI seeks to remove Rs.100 crore entry cap for new players in insurance biz. Retrieved from https://www.business-standard.com/article/economy-policy/irdai-seeks-to-remove-rs-100-cr-entry-cap-for-new-players-in-insurance-biz-122040701470\_1.html

Business Standard (2022b, 10 June). Now, life insurers can introduce products without IRDAI's prior approval. Retrieved from https://www.business-standard.com/article/companies/irdaieases-approval-norms-for-health-general-insurance-products-122060101227\_1.html

Butler, J.R.G. (2001). Policy change and private health insurance: Did the cheapest policy do the trick? National Centre for Epidemiology and Population Health: Canberra.

Carrin, G., Mathauer, I., Xu, K., & Evans, D.B. (2008). Universal coverage of health services: Tailoring its implementation. *Bulletin of the World Health Organization*. 86 (11), 857-863. Doi: 10.2471/BLT.07.049387.

Chernew M., Gibson, T.B., Yu-Isenberg, K., et al. (2008). Effects of increased patient cost sharing on socioeconomic disparities in health care. *Journal of General Internal Medicine*. 23(8), 1131–1136.

Chollet D., & Lewis, M. (1997). Private insurance: principles and practice. Innovations in health care financing: proceedings of a World Bank conference, March 10–11, World Bank Discussion Paper No 365. Washington DC, World Bank.

Colombo, F., & Tapay, N. (2003). *Task force on private health insurance, private health insurance in Australia: a case study*. Pub. no. DAFFE/AS/PHI/WD(2003)12. Organization for Economic Co-operation and Development. Paris. 1–47.

Committee on Estimates, Seventeenth Lok Sabha. (2023). *Assessment of various initiatives under CGHS*. Parliament of India, Lok Sabha Secretariat, MoFWH. Retrieved from https://loksabhadocs.nic.in/lsscommittee/Estimates/17\_Estimates\_21.pdf.

CAG. (2022). Report of the Comptroller and Auditor General of India on compliance audit of third party administrators in health insurance business of public sector insurance companies. No. 1 of 2022. Comptroller and Auditor General of India, Union Government (Commercial), Department of Financial Services, Ministry of Finance. Retrieved from https://cag.gov.in/en.

Cooper, Z., Craig, S. V., Gaynor, M., & Van Reenen, J. (2019). The price ain't right? Hospital prices and health spending on the privately insured. *The Quarterly Journal of Economics*. *134*(1), 51–107. https://doi.org/10.1093/qje/qjy020.

Das, J., & Leino. J. (2011). Evaluating the RSBY: Lessons from an experimental information campaign. *Economic & Political Weekly*, 46(32). Retrieved from https://www.epw.in/ journal/2011/32/special-articles/evaluating-rsbylessons-experimental-information-campaign.html

Dasgupta, R., Nandi, S., Kanungo, K., Nundy, M., Murugan, G., & Neogi, R. (2013). What the good doctor said: A critical examination of design issues of the RSBY through provider perspectives in Chhattisgarh, India, *Social Change*, 43(2), 227–243.

Dash, U. & Muraleedharan, V.R. (2019): Accessing Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PM-JAY): A case study of three states (Bihar, Haryana and Tamil Nadu). Submitted to the National Health Authority, Government of India. Retrieved from https://hss.iitm.ac.in/ctap/wp-content/uploads/2022/05/IITM-WP3-13-Final-1.pdf

De Wolf, A.H., & Toebes, B. (2016). Assessing private sector involvement in health care and universal health coverage in light of the right to health. *Health and human rights*, 18(2), 79–92.

Devadasan, N., Seshadri, T., Trivedi, M., & Criel, B. (2013). Promoting universal financial protection: evidence from the Rashtriya Swasthya Bima Yojana (RSBY) in Gujarat, India. *Health Research Policy* 

and Systems, 11 (29). https://doi.org/10.1186/1478-4505-11-29

Dixon, A., Lagenbrunner, J., & Mossialos, E. (2004). Facing the challenges of health care financing. In J. Figueras, M. McKee, J. Cain & S. Lessof (Eds.). *Health systems in transition: Learning from experience*. European Observatory on Health Systems and Policies Series. Copenhagen: World Health Organization.

Dror, D. M., & Vellakkal. S. (2012). Is RSBY India's platform to implementing universal hospital insurance?. *The Indian Journal of Medical Research*, 135(1), 56–63. https://doi.org/10.4103/0971-5916.93425

Dubey, N. (2020, July 7). Insurers can offer Arogya Sanjeevani Policy for sum insured above Rs 5 lakh: IRDAI. *The Economic Times*. Retrieved from https://economictimes.indiatimes.com/wealth/insure/health-insurance/insurers-can-offer-arogya-sanjeevani-policy-for-sum-insured-more-than-rs-5-lakh-irdai/articleshow/76830726.cms?from=mdr

Dubey, N. (2021, May 17). What are indemnity based health insurance policies? *Mint*. Retrieved from https://www.livemint.com/money/personal-finance/what-are-indemnity-based-health-insurance-policies-11621242346982.html

Dutta, M. (2020). Health insurance sector in India: An analysis of its performance. *Vilakshan - XIMB Journal of Management*. (ahead-of-print). 10.1108/XJM-07-2020-0021.

Economic Times (2021, February 8). Health insurance to see higher double-digits growth in medium term: Report. Retrieved from https://economictimes.indiatimes.com/industry/banking/finance/insure/health-insurance-to-see-higher-double-digits-growth-in-medium-term-report/articleshow/80748472.cms?from=mdr

El-Sayed, A. M., Vail, D., & Kruk., M.E. (2018). Ineffective insurance in lower and middle income countries is an obstacle to universal health coverage. *Journal of Global Health*, 8(2), 020402. https://doi.org/10.7189/jogh.08.020402.

Essue, B. M. & Birch, S. (2016). Blunt policy instruments deliver blunt policy outcomes: Why cost sharing is not effective at controlling utilization and improving health system efficiency. *Medical Care*, *54*(2), 107–109. Retrieved from https://www.jstor.org/stable/26418109.

ET Bureau. (2021, February, 10). Insurance industry's underwriting losses increase by 6.2% in FY20, up to Rs.23,720 crore. The Economic Times. Retrieved from https://economictimes.indiatimes. com/industry/banking/finance/insure/insurance-industrys-underwriting-losses-increase-by-6-2-infy20-up-to-rs-23720-crore/articleshow/80790431. cms?from=mdr.

ET Bureau. (2022, Ausust 5). CAG report: PSU general insurers logged ₹26k cr loss between FY17 & FY21. The Economic Times. Retrieved from https://economictimes.indiatimes.com/industry/banking/finance/insure/cag-report-psu-general-insurers-logged-26k-cr-loss-between-fy17-fy21/articleshow/93379344.cms?from=mdr.

Fang, H. (2013). Book Review on *Insurance and Behavioral Economics: Improving Decisions in the Most Misunderstood Industry* by Kunreuther, H. C., Pauly, M. V., & McMorrow, S. Cambridge University Press, ISBN 978-0-521-60826-8, 329 pages. *Journal of Pension Economics & Finance*, 13(1), 117-119. doi:10.1017/S1474747213000267.

Foster C.D. (1992). *Privatization, public ownership and the regulation of natural monopoly*. Oxford: Blackwell Publishers, p. 8.

Fuenzalida-Puelma, H., Kalavakonda, V. & Caceres, M. (2007). Financial and regulatory challenges in low-income countries. In A.S. Preker, R. Scheffler, & M.C. Bassett (eds.). *Private health insurance in development: Friend or foe?*, 325–334 Washington, DC: World Bank.

Furtado, K.M., Raza, A., Mathur, D., Vaz, N., Agrawal, R., & Shroff, Z. C. (2022). The trust and insurance models of healthcare purchasing in the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana in India: Early findings from case studies of two states. *BMC Health Services Research*, 22, 1056. https://doi.org/10.1186/s12913-022-08407-2.

Gambhir, R. S., Malhi, R., Khosla, S., Singh, R., Bhardwaj, A., & Kumar, M. (2019). Out-patient coverage: Private sector insurance in India. *Journal of Family Medicine and Primary Care*, 8(3), 788–792. https://doi.org/10.4103/jfmpc.jfmpc\_101\_19.

La Forgia, G. & Nagpal, S. (2012). *Government-sponsored health Insurance in India : Are You covered?* Number 11957. World Bank Publications–Books, The World Bank Group.

Gertler, P. & Solon, O. (2002). Who Benefits from Social Health Insurance? Evidence from the Philippines. Unpub. University of California: Berkeley, CA.

Ghosh, A. (2021, November 26). 47.4% babies born in private sector via C-section, far above 14.3% in govt facilities, NFHS shows. *The Print*. Retrieved from https://theprint.in/india/21-5-of-all-births-in-india-are-through-c-section-far-above-who-ideal-of-10-15-shows-nfhs/771710/.

Gress S., Groenewegen, P., Kerssens, J., Braun, B., & Wasem, J. (2002). Free choice of sickness funds in regulated competition: Evidence from Germany and the Netherlands. *Health Policy* 60(3), 235–254.

Grover, S & Palacios, R. (2011): The first two years of RSBY in Delhi. India's Health Insurance Scheme for the Poor: Evidence from the early experience of the Rashtriya Swasthya Bima Yojana, New Delhi, India: Centre for Policy Research, pp 153–88.

Gu, X. (2009). Position of commercial health insurance in universal health care. Comp. Econ. Soc. Syst. *6*, 52–59.

Gumber, A. (2021). Equity in healthcare utilisation and cost of treatment in Western India, *Journal of Social and Economic Development*, 23 (Suppl 1): S131–S152, https://doi.org/10.1007/s40847-020-00121-1.

Handel, B. R., Kolstad, J. T., & Spinnewijn, J. (2018). Information frictions and adverse selection: policy interventions in health insurance markets. *The Review of Economics and Statistics*, *101* (2), 326–340. doi:10.1162/rest\_a\_00773.

He, A.J. (2017) Introducing voluntary private health insurance in a mixed medical economy: Are Hong Kong citizens willing to subscribe? *BMC Health Services Research*, 17 (603). https://doi.org/10.1186/s12913-017-2559-7.

Hooda, S. (2020). Penetration and coverage of government-funded health insurance schemes in India. *Clinical Epidemiology and Global Health*, 8. 10.1016/j.cegh.2020.03.014.

Hunter, B.M., Murray, S.F., Marathe, S. & Chakravarthi, I. (2022). Decentred regulation: The case of private healthcare in India. *World Development*, 155(C). Elsevier.

Hynd, A. et al. (2008) The impact of co-payment increases on dispensing of government-subsidised

medicines in Australia. *Pharmacoepidemiology and Drug Safety*. 17,1091–1099.

Insurance regulatory board of India (2013). IRDA (Health Insurance) Regulations, 2013. Retrieved from https://irdai.gov.in/document-detail?documentId=372615.

Insurance regulatory and board of India (2020). Guidelines on Standardization of General Terms and Clauses in Health Insurance Policy Contracts. Reference No.: IRDAI/HLT/REG/CIR/152/06/2020. Retrieved from https://irdai.gov.in/document-detail?documentId=394691.

IRDAI. (2014–15 to 2021-22). *Annual Reports*. Insurance Regulatory and Development Authority of India. Hyderabad: Telangana.

International Institute for Population Sciences (IIPS) and ICF. (2017). National Family Health Survey (NFHS-4), 2015–16: India. Mumbai: IIPS.

International Institute for Population Sciences (IIPS) and ICF. (2021). National Family Health Survey (NFHS-4), 2019–20: India. Mumbai: IIPS.

ILO. (2019). Providing additional benefits coverage: A review of country experiences to inform Viet Nam's revision of the Health Insurance Law. International Labour Organization and Luxembourg Aid & Development. Retrieved from https://www.ilo.org/hanoi/Whatwedo/Publications/WCMS\_724963/lang--en/index.htm.

Jain, N. (2011). A descriptive analysis of the RSBY data for the first phase. India's Health Insurance Scheme for the Poor. Edited by: Palacios R, Das J, Sun C. 2011, New Delhi: Centre for Policy Research, 38-64.

Jain, R (2019): The effectiveness of public health insurance: Evidence from Rajasthan, India. Dissertation, Harvard T H Chan School of Public Health.

James, N. & Acharya, Y. (2022). Increasing health insurance enrollment in low- and middle-income countries: What works, what does not, and research gaps: A scoping review. *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, *59*, 469580221090396. https://doi.org/10.1177/00469580221090396.

Jenkins, C., Bahukhandi, A., Ramakrishnan, S. (2020). Wellness and preventive features in health insurance: IRDAI guidelines. Insurance Laws and

Products - India. https://www.mondaq.com/india/insurance-laws-and-products/990592/wellness-and-preventive-features-in-health-insurance-irdai-guidelines.

Kaiser Permanente. (2023). Better care for chronic conditions. Retrieved from https://business. kaiserpermanente.org/kp-difference/high-quality-care/better-chronic-conditions-care.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. https://doi.org/10.2307/1914185.

Karan, A., Yip, W., & Mahal, A. (2017). Extending health insurance to the poor in India: An impact evaluation of Rashtriya Swasthya Bima Yojana on out of pocket spending for healthcare. *Social science & medicine* (1982), 181, 83–92. https://doi.org/10.1016/j.socscimed.2017.03.053

Khalid, M., & Serieux, J. (2018). Uptake of voluntary health insurance and its impact on health care utilization in Ghana, *Health Policy and Planning*, 33(7), 861–869, https://doi.org/10.1093/heapol/czy063.

Kothari, V. (2015, March 7). TPAs cannot reject or partially disallow claims: High Court. *Times of India*. 7 March. Retrieved from https://timesofindia.indiatimes.com/city/pune/TPAs-cannot-reject-or-partly-disallow-claims-High-Court/articleshow/46481589.cms

Kulkarni, L. & Jain, M. (2016). Examining the Financial Feasibility of Universal Health Insurance in India, Kulkarni, *Working Paper No. 37*, Gokhale Institute of Politics and Economics, Pune, October.

Kulkarni, P. (2018). We will talk about health rather than health insurance: Mayank Bathwal, Aditya Birla Health Insurance. *Economic Times*. 11 June. Retrieved from https://economictimes. indiatimes. com/wealth/personal-finance-news/we-will-talkabout-health-rather-than-health-insurance-mayank-bathwaladitya-birla-health-insurance/articleshow/64519932.cms

Kulkarni, P. (2022). Why policyholders are unhappy with insurance companies. *Moneycontrol*. 9 November. Retrieved from https://www.moneycontrol.com/news/business/personal-finance/partial-claim-payout-rejection-due-to-unnecessary-hospitalisation-most-common-covid-19-complaints-mumbai-insurance-ombudsman-9462441.html

Kumar A., & Sarwal, R. (2021). *Health Insurance for India's missing middle*. Niti Aayog. Retrieved from 10.31219/osf.io/s2x8r.

Kumar, R., Rangarajan, K. & Ranganathan, N. (2011). Health insurance in india: A study of provider's perceptions in Delhi & the NCR. *Journal of Health Management*, *13*(3), 259-277. doi:10.1177/097206341101300302.

Kunreuther, H.C., Pauly, M. V. & McMorrow, S. (2013). *Insurance and behavioral economics: improving decisions in the most misunderstood industry*. Cambridge University Press.

Kutzin, J., Yip, W., Cashin, C. (2019). Alternative financing strategies for universal health coverage. *World Scientific Series in Global Health Economics and Public Policy*, 267-309. https://doi.org/10.1142/9789813140493\_0005

Lambert, P., Perelman, S., Pestieau, P., & Schoenmaeckers, J. (2011). Health insurance coverage and adverse selection. *The individual and the welfare state*, 225–231. doi:10.1007/978-3-642-17472-8\_20.

Levine, D., Polimeni, R., & Ramage, I. (2016). Insuring health or insuring wealth? An experimental evaluation of health insurance in rural Cambodia. *Journal of Development Economics*, 119: 1–15.

Lexchin, J., & Grootendorst, P. (2004). Effects of prescription drug user fees on drug and health services use and on health status in vulnerable populations: a systematic review of the evidence. *International Journal of Health Services*, 34, 101–122.

Malhotra, S., Patnaik, I., Roy, S., & Shah, A. (2018). Fair play in Indian health insurance. Working Papers 18/228, National Institute of Public Finance and Policy. Retrieved from https://ideas.repec.org/p/npf/wpaper/18-228.html.

Mannuru, M. (2019, February 25). Why Andhra Pradesh's Arogya Raksha Health Scheme has been a failure. *Down to Earth*. Retrieved from https://www.downtoearth.org.in/blog/health/why-andhra-pradesh-s-arogya-raksha-health-scheme-has-been-a-failure-63348

Manohar, A. (2019, April 26). Group medical insurance vs standalone health insurance: Which one is better? *Zee Business* News. Retrieved from https://www.zeebiz.com/personal-finance/newsgroup-medical-insurance-vs-standalone-health-insurance-which-one-is-better-96503)

Mathauer, I. & Kutzin, J. (2018). Voluntary Health Insurance: Potential and limits in moving towards UHC, Health Financing Policy Brief No. 5, Department of Health Systems Governance and Financing, Geneva: World Health Organization.

Mathauer, I., P. Saksena & J. Kutzin. (2019). Pooling arrangements in health financing systems: a proposed classification. *International Journal for Equity in Health*, *18*, 198. https://doi.org/10.1186/s12939-019-1088-x.

McIntyre, D. (2007). Learning from experience: Health care financing in low-and middle-income countries, Global forum for health research: Helping correct the 10 | 90 gap, Geneva. Retrieved from https://www.files.ethz.ch/isn/48554/2007-06%20 Health%20care%20financing.pdf.

Ministry of Finance. (2021). *Economic Survey 2020-2021 (Vol 1 & 2)*. Government of India, New Delhi.

Ministry of Health & Family Welfare Government of India New Delhi. (n.d). Framework for developing health insurance programmes.

Miron, J. (2017). Curtailing subsidies for health insurance. CATO Institute. Retrieved from https://www.cato.org/cato-online-forum/curtailing-subsidies-health-insurance

Milliman. (2019). How to equalize risk in healthcare systems. 2019 International Health Research Papers. Retrieved from https://us.milliman.com/-/media/milliman/pdfs/articles/equalise-risk-healthcare-systems.ashx

Medibank. (2023). Make the most of telehealth. Medibank Live Better. Retrieved from https://www.medibank.com.au/livebetter/my-medibank/using-your-cover/how-to-make-the-most-of-telehealth/.

Mor, N. & Shukla, S. (2023). Estimating funds required for UHC within Indian states. *The Lancet Regional Health - Southeast Asia*, 13(100165). 10.1016/j.lansea.2023.100165.

Motaze N.V., Chi, C.P., Ongolo-Zogo, P., Ndongo, J.S., Wiysonge, C.S. (2015). Government regulation of private health insurance. *Cochrane Database of Systematic Reviews*. 4. Art. No CD011512. doi: 10.1002/14651858.CD011512.

Nandi, S., Nundy, M., Prasad, V., Kanungo, K., Khan, H., Soibam, H., Mishra, T., & Garg, S. (2012). The implementation of RSBY in Chhattisgarh, India: A study of the Durg district. *Health, Culture and Society*, *2*, 40-70. 10.5195/hcs.2012.61.

Narasimhan, H., Boddu, V., Singh, P. V., Katyal, A., Bergkvist, S., & Rao, M. (2014): The best laid plans: Access to the Rajiv Aarogyasri Community Health Insurance Scheme of Andhra Pradesh. *Health*, *Culture and Society*, *6*(1), 85–97.

National Health Systems Resource Centre (2022). National Health Accounts Estimates for India (2018-19). New Delhi: Ministry of Health and Family Welfare, Government of India

National Statistical Office. (2021). All India Debt & Investment Survey- 2019 (NSS Report no. 588 (77/18.2)). Ministry of Statistics and Programme Implementation. Retrieved from https://www.thehinducentre.com/resources/article36470537.ece/binary/Report%20no.%20588-AIDIS-77Rm-Sept.pdf.

Nayak, B., Bhattacharyya, S. S., & Krishnamoorthy, B. (2019). Integrating wearable technology products and big data analytics in business strategy. *Journal of Systems and Information Technology*, 21(2), 255–275.

Nayak, B., Bhattacharyya, S.S., & Krishnamoorthy, B (2022). Customer value creation: A case study of Indian health insurance industry from value net perspective. *Journal of Health Management*, 24(4), 539-555. doi:10.1177/09720634221128083.

North, J. (2020). Private health insurance history, politics and performance. In S. Thomson, A. Sagan, & E. Mossialos (Eds.), *Private health insurance: History, politics and performance.* European Observatory on Health Systems and Policies Series. Cambridge: Cambridge University Press.

Nundy, M., & Venkateswaran, S. (2022). Health system in People's Republic of China (PRC): Reforms, transformations, and challenges. CSEP Working Paper 35. New Delhi: CSEP.

Nundy, M. & Bhatt, P. (2022a). Health system in the Republic of Indonesia: Reforms, transformations, and challenges. CSEP Working Paper 43. New Delhi: CSEP.

Nundy, M. & Bhatt, P. (2022b). The health system in the Kingdom of Thailand: Reforms, achievements, and challenges. CSEP Working Paper 45. New Delhi: OECD Health Statistics. (2020). Definitions, sources and methods. Retrieved from https://www.ehealthinsurance.com/resources/individual-and-family/what-is-private-health-insurance

PTI. (2020, January 3). Offer standard health policies with maximum sum insured Rs 5 lakh: Irdai

to insurers. *Economic Times*. Retrieved from https://economictimes.indiatimes.com/industry/banking/finance/insure/offer-standard-health-policies-with-maximum-sum-insured-rs-5-lakh-irdai-to-insurers/articleshow/73074343.cms?from=mdr

Palacios, R., Das, J., & Sun, C. (2011): India's health insurance scheme for the poor: Evidence from the early experience of the Rashtriya Swasthya Bima Yojana. New Delhi, Center for Policy Research, https://www.cprindia.org/research/ books/indiashealth-insurance-schemepoor-evidence-early-experience-rashtriyaswasthya-bima

Panda, P., Dror, I., Koehlmoos, T., Hossain, S., John, D., Khan, J. & Dror, D. (2016). What factors affect uptake of voluntary and community-based health insurance schemes in low-and middle-income countries? A systematic review. 10.13140/RG.2.2.26226.71361.

Panda, S. (2022, December 23). Several insurance companies exceed limit on expenses in FY22: IRDAI report. *Business Standard*. Retrieved from https://www.business-standard.com/article/finance/several-insurance-companies-exceed-limit-on-expenses-infy22-irdai-report-122122300884\_1.html.

Patel, J., Shah, J., Agarwal, M., & Kedia, G. (2013). Post-utilization survey of RSBY beneficiaries in civil hospital, Ahmedabad: A Cross Sectional Study. *International Journal of Medical Science and Public Health*, *2*(4), p 1073.

Patel, M. R. & Unadkat, S. (2018): "A Study on Awareness and Utilization of Rashtriya Swashtya Bima Yojana among Benefi ciaries in Jamnagar District," http://www.njcmindia.org/home/view/1227/.

Pauly, M., Blavin, F., & Meghan, S. (2008). *Is there a market for voluntary health insurance in developing countries?* National Bureau of Economic Research Working Papers, Cambridge, Massachusetts, http://www.nber.org/papers/w14095.

Preker, A. S., Sheffler, R. M., & Preker, A.S. (2007). *Private voluntary health insurance in development : Friend or foe?* Washington, DC: World Bank World Bank. https://openknowledge.worldbank.org/handle/10986/6641

Preker, A. S., Lindner, M. E., Chernichovsky, D., & Schellekens, O. P. (2013). Scaling up affordable health insurance: Staying the course. No. 13836 World Bank Publications- Books, The World Bank Group.

Preker, A.S., Zweifel, P. & Schellekens, O.P. (2010). *Global marketplace for private health insurance: Strength in numbers.* Washington, DC: World Bank. Retrieved from https://openknowledge.worldbank.org/handle/10986/13085 License: CC BY 3.0 IGO."

PricewaterhouseCoopers (2007). *Healthcare in India: Emerging market report*. London, PricewaterhouseCoopers.

Prinja, S., Singh, M.P., Aggarwal, V., Rajsekar, K., Gedam, P., Goyal, A., & Bahuguna, P. (2023). Impact of India's publicly financed health insurance scheme on public sector district hospitals: A health financing perspective. *The Lancet Regional Health - Southeast Asia*, 9 (100123), Retrieved from 10.1016/j.lansea.2022.100123.

Rajasekhar, D., Berg, E., Ghatak, M., Manjula, R., & Roy, S. (2011): Implementing health insurance: The rollout of Rashtriya Swasthya Bima Yojana in Karnataka. *Economic & Political Weekly*, 46(20), 56–63.

Ramamoorthy, R., & Kumar, S.A. (2018). A study on innovative strategies to growth of Indian health insurance sector. *SAARJ Journal on Banking & Insurance Research*, 7(4), 19–25.

Reed, M., Fung, V., Price, M., Brand, R., Benedetti, N., Derose, S.F., & Hsu, J. (2009). High-deductible health insurance plans: Efforts to sharpen a blunt instrument. *Health Affairs*, 28(4), 1145–1154. doi:10.1377/hlthaff.28.4.1145

Rent, P. & Ghosh, S. (2015). Understanding the cash-less nature of government-sponsored health insurance schemes: Evidence from Rajiv Gandhi Jeevandayee Aarogya Yojana in Mumbai. *Sage Open.* https://doi.org/10.1177/2158244015614607.

Reporter, B. (2016, July 25). Health insurance pricing freed after 3-yr lock-in. *Business Standard*. Retrieved from https://www.business-standard.com/article/finance/health-insurance-pricing-freed-after-3-yr-lock-in-116072600047\_1.htm

Roberts, M., Hsiao, W., Berman, P., & Reich, M. (2008). *Getting health reform right: A guide to improving performance and equity*, Oxford University Press: Oxford, New York.

Sarwal, R. (2015). Reforming central government health scheme into a "universal health coverage" model. *The National Medical Journal of India*, 28(1), 29–37.

Saxena, R. (2022, January 13). 7 new guidelines issued by IRDAI for health claim Settlement. IIFL Insurance. https://iiflinsurance.com/knowledge-centre/health-insurance/new-standardization-guidelines-by-irdai-for-health-insurance

Schneider, P. (2004). Why should the poor insure? Theories of decision-making in the context of health insurance. *Health Policy and Planning*, *19*, 349-55. Retrieved from 10.1093/heapol/czh050.

Segel J.E., & Kullgren, J.T. (2017). Health insurance deductibles and their associations with out-of-pocket spending and affordability barriers among US adults with chronic conditions. *JAMA Intern Med*, 177(3): 433-436.

Sekhri, N. & Savedoff, W. (2006). Regulating private health insurance to serve the public interest: policy issues for developing countries. *The International Journal of Health Planning and Management*, *21*(4), 357–392. https://doi.org/10.1002/hpm.857.

Selvaraj, S. & Karan, A.K. (2009): Deepening health insecurity in india: Evidence national sample surveys since 1980s. *Economic & Political Weekly*, 44(40), 55-60.

Sharma, Y.S. (2021, June 10). Govt to provide medical coverage, other benefits under Employees State Insurance scheme. *Economic Times*. Retrieved from https://economictimes.indiatimes.com/news/economy/policy/govt-to-provide-medical-coverage-other-benefits-under-employees-state-insurance-scheme-labour-ministry/articleshow/83399737.cms.

Shengelia, B., Tandon, A., Adams, O.B., & Murray, C.J. (2005). Access, utilization, quality, and effective coverage: An integrated conceptual framework and measurement strategy. *Social Science and Medicine*, *61*, 97-109. Medline:15847965 doi:10.1016/j. socscimed.2004.11.055.

Singh, A. & Govil, D. (2021). Hysterectomy in India: Spatial and multilevel analysis, *Women's Health*, 17. https://doi.org/10.1177%2F17455065211017068.

Sinha, R. K. (2018). Impact of publicly financed health insurance scheme (Rashtriya Swasthya Bima Yojana) from equity and efficiency perspectives. *Vikalpa*, *43*(4), 191–206. https://doi.org/10.1177/0256090918804390.

Sinha, S. (2015, May 19). Irda may reduce capital requirement for health insurance ventures by 33%. *The Economic Times*. Retrieved from https://economictimes.indiatimes.com/wealth/

personal-finance-news/irda-may-reduce-capital-requirement-for-health-insurance-ventures-by-33/articleshow/47335686.cms

Soderlund N. & Khosa, S. (1997). The potential role of risk-equalization mechanisms in health insurance: The case of South Africa. *Health Policy and Planning*, 12(4): 341–353.

Srivastava, R. (2020). Vulnerable internal migrants in india and portability of social security and entitlements. Centre for Employment Studies Working Paper Series, WP 02/2020. Retrieved from http://www.ihdindia.org/working-papers/2020/IHD-CES\_WP\_02\_2020.pdf.

Team Acko. (2022, October 25). Private vs government health insurance plans. Acko General Insurance. Retrieved from https://www.acko.com/health-insurance/private-vs-government-health-insurance-plans/

TNN. (2022, December 24). Karnataka: Major hospitals dither over Yeshasvini insurance scheme. *The Times of India*. Retrieved from https://timesofindia.indiatimes.com/city/bengaluru/karnataka-major-hospitals-dither-over-yeshasvini-insurance-scheme/articleshow/96467733.cms.

Tandon, A. (n.d.). On covering the missing middle for universal health coverage. World Bank. Retreived from https://nha.gov.in/img/pmjay-files/Ajaytandon-T4-MissingMiddle.pdf.

Tangcharoensathien, V., Thammatach-aree, J., Witthayapipopsakul, W., Viriyathorn, S., Kulthanmanusorn, A., & Patcharanarumol, W. (2020a). Political economy of Thailand's tax-financed universal coverage scheme, *Bulletin of the World Health Organization*, 98(2): 140–145. doi: 10.2471/BLT.19.239343.

Tangcharoensathien, V., Tisayaticom, K., Suphanchaimat, R., Vongmongkol, V., Viriyathorn, S., & Limwattananon, S. (2020b). Financial risk protection of Thailand's universal health coverage: results from series of national household surveys between 1996 and 2015. *International Journal of Equity in Health 19*(163). https://doi.org/10.1186/s12939-020-01273-6.

J-PAL. (2021, May 1). Strategies to increase health insurance enrollment. The Abdul Latif Jameel Poverty Action Lab. Retrieved from https://www.povertyactionlab.org/policy-insight/strategies-increase-health-insurance-enrollment

The Indian Express (2019, February 18). The sustainability of "Arogya Raksha Health Scheme" of Andhra Pradesh. Retrieved from https://www.expresshealthcare.in/blogs/the-sustainability-of-arogya-raksha-health-scheme-of-andhra-pradesh/409718/

Guth, M., Garfield, R., Rudowitz, R., & Kaiser Family Foundation (2020). The effects of Medicaid expansion under the ACA: Updated findings from a literature review. The Henry J. Kaiser Family Foundation. Retrieved from https://files.kff.org/attachment/Report-The-Effects-of-Medicaid-Expansion-under-the-ACA-Updated-Findings-from-a-Literature-Review.pdf.

Thomas, K. (1994). Are subsidies enough to encourage the uninsured to purchase health insurance? An analysis of underlying behavior. *Inquiry: A Journal of Medical Care Organization*, *Provision and Financing*, 31(4), 415–424.

Thomson, S. & Mossialos, E. (2004). What are the equity, efficiency, cost containment and choice implications of private health-care funding in western Europe? World Health Organization. Regional Office for Europe. https://apps.who.int/iris/handle/10665/363830.

Thomson, S. (2010). What role for voluntary health insurance? In J. Kutzin, C. Cashin & M. Jakab (Eds.). *Implementing health financing reform: Lessons from countries in transition* (pp 299-326).

Thomson, S., & Mossialos, E. (Eds.). (2019). Private health insurance: History, politics and performance. European Observatory on Health Systems and Policies Series. Cambridge: Cambridge University Press.

Thornton, R. L., Hatt, L. E., Field, E. M., Islam, M., Diaz, F. S., & González, M. A. (2010). Social security health insurance for the informal sector in Nicaragua: A randomized evaluation. *Health Economics*, 19(S1), 181–206.

van de Ven, W., Hamstra, G., van Kleef, R., Reuser, M., & Stam, P. (2023). The goal of risk equalization in regulated competitive health insurance markets. *The European Journal of Health Economics*, *24*, 111–123. https://doi.org/10.1007/s10198-022-01457-7.

Wagstaff, A (2010). Social health insurance re-examined. *Health Econ*omics, *19* (5), 503-517. doi: 10.1002/hec.1492

Wang, H., Zhang, L., Yip, W., Hsiao, W. (2006). Adverse selection in a voluntary rural mutual health care health insurance scheme in China. *Social Science and Medicine* 1982, 63(5), 1236–45. doi:10.1016/j.socscimed.2006.03.008.

WHO. (2000). The world health report 2000. Health systems: Improving performance. World Health Organization, Geneva.

WHO. (2010a). *The world health report: Health systems financing: The path to universal coverage.* World Health Organization. Retrieved from https://apps.who.int/iris/handle/10665/44371

WHO. (2010b). Administrative costs of health insurance schemes: Exploring the reasons for their variability. World Health Organization. Retrieved from https://apps.who.int/iris/handle/10665/85710

Yip, W. (2019). Healthcare system challenges in Asia. *Oxford Research Encyclopedias: Economics and Finance*. https://doi.org/10.1093/acrefore/9780190625979.013.245

Yip, W., et al. (2019). 10 years of health-care reform in China: Progress and gaps in Universal Health Coverage. *Lancet*, 394(10204), 1192–1204. https://doi.org/10.1016/S0140-6736(19)32136-1

Zheng, S., Ren, Z.J., Heineke, J., et al. (2016). Reductions in diagnostic imaging with high deductible health plans. *Med Care*, 54,110–117.

Zweifel, P. & Breuer, M. (2006). The case for risk-based premiums in public health insurance. *Health Economics, Policy and Law*, 1, 171–88.

#### About the authors

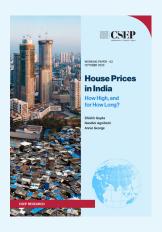


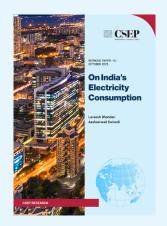
Madhurima Nundy is a Fellow in Health and Human Development at the Centre for Social and Economic Progress, New Delhi and an Honorary Fellow at the Institute of Chinese Studies, Delhi. She holds a PhD in Public Health from the Centre of Social Medicine and Community Health, Jawaharlal Nehru University, New Delhi. Her areas of specific interest include researching different health systems and health policies in a comparative perspective with a focus on inequalities in health outcomes. She has several publications to her name.



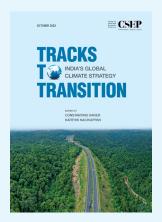
Pankhuri Bhatt is a research analyst in Health and Human Development at the Centre for Social and Economic Progress, New Delhi. She holds a master's degree in public policy with a specialisation in Public Health from the Jindal School of Government and Public Policy (JSGP), O.P Jindal University. Her areas of interest include research on comparative health systems and policies, health economics, and healthcare financing. Previously, she was a consultant at a Law Firm Management consultancy.

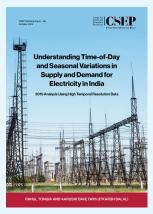
### Other publications

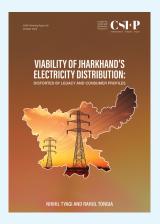






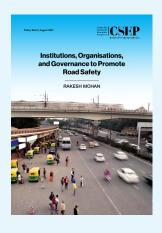


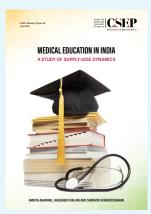


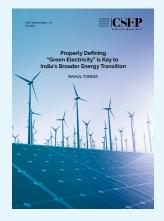




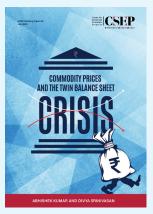


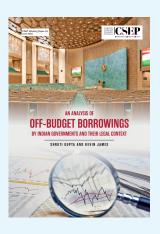


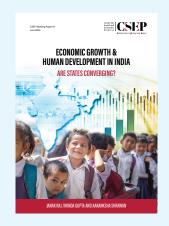














### Independence | Integrity | Impact

### **Centre for Social and Economic Progress**

6, Dr Jose P. Rizal Marg, Chanakyapuri, New Delhi - 110021, India





