A Critical Assessment of the Existing Health Insurance Models in India

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Prof. K. Srinath Reddy

Project Director & President, PHFI

Dr. Sakthivel Selvaraj

Principal Investigator, PHFI

Dr. Krishna D. Rao, Mr. Maulik Chokshi, and Dr. Preeti Kumar

Co-Investigators, PHFI

Ms. Vandana Arora and Dr. Sachin Bhokare

Research Associates, PHFI

Ms. Isheeta Ganguly

Consultant, PHFI

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OF INDIA

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Glossary

AP – Andhra Pradesh

BPL – Below Poverty Line

CA – Chartered Accountant

CBHI – Community Based Health Insurance

CGHS – Central Government Health Schemes

ESIC – Employee State Insurance Corporation

ESIS – Employee State Insurance Scheme

FFS – Fee for Service

FHPL – Family Health Plan Ltd.

GDP – Gross Domestic Product

HI – Health Insurance

HP – Himachal Pradesh

IT– Information Technology

IRDA – Insurance Regulatory Development Authority

KN – Karnataka

MoLE – Ministry of Labour and Employment

NABH – National Accreditation Board for hospitals and health care providers

NABL – National Accreditation Board for Testing and Calibration Laboratories

NGO – Non-Governmental Organisation

NRHM – National Rural Health Mission

NSSO – National Sample Survey Organisation

OOP – Out of Pocket

PHFI – Public Health Foundation of India

PHI – Private Health Insurance

RAS – Rajiv Aarogyasri Scheme

RBI – Reserve Bank of India

RE – Revised Estimates

RSBY – Rashtriya Swasthya Bima Yojana

SAS – Suvarna Arogya Suraksha Trust

SNO – State Nodal Agency

SEWA – Self-Employed Women's Association

TPA – Third Party Administrator

TN – Tamil Nadu

TNHSP – Tamil Nadu Health System Project

TNMSC – Tamil Nadu Medical Services Corporation Ltd

VAS – Vajapayee Arogyasri Scheme

VAO – Village Administrative Officer

Executive Summary

Global experience, both in highly industrialised countries as well as in low- and middle-income economies clearly demonstrate the importance of achieving universal coverage through either a purely tax-based regime or social health insurance mechanisms or a mix of both. Although India followed a mix of these strategies since 1950s, the penetration of health insurance remained low for the next six decades. India's tryst with health insurance program goes back to the early 1950s, with the launch of Employees State Insurance Scheme (ESIS in 1952) and Central Government Health Scheme (CGHS in 1954).

However, India's landscape of health insurance has undergone tremendous changes in the last three years with the launch of several more health insurance schemes in the country, largely initiated by central and state governments. It is fascinating to observe the rapid and significant change in the geometry of health insurance coverage in the country. The country that has been witness to three health insurance programs until 2007 (ESIS, CGHS and Private Health Insurance - PHI), is now swamped by a plethora of insurance programs, in less than three years time. The breadth, depth and height of health insurance coverage has witnessed enormous leap during this period.

The breadth of the coverage- denoted by the percentage of population covered by the insurance scheme – has accelerated from about 75 million people covered (roughly about 16 million family beneficiaries) in 2007, to an estimated 302 million people in 2010, about one-fourth of the population. Thanks to four important initiatives, by the central government (through Rashtriya Swasthya Bima Yojana - RSBY) and state-sponsored schemes, as in Andhra Pradesh, Tamil Nadu, and Karnataka. Three of the giant schemes (RSBY, Rajiv Aarogyasri and Kalaignar) in a span of three years have covered roughly 247 million, over one-fifth of India's population. Comparatively, the breadth of the coverage is by any global standards quite breath-taking and occurred at a rapid rate in a span of three years, and this feat could be achieved even among the vulnerable population and informal workers, where the penetration is otherwise difficult till recently. The commitment to equity and access to poor people is clearly

visible, especially in the case of Andhra Pradesh, as it covers over 85% of the states' population. The realisation among the leadership for the commitment to cover nearly all of the population despite their socio-economic status is quite commendable, since evidence clearly suggests that in India, it's not only the poor but a large sections of above poverty line (APL) population also end up paying catastrophic payments and suffer impoverishment (transitory poverty) due to illness.

The depth of the coverage - relates to the extent of benefit packages offered in the scheme, whether the scheme covers only hospitalisation, or both inpatient and outpatient care, does it include or exclude pre-existing conditions and what is maximum amount of coverage, etc. Except ESIS and CGHS, all the other schemes provide only hospitalisation cover to the beneficiaries. In terms of benefit-packages, the sharp distinction between various schemes is visible as their priorities appear to be weighed due to different considerations and perceptions. While RSBY's package has been very moderate with limited mandate that it had set itself, Rajiv Aarogyasri and Kalaignar's scheme has been the most ambitious of all the programs. The disproportionate thrust of these programs lies on tertiary care. For instance, CGHS, which currently covers about 3 million population in the country during 2009-10, spent nearly Rs. 16,000 million, as against Rajiv Aarogyasri, which spent to the tune of Rs. 12,000 million for population coverage of about 85% (out of 84 million total population) of the population of Andhra Pradesh. Similarly, the Tamil Nadu's model again covers only high-end surgical procedures to its 13.6 million families, accounting roughly to over 50 million population (out of 67 million total population) with a total outlay of over Rs. 5,173 million during 2009-10.

The Height of the coverage indicates the share of health care costs to prepayment and risk pooling (especially public subsidy of cost of care). As far as the health care cost is concerned, the major thrust of the current health insurance schemes are on inpatient care. Except the commercial insurance sector, where households and employers contribute to cover the costs of premium, in other schemes such as ESIS and CGHS, contributions from employees and employers are obtained. Therefore, the issue of prepayment and risk pooling, which is central to any health financing functions, are taken into account significantly in these two programs. Similarly, in all the other publicly funded schemes, the contribution is made by the government – central or state

governments depending on the schemes. And thus, there is an element of prepayment and risk pooling, and so the share of entire burden of specialised hospital care for the covered population is borne by the government. To that level, the risk of paying catastrophic costs on illness and the likelihood of being impoverished due to hospitalisation (surgical care) is reduced to some extent. That leaves a huge burden still been borne by households. In the case of RSBY, even the hospitalisation relates only to secondary care, leaving a huge burden still on households, while state-based schemes ignore primary and secondary care completely.

Rise in Moral Hazard? - Early evidence on the pattern of hospitalisation under various schemes suggests interesting developments, which could be conjectured to indicate the presence and rise of moral hazard. Data drawn from RSBY shows that hospitalisation rates at the all-India level is about 20 per thousand beneficiaries. However, this is marked by extreme variation from about 38 per thousand in Kerala to as low as 1 per thousand in Assam, as against the national average of 31 per thousand (NSS). The voluntary private health insurance scheme reported a rate of about 64 per thousand, almost double the rate than the national average. However, under state-based schemes, especially, Andhra Pradesh's Rajiv Aarogyasri and Tamil Nadu's Kalaignar, the hospitalisation rates appear quite lower than the national average, despite a near universal coverage in of surgical care A.P. This is due to the fact that Andhra Pradesh and Tamil Nadu models provide care for high-end, low-frequency, rare diseases, while RSBY provides largely secondary care of high-frequency and common diseases. On the other end of the spectrum, is voluntary private health insurance model, which seeks to cover both secondary and tertiary care.

Evidence from various schemes provide mixed pattern about average expenditure per hospitalisation. The average hospitalisation expenses of uninsured in India are about Rs. 11,553 in the private hospitals during 2004. For the year 2009-10, the mean hospitalisation expenses of the private health insurance industry stood at roughly Rs. 19,637 per annum. Mean hospitalisation expenses in Tamil Nadu and CGHS schemes are at around Rs. 33,720 and Rs 25,000 respectively. One could conjecture that in the context of publicly funded insurance schemes where third-party payment is made to a private provider, supply-side moral hazard appears to be loaded heavily in favour of private providers. It is worth observing that nearly all providers under TN and CGHS

are private hospitals while in Andhra Pradesh, over 80% of the hospitalisation occur under Aarogyasri in private hospitals.

Tertiary Care Spending and Distorted Priorities*:* Tertiary care expenditure of government spending works to little over one-fifth of all government expenditure during 2009-10. However, if one were to combine budget allocation for tertiary care spending (on hospitals and medical colleges) and spending through the health insurance programs, both of which focus on tertiary care, the overall spending in the country on hospital care works out to around 37%. In fact, states such as, Delhi, Andhra Pradesh and Tamil Nadu are already spending well over half of all government expenditure on tertiary care. This is a clear pointer to the direction of priorities; where governments have appeared to fall pray to a distorted consumer demand, misguided medical profession and the medico-industrial complex.

Rising Claims Ratio: The RSBY, which covers about 23 states and close to about 80 million people, the experience with claims ratio is mixed. The variation in burnout ratio (as against claims ratio) is reported to be in the range of 27% -136% in a large number of districts. This is given the fact in several districts; the utilisation rate of hospitals is extremely low. Commercial insurers are obviously making usurious profits. However, several states reportedly exceeded 100 percent mark, a pointer to be concerned with future premium rate setting. In these districts, the hospitalisation rates are extremely high and insurers are reported to making losses[1].

Fiscal Sustainability of Schemes: Initial evidence from the experience of Andhra Pradesh program suggests that rising cost of care is a concern for fiscal sustainability. Therefore, these state-based schemes could consider tweaking their original schemes by leveraging RSBY. As far as breadth of the coverage is concerned, if states wish to extend the coverage to APL population, it can do so by using state's own resources for providing cover over and above the RSBY cut-off. In addition, the present benefit coverage of Rs. 30,000 per annum per family appears quite low under RSBY compared to Rajiv Aarogyasri which offers benefit to the extent of over five times that of RSBY. States that are struggling to control costs and unable to sustain these schemes needs to

[1] See Palacios, Robert (2010), A New Approach to Providing Health Insurance to the Poor in India: The early experience of Rashtriya Swasthya Bima Yojna, Draft Document, RSBY Working Paper No.1, October, 2010.

consider seriously topping up benefit package over and above RSBY limits (while the basic package would be funded by RSBY), which would to some extent, tide over financial difficulties in the medium term.

Integrating and Scaling Up: Currently, there are three central government health insurance schemes run by two ministries (CGHS by the Ministry of Health and Family Welfare) and (ESIS and RSBY administered by the Ministry of Employment and Labour). These three models independently facilitate health care treatment for different sets of population whereas levels of care differ. Thus we argue that it makes eminent sense to organize them under one umbrella and integrate them to achieve value for money. This would ensure efficient allocation and utilization of funds. Presently, the ESIS has a large network of hospitals and dispensaries, but underutilized to a large extent. A combined entity would not only allow CGHS beneficiaries but ESIS must also throw open its facilities to RSBY beneficiaries. The gate-keeping function of referral systems that ESIS is offering at present would be useful in controlling cost. An autonomous corporate body (on the lines of PSUs) could be set-up to professionally manage the funds and administration of the integrated model. This is not only possible but also eminently desirable since the ESIS has a total invested funds amounting to Rs. 195,832 million in 2008-09.

Outpatient Coverage: As far as the question of health insurance covering outpatient care, especially drugs, ideally, it is desirable to include costs of medicines for reimbursement under the Indian conditions. This is due to the fact that evidence clearly shows that the effect on catastrophic payments and impoverishment in India occurs also due to outpatient care, especially, due to drugs. One of the prime reasons for the denial of coverage of drugs and outpatient coverage in the insurance scheme is that all the stakeholders - physicians, pharmacists, patient, etc, can easily influence the outcome. While the physician has the incentive to increase the number of visits of patients, the prescribers and the pharmacists would be encouraged to prescribe unnecessary and expensive medicines. Insurers on their part could influence outpatient visits by levying a high deductible on the patients. In addition, the administrative cost of managing drug reimbursement could be a nightmare for insurers, as it involves low-value, high-frequency transactions. Practically in India it is easy to obtain prescription

drugs over the counter at the chemists. And prescribers and chemists in India have the habit of prescribing and dispensing drugs by expensive branded names.

Therefore, we argue that, while this is desirable in principle, practical implementation and the associated problems of enforcing medicine reimbursement to patients would be a stupendous task and could fiscally strain the coffers of the government. Outpatient care and drug reimbursement must be kept out of the health insurance program while strengthening of public health institutions and sprucing up of medicine procurement & distribution is called for. In addition, as large part of medicine purchase by the households occurs at the private chemists, the need of the hour is to strengthen drug price control by bringing all essential drugs under price control.

Summing Up: Tertiary care, especially privately provided care can be extremely expensive and can lead to serious medicalisation of health care leading to unsustainable cost-escalation. Several western industrial countries that have used this model seem to have realized the negative development. For long-term fiscal sustainability, strengthening public health system appears to be the only option for the governments. However, in the short and medium-run, as governments grapple with shortages of skilled specialist and critical infrastructure bottlenecks, it may choose the option of purchasing tertiary care from the private sector. This is expected to considerably provide financial risk protection to the poor and vulnerable sections of society in the short-run. A robust regulatory system for quality and price control, supported by periodic technical and social audits, would be needed to ensure that the imperfect market mechanisms of private health care provision do not lead to inappropriate or unduly expensive care, if the government chooses to purchase privately provided tertiary care.

Chapter 1

Preamble

1.1. Introduction

The role and relevance of tax or social health insurance based intervention has come to occupy central stage in recent years in several countries that are undertaking measures to reform health systems. One or a mix of these health-financing models is considered desirable to achieve universal coverage to its population. Most of the low- and middle-income economies till recently have relied heavily on Out-Of-Pocket (OOP) payments of households, which are regarded as both inefficient and iniquitous. As a consequence, OOP causes financial catastrophe and impoverishment of vulnerable households. The underlying reasons are that the OOP payments preclude the conditions of prepayment, risk-pooling and cross-subsidization. A tax-based health financing mechanism, as in UK, Cuba and Sri Lanka or a broad based social health insurance programs as in Germany, France, Mexico, etc. is being prescribed as a key instrument of health financing strategy for many low income countries like India, if it were to achieve universal health coverage.

Earlier, it was believed that universal coverage either through tax-based system or social health insurance could be achieved only when economies have reached a critical level of income (higher-middle income or advanced economy status). The basis for such reasoning is grounded in the argument that scarce resources required for competing needs may limit countries from allocating a higher proportion of its GDP to health sector. Moreover, it was also argued that the time span required to attain universal coverage would be a long drawn process (of about 50-100 years as in industrialized countries). However, recent experience among middle-income countries (such as, S. Korea, Mexico, Brazil, etc.) and even in lower-middle income economies (such as, Thailand) demonstrates that political will is one of the key determinant of achieving universal coverage even among the low– and middle–income economies. And this is possible to achieve in a rapid and significant manner (in a span of less than

one decade, as in Thailand)[2]. Many of these schemes, in the Philippines, Vietnam and Colombia, have sought to provide insurance cover to poor and the informal sector workers through completely subsidized premiums. The non-poor among the informal workers, however, have the option of voluntarily enrolling in the schemes, as in the Philippines and Vietnam, while in Colombia the workers and their families are compulsorily enrolled in these schemes.

The road to achieving universal health insurance, however, is not without hindrance, as illustrated in recent experience of China. Evaluation studies conducted in China, with respect to the community health insurance scheme, suggests that rather than controlling household spending, health insurance appears to have raised the risk of high and catastrophic payments. Wagstaff & Lindelow (2008) [3]report that insurance appears to encourage people to seek more care from the expensive tertiary care providers, sidetracking primary care providers in the process. Further, it is also confirmed by Wagstaff, et. al (2009)[4], who show that both outpatient and inpatient expenses of the households seems to have gone up considerably post-insurance.

1.2 The Context

India's tryst with health insurance program goes back to the late 1940s and early 1950s when the civil servants (Central Government Health Scheme) and formal sector workers (Employees' State Insurance Scheme) were enrolled into a contributory but heavily subsidised health insurance programs. However, these programs, especially the former was confined to only a small segment of the society. Even enrolment under ESIS remained quite low, as it was based on contributory basis but largely confined to formal sector workers. After over half a century of experience, CGHS (3 million) and

[2] Hughes D and Leethongdee S (2007), Universal Coverage In The Land Of Smiles: Lessons From Thailand's 30 Baht Health Reforms, Thailand, *Health Affairs* 26, no. 4, 999–1008; 10.1377/hlthaff.26.4.999.

[3] Wagstaff A and Lindelow M (2008), Can insurance increase financial risk?
The curious case of health insurance in China, Journal of Health Economics 27, 990–1005

[4] Wagstaff A, Lindelow M, Junc G, Ling X, Juncheng Q (2009), Extending health insurance to the rural population: An impact evaluation of China's new cooperative medical scheme, Journal of Health Economics, Journal of Health Economics 28 (2009) 1–19.

ESIS (55.5 million) put together currently cover an estimated 58.5 million beneficiaries, roughly about 5% of India's population.

As part of liberalisation of the economy since the early 1990s, the government opened up the insurance sector (including health insurance) to private sector participation in the year 1999. This development had thrown open the possibility for higher income groups to access quality care from private tertiary care facilities. This was expected to provide financial risk protection to a relatively small segment of the society. However, on the flip side, private health insurance was observed to result in cost escalation, inequity in health financing pattern while cost-effectiveness of healthcare provided by the private sector could be questioned. This is likely to be the case in a country that depends heavily on fee-for-service and a large & an unregulated private sector health care. If stringent regulatory structures and an effective implementation mechanism are put in place, the deleterious effect of voluntary private health insurance could be ameliorated to some extent[5].

In addition to ESIS and CGHS, few experiments of health insurance in India relate to the Community Based Health Insurance (CBHI) models in respect to the poor and informal communities. The experiments are led by various community-based organisations (SEWA, Karuna Trust, etc.), although their reach, scalability and sustainability appear limited at present. Much of these schemes provide primary and secondary care to its target population, with contribution from the local communities themselves and in some cases with additional financial support from external resources[6].

However, India in the last three years (since 2007) has witnessed a plethora of new initiatives, both by the central government and a host of state governments also entering the bandwagon of health insurance. One of the reasons for initiating such programs can be traced to the commitment that the governments in India have made to scale up public spending in health care. Given the commitment to upscale government expenditure on health (central and state governments put together) from the present 1 percent to 2-3 percent of GDP, the central and state governments were devising designs to spend the additional resources through innovative schemes. Among others,

[5] Mahal, A (2002), Assessing Private Health Insurance in India: Potential Impacts and Regulatory Issues, Economic and Political Weekly, February 9, 2002.

[6] Devadasan, N. Ranson K, Damme W V, Acharya A, Criel B. (2006), The landscape of community health insurance in India: An overview based on 10 case studies, Health Policy 78 224–234.

these include enhanced access and availability of essential health care services, protecting households from financial risk through schemes such as, National Rural Health Mission (NRHM), and Rashtriya Swasthya Bima Yojana (RSBY). The State-specific initiatives include Rajiv Aarogyasri (Andhra Pradesh), Kalaignar's Insurance Scheme for Life Saving Treatment (Tamil Nadu), Vajapayee Arogyasri & Yeshasvini programs in Karnataka, etc.

It is in this context, there is a need to assess various financial risk protection mechanisms in the country. Firstly, given the fact that the funding for several of these insurance schemes is allocated by the government (centre and states), the tendency to over utilize, and over prescribe medical care cannot be ruled out. This could have deleterious effect on the sustainability of the scheme. Both demand-side and supply-side moral hazards generated by the scheme would need to be studied. Further, there is a need to also examine the issue of adverse selection among different insurance programs.

Secondly, it is imperative to study the institutional and organizational challenges faced by insurance schemes, which would enable us to address existing unfair financing mechanism. This in turn is likely to lay down the incentive structures for health providers and is eventually expected to shore up the system's responsiveness. Mapping out institutional challenges would provide a clear direction to the government as lack of capacity at various level of implementation of the scheme appear to hinder scale-up of the program to a significant level.

Thirdly, the study proposes to identify potential elements that would facilitate significant scale up and sustainability of the various insurance schemes culminating in universal coverage. The RSBY scheme intends to cover approximately 350 million informal sector workforce that are below poverty line, which leaves out a significant share of informal workforce above poverty line. While National Rural Health Mission (NRHM) attempts to ensure universal coverage through the tax-based route, the RSBY, on the other hand, is expected provide financial risk protection to the underprivileged informal households through insurance mechanisms. Therefore, it is pertinent to analyse various factors that would impede and facilitate significant scale up and sustainability of financial risk protection mechanisms in the country. And finally, a critical analysis of various health insurance programs could provide us directions for achieving universal health care in the country.

1.3.1 Overall Objectives

The central objective of this study is to generate evidence in relation to different models of health insurance schemes in the country. In effect, we plan to conduct a comprehensive review and critical evaluation of the existing health insurance schemes (largely government schemes, private sector models and to some extent community based schemes). Through this overall goal, this project will produce a road map for future health insurance programs in India, particularly in relation to the goals of scalability, sustainability, equity and financial risk protection measures.

1.3.2. Specific Objectives of the Study

The specific objectives of the proposed study with respect to existing health insurance programmes in India are:

1. To provide an outline of design features of various health insurance schemes currently being implemented in the country;
2. To document the institutional and organizational challenges of various schemes;
3. To identify gaps in regulatory frameworks;
4. To understand the pattern of moral hazard, adverse selection & fraud and mechanisms deployed to control imperfections in the market;
5. To examine the equity and efficiency of the existing health insurance models in India;
6. To analyse potential elements that had impeded or would facilitate significant scale up and sustainability of various health insurance schemes culminating in universal coverage;
7. To provide an outline of learnings from each other programs.

1.4 The Methodology (Key Data Sources):

In order to document and quantify the objectives outlined above, we made use of multiple sources of data – primary and secondary data sets involving quantitative and qualitative information.

1. We adopted a case-study approach, wherein information and data relating to the following health insurance models were gathered from the respective department of health and family welfare or respective administration of various programs. While qualitative and quantitative information/data were obtained through a structured questionnaire, administered by our team which visited

personally to conduct interviews from each of the scheme's head of the operations (respective Secretaries /CEOs /department heads):

   a. Rajiv Aarogyasri Health Insurance Scheme in Andhra Pradesh;
   b. Tamil Nadu's Chief Minister Kalaignar Insurance Scheme for life saving Treatments.
   c. Yeshasvini Co-operative Farmers Health care Scheme in Karnataka;
   d. Vajapayee Arogyasri Scheme in Karnataka;
   e. Apka Swasthya Bima Yojna in Delhi;
   f. Critical Life-Saving Health Insurance Scheme (RSBY Plus) in Himachal Pradesh;
   g. Central Government Health Scheme (CGHS);
   h. Employees' State Insurance Scheme (ESIS);
   i. Rashtriya Swasthya Bima Yojna (RSBY), a centrally sponsored scheme being implemented in 24 states in India.

2. Apart from personal interviews, we also collected data (wherever possible) in terms of overall allocation/spending over the years (time-series data obtained wherever possible), policies covered, premium claims and settlement, utilisation of facilities, cost data by diseases and other socio-economic determinants from various health insurance programs. These data were gathered from State Nodal Agency (SNA)/Central Data Repository (CDR), Insurance Service Providers (ISP), etc.
3. In addition, we also gathered relevant information/data about voluntary private health insurance and community health insurance programs (Vimo SEWA). Relevant data were gathered from the Insurance Regulatory & Development Agency (IRDA) in respect to number of policies, claims, claims-ratio, age, gender and disease-wise distribution of claims. Similar data were obtained from available published literature relating to the CBHI - community-based health insurance programme - (we relied on one model SEWA, perhaps the biggest of all CBHI models).

1.5 Structure of the Report:

This chapter provides a brief outline of the role and relevance of health insurance schemes and its implications for achieving universal health coverage by drawing evidence from global experiences. The broad and specific objectives of the study

along with the data sources of the case studies have been presented in Chapter 1. In the next Chapter 2, we intend to describe the design features of various health insurance schemes in the country, in terms of population coverage, benefit package, revenue collection, risk pooling and purchasing functions of various schemes. The institutional structure of different types of health insurance models is depicted in Chapter 3. Chapter 4 deals with governance and regulatory issues relating to various health insurance schemes in the country. Chapter 5 provides evidence of the underlying moral hazard, adverse selection and fraud associated with the existing insurance schemes. One of the key objectives of this study is to understand the financial sustainability and scalability of schemes. A critical view of the ongoing national and state-level schemes in respect to scalability and sustainability are presented in Chapter 6. We conclude the study in Chapter 7, with recommendations and way forward. A snapshot of various features of health insurance schemes covered by this study is given in Annexure 1.

Chapter 2

Key Design Features of Health Insurance Schemes in India

2.1 Introduction

Health insurance as a tool to finance health care has very recently gained popularity in India. While health insurance has a long history, the upsurge in breadth of coverage can be explained by a serious effort by the Government to introduce health insurance for the poor in last four years. This marks a major milestone in the financing of health care in the country, and Chart 2.1 provides a landscape of health insurance schemes in India.

Various forms of insurance: mandatory, voluntary and community health insurance cover approximately one-fourth of India's population. There is, however, considerable variation across states in coverage (Chart 2.2 and Table 2.1 present coverage across states and schemes in year 2009-10). Whether insurance is offered through employment, purchased voluntarily or sponsored by the government for select populations, all potentially contribute towards the health systems goal of providing financial risk protection and reducing the financial barriers to quality health care. By pooling funds, insurance offers the opportunity to spread costs across different stakeholders.

This chapter provides a description of the various health insurance programs currently available in India. It reviews these in terms of different functions of revenue generation, pooling, purchasing and provision (McIntyre, 2007). For a snapshot view of design features of all schemes covered by this study, refer to Annexure 1.

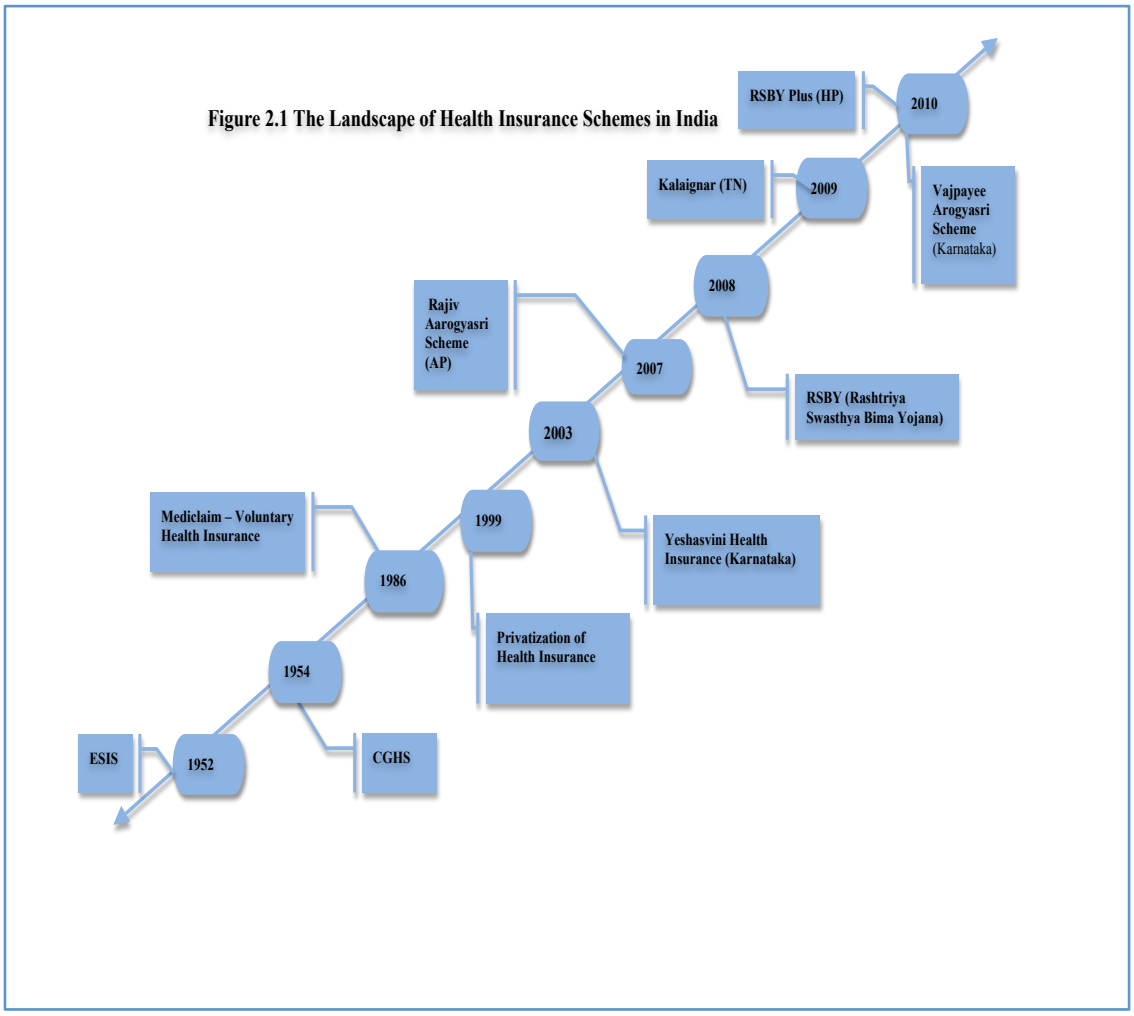


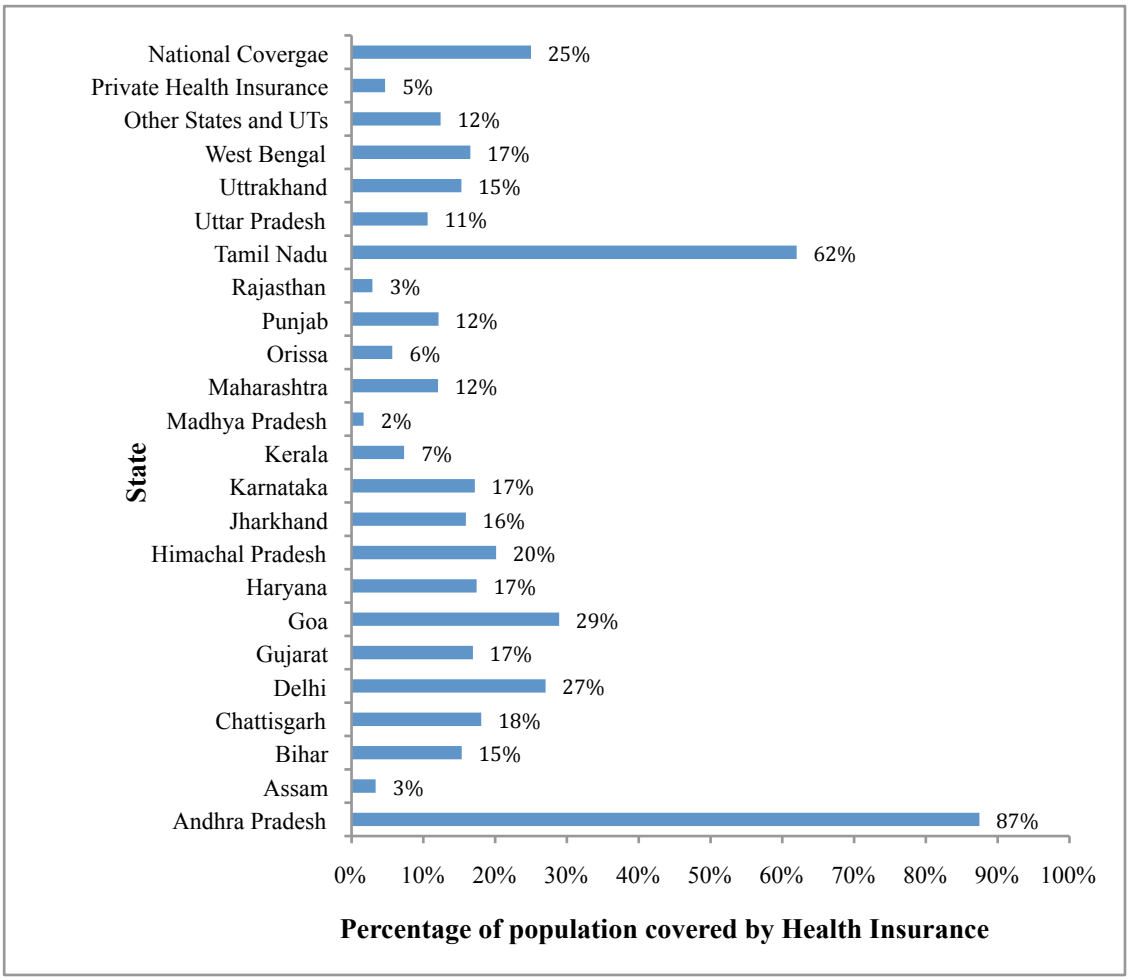
Figure 2.1 The Landscape of Health Insurance Schemes in India

2.2 Coverage

The current trends in the health insurance coverage indicate a quantum leap, especially since the last three years. In India, currently any form of insurance including the CHGS, ESIS, Government Sponsored Schemes and Private Health Insurance together covered approximately 302 million individuals or 25 percent of India's population in 2010. State wise percentage penetration of health insurance is as shown in Chart 2.2

Chart 2.2

National and State wise Health Insurance Coverage in 2010



Source: Data from Annual reports, websites and respective Schemes

It can be observed that a substantial share of coverage is through RSBY and other state sponsored health insurance schemes that together covered 247 million individuals' or 82% of population covered by any health insurance schemes across the country (Table 2.1). The state of Andhra Pradesh with highest level of coverage has 85% of its population covered by the state sponsored Rajiv Aarogyasri health insurance scheme (out of the total population of 84 million). Any form of health insurance covers 62% of population in Tamil Nadu (out of which Kalaignar covers 84%). These are two states where state sponsored health insurance schemes are strongest in their outreach.

Table 2.1

Scheme-wise Health Insurance Coverage

Scheme	Total covered population in 2009-10 (in millions)		
	Unit of Enrolment	No of Families	No. of Beneficiaries
CGHS	Family	0.87	3.0
ESIS	Family	14.3	55.4
Rashtriya Swasthya Bima Yojana (RSBY)	Family	22.7	79.45[1]
Rajiv Aarogyasri Scheme (AP)	Family	22.4	70
Kalaignar (TN)	Family	13.6	35
Vajapayee Arogyasri Scheme (KN)	Family	0.95	1.4
Yeshasvini (KN)	Individual	N/A	3.0
Total Government Sponsored Schemes		N/A	247
Private Health Insurance *	Individual	N/A	55
Grand Total			302

* Estimate; N/A Not Applicable; [1]No. of Beneficiaries = No. of families (card holders) *3.5
Source: data/Information supplied by respective schemes

2.3 Various forms of Health Insurance

2.3.1. Mandatory Health Insurance

Mandatory health insurance models cover certain population groups, whether or not they contribute to the scheme. India started its tryst with health insurance with the oldest running Employees' State Insurance Scheme (ESIS) that came into existence in 1952while the Central Government Health Scheme (CGHS) was established in 1954, both contributory and mandatory.

The ESI scheme covers all employers with more than 10 employees in 'notified areas'. The employees of covered employers who earn below Rs. 15,000 per month, and their dependants are covered by the insurance scheme. ESIS has grown gradually from 1955-56 when it covered only 0.12 million individuals to the current more than 55 million beneficiaries (ESIC, 2010). The growth in numbers can be attributed to higher wage ceilings coming in the purview of ESI and growth in the number of workers employed in the organized sector.

It is noteworthy that a large number of otherwise eligible employees are not covered by ESIS, as the scheme is only available in notified areas characterized by higher concentration of employers and employees. Given that ESIC's profit margins only keep rising, the scheme still has to cover about 8 percent of the eligible population without coverage.

On the other hand, the Central Government Health Scheme (CGHS) covers another section of population employed in the formal sector. It is available to all central government employees (both working and retired), and their families, and other representatives associated with the central government. As of 2009, there were 866,687 CGHS cardholders and around 3 million beneficiaries. Interestingly, 38% of total cardholders are in Delhi and they consume about 57% of CGHS budget, followed by 8% in Kolkata who consume about 4 % of overall CGHS budget.

2.3.2 Voluntary Health Insurance

The CGHS and ESIS were the only forms of insurance until the introduction of Voluntary Health Insurance in 1986 and they covered only formal sector employees. The vast majority of the population received care from either the public health facilities or fee-for-service private sector.

This scenario changed drastically in the last three years with state governments announcing their new health insurance schemes specifically targeting the poor. The Rajiv Aarogyasri Scheme (RAS), the first of this class targeting below-the-poverty-line population of Andhra Pradesh was introduced in 2007. In 2009, approximately 20.4 million families and 70 million beneficiaries were covered by the scheme, which is about 85 percent of the total population of the state. It is interesting to observe that a scheme, which was originally planned to be focussed on BPL families, went ahead to cover almost the entire population of the state. This scheme certainly counts to be one of the pioneers in terms of achieving equity and universalism in a limited sense.

On similar lines, other state governments have introduced or are in the process of introducing insurance schemes targeting poor households. Notable among these are Kalaignar health insurance scheme that currently covers 55 million people in Tamil Nadu (2009) and Vajapayee Arogyasri Karnataka (2009). Vajapayee Arogyasri currently in its pilot phase in the Gulbarga division of Karnataka covers any 5 members of family holding a BPL card. As of Sep 2009 the scheme covered 1.6

million people. The scheme is designed to extend coverage to 6.3 million BPL families each year in a phase wise manner.

On the other hand, the commercial or private health insurance provided by publicly and privately owned General Insurance companies have typically served only the better off populations. Although private health insurance has grown at the rate of 40% per annum, it has not been able to permeate into a large part of population owing to high premiums, very low awareness, and poor backend infrastructure (FICCI, 2009). With 'Mediclaim' as the only health insurance policy sold for a long time, the industry has also been marred by lack of innovation.

The Yeshasvini scheme in Karnataka (2003) is an example of government subsidized voluntary health insurance scheme, targeting the poor. Yeshasvini targets more than 12 million people registered in cooperative societies in Karnataka. The representation is stronger in the rural sector where Primary Agriculture Cooperative Societies (PACS), rural credit and savings cooperatives, sugarcane production and dairy cooperatives account for about 8.2 million people.

The RSBY (2008), which is on the other end of the spectrum, is also voluntary in enrolment, was initiated by the Central Government (Ministry of Labour and Employment) as a national health insurance scheme targeting the BPL population. The scheme currently covers approximately 80 million individuals across the country today (RSBY 2011), which is approximately 27% of the target population.

2.4 Key Design features of Government Sponsored Insurance schemes

A useful framework to discuss the characteristics of insurance schemes is through the lens of three key functions namely revenue collection, risk pooling and purchasing. The source of funds, mechanisms used to collect funds and the agency that pools funds together are collectively referred to as the 'Revenue collection' function. While, 'pooling of funds' refers to the accumulation and management of funds to ensure that financial risk of having to pay for health care is borne by all and not by individuals who fall ill. The third function is 'Purchasing Care' which refers to paying for health care. In health insurance the insurer or the organizer of the scheme purchases services on behalf of a population. It broadly involves contracting with providers of care, designing an appropriate benefit package and making choices around paying for them (McIntyre, 2007). 'Provision of care' is generally separated from purchasing in health insurance and is an integral part of it. There are many challenges around provider

networks that need to be addressed for health insurance schemes to achieve their purpose.

2.3.1 Revenue Collection

One can observe that the insurance schemes in India receive funds from a variety of sources, but Government provides the bulk of financing. The Central Government Health Scheme (CGHS) is financed mainly with Central Government tax revenues. Beneficiaries of the scheme also contribute a share of their wages towards premium ranging from Rs. 50 to Rs. 500 per month that accounts for roughly 5% of the total expenditure. In case of ESIS, revenue is generated from beneficiaries (1.75% of their salary), employers (4.75% of the beneficiary's salary) and the state governments provide a subsidy equivalent to 12.5% of the expenditure on medical care under ESIS. In general, the premium levels for schemes meant for the formal sector are nominal, especially in comparison to the benefit package offered by the scheme and government expenditure on providing comprehensive care for formal sector employees is very high. For instance, the Central Government spent to the tune of Rs. 16,000 million for 3 million salaried and pensioner beneficiaries of CGHS in year 2008-09.

Table 2.2

Sources of revenue under various insurance schemes

Scheme	Beneficiary Contribution	Subsidies	Average Premium Rates*
ESIS	Yes	12.5% by States	2340-11700[a]
CGHS	Yes	95%, Centre	600-6000[a]
RSBY	No	100%, Centre (75%) and State (25%)	440 to 750 INR
Rajiv Aarogyasri Scheme (AP)	No	100%, State	267
Kalaignar (TN)	No	100%, State	NA
Vajapayee Arogyasri Scheme (KN)	No	100%, State	469
Yeshasvini (KN)	Yes	40%, State	150
RSBY Plus (HP)	No	100%, State	NA
ASBY (DEL) (proposed)	No	100%, State	NA
Vimo SEWA	Yes	No	175-1000[b]
Private Health Insurance	Yes	No	1216[c]

Source: Scheme documents and reports
* Per family per year
NA- Not Applicable, Scheme does not charge any amount
a-Range for min to max. Salary (Grade pay)
b-Range for different products
c- Per person from 2008-09 data on PHI by TAC

As far as publicly funded schemes are concerned, the State government pays full premium for beneficiaries of schemes targeted at the poor like Kalaignar, Rajiv Aarogyasri and Vajapayee Arogyasri and 25% of the premium in case of RSBY (while the rest 75% is paid by the Central Government). This is in keeping with the government policy on extending health insurance to the poor without any charges. The financial sustainability of the government-sponsored schemes for the poor is a major concern for all stakeholders. It is unlikely that the schemes can sustain themselves financially without Government support. With the government also paying for the large network of public sector health facilities and services, the rationale for incurring a dual financial burden i.e. funding the public sector and national insurance needs to be revisited.

Contribution mechanisms

Since almost all publicly funded schemes in India receive majority of their funding from the government, they have low copayments or premiums. According to the Economic Survey 2009-10, as a proportion of gross tax revenue, direct taxes rose from a level of 19.1% in 1990-91 to reach 55.5% in 2008-09 (provisional). There was corresponding decline in the share of indirect taxes in this period. With non-tax revenues remaining at a level of around 2% of the GDP and at the given levels of devolution, revenue receipts which were at 11.0% of the GDP in 2007-08 declined to a level of 9.8% in 2008-09. Assuming that funding for insurance schemes like the RSBY, Rajiv Aarogyasri, Kalaignar etc. are from tax revenues, the large and growing share of direct taxes in gross tax revenues, prima facia, suggests progressive funding for these insurance schemes. This is also equitable because tax revenues from the better-off are used to subsidize the contribution of the poor.

Insurance schemes that require contributions from beneficiaries appear to be progressive as well as regressive in beneficiary contributions. For instance, ESIS contributions are progressive in nature because the contributions are calculated as a percentage of income rather than a fixed sum. The scheme only covers employees who earn Rs. 15,000 per month or less, where as the high wage earners are exempted from participation. It is a classic case of poor subsidizing the poorest and is not necessarily the most equitable. A better contributory mechanism would be if high wage earners were also included in the scheme so that cross subsidy through pooling can be carried out more effectively.

2.3.2. Risk pooling

Individuals contribute regularly to a pool of funds so that when they fall ill they can use the fund monies to pay for their treatment. Therefore, at any given point of time, all members are helping to pay for the treatment of currently sick members. In this way, insurance schemes pool the risk of illness and paying for it across the population covered and over time, thereby reducing the financial burden on sick members.

Coverage and composition of risk pools

The number of beneficiaries and the socio-economic groups covered by the scheme are at the heart of risk pooling function. Commercial health insurance in India has not been particularly good at pooling financial risk. High premiums and low awareness about insurance have kept the poor out of the pool. More recently schemes like Yeshasvini that cover both APL (above poverty line) and BPL (below-poverty-line) populations across the rural Cooperatives in Karnataka perform better in terms of pooling financial risks.

However, these voluntary schemes are characterized by poor enrolment. For example, only 35 percent of the target population is enrolled under the Yeshasvini health insurance scheme in Karnataka and commercial health insurance penetration is around 3 percent in India. A larger pool will be better able to ensure Yeshasvini's sustainability as a scheme and affordability for the not-so-well-off sections of target populations.

Insurance in India started with mandatory coverage for the formal sector. Across countries, universal coverage has been achieved gradually by including the informal sector, the self-employed and other industrial workers. However, achieving universal coverage through mandatory health insurance in India faces several challenges; this include; factors such as the huge informal sector, uneven income levels, a large rural population and variability in terms of quality of government stewardship are some of the obstacles in the direction.

Allocation mechanisms

Allocation of resources to health has historically been done on the basis of incremental budgeting by governments in India. Recently, the Central government through NRHM has acknowledged the health infrastructure and outcome disparities that exist between Indian States and between urban and rural populations and hence seeks to provide effective healthcare to rural population throughout the country with special focus on 18 states, which have weak public health indicators and weak infrastructure. This 'need

based', resource allocation mechanism is designed to redress the geographic disparities in health care resources. All other low- and middle-income countries like Ghana, Uganda, Tanzania, Cambodia and Mexico are now experimenting with 'need based' resource allocation methods.

On similar lines, the health insurance schemes for BPL in Indian context have tried to increase resources for the poor sections of the society, which is a good move. The hitherto public health sector is inequitable in the sense that so far the poorest quintile only gets about 10% of total public health expenditure. (Doorslaer et al., 2007) Health insurance has been successful to dedicate better resources to this quintile in last four years. But on the other hand, it is also well known that any scheme targeting only a small population of the society leads to segmentation, which is not necessarily useful for long-term health system goal of Universal Health Coverage. Also, since the schemes are state specific and there is more than one scheme in some states they are leading to fragmentation of pools.

2.3.3. Purchasing

There is high variation on health indicators and infrastructure across states in India. The schemes designed to cover specific populations across states need to purchase health care actively to ensure that the essential services are covered. Also, the provider payment mechanisms need to be aligned in such a way that facilitates participation from providers both in the public and private sector.

Benefits Package

The basic question while designing a benefit package for a health insurance scheme is that of - what health conditions should be covered by the scheme. Most of the latest state government sponsored schemes cover inpatient tertiary care. While this helps poor households tide over catastrophic health events, the large share of out-of-pocket payments occur in outpatient visits. So, these schemes already have limited effectiveness in providing financial protection to households. Chart 2.3 provides a comprehensive view of what type of care is provided under each scheme. In addition, all the schemes have limited follow up coverage. Preventive/Wellness and Ambulatory services are also not covered.

Chart 2.3

What type of care does the scheme provide?

Insurance Scheme	Chronic Diseases	Maternity	Preventive & Wellness care[1]	AYUSH	Out-Patient	Inpatient
CGHS	✓	✓	✓	✓	✓	✓
ESIS	✓	✓	✓	✓	✓	✓
Yeshasvini	✓	✗	✗	✗	✗	✓
Rajiv Aarogyasri Scheme (AP)	✓	✗	✗	✗	✗[2]	✓
RSBY	✓	✓	✗	✗	✗	✓
Kalaignar (TN)	✓	✗	✗	✗	✗	✓
Vajapayee Arogyasri Scheme (KN)	✓	✗	✗	✗	✗	✓
Commercial Health Insurance	✗	✗	✗	✗	✗	✓

[1]The preventive and wellness care under the two schemes is also very limited [2]RAS scheme provides partial Out-patient care in the form of free consultations

However, there are exceptions, the benefit package for Yeshasvini Health Insurance Scheme in Karnataka covers both secondary and tertiary care. The benefit package under RSBY is mainly focussed on the provision of secondary care. Primary care is not included in any of the schemes for various reasons. In Tamil Nadu, for example, the primary care and secondary care are already well provided by the public sector. In states where the primary care is not so sound, insurance schemes must aim for better integration with the public sector through referral system. The governments can also use the data generated by HI schemes for strengthening primary care.

The CGHS and ESIS are the only schemes that provide comprehensive coverage including outpatient care, preventive/wellness care and hospitalisation. The provision of services under CGHS is uncapped and provided through public facilities with some specialized treatment (with reimbursement ceilings) permitted at private facilities. The scheme is unique in the sense that it offers a range of services through both allopathic dispensaries and the units of alternative medicine like Homoeopathy and Ayurveda.

The ESIS is also unique in the sense that apart from preventive, outpatient and inpatient medical care, it also provides compensatory cash benefits for loss of wages, disability benefits distinguished by permanent and temporary disability, and a maternity cash program among other benefits. Although the outreach of the scheme is generally poor but it actively offers preventive care especially in the case of HIV and screening of other occupational hazard related diseases.

In terms of the impact of benefit package design, it is worth pointing out that the hospitalization rates in government sponsored schemes have significantly shot up in the recent past. The state wise hospitalization rates compared with NSSO rates show a rising trend, highlighting the possibility of moral hazard stemming out of over-consumption of services in these states. This upward trend warrants furthers study to identify the real reasons for the increase in hospitalization rates.

'Co-payments' as a way to control moral hazard though applicable in the case of commercial health insurance targeting only the high-income populations is less applicable in schemes targeting poor, as it may defeat the very purpose by discouraging use and increasing OOP spending for households.

Provider payment mechanisms

Most schemes that are fairly new use predefined package rates as their preferred method of payment. Having package rates has achieved close ending of amount payable as against open-ended Fee-for-Service (FFS) system in private health insurance. There is a strong potential to contain costs if package rates are defined and priced adequately. Package rates have the advantage of shifting financial risk to provider, which is better than the risk borne by patients under the FFS system. It is also easy to administer package rates and hence they are increasingly acceptable to most hospitals.

However, there are also some challenges associated with package rates. So far the rates are poorly specified in Indian health insurance market creating opportunities for the provision of more than necessary care through multiple services in one admission and unwarranted services. Also, consumables, implants, type of procedure may have significant impact on costs that may not be captured by package rates. In most cases, package rates are not aligned with costs or market prices. The package rates follow the approach of one-size-fits all. For example, they are not adjusted for severity (providers may avoid serious cases) or for price variations.

Coverage under RSBY is not limited to the packages displayed on the website. The costs indicated on the website are also not RSBY mandate rates. The rates can be modified based on suitability to a particular area/region. RSBY went from 726 to 1100 packages based on the feedback from insurers in terms of what was being asked for by the target populations at hospitals. Recently a technical group has been established at RSBY to look at package rates closely. (For an exhaustive list of Surgical and Medical Procedures refer to Annexure 2).

Table 2.3

Benefit Packages under Insurance Schemes

Scheme	Benefit Package	No of Inpatient Packages
ESIS	Comprehensive	1900[a]
CGHS	Comprehensive	1900
RSBY	Inpatient, Secondary Care only	1100
Rajiv Aarogyasri Scheme (AP)	Inpatient, Tertiary care only	938[b]
Vajapayee Arogyasri Scheme (KN)	Inpatient, Tertiary care only	402[b, c]
Kalaignar (TN)	Inpatient, Tertiary care only	626[b]
Yeshasvini (KN)	Inpatient, secondary and some Tertiary care	1600[b]
RSBY Plus (HP)	Inpatient, Tertiary care only	279

a. Defined as per CGHS, b. Mostly Surgical, c. Does not include 50 follow up packages. Source: Scheme Documents and Annual Reports of various schemes

However, the concern really is the limited capacity in the government and management of schemes to define packages rates. The CGHS, for example, follows a procedure of tendering for defining package rates. The rates in the tendering process vary across states but the scheme has the challenge of coming up with a single rate for all states. The system of tendering for coming up with package rates is highly unscientific and needs to be modified. The scheme needs to follow standard treatment guidelines based approach for designing the packages and fix rates accordingly.

In the case of government schemes for the poor, the schemes are designed to be entirely cashless to the patients. However, there have been reported cases of high OOP expense by patients. For example, in a survey conducted in Andhra Pradesh, 58% of

the Rajiv Aarogyasri Scheme (IIPH, 2009) patients reported having incurred OOP expense with an average Rs. 3,600 per patient. Even in Kerala, RSBY patients have reported paying additional OOP charges. (RSBY-CHIS, 2009) Awareness regarding this issue needs to be enhanced so that patients need not be charged. In terms of designing packages for such schemes, one needs to consider whether the scheme is cashless to the patient or the patient contributes towards care. The concept of cashless encompasses everything including screening etc. but it is not so when patient contributes.

In the case of Rajiv Aarogyasri Scheme, paying the hospitals in time has also proved to be successful in terms of getting better rates from hospitals. In general, better negotiations with network hospitals based on the principle of mutual interest can also help the scheme get better rates for the beneficiaries.

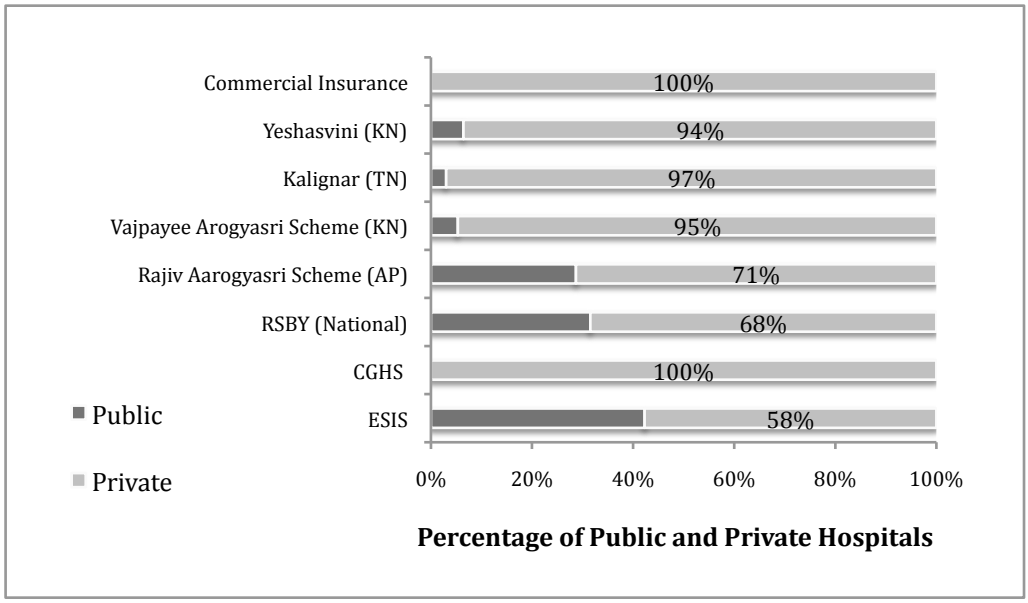
2.4. Provision of care

All the insurance schemes currently operating in India offer beneficiaries the option of seeking hospital care with either private or public sector providers. This is significant because it enables patients to take advantage of both sectors for affordable care. In particular, this is beneficial to patients in areas where the public sector is over burdened or weak and there is a credible private sector presence. Insurance schemes have little value if a strong provider network does not exist. In rural areas there are few qualified private providers and the condition of public health facilities is generally not up to the mark. Health insurance schemes may not necessarily change this situation, though they are likely to have a different effect in areas (e.g. urban) where qualified human resources are easily available.

However, evidence from various schemes suggests that private hospitals dominate the top '20 list' of hospitals in terms of number of admissions. The network hospitals as shown in Chart 2.4 also point towards the fact that most schemes have private provision in the range of 70% - 90%. The CGHS run by the Central Government for its employees provides 100% inpatient care through private network hospitals. Except ESIS, which continues to rely almost half of its health care needs in its own network hospitals, the other schemes substantially depend on private hospitals Chart 2.4.

Chart 2.4

Percentage of Private and Public Hospitals Networked by Schemes - 2010

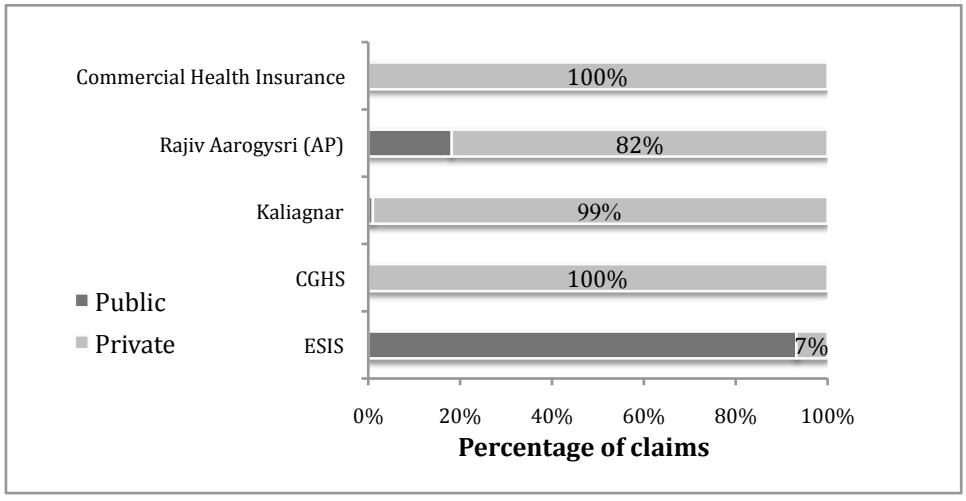


Source: Scheme documents and published reports

Hospital wise claims data (Chart 2.5) points towards the trend in government schemes tilting the funds to the already flourishing private sector while the public sector is starved for funds. There is a need to control this trend and the government should ensure that funds flow to the public as well as private sector, where they are most needed via health insurance as the health-financing tool. The funds also need to flow to Tier II and Tier III cities apart from metros. This is possible through health insurance scheme intervention by graded incentive system.

Chart 2.5

Distribution of Hospital-wise Claims Under Different Schemes – 2009-10



Source: Scheme documents and published reports

Apart from tilting balance in favour of private providers, we also observe wide variation in package rates; the schemes are paying different and generally higher package rates across the states in the absence of any standardization or norms for provider networks (Figure 2.4). This variation ranges from Rs. 60,000 to Rs. 1,30,000 in case of coronary bypass heart surgery where the variation is more than double between various schemes. (For a snapshot of package rates across schemes refer to Annexure 3). Package rates between CGHS and Rajiv Aarogyasri appear to be much higher than other schemes. While city wise differences can be explained for similar procedures, substantial variation in inter-city and inter-schemes can be explained by the negotiating power of states/schemes. There is a need for the schemes to coordinate with each other and dictate prices rather than take them. The state Governments or Central Government as the controlling agency can take steps to ensure that the health insurance schemes are used to extract better prices from providers for the beneficiaries.

Table 2.4

Variation in Package Rates for Similar Procedures, 2009-10 (in Rs.)

Procedures	CGHS & ESIS	Rajiv Aarogyasri Scheme (AP)	Kalaignar (TN)	Yeshasvini (KN)	Vajapayee Arogyasri Scheme (KN)	RSBY
Coronary bypass surgery	130,000	95,000	90,000	60,000	95,000	Up to 30,000
Coronary Angioplasty	85,000	60,000	60,000	25,000	60,000	
Transurethral Resection on prostate	16,200	30,000	25,000	12,000	20,000	14,250
Nephrolithotomy	14,100	10,000	25,000	14,000	10,000	10,000
Nepherectomy	NA	40,000	40,000	14,000	10,000	10,000
Appendectomy	12,000	18,000	NA	9,000	NA	6,000
Cholecystectomy	10,200	20,000	25,000	9,000	NA	10,000
Hysterectomy	13,000	20,000	25,000	6,000	NA	10,000
Tympanoplasty	7,050	15,000	NA	3,500	NA	7,000
Normal Delivery	6,500	NA	NA	NA	NA	2,500

NA: Not Applicable, Service Not Covered
Note: A full list of package rates can be annexed in the Appendix
Source: Scheme documents and websites of various schemes

2.5 Summing Up

The recent growth of insurance schemes in India, in many ways, marks a new phase in India's quest to provide health care to all. The key design features of health insurance scheme, revenue collection, pooling of funds and purchasing care need government intervention in order for the schemes to be equitable, efficient and effective. In terms of revenue collection, general taxation is the main source of funds for both health insurance schemes and direct public provision of care. Government must revisit the decision to bear dual financial burden of funding the network of public hospitals and national insurance. The risk pool for most schemes is comprised of the BPL population with least ability to pay leading to segmentation of the society. If the same schemes are extended to other populations of the society, the pools will become bigger and more financially unsustainable unless the beneficiary contribution is increased as in the case of rich subsidizing the poor in typical health insurance. The benefit package and package rates are the tools of purchasing care that government can use not only to control costs but also to monitor public expenditure on health, but these two need coordinated effort by different schemes to optimize benefit for the beneficiaries.

Chapter 3

The Institutional Structure of Health Insurance Schemes

3.1 Introduction

The institutional framework of health insurance schemes is defined as the manner in which various organizational entities are designed and networked in order to attain the common purpose of the scheme i.e. providing financial risk protection and access to health care to its beneficiaries. This chapter discusses the implementing agencies of various schemes, mechanisms they use to monitor and evaluate the scheme, internal control mechanisms for cost containment etc. It also discusses other processes that are followed in the schemes, including enrolment of beneficiaries, collection of premium and allocation of resources, design and delivery of benefit package, evolving infrastructure, and finally addresses the concerns related to each process.

3.2 Implementing Agencies

As regards the legal status of implementing agencies, the latest schemes are run by legally autonomous entities outside government departments (Table 3.1). However, political support and generous funding from the government drives all schemes. In terms of administration, all schemes except CGHS and ESIS use TPAs as intermediaries (recently CGHS is also experimenting with outsourcing claims processing to a third party).

Except CGHS, ESIS and Rajiv Aarogyasri schemes, limited managerial capacity and human resources within the scheme mars all schemes (Table 3.1). There is high reliance on Insurer or TPA leading to further complications as regards monitoring and evaluating their performance and controlling for moral hazard. The contracting out of important functions has also led to the need for guidelines around contracting with insurers, TPAs and providers. In the absence of any standards it is hardly possible for the schemes to have been able to draw contracts in favour of beneficiaries leading to potential for profit maximization by insurers, TPAs and providers via health insurance for the poor.

Table 3.1

Implementing Agency, Insuring Agent and Human Resources

Name of the Scheme	Implementing agency and legal status	Insuring Agent	No. of personnel[1]
Rashtriya Swasthya Bima Yojana (RSBY)	Ministry of Labour And Employment (MOLE) + State Nodal Agency (Society or Trust)	Various Insurance cos.	<10 at centre + ~100 at state nodal agencies
Kalaignar (TN)	TN Health Systems Society	STAR Health & Allied Insurance Company + A consortium of insurance cos.	<10
ESIS	ESIC (Employees State Insurance Corporation)	ESIC[2]	13585 (includes hospital and Dispensary staff)
Vajapayee Arogyasri Scheme (KN)	Suvarna Arogya Suraksha Trust	Suvarna Arogya Suraksha Trust + TPA	<10
Yeshasvini Co-operative Farmers Health care Scheme (KN)	Government + Trust +TPA (FHPL)	Yeshasvini Trust + FHPL (TPA)	<10
Central Government Health Scheme (CGHS)	Department Of Health & Family Welfare	CGHS[3]	NA
Rajiv Aarogyasri Community Health Insurance scheme (AP)	Aarogyasri Health care trust (Trust)	STAR Health & Allied Insurance Company	117

[1]No. of full time staff, including contract personnel, in implementing agency
[2,3]There is no insuring function or insuring agent in case of CGHS and ESIC
Source: Scheme documents, websites and Annual Reports of various schemes

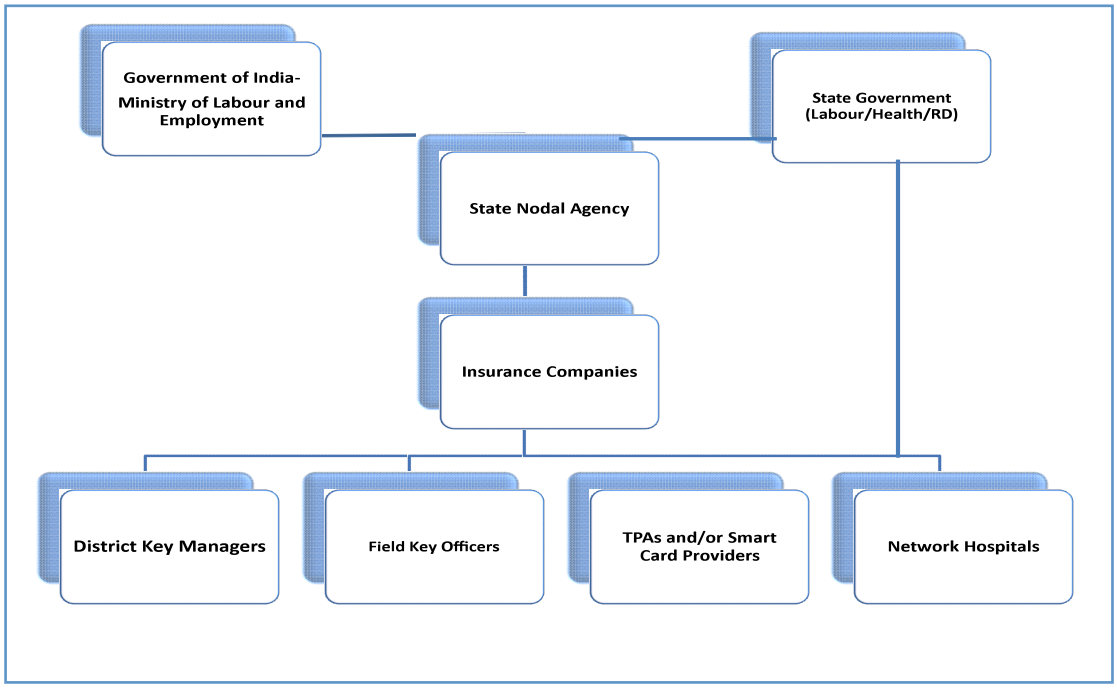
The institutional structure of RSBY, which is implemented in a public-private partnership mode, is illustrated in Chart 3.1. The Director General of Labour Welfare at Ministry of labour and Employment (MoLE) is the main nodal agency responsible for implementing RSBY at the central level. However, at the state level the nodal agency can be from either of the department of health, labour and rural development. Each department has established an independent state nodal agency in the department, responsible for the activities related to the implementation of the scheme. The state nodal agencies are not only responsible for implementing; they are also expected to ensure competitive bidding and selection of insurance agency in the state.

ESIS, which has been implemented since 1952, has different institutional structure for collecting revenue, provision of health care services and monitoring of the activities.

The entire scheme is operationalised by Employee State Insurance Corporation, an autonomous agency of Government of India, under MoLE, from central level. ESI Corporation is also responsible for managing 23 model hospitals one in each state, while state health care delivery system management is done by the state health insurance agency. There are regional directors, responsible for administrative matters, premium collection and enrolment of the beneficiaries.

Chart 3.1

Institutional Structure of Rashtriya Swasthaya Bima Yojana (RSBY)



CGHS, unlike ESIS, is directly under the control of Ministry of Health and Family Welfare. At CGHS, Director General is the main person responsible for implementation of the scheme; however there is an Additional Director (AD), in all 25 CGHS states. They are responsible for implementation of CGHS at state level. Apart from the directors, chief medical officers and medical officers at the network health care delivery centres of CGHS are responsible for their respective centres.

The oldest state sponsored health insurance scheme Yeshasvini Cooperative Farmers health insurance scheme of Karnataka has been implemented since 2003; apart from it Karnataka government also implements Vajapayee Arogyasri Scheme since 2009. However the institutional framework of both the schemes, within the state is different.

Yeshasvini Trust implements Yeshasvini under the aegis of Department of cooperative of Government of Karnataka, with representation from Government of Karnataka,

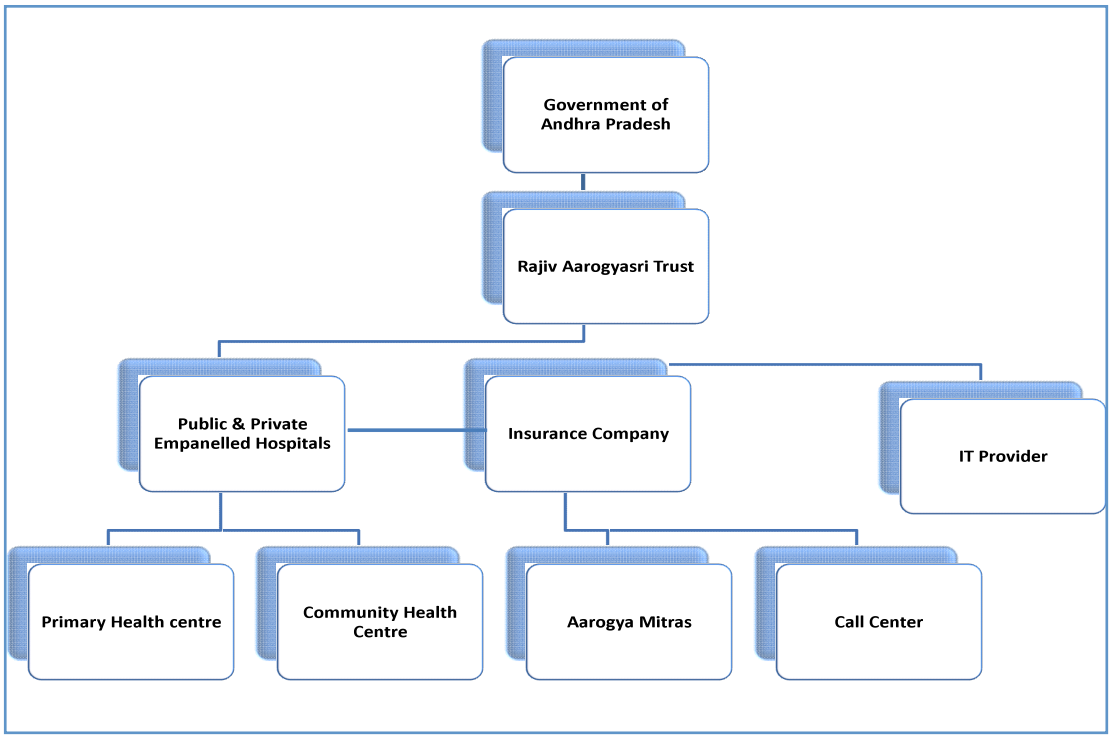
doctors, practitioners and the actual implementing agency. However, the Third Party Administrator (TPA), the Family Health Plan Limited, does the actual implementation of the scheme, in terms of empanelment of hospitals and providing services. In contrast, Vajapayee Arogyasri is implemented through Department of Health and Family Welfare, Government of Karnataka and the trust managing the scheme is Suvarna Arogya Suraksha Trust (SAS). SAS is also responsible for paying the network hospitals, enrolment and monitoring the scheme.

The Tamil Nadu health insurance scheme is directly implemented by the government through an independent society formed under Tamil Nadu Health system project (TNHSP). Like RSBY, this scheme is also a public-private partnership, where government is playing the regulatory role and the insurer is STAR health. The TNHSP, which is responsible for overall implementation of the scheme, is steered by committee under the chairmanship of chief secretary and convened by the project director of the TNHSP. STAR health acts as lead insurance company of a consortium of insurance agencies that is responsible for enrolment, empanelment of network hospital processing claims and monitoring of the scheme. They are also responsible through the district liaison officer, providing information of services to end-user and provide information. They are also responsible for providing information through call centres and contact point at each and every hospital. At the district level, from government side, the department of revenue is responsible for overseeing the program. The committee of representatives of various departments under chairmanship of district collector oversees the entire scheme.

Unlike Tamil Nadu, the health insurance scheme in Andhra Pradesh is implemented through a trust, like in Karnataka and not a society as can be seen from (Chart 3.2). Rajiv Aarogyasri Trust under the Government of Andhra Pradesh has an overall responsibility of implementing the scheme in the state. Like the state of Tamil Nadu most of the scheme is implemented by STAR health, responsible for enrolment, empanelment of hospitals, processing claims and monitoring of the scheme. STAR is also responsible for recruitment of Arogyamithra's, field level first contact person for the beneficiaries responsible for facilitating access to health care services. STAR is also responsible for managing call centres, and for facilitating access to health care services by beneficiaries.

Chart 3.2

Institutional framework of Rajiv Aarogyasri Scheme (AP)



Aarogyasri Trust also empanels hospitals, mainly public health care hospital and few private health care hospitals. They are also responsible for ensuring facilitation of health care access of beneficiaries whose primary contact points are primary health care centres or community health care centres. They are also responsible for establishing IT network and playing crucial role in the process.

3.3 Monitoring and Evaluation

There is very limited monitoring of schemes in the absence of robust and reliable data. Even in oldest running CGHS and ESIS, there is hardly any process for taking action on the basis of data that has been generated and reported. Hence, the expenditure under these schemes continues to rise, disproportionate to the rise in covered population (CGHS) and inadequate level of utilization (ESIS).

Most schemes state sponsored schemes use package rates, and disease wise claims as key indicators for monitoring. To be able to monitor these schemes effectively the trust (in most cases) needs to increase its capacity and resources dedicated to the purpose. The government on the other hand, needs to come up with clear guidelines for monitoring and evaluation practices of such schemes.

Except Rajiv Aarogyasri scheme in Andhra Pradesh, the schemes do not have routine inspection of hospitals as a part of institutional framework. Most visit hospitals only in case of complaints. RSBY monitors scheme carefully through real time data that is collected nationally. Over a period of time, the scheme will be able to offer insightful data relating to morbidity, incidence and burden of disease, gaps in healthcare etc. But the best intentions and design of RSBY seem to be seriously constrained by limited human resources dedicated to the scheme (Table 3.1). The scheme covers approximately 80 million individuals (RSBY, 2011) pan India but has a workforce of less than 10 at the centre and approximately 100 at the state level. Going by Rajiv Aarogyasri standards (5000 staff including 117 people in the Trust) for 70 million individuals, RSBY has a dire need for improving its staff strength.

3.4 Internal control mechanisms

Having staff strength is not enough to control a health insurance scheme provided by the government due to complexities involved and very limited experience. Indian health sector is characterized by unusually high OOP expenditure, ever expanding private sector and poor public sector investments in health, altogether resulting in poor health indicators. The health insurance as a financing tool not only needs to achieve goals of health insurance (financial risk protection and risk pooling) but also address these issues.

Any health insurance scheme in India, therefore needs to control private sector activity, ensure participation from all stakeholders, target the most vulnerable populations but not at the cost of others and control costs among other things. The schemes targeting the poor seem to be mushrooming too quickly without much thought given to involved complexities. As a result, the private sector (insurer, TPA and private provides) seems to benefit the most among all stakeholders from these schemes. The tertiary care focus of schemes is not necessarily enough to cater to the health needs of the poor, though it would be a bit premature to discard the benefits accruing to the BPL populations. The schemes warrant further study to ensure that the benefit package and costs thereof, inclusion of private sector and target populations are adequate. The control mechanisms can then be designed in the wake of adequacy of various aspects.

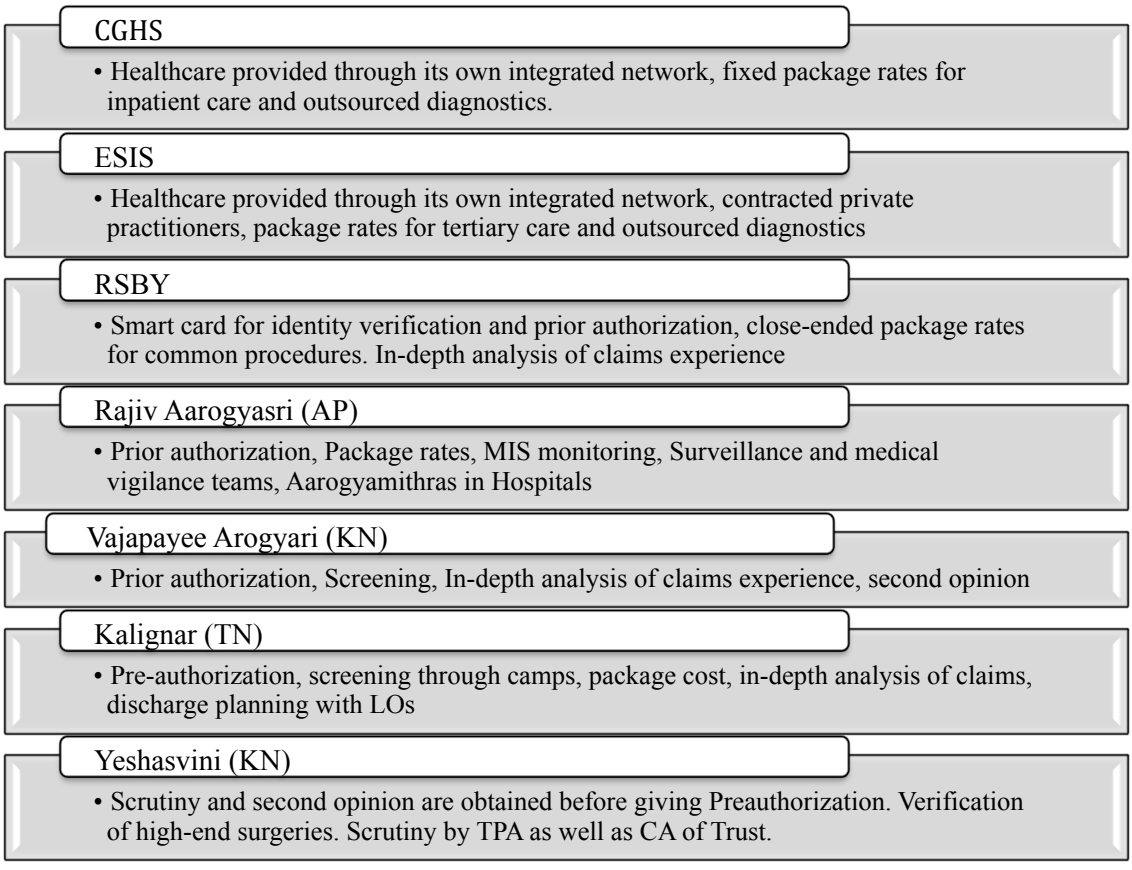
3.4.1 Cost containment

Cost containment under health insurance is a broad area that encompasses all features including benefit package, provider payment mechanisms, monitoring, claims processing, fraud control, data analysis, course correction, IT innovations and medical technology among other variables. Most of these features have been discussed in detail in other sections of this report. But what is worth pointing out is the over reliance on TPAs or insurer for cost containment. The two agencies from private sector follow the dictum of profit maximization and hardly have any incentives to contain costs.

However, the closed ended benefit packages and pre authorization seem to be useful tools introduced by health insurance schemes in terms of containing costs of healthcare provision by the government (Chart 3.3). IT has been used extensively by most of the schemes to administer and monitor schemes. This infrastructure that has been built by schemes is an asset that must be preserved and utilized to provide risk protection and care.

Chart 3.3

Cost containment mechanisms under various schemes



Source: Extracted from respective scheme documents and published reports

3.5 The Enrolment Process

All the health insurance schemes, supported by the government, state or central level have got very specific target beneficiaries. Except for the ESIS and CGHS most of the target beneficiaries are those for whom access to health care is limited due to financial constraints, resulting in lower utilization of health care services and poor health outcomes. An important observation here is that except for Yeshasvini, in all the other schemes, the target beneficiary unit is not an individual but entire family, with a family size of five members. Another point of difference is that except for RSBY, which has an enrolment premium of 30 INR per year per family and Yeshasvini, all the schemes are free of any charge for the target population.

Another important point of difference across the schemes is the enrolment period. While in RSBY, Rajiv Aarogyasri, both schemes in Karnataka and newly launched schemes in Himachal Pradesh and Delhi, the enrolment is for the period of one year. In other words, the beneficiary needs to undergo enrolment process every year. As far as the Kalaignar scheme, the enrolment period is for four years, for ESIS is till the person is working in the formal sector, and even after retirement he can avail services by paying one time life premium. For CGHS, the enrolment is for the period of 5 years, however, the beneficiary automatically gets re-enrolled after a period of 5 years.

In schemes such as RSBY, Kalaignar, Rajiv Aarogyasri, Yeshasvini, Vajapayee Arogyasri, where there is a private health insurer or TPA, the responsibility of enrolment is on the insurance provider. In most of the cases enrolment is done through smart cards, where each family is issued a smart card, having biometric details of the family members insured. However, the process of smart card issuance varies across the scheme, for Rajiv Aarogyasri the cards are issued on the spots, while for Kalaignar the information was collected in the field during the first four months of implementation of the scheme and then the smart cards are issued later, which can be collected from the office of district collector, and in such case there is a potential of card not reaching the beneficiary. In case people have not been able to get their card issued, the next stop would be district collector. The Village Administrative Officers (VAO) has a crucial role to play during the enrolment process and post enrolment, in facilitating access to health care. The VAOs are somewhat similar to Aarogyamithras in Andhra Pradesh.

Under RSBY, the smart cards are issued in the field itself, the head of the household needs to be present and in his or her absence the process cannot be followed and this has been one of the reason cited for lower enrolment in certain areas where the scheme

is being implemented. However, the RSBY card has the mechanism to ensure portability across the state, ensuring access to health is not dependent on geographical location. The ESIS has very recently finished the process of issuance of smart to the beneficiaries. Enrolment under ESIS is done through the regional directorates.

3.6. The Premium Collection Process

In most of the government-supported schemes there is no premium paid by the target beneficiaries. The government generally pays the premium, while the premium amount varies according to the scheme and type of benefit coverage. The accompanying Table (Figure 3.5) throws up disparities in premium rates across different schemes in addition to giving an over view of the premium rates. As seen from the table, the premium paid by beneficiaries of ESIS and CGHS is dependent on their pay grade, which is progressive in nature. However, in both the cases there is a wage ceiling, and in the case of ESIS, which is currently Rs. 15,000 but gets revised periodically on the bases of the consumer price index for industrial workers, and this would affect the eligibility criteria of the people who can access services. It is also to be noted that for ESIS, the responsibility of premium collection lies with respective regional directors. The premium collected at the regional levels is channelled to ESI Corporation from where it gets reallocated to state ESIS at the rate of Rs. 1,200 per beneficiary.

Under RSBY the premium rates vary from Rs. 440 to Rs. 750 across states, depending on the competitiveness of the bidding process and political economy. The premium is jointly paid by the central and the state government, where the contribution of centre is in the ratio of 3:1 (75% of central govt. and the state contribution is 25%), except for North Eastern states where the contribution of central government and state government is in the order of 9:1 respectively. Based on the number of people enrolled, state contributes to the insurance agency first followed by the central government contribution. The 30 rupees charged for enrolment remains with the state nodal agency, which are used for administrative and communication purposes. Like RSBY, for rest of the state sponsored schemes like Kalaignar and Rajiv Aarogyasri, the contribution is done by the government based on the enrolment, except for Yeshasvini where contribution is collected from the farmers by the insurance company directly.

Table 3.2

Premium Rates and Coverage Amount under Different Schemes

Scheme	Average Premium Rates* (in Rs.)	Coverage Amount (in Rs.)
ESIS	2340-11700[a]	Unlimited
CGHS	600-6000[a]	Unlimited
RSBY	440 to 750 INR	30,000 per family per year
Rajiv Aarogyasri Scheme (AP)	267	150,000 per family per year with additional buffer of 50,000
Vajapayee Arogyasri (KN)	NA	150,000 per family per year with additional buffer of 50,000
Kalaignar (TN)	469	100,000 per family (floating over 4 years)
Yeshasvini (KN)	150	200,000 per person
RSBY Plus (HP)	NA	175,000 over the RSBY cover of 30,000

*- Per family per year
a-Range for min to max. Salary (Grade pay)
b-Range for different product.
c- Per person from 2008-09 data on PHI by TAC.
NA- Not Applicable, Scheme does not charge any amount.
Source: Scheme Documents and Annual Reports of various schemes

A quick look at the above Table (Table 3.2) raises questions about the premium setting process of various schemes. The RSBY charges a premium in the range of Rs. 440 - Rs. 750 for a cover of Rs. 30,000, whereas the premium for a cover of Rs. 200,000 (100,000 + 50,000 buffer) under Rajiv Aarogyasri Scheme is Rs. 267, nearly half of RSBY. ESIS and CGHS that provide comprehensive care also seem to be following no regulation, as there is wide variation in the premium rates under two schemes (Rs. 2340-11700 vs. Rs. 600-6000).

3.7. Claims Processing

In terms of claims processing, schemes where there is a defined role for insurance companies, claim processing is also the responsibility of the insurance companies and in all the cases it is paperless for the beneficiary. With respect to RSBY, the TPA enrolled by respective insurance company is responsible for processing claims and this is done through a representative of insurance company at the network hospital. Once the beneficiary reaches the network hospital, the company representative using smart

card of the beneficiary, list him/her for service access and ensures availability of funds as well as coverage of the package. Once approved by the doctors of the network hospital and service provision, same amount is deducted from the smart card of the beneficiary. The payment is made to the network hospital later.

Similar kind of process is followed under Kalaignar and Rajiv Aarogyasri, wherein once the patient gets registered through the representative of insurance company at the network hospital, he or she undergoes pre authorisation process. The only difference is the elaborate pre authorisation process, where pre authorisation diagnosis and procedures are sent to the insurance company electronically for approval. Following this procedure, the panels of medical doctors approve the claim, based on the need and then services are provided to the beneficiary. Post services data is updated again to the insurance provider and approval of it is needed for claim settlement.

In respect to CGHS and ESIS, where services are accessed from the private health care facility, similar type of claim procedure is followed. The only difference being that there is no role of TPA in approval of services. Once the doctors or representative from CGHS or ESIS approve the services, beneficiaries are free to access services from any empanelled hospital. The empanelled hospital then sends bills for reimbursement to CGHS or ESIS. The role of TPA is defined here, in validating the procedure and the package rate. Once it is in accordance to the pre agreed package rates they are sent for reimbursement.

In all the cases, once the claims are approved, reimbursement is done through electronic transfers to the network hospitals. The time required for this entire process varies across schemes, and in case where insurance companies are involved in entire process, the time required is much lesser than the schemes with limited role of insurance companies.

3.8. Widespread Use of Information Technology Systems

In several of the latest health insurance initiatives, especially the state and central government-led schemes, the process of enrolment, claim processing and monitoring & evaluation are being ensured in a seamless fashion made possible by an excellent front-end and back-end facilities. In the government-sponsored schemes, such as, RSBY, Kalaignar, Rajiv Aarogyasri, ESIS, etc., enrolment of the beneficiaries is ensured using smart card. Most of the smart cards have biometric chip, containing information on beneficiary families, which includes name of person, thumb impression and

photographs in certain cases and amount available for accessing services. Except for RSBY, where there is a fee of 30 INR to get smart card issued, for all other schemes, which are designed around smart card have no fees to be provided for issuance. This electronic smart card allows portability across the network hospitals and for RSBY across the geographical hospital.

The most crucial role of IT is in processing claims and monitoring entire scheme. As mentioned before, smart card allows insurance company to undertake pre authorization process, based on availability of funds and approval of package in the scheme. It is the same system, which allows following the pre authorization procedure, based on transfer of electronic data from the network hospital to the insurance company. Creating the possibility of transferring digital x-rays and other reports for pre and post authorization process online enhances its usability in Kalaignar and Rajiv Aarogyasri.

The Yeshasvini and Vajapayee Arogyasri schemes also uses IT system for electronic claim processing and monitoring of the scheme performance. The ESIS and CGHS have recently taken automation process. ESIS is under the process of developing fully integrated monitoring information system, which will enable the corporation for speeding up the process and enhancing efficiency. CGHS also in the last two years have installed OPD software and very recently started using UTITSL for claim processing.

3.9. Choosing the providers

The responsibility of identifying network hospitals, in schemes where there are insurance providers, lies with the insurance company. However, the nodal agency has a role in setting criteria for empanelment and monitoring the performance and taking necessary action in case of inappropriateness in service provision of any sort.

The RSBY has laid empanelment criteria of 10 inpatient beds, fully equipped medical, surgical, diagnostic facility, qualified doctors and nursing staff, operation theatre, and registration requirement. Through this process, they have empanelled 4923 private and 2267 government hospital in their network of service providers.

Table 3.3

Distribution of Network Hospitals

Scheme	Networked Hospitals (2009-10)		Total
	Public	Private	
ESIS	148 (42%)	202 (58%)	350
CGHS	0 (0%)	401 (100%)	401
RSBY	2267 (32%)	4923 (68%)	7190
Rajiv Aarogyasri Scheme (AP)	97 (29%)	241 (71%)	338
Vajapayee Aarogyasri Scheme (KN)	8 (5%)	86 (95%)	94
Kaliagnar (TN)	20 (3%)	643 (97%)	663
Yeshasvini (KN)	29 (6%)	421 (94%)	450
Source: Various scheme documents and published reports			

The Kalaignar model has a network of total 663 hospitals, inclusive of public and private hospitals. However, the share of public hospital is much smaller than the private hospital, there are only 20 public hospital empanelled out of 663 total empanelled hospital. The empanelled hospitals are graded in 5 categories, A+, A, B, C and C-based on the facilities and infrastructure of the hospital. The basic minimum requirement, apart from the number of beds and quality infrastructure, was having two ventilators as an important empanelment criterion. Rajiv Aarogyasri, which is also implemented by STAR health, also follows similar process and criteria. It has currently 241 private and 97 government hospitals empanelled, with public hospital numbers much higher compared to those empanelled in Kalaignar.

As far as the Karnataka schemes are concerned, Yeshasvini and Vajapayee Arogyasri have different empanelment criteria and number of hospital network. For Yeshasvini, the empanelment criteria are minimum of 15 inpatient beds, with intensive care unit, neo natal intensive care unit, operation theatre, ambulance and qualified doctors. Through these criteria they have empanelled 450 service providers under this scheme. The Vajapayee Aarogyasri scheme has more stringent requirement compared to the other scheme. The empanelment criteria includes at least 50 beds, well equipped operation theatre, post operative facilities, round the clock laboratories and radiology facilities and availability of specialist doctors. Through these criteria they have been able to empanel 94 hospitals.

The ESIS has 350 private and 148 self-owned hospitals as part of their network while the rest are empanelled. CGHS provides care with a network of 562 private and self owned 682 wellness centres. The empanelment criteria for both the schemes have been same, the main criteria is number of inpatient beds, 100 for metropolitan cities and 50 for other cities.

3.10. The missing focus on quality

Several of the health insurance schemes suffer from poor monitoring. Little or no data collection on patient safety and quality processes, no quality reporting requirements, focus on structures and staffing for empanelment, little follow-up unless someone complains, and no incentives for quality performance, all these aspects of health insurance schemes point towards the fact that there is poor or missing focus on quality. It is may be too early to expect quality consciousness as most schemes are in their nascent phase where enrolment, extending benefit packages and awareness among stakeholders is rightly the prime focus.

3.10.1 Accreditation of facilities

Accreditation is being used as a criterion for ensuring quality of providers by schemes. The process of accreditation of empanelled hospitals has recently seen an upward trend, ensuring the quality of services provided by the state supported heath insurance scheme, visible from efforts of RSBY and Kalaignar health insurance scheme. The RSBY team is working with states and insurers to develop an incentive based quality management system for providers (e.g., a system where hospitals are graded according to specific quality parameters and hospitals with better quality are paid at a higher rate by insurers).

The Tamil Nadu Health Systems Project (TNHSP) has started the accreditation activities in 12 Government Hospitals in a very limited time of 12 months period, and these are hospitals empanelled under the state supported health insurance scheme. The preparation of 12 Government Hospitals towards NABH standards is being carried out by addressing the major issues at each of the 12 hospitals in respect of civil and electrical works, documentation of hospital policy manual, purchase of equipments, obtaining licenses and statutory obligations, increasing manpower, condemnation of old materials, display of signboards, completion of Self – Assessment, conduct of

training on equipment maintenance, basic life support, medical record maintenance, internal audit, etc.

The challenge is for small hospitals that are unequipped to match any accreditation standards but play an important role in provision of health care especially in smaller cities and towns. NABH's criteria for empanelment are very stringent as NABH also empanels hospitals that cater to medical tourism in the country. Licensing is an important step towards quality that precedes accreditation and hospitals must be supported and encouraged to obtain license through proper incentives via health insurance.

Accreditation as a criterion for empanelment can serve an important role if the state government via health insurance scheme or via direct empanelment facilitates investments in infrastructure in a stepwise manner. There are lessons to be learnt from international experience with using accreditation as a tool for improvements in quality of care. But it is worth remembering that evidence points to the fact that carrot rather than stick works better in terms of encouraging achievement of standards for accreditation among providers.

3.12. Summing Up

The rapidity with which health insurance schemes for the poor are sprouting across the country raises concerns regarding the readiness of our pre existing institutions to manage them effectively. There is limited experience with the government as well as private institutions to manage such programs. Innovative organisational structures have been formed for designing, implementing and monitoring schemes like RSBY, Rajiv Aaorgyasri and Kalaignar. The key features used for cost containment, i.e. closed ended benefit packages and pre authorization seem to be useful tools introduced by schemes in terms of containing costs of healthcare provision by the government. The IT infrastructure that has been built by schemes is also an asset that must be preserved and utilized to provide risk protection and care.

At present, the lack of robust backend infrastructure that can provide quality care either in the private or public sector in underserved areas makes the effectiveness of insurance schemes questionable. The tilting balance towards private sector in the network hospitals raises concerns regarding the health of the public sector that is underfunded and remains so even in the event of government's policy to raise public expenditure on healthcare via health insurance for the poor.

Chapter 4

Governance and Regulation of Health Insurance Models

4.1. Introduction

Health insurance can be used as a tool to improve access to healthcare and reduce catastrophic expenditures only if the objectives of the insurance program are clearly defined and backed by a well thought out plan of implementation. This requires serious thinking and planning on all aspects of a health insurance program including – target community, provision of care, governance of insurance, management of risk, and constant monitoring to improve the whole process.

The first question that needs to be answered is regarding the objectives. This is at the heart of any health insurance program guiding all other aspects. The objectives could be multifarious – solving the problem of access to care, reducing impoverishment due to catastrophic health expenditures, providing better quality of care or the need for the state to offer a health insurance program. If the objectives are not clearly defined and understood, the probabilities of failure increase manifold.

Once the objectives are defined, one can focus on other aspects like **governance** of the insurance program. The general rules for good governance can be simply put together as, align incentives and make information available, transparent and accountable. However, the implementation of these rules is not so simple. It requires making choices in the five dimensions of governance - decision making structures, stakeholder participation, transparency and information, supervision and regulation, and consistency and stability, and ensuring that these choices are aligned with each other and appropriate to the context. (World Bank, 2008)

The context, in which most government sponsored/subsidised health insurance schemes have been proliferating in India in the recent past, is the government's concern for social security of vulnerable populations; access to healthcare and its financing being a major concern. With the high economic growth rates for last couple of decades, the government's confidence in being able to provide the desired social security to the most needy has increased fervently.

As a result, in the last decade many state governments, central government and private organisations introduced demand side health financing mechanisms to provide

necessary protection to the vulnerable populations, in states and nationally. Apart from some exceptions most schemes have failed owing to their poor design, lack of accountability at the state level, missing efforts towards sustenance, poor monitoring, lack of clarity among stakeholders regarding their responsibilities and poor uptake of the scheme by its beneficiaries (RSBY, 2010).

4.2. Governance and Health Insurance

4.2.1. Decision making structures

The Central Government Health Scheme (CGHS) is operated by the Director CGHS, who is directly appointed under the Ministry of Health. The funds of CGHS are allocated from the Ministry of Health and Family Welfare, and are shown under the budget of the Department of Health. There is no separate autonomous fund manager for CGHS, which is a key feature of any self-sustaining health insurance scheme. Details of inflow and outflow of funds at all levels is not available and that raises questions about the planning process of the department in the absence of such basic data. A quick look at the following Expenditure summary for last five years shows that 17-22% of total expenditure is on Administration (Salaries and Establishments) which is definitely on the higher side highlighting ineffective administration (Table 4.1).

Table 4.1

Expenditure Summary of CGHS

(Rs. in millions)

	2005-06	2006-07	2007-08	2008-09	2009-10(RE)
Salaries and Establishments	1,729	1,918	2,042	3,233	4,285
Supplies & Materials	1,503	2,055	2,630	2,264	2,054
PORB + PPSS	2,732	3,501	4,393	5,004	5,463
Expenditure on salaried employees *	2,800	3,200	3,500	3,800	4,000
Total Expenditure	8,763	10,674	12,565	14,301	15,802

*An estimate; Source: The CGHS Report, 2009-10

As far as ESIS is concerned, a corporate body called the Employees' State Insurance Corporation (ESIC), an autonomous agency of the GOI manages all three important functions of ESIS including the insurance scheme, network of providers owned by the corporation and the outsourcing arrangement to private hospitals for provision of

tertiary care. Each state has its own ESI department that looks after the management of insurance and provision of care. The administration of ESIS is an expensive affair with the average cost of administration as high as 16-17 percent of total expenditure where as the total expenditure on medical care ranges from 54-60 percent Table 4.2. The decision-making machinery of ESIS is now evolving to provide more autonomy to state ESI departments by incorporating them into a corporation on the lines of ESIC. It is a move towards decentralization of power and may improve efficiency if the competition among states is encouraged and ESIC becomes a lean organisation.

Table 4.2

Income Expenditure Summary, ESIC

(Rs. in million)

	2005-06	2006-07	2007-08	2008-09	2009-10(RE)
Total Income	24,106	31,081	39,893	44,525	47,751
Expenditure Summary					
Medical Benefits	72,41	7,798	9,248	11,232	22,361
Total Benefits	9,990	10,545	12,142	15,039	26,982
Administration	2,110	2,214	2,480	4,127	5,457
Total Expenditure	12,780	13,501	15,488	20,662	33,990

Source: ESIC, various Annual Reports

The profit margin of ESIC has increased from 36 percent of total revenue in 2001-02 (Gupta et al., 2004) to 54 percent in 2008-09. But unlike the self-sustaining commercial insurers the scheme has not employed any experts to provide guidance on risk management or investment strategies. As can be seen from Investment status of ESIC provided below, all the surplus funds are kept with either the Nationalised banks as fixed deposits or as special deposits with the central Government Table 4.3. There is a need for change in regulation to make this scheme more efficient in financial affairs.

Table 4.3

Summary of ESIC funds investment

(Rs. in million)

Reserve Fund	2004-05	2005-06	2006-07	2007-08	2008-09
Fixed deposits with public sector banks	55,174	64,985	80,961	103,883	124,779
Special deposit with Central Government	52,226	56,404	60,916	65,789	71,053
Total Funds	107,400	121,389	141,877	169,673	195,832

Source: ESIC, various Annual Reports

On the other hand, the Rajiv Aarogyasri scheme is owned and managed by the Aarogyasri Health Care Trust under the chairmanship of chief minister of Andhra Pradesh. The trust includes representatives from various government agencies and professional organisations. The following Chart 4.1 summarizes the key decision makers and their responsibilities. It is interesting to note that all the decision making from financial management to monitoring of the scheme is done by the Trust with some power shared by the Insurance Company. The two other stakeholders are more of implementers and there is no external oversight. The chief minister is a part of the Trust and there is no regulatory body subjecting the Trust and providers to any insurance specific regulation. The only regulation is through the Insurance Company (Star Health Insurance Company) that is registered with IRDA.

In the absence of any financial data it is difficult to comment on the risk management and financial planning strategies of Aarogyasri. But since the Trust and not the Insurer is responsible for the financial planning and risk management, there is a need for capacity building in the Trust. Also, an external regulatory body that not only regulates the Insurer but also the Trust and conduct of Aarogyasri network hospitals is required to check for any collusion or corruption activities.

Chart 4.1

Decision makers and their responsibilities under Rajiv Aarogyasri Scheme

Decision maker	Oversight of the scheme	Financial Management/Planning	Package of services	Selecting providers of care	Monitoring and Evaluation
Aarogyasri Trust	✔	✔	✔	✔	✔
Insurer			✔	✔	
Health care providers					
Aarogyamit-hras					

Decision maker	Contract with Insurer	Price setting	Awareness of the scheme	Enrolment	Claims processing and payment
Aarogyasri Trust	✔	✔			✔
Insurer		✔	✔	✔	✔
Health care providers			✔	✔	
Aarogyami-thras			✔	✔	

Source: Results for Development Institute, Bergkvist S., "Moving towards Universal Health Coverage: Aarogyasri Case Study", 2010

The Rashtriya Swasthya Bima Yojana (RSBY) appears to have made a good start with clearly defined objectives. The scheme has also incorporated simple rules for good governance by aligning incentives and making information available and transparent at all levels. There are six decision makers in the scheme - The Central Government, State Government, State Nodal Agency, Insurance Company, Network Hospitals and NGOs. The decisions made by each one of them are presented in the accompanying Chart 4.2. It is noteworthy that though the Central Government is involved in most decisions it is not alone. The state nodal agency or the state government takes active part in decision making in most aspects. The state nodal agency is empowered enough to take important decisions like the choice of providers of care and selection of insurers.

Chart 4.2

Decision makers and their responsibilities under RSBY

Decision maker	Oversight of the scheme	Financial Management /Planning	Package of services	Selecting providers of care	Monitoring and Evaluation
Central Government	✔	✔	✔		✔
State Government			✔		
State Nodal Agency	✔	✔			✔
Insurer/TPA				✔	✔
NGOs/Other Partners					
Providers of Care					

Decision maker	Contract with Insurer	Actuarial Analysis	Awarenes s of the scheme	Enrolment	Claims processing and payment
Central Government					
State Government					
State Nodal Agency	✔		✔	✔	
Insurer/TPA		✔	✔	✔	✔
NGOs/Other Partners			✔	✔	
Providers of Care					

Source: Swarup A, Jain N, "RSBY – A case study from India", Oct 2010

In the case of Yeshasvini scheme which is owned by the Yeshasvini Co-operative Farmers Health Care Trust, it is governed by a board of twelve trustees - six from the Department of Co-operation including its Principal Secretary who acts as chair of the Trust, the Director of the Karnataka Health Department, and five additional appointed trustees who usually are from the medical profession. Although the co-operative department facilitates the contact with the cooperative sector, it is worth pointing out that the cooperative societies have the main load. It might therefore be advisable to replace trustees from the government by elected representatives of the cooperatives.

The board of trustees governs the scheme and approves claims, charts the development of the scheme, sets growth targets, and approves inclusion of new hospitals without external oversight. As is the case with other schemes, the board's capacity for risk management is very limited and there is no insurer involvement. This seriously mars

the scheme's ability to do risk management. It is not surprising that the claims ratio for the scheme was as high as 157 percent in 2005-06 (USAID, 2008). But for the subsidy from state government, the scheme cannot sustain itself. The good aspect of the scheme that can be replicated is related to marketing, which is achieved through the Karnataka Department of Co-operation and the Co-operative infrastructure. The partnership with department that enrols members saves huge costs of marketing and enrolment both.

4.2.2. Stakeholder participation

ESIC has adequate representation from all stakeholders including members representing employers and employees (beneficiaries), the central government, state governments, the medical profession and Parliament, administering the scheme. A Standing Committee constituted from among the members of the corporation acts as the executive body for the administration of the scheme. There is also a medical benefit council to advise the corporation on matters connected with the provision of medical benefits.

On the other hand, all stakeholders including the insurer, the Arogyamithras and the providers of care seem to be under the influence of the Aarogyasri Trust. This seriously restricts their freedom to act with independence. The Trust should appoint independent Technical Experts who will not only bring their expertise but also the missing independence and integrity to the scheme's implementation and design.

Right from the design of the scheme to its implementation, RSBY has followed a partnership model. The conceptual framework of RSBY was developed with support from many experts and agencies like World Bank and GTZ. The role of each of the stakeholders is clearly defined and that is both the strength and challenge for the scheme. The challenge for RSBY is to maintain the partnership model without the various stakeholders infringing into each other's boundaries, as the scheme evolves and incentives become more lucrative.

4.2.3. Transparency and information

Although the Central Government Health Scheme collects information on coverage, infrastructure and utilisation of its dispensaries but it does not publish the same. It neither reportsfinancial nor any other type of performance publicly. An official at CGHS points out the lack of capacity at regional level to collate and present relevant

information, as reason for non availability of data. This raises questions about their performance as well as transparency.

In order for CGHS to get efficient and more transparent it is important that it collects, processes and reports relevant information regularly. There is every need for CGHS to strengthen its capacity building program at regional levels. The under progress computerisation, and outsourcing of several processes including claims settlement with hospitals, can also help improve the transparency and information aspect.

At the other end of the spectrum, ESIC publishes Annual Reports and statistical abstracts that provide detailed information of enrolment, infrastructure, human resource, utlilisation, policy decisions, income & expenditure summary and investments of ESIC. Although, the financial decisions are not characterised by the modern day efficiency but ESIC is very well organised and transparent in reporting its financialperformance. It is an achievement to be consistent in reporting for last many decades even though collection, analysis and dissemination of information have so far been manual.

The Aarogyasri scheme is managed through a contract with the private company Star Health and Allied Insurance, for which the government of Karnataka was criticised for lack of transparency in the negotiation process. Although the Trust allows access to utilization data, it does not provide any details of financial performance. It is hard to get information on the flow of funds, financial reserves, salaries and wages and other such details. Yeshasvini is more transparent than other schemes of its league. It provides information including enrolment statistics, utilization and financial performance of the scheme publicly on its website.

RSBY provides more information than any other existing scheme, as it has been designed to do so. So far, most information regarding the scheme is being collected as the scheme is relatively new in most states but ultimately the board will need to curtail data collection to manage costs. The RSBY data of insurance companies can be used by IRDA in effective regulation of health insurance companies. Assuming that RSBY is the future of health insurance in India, Central government, IRDA and Independent research organizations need to take active part in early detection and remedy of all issues before the scheme expands to sections of the society other than the poorest.

4.2.4. Supervision and Regulation

The legislation concerning health insurance in India is fairly comprehensive in terms of licensing regulations, auditing, investment guidelines and financial controls. There is much less regulatory focus on the consumer of insurance products and the overall goals of health policy in the form of regulation that curbs risk selection, protects consumers, promotes health insurance companies and health products etc. The Insurance Regulatory and Development Authority (IRDA) bill was passed in December 1999 and the bill created a regulatory Authority to govern the insurance industry in India. It also enabled provisions for foreign players to enter the Indian market with de-tariffing and de-regulation occurring in 2000, which significantly opened up the market. The entire insurance industry including the health insurance segment is governed by the IRDA which has presented certain challenges and limitations with regard to streamlining a) establishing key controls of governance in terms of standardizing provider practice variations b) establishing pricing guidelines for hospitals services and procedures c) establishing standards for health insurers to track and report on claims data and utilization trends which can drive more effective underwriting processes for the industry.

The two main functions of the IRDA have been to a) establish market standards for operation (including consumer protection) and to b) oversee solvency and financial regulation matters. Overall, the IRDA protects the interests of the policyholders, promotes efficiency in the conduct of insurance, regulates the rates and terms and conditions of the policies offered by insurers and directs the maintenance of solvency margins.

The Government regularly reviews the performance of the CGHS. A committee of secretaries has been regularly reviewing the functioning of the CGHS since December 2008 and has been giving directions to the Ministry of Health & Family Welfare for making it beneficiary friendly and effective. Some of the recent initiatives are - Computerization of important functions, Introduction of Plastic cards, Accreditation of hospitals with National Accreditation Board for hospitals and health care providers (NABH) and labs with National Accreditation Board for Testing and Calibration Laboratories (NABL), and Medical Audit of Hospital Bills by a TPA. The attempts are being made towards greater transparency and efficiency, but it will be long before the results become visible. Although ESI hospitals follow Central Health Services guidelines and have SOPs, Hospital committees for death audits, infection control

committees etc, the compliance is poor. There are reported cases of poor infrastructure, shortage of medicines and substandard quality of available drugs at ESI hospitals.

It is noteworthy that most of the state sponsored or subsidized health insurance schemes are self-regulating. Their performance relies heavily on the performance of insurance companies who are partners in most cases. It is important for the government and IRDA to realize that in the absence of any specific regulations for the Trusts offering health insurance, the insurance companies and providers need to be stringently regulated to avoid cases of collusion and corruption at all levels including the topmost.

Simultaneously, there is a need to encourage the development of an alternate for profit maximising insurance company, to act as intermediaries. Amendments can be made to the current regulations to facilitate the development of non-profit health insurance bodies. If the solvency margins are lowered, even hospitals can act as providers of insurance. Integrating financing with service provisioning is considered one of the most cost effective options and would perhaps be suitable for India (Rao, 2004). The reduction of barriers to entry in the insurance arena could also lead to reorganisation of existing insurance companies and providers of care making them more efficient.

RSBY on the other hand, is an example of a scheme that is benefitting from supervision at multiple levels. The central government in association with the state nodal agency and Insurance companies regularly collects and processes the relevant information. The centralised server collects data on daily basis and the central government is quick to respond to any observed abnormalities. Concurrent evaluations are also being undertaken by a skilled group of people at the World Bank in association with GTZ.

4.2.5. Insurers and Providers

Apart from the five aspects of governance, another critical factor in the design of health insurance schemes is – the number of insurers and the relationship between insurers and providers. RSBY that follows a business model seems to be making good use of competition among the Insurance companies participating in the bidding process across states. The decision to restrict to one Insurer per district is also good as it avoids formation of several unsustainable pools struggling for enrolments in the long run.

The providers of care are the backbone of implementation and no good design can succeed without cooperation from providers. Rajiv Aarogyasri scheme in Andhra

Pradesh has been successful because it has proven effective in timely reimbursements that built trust with the private providers and increased their willingness to participate in the scheme (Mallipeddi et al., 2009). The providers of care and insurance company under RSBY are encouraged to see each other as partners in business.

4.3 Summing Up

The general rules for good governance, aligning incentives and making information available, transparent and accountable are not that simple to implement. The five dimensions of governance - decision making structures; stakeholder participation; transparency & information; supervision & regulation; and consistency & stability; need to be carefully weighed in the light of the context in which health insurance is evolving in India. The recent schemes are for the poor, so they need to be regulated very stringently as the poor populations are mostly illiterate and hardly able to protect themselves from the ill effects of any such insurance scheme.

The efficiency of the oldest running schemes is highly questionable as the administration costs of CGHS and ESIS are very high, there is very less accountability and transparency altogether making the cost of providing care unusually high. The new schemes on the other hand seem to be marred by concentrated decision-making power with a select few. Though these schemes are efficient as they use evolved IT systems to collate and report information but they seem to perform poorly in financial aspects with limited risk management capacity in the management. In the case of schemes where there is insurance involvement, there is the case of over reliance on the TPA and insurer, further adding to the cost of the insurance.

Chapter 5

The Problem of Asymmetric Information

- **Evidence on Moral Hazard, Adverse Selection and Malpractices**

5.1 Introduction:

The demand for medical care is both unpredictable and irregular. The uniqueness of these features that underlie market failure in health care produces enormous complexity leading to moral hazard, adverse selection and fraud in the public health arena. Moral hazard occurs when an insured demands excess treatment or over utilises facilities. Moral hazard may also encourage an insured to incur less on preventive care. One of the triggers of moral hazard is the high-cost treatment as health expenditure is expected to significantly and rapidly rise due to strong incentive to demand & consume health care, in excess of what is medically considered an optimum treatment.

However, moral hazard can be a trigger on both demand-side as well on the supply-side as well. Presence of asymmetric information between principal and agent (agency relationship) provides opportunity for the patients, the providers and the insurers to maximise individual gain in the health care market. While the patients have the incentive to indulge in excess demand, the providers, on the other hand, have much bigger advantage over the patients given the mystification of health care and the associated treatment. And therefore, the supplier-induced demand will result in providers indulging in providing unnecessary and expensive care. In other cases it may lead to increasing levels of inappropriate care, unnecessary treatment, excessive laboratory tests or overcharging. Changing incentives either on the demand side or on the supply side may reduce this moral hazard.

Adverse selection, on the other hand, occurs when high-risk individuals tend to get insurance cover when they get ill or those individuals with a potential risk of getting sick while low-risk individuals avoid getting insurance cover. Due to information asymmetry and pooling of unequal risks, high-risk individuals would tend to buy insurance. The problem of adverse selection seems to be more of an issue with the commercial health insurance and community health insurance schemes. The evidence says that the tremendous variation in terms of claims submitted annually for inpatient care in community health insurance schemes, ranging from 1.4 per 1,000 insured per year to more than 240 per 1,000 insured per year can be explained by Adverse

selection (Devadasan et. al, 2004). The financial results of the public carriers with respect to UHIS were also been because of adverse selection. (USAID, 2008) Administrators of these schemes continuously face the challenge of managing burgeoning claims. ACCORD community health insurance scheme manages the problem of adverse selection by encouraging the family to enrol as a unit and by having a definite collection period. (Devadasan et. al, 2004). Other simple measures used to manage adverse selection are mandatory enrolment and waiting period after enrolment.

Since majority of sponsored schemes have government as the major funding agency, and negligible or no contributions from the beneficiary, adverse selection does not seem to be much of an issue. But as these schemes expand and contributions from beneficiaries increase, adverse selection will be a concern.

5.2. The Hospitalisation Patterns Under Various Schemes

We examined various indicators to assess the problem of moral hazard. One of the indicators relate to hospitalisation rates under various schemes. Except ESIS and CGHS, the other publicly funded health insurance schemes (RSBY and State-schemes) cover only hospitalisation. As far as hospitalisation is concerned, wide variation can be observed from different schemes. The benchmark for comparison of hospitalisation rates of different schemes is against the state and national averages obtained from the National Sample Survey estimates for the year 2004. It may be noted that although it may not be a strict comparison year-on-year, but hospitalisation rates are not expected to behave abnormally, as at any given time period, only a marginal share of people access inpatient care (2-3%).

Table 5.1

Rates of Hospitalisation in RSBY-Implementing States, 2009-10

State	Hospitalisation per 1000 Beneficiary	NSSO	
		Rural	Urban
Assam	1	11	16
Bihar	12	10	10
Chhattisgarh	9	12	27
Delhi	34	-	11
Goa	1	0	0
Gujarat	42	29	36
Haryana	23	32	31
Himachal Pradesh	7	32	31
Jharkhand	12	9	22
Kerala	38	101	90
Maharashtra	14	30	36
Nagaland	25	-	-
Punjab	8	30	30
Tamil Nadu	10	37	37
Uttar Pradesh	21	13	20
Uttarakhand	6	17	19
West Bengal	11	23	35
Chandigarh	1	-	-
National Average	20	23	31

Source- author's calculation from 145 districts where RSBY has completed one year;
NSSO –Report N0. 507 Morbidity health care and condition of aged, Jan-June 2004

Data drawn from RSBY shows that hospitalisation rates (number of hospitalisation per thousand population) at the all-India level is about 20 per thousand. However, this is marked by extreme variation from about 38 per thousand in Kerala, to 34 per thousand in Delhi to as low as 1 per thousand in Assam. This is against an average of roughly 31 per thousand (in urban areas where large majority of hospitalisation takes place) for all-India from the National Sample Survey. It is fairly well documented in the literature about the health-seeking behaviour of people in the state of Kerala, where hospitalisation rates are way above the national average, at 90 per thousand as against 31 per thousand in urban area. Evidence from RSBY hospitalisation in the state of Kerala also shows the stark difference between the state and the national average, 38 per thousand as against 20 per thousand, almost a 1.5-fold higher hospital care.

On the other hand, due to low coverage of RSBY in states like Assam, Chandigarh, the rates of hospitalisation are extremely low at 1 per thousand. It turns out that Uttar Pradesh, accounted for the highest number of RSBY enrolees among states in India, which is estimated over 6 million, 7.5% of total enrolees in the country. In Assam and Karnataka, the number of enrolees was less than 0.15 million while Orissa's number is around 0.43 million during 2009-10. In the case of Karnataka, the hospitalisation rates appear to be low, as the number of enrolees are small but the primary reason being the state now also implementing two other major health insurance programs along with RSBY, namely, Yeshasvini and Vajapayee Arogyasri.

It is suggested that low rates of utilisation in RSBY states could be due to various factors. The major reasons among them include: i) lack of awareness about the scheme; ii) repressed utilisation of pre-existing disease conditions due to achievement of peak rates for several common disease in the first few years and then tapering of effect in the successive years; iii) longer enrolment period and exclusion of maternity benefits (both of these have been amended in the last few months).[7],[8]

Table 5.2

Hospitalisation Rates in State-Based Health Insurance Schemes

Scheme	Hospitalisation per 1000 Beneficiary	NSSO	
		Rural	Urban
ESIS	7.5	23	31
CGHS	22*	23	31
RSBY	20	23	31
Rajiv Aarogysri (AP)	5	22	28
Vajapayee Arogyshri (KN)	4	23	26
Kalaignar (TN)	4	37	37
Yesaswani (KN)	22	23	26
Private Health Insurance	64	23	31

Source – Authors calculation from Scheme documents/ Annual Reports/ web data.
*- Estimates; NSSO –Report N0. 507 Morbidity health care and condition of aged Jan-June 2004

As far as other state-government based programs and the private health insurance schemes are concerned, there is again significant variation in hospitalisation rates. The voluntary private health insurance scheme reported a rate of about 64; almost double

[7] See Palacios, R (2010), A New Approach to Providing Health Insurance to the Poor in India: The early experience of Rashtriya Swasthya Bima Yojna, RSBY Working Paper No.1.
[8] See Narayana D (2010), Review of the Rashtriya Swasthya Bima Yojana, Economic and Political Weekly, July 17, Vol. XLV, No.29.

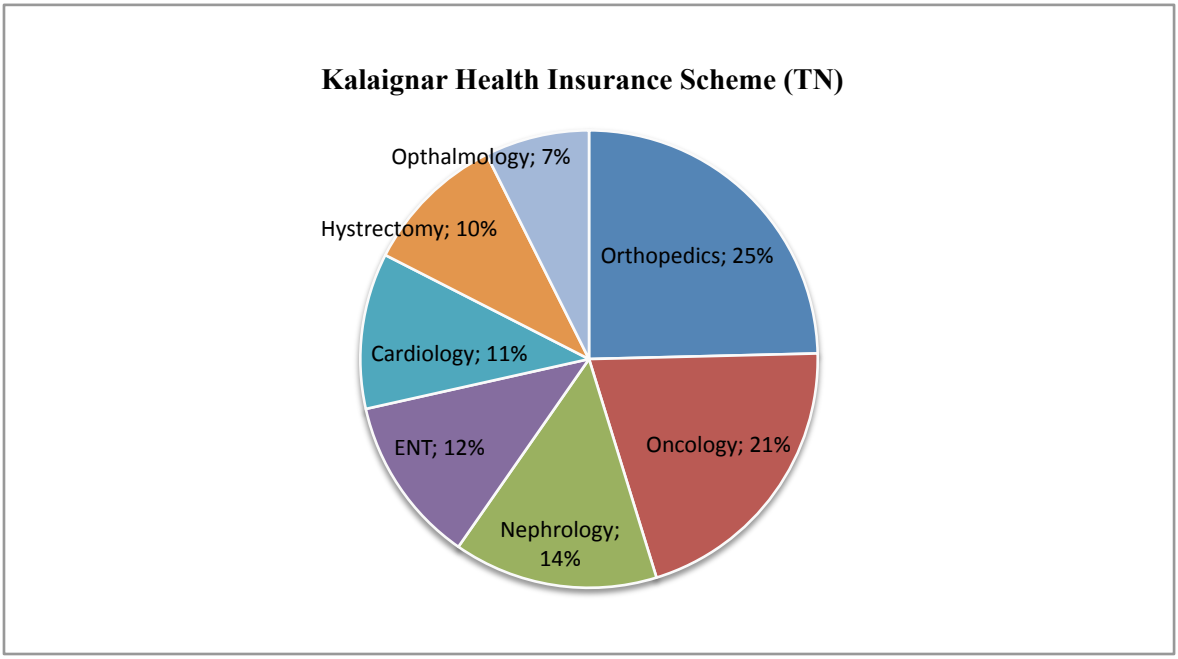
the rate than the national average. However, under state-based schemes, especially, Andhra Pradesh's Rajiv Aarogyasri and Tamil Nadu's Kalaignar, the hospitalisation rates appear quite lower than the national average, despite a near universal coverage for surgical care (at least in AP). This is due to the fact that Andhra Pradesh and Tamil Nadu model provides high-end, low frequency and rare diseases, while RSBY provides largely secondary care of high frequency and common diseases. On the other end of the spectrum, is voluntary private health insurance model, which seeks to cover both secondary and tertiary care hospitalisation.

An analysis of disease-wise distribution of hospitalisation shows interesting pattern, as in Chart 5.1. The major thrust of these programs appears to target the top-end, low frequency, high cost surgical procedures, especially the Rajiv Aarogyasri, Kalaignar and the private health insurance scheme. Oncology and cardiovascular disease account for the major share of hospitalisation across most schemes. For eg. the percentage claims of cardiological care are as high as 16% in AP (Rajiv Aarogyasri), 11% in TN (Kalaignar) and 88% under Vajapayee Arogyasri in Karnataka (initial period utilisation data). Oncology accounts for 20% cases in AP (Rajiv Aarogyasri), and 21% in TN (Kalaignar).

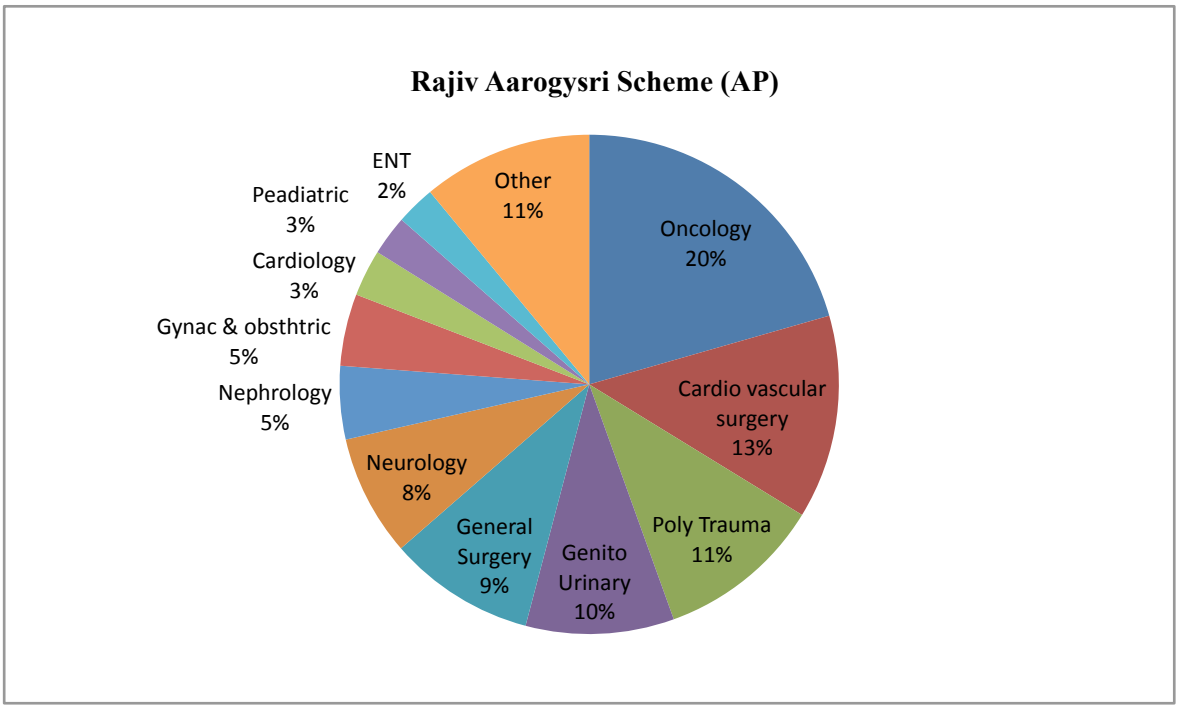
Apart from this ENT and ophthalmic procedures are also in significant numbers across schemes. On the other hand, infectious diseases that account for maximum morbidity in India, accounts for an insignificant number of cases. Under commercial health insurance the trend is little different, where 8% claims are of cardiac diseases, 4% for oncology and 12% claims are for infectious diseases (Chart 5.1).

Chart 5.1

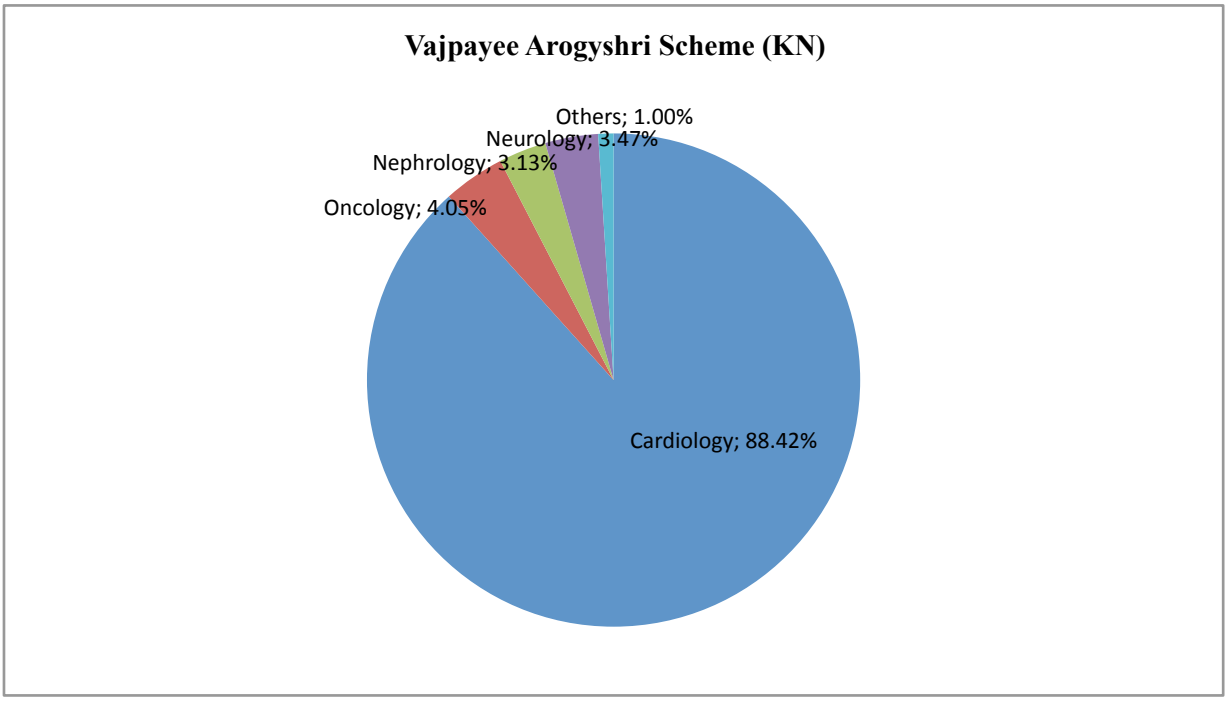
Disease-wise distribution of claims



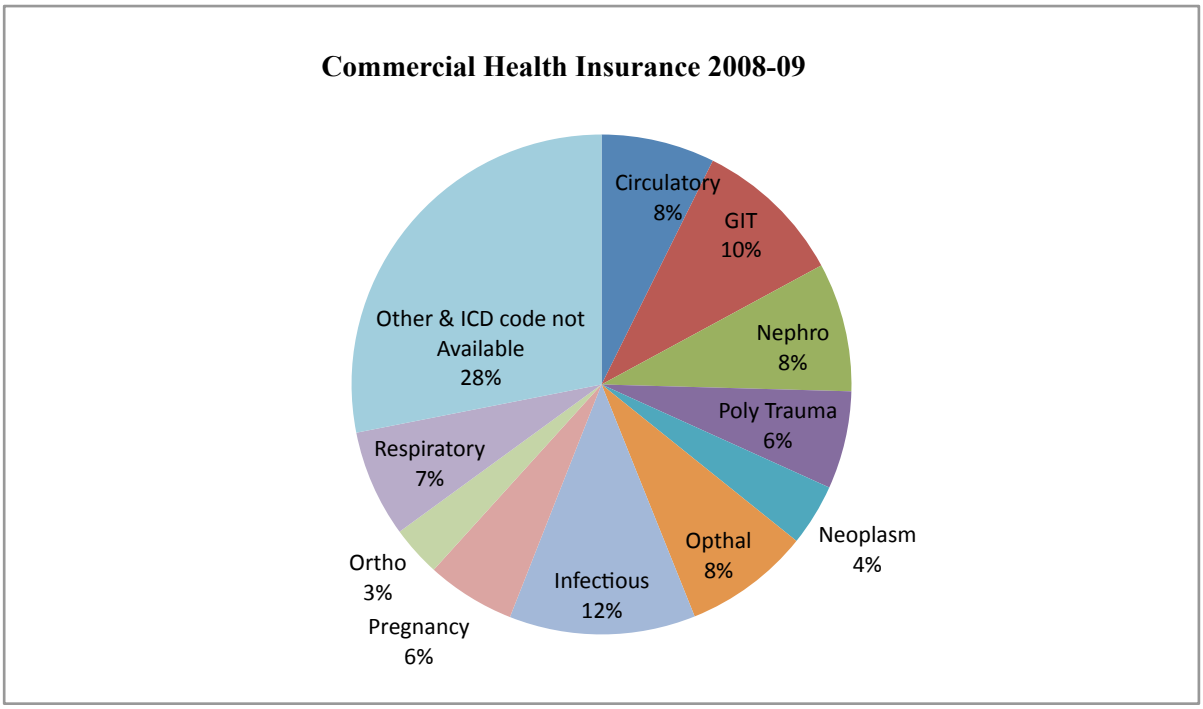
Source: Scheme document, procedure- wise report 2009-10



Source: Scheme document- surgeries/therapies, 2007-Oct 2010



Source: Scheme document - Disease- wise approved claims



Source: Health Insurance data TAC 2008-09

5.3. Expenditure Pattern under Different Programs

While hospitalisation episodes may provide us with some indication of excess demand for hospital services, the actual value of hospitalisation would serve to show the extent

of moral hazard. Data emerging from various schemes provide mixed evidence about average expenditure per hospitalisation. The average hospitalisation expenses of uninsured in India are about Rs. 8,851 (Rs. 11,553 in Private and Rs. 3,877 in government hospitals) during 2004. For the year 2009-10, the mean hospitalisation expenses of the private health insurance industry stood at Rs. 19,637 per annum. Even after factoring in medical inflation, hospitalisation under private health insurance is almost twice expensive than the expenditure incurred by the uninsured.

Table 5.3

RSBY - Average Hospitalisation Expenditure in Different States

RSBY State	Exp. Per Hospitalization (in Rs.)	
	RSBY	NSSO
Bihar	3,953	14,674
Chhattisgarh	4,040	4,317
Delhi	3,266	10,568
Gujarat	3,811	8,303
Haryana	4,989	13,626
Himachal Pradesh	4,856	7,649
Jharkhand	4,562	7,375
Kerala	3,127	4,954
Maharashtra	5,063	9,776
Orissa	4,191	6l660
Punjab	6,554	16,728
Tamil Nadu	886	10,747
Uttar Pradesh	5,689	8,907
Uttarakhand	5,278	14,925
West Bengal	5,970	8,715
National Average	4,262	8,851

Source - RSBY data for the year 2009-10; NSSO –Report N0. 507 Morbidity health care and condition of aged Jan-June 2004

While the expenses under medical insurance scheme are certainly higher than the average hospitalisation expenses for uninsured population, the evidence from three other schemes are alarming. This includes Rajiv Aarogyasri Scheme in Andhra Pradesh, followed by Tamil Nadu and CGHS. Mean hospitalisation expense under Tamil Nadu and the CGHS schemes are Rs. 33,720 and Rs. 25,000 respectively and the technically superior ambitious scheme of Rajiv Aarogyasri has an annual hospitalisation expense of Rs. 27,848 Per episode. While the current hospitalisation rates in Andhra Pradesh is much lower than the all-India figure, and yet inpatient expenses is four time higher than what an uninsured would have paid and more than

what the insured would have paid under private health insurance. The problem of moral hazard appears to be sweeping most of these publicly funded privately provided insurance schemes. Whether it is Andhra's Aarogyasri or Tamil Nadu's Kalaignar or the CGHS scheme, which is essentially publicly-funded but privately-provided, the mean hospitalisation expenses are extremely high, even higher than the commercial insurers. One could conjecture that in the context of publicly funded insurance schemes where third-party payment is made to a private provider, such as, TN, AP and CGHS, supply-side moral hazard appears to be loaded heavily in favour of private providers. It is worth observing that nearly all providers under TN and CGHS are private hospitals while in Andhra Pradesh, over 80% of the hospitalisation under Aarogyasri takes place in private hospitals. In contrast, in the context of privately-funded and privately-provided health care coverage, demand-side as well as supply-side moral hazard appears to be playing equal part on account of higher mean hospitalization expenses.

Table 5.4

Average Hospitalisation Expenditure - Scheme wise

Scheme	Exp. Per Beneficiary	Expenditure per Hospitalisation	
		Scheme[1]	NSSO
ESIS	379	28,599[c]	8,851
CGHS[b]	5,333	25,000	8,851
RSBY[#]	78	4,262	8,851
Rajiv Aarogysri (AP)[a]	128	27,848[a]	9,197
Vajapayee Arogysri (KN)	200*	60,000[*]	7,552
Kalaignar (TN)	148	33,720	10,747
Yesaswani (KN)	183	8,240	7,552
Private Health Insurance	1,250[d]	19,637	11,553

Source- Scheme document/Annual reports/web data
1-Not adjusted for case mix
#-Data for the year 2009-10 does not include enrolment or admin cost.
a-Estimate for the first year of the expenditure for scheme
b-sample data 2009
c-based on an estimated 60% of total medical expenditure being for inpatient treatment
d-Health Insurance data TAC, 2008-09
*-Estimates first year expenditure of the scheme
NSSO –Report N0. 507 Morbidity health care and condition of aged Jan-June 2004

On the other end of the spectrum is the centrally funded RSBY being implemented in 23 states of India. It is interesting to note that the mean expenditure per inpatient episode under RSBY appears one of the lowest at Rs. 4,262, half of expenditure as compared to households paying out-of-pocket. The mean expenditure under RSBY is

almost on par with households paying OOP when they access care from the public facility. If one were to accept this figure, the problem of moral hazard does not seem to be prevalent under the centrally sponsored scheme. However, this is not surprising given that most of empanelled hospitals are either medium-sized or lower-end facilities that are less expensive than the high-end specialities, since the maximum floater-coverage of RSBY is Rs. 30,000. Even in Himachal Pradesh, which is providing a top-up (benefit coverage over and above RSBY limits), the mean expenditure is still lower as the State government has introduced the top-up coverage only since April 2010. Another interesting aspect of the evidence comes from ESIS coverage. Expenditure on hospitalisation in the ESIS hospitals stood at Rs. 28,599 during 2009-10, which is at par with other schemes like Rajiv Aarogyasri (AP) and CGHS. The high per episode expenditure under ESIS can be explained by either the high administration costs or low utilisation rates.

5.4. The Emerging Malpractices and Corruption

Information asymmetry plays a spoiler in health sector, especially when the mode of risk pooling is through insurance mechanism. Under the scenario of health insurance, patients, insurers and providers have a unique position of their own to influence outcomes. Medical providers, especially, have a unique role in exaggerating claims and therefore unduly benefit from such outcomes, as they possess the capacity to influence treatment. Available data from various schemes suggest that rejected claims can vary markedly. The percentage of claims rejected (obtained by deducting claims approved from claims submitted) is highest among the commercial insurers. The percentage of claims rejected stood at 16% among commercial insurers, where as for Rajiv Aarogyasri scheme the rate is only 4%. Initial two months implementation period of Vajapayee Arogyasri has claims rejected at the rate of 12%. (Refer to Appendix 4)

Rate rejection of claims can also vary between different disease categories. Available evidence from the commercial insurance sector reveals that while the percentage of rejection (in value terms) is high in circulatory and malformations/deformations at 24% and 26%, it is lowest among eye procedures at 5%. Accidents accounted for roughly 17% while claims rejection is also equally high among neoplasm and nervous disorder at around 17-18%. Perinatal and pregnancy related rejections stood at roughly 20% and 14% respectively. (Refer to Appendix 5)

The health insurance industry has been marked by the large amount of fraudulent claims or attempts thereof. It has neither been easy to detect fraud nor manage it as monitoring individual claims or hospitals on regular basis is an expensive affair that adds to the overall cost of insurance thereby making it unattractive to consumers. Most health insurance schemes whether offered by the state or private insurers suffer from high claim ratios and over utilization.

Although, the fraud can happen at any point of the health insurance value chain but there are many examples of providers colluding with patients to milk insurance company or the scheme in the wake of poor vigilance. The providers tend to benefit the most from fraud through over billing and supplier induced demand efforts. It is not surprising at all that since the inception of Rajiv Aarogyasri scheme; cities of Andhra Pradesh have come up with dozens of new private hospitals. This is coupled with the growth in the number of beds in the already existing hospitals. By an estimate, whopping 1000 beds were added in the last few months in Hyderabad alone. It is noteworthy that the growth in number of private hospital beds is expected only if the existing ones are brimming with patients. By an estimate the current bed occupancy rate in empanelled hospitals is around 60 percent[9], with most of the city hospitals reporting 80-110 per cent bed occupancy. With the state government planning to add more treatments/procedures to the list of existing 938, the bed occupancy rate is likely to go up for Rajiv Aarogyasri empanelled hospitals.

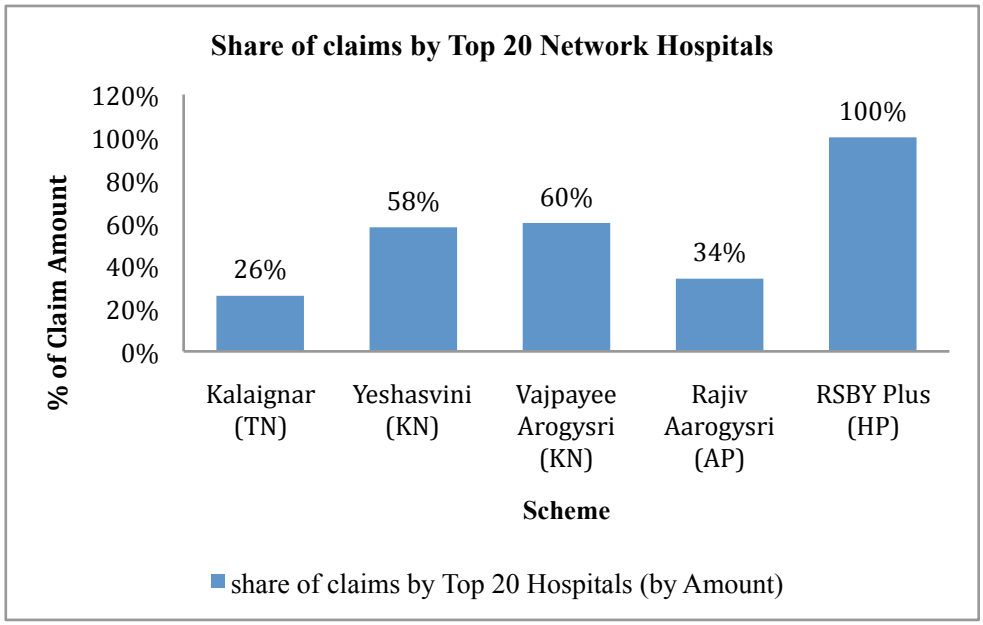
In terms of hospital fraud, there are many reported cases of irregularities in the implementation of the Aarogyasri scheme. In the Guntur district for example, three empanelled hospitals Nandana Critical Care Centre, BMR Multi-Specialty Hospital and Anjireddy Multi-Specialty Hospital were blacklisted for performing thousands of unnecessary operations. It was found that out of 1,141 cases, 68 per cent (776) were performed on women in the age group of 21 to 40 with 584 cases shared by these three hospitals. The Director General of Vigilance recommended the removal of three hospitals from the list and cancellation of their licenses[9]. In the same breath, 95 hospitals have been de-empanelled, delisted or suspended so far which is about 22 per

[9] Deccan Chronicle, "Aarogyasri: Government blacklists 3 Hospitals", 12 Feb 2009 http://www.deccanchronicle.com/vijayawada/arogyasri-government-blacklists-3-hospitals-869, Accessed 30 Oct 2010

cent of the empanelled hospitals owing to the reported cases of fraud and other reasons[10].

Chart 5.2

Top 20 Network Hospitals in pre authorised claims



Source: Scheme document/published reports

The utilisation patterns in the provider network shows an interesting trend Chart 5.2 of maximum claims from top 20 hospitals under various schemes. For e.g. nearly 60% claims under Vajapayee Arogyasri and Yeshasvini were made by top 20 hospitals in Karnataka. Rajiv Aarogyasri scheme also has 34% claims coming from top 20 hospitals and Kalaignar scheme has 26% claims made by top 20 hospitals. Newly launched scheme in HP, RSBY Plus has 100% of claims coming from top 20 hospitals. As per Family Health Plan Ltd. (FHPL), the implementation agency for Yeshasvini figures, Narayana Hrudayalaya (NH) alone claimed 32% of the total claimed amount for 15% of the total cases in 2008-09[11]. It is not surprising at all as the owner of NH Dr. Devi Prasad Shetty has been instrumental in the establishment and development of the scheme that was started in 2003 just two years after the establishment of NH with 500beds, 10 fully commissioned operating theatres (OTs), two cardiac catheterization laboratories and its own blood and valve banks. The bed occupancy rate in Karnataka

[10] Hospital Empanelment data, Rajiv Aarogyasri Health Care Trust, as on 11/08/2010
[11] Network Hospitals: Top 20 on the base of settled claims, 2008-09 Family Health Plan Ltd (FHPL) data

was reported to be as low as 35% at the time[12]. The latest philosophy of corporate hospitals since the introduction of health insurance schemes for the poor seems to be high volume at low cost, which is 180 degrees from the past strategy of high cost low volume treatments and NH has been a pioneer of this model.

Under RSBY**,** 60 hospitals, many of them in Uttar Pradesh, Bihar and Gujarat, have been found to file false insurance claims[13]. The most blatant case is that of district of Dangs in Gujarat where private sector hospitals had submitted false claims for several months before being discovered. The claims ratios in the district shot up to 200 per cent before the authorities could figure out a way to blacklist the hospitals[14].

The frauds under RSBY have been found to happen in collusion with patients, who are made to sign for costlier procedures irrespective of the actual treatment. Smart cards that are loaded with the funds have made it very easy for hospitals to make fraudulent claims. In some cases, hospitals claim money for patients who haven't got any care. Such patients are paid a small amount by the provider, which claims larger amount from insurance companies. However, since data flows on daily basis from hospitals to the Central Server it is possible for the vigilant officers to detect fraud. The labour ministry has removed those identified 60 hospitals from the panel of eligible hospitals.

The commercial health insurance industry paid out Rs. 4,087 crore in 2008-09 as claims, which was 41% higher than the claims paid in 2007-08 as per IRDA figures[15]. The claim ratios stood at more than 100% for both the years, implying that the claims paid exceeded the premium collected. Frauds in health insurance claims that relate to overstating of claims or manipulation of documents of non-existing hospitals, pharmacies etc or to cover-up non-disclosure of facts at the proposal stage have been identified as the major cause for high claims ratios in the industry.

Available evidence shows that 20-30% customers overstate incurred expenditure figures, as they believe that insurance companies will always pay lesser than what one

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[12] Khanna T, Rangan V K, Manocaran M, (2005) Narayana Hrudayalaya Heart Hospital: Cardiac Care for the Poor Harvard Business School, N9-505-078

[13] The Economic Times, (25 Oct 2010) "Check hospital pulse regularly to detect bogus claims: Insurers told" http://economictimes.indiatimes.com/personal-finance/insurance/insurance-news/Check-hospital-pulse-regularly-to-detect-bogus-claims-Insurers-told/articleshow/

[14] Palacios R., (2010) A new approach to providing health insurance to the poor in India: The early experience of Rashtriya Swasthya Bima Yojana, RSBY Working Paper #1,

[15] The Economic Times, (7 Aug 2010), "Insurers, IRDA building database to check fraud" http://economictimes.indiatimes.com/news/news-by-industry/banking/finance/finance/Insurers-Irda-building-database-to-check-fraud/articleshow/

claims, even if the assessment of the harm is accurate. It is difficult to assume significant improvement in the area of detecting and managing fraudulent claims, as there is a general belief among a portion of policyholders that there is nothing wrong in making a claim after the premiums have been paid for a few years. Insurers have a responsibility to ensure that there is an efficient mechanism in place to weed out such fraudulent attempts so that claims ratios remain healthy and IRDA should recognise and reward such initiatives by Insurance companies.

Chapter 6

Fiscal Sustainability and Scalability of Health Insurance Schemes

6.1. The Geometry of Health Insurance Coverage:

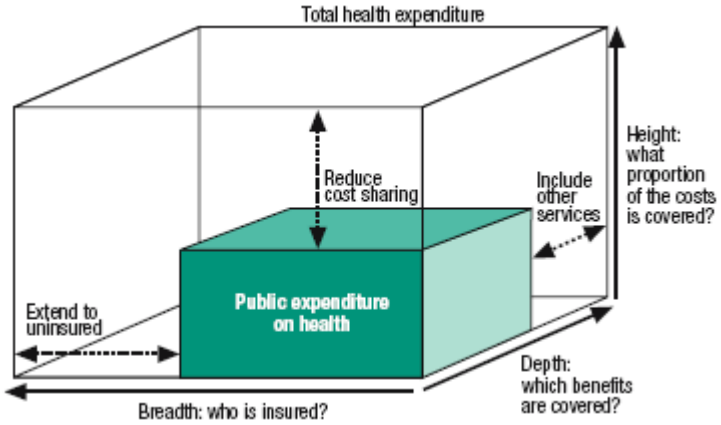
Global experience, both in highly industrialised countries as well as in low– and middle– income economies clearly demonstrate the importance of achieving universal coverage through either a purely tax-based regime or social health insurance mechanisms or a mix of both. In this section, using the framework adopted by the World Health Organisation in its World Health Report, 2008, we analyse the magnitude and extent of health insurance coverage in India's laboratory of innovation. The chart below illustrates what it takes a country/state to move up the ladder of universal health care by considering the breadth, depth and height of the coverage. So, the next question is what we mean by these terms. The breadth of the coverage denotes to the percentage of population covered by the insurance scheme – are the poor only covered or are all sections of society covered? The depth of the coverage relates to the extent of benefit packages offered in the scheme – does the benefit cover only hospitalisation or outpatient care as well or does it exclude pre-existing diseases? Height of the coverage, on the other hand, indicates the share of health care costs to prepayment and risk-pooling as against no prepayment and risk-sharing. While a tax-based system and social health insurance schemes rely on prepayment and risk-pooling mechanisms, households OOP, on the other hand, incurs costs at the point of delivery, exposing households to extreme vulnerability.

India's landscape of health insurance coverage has undergone tremendous change in the last three years since 2007. From about 75 million people covered (roughly about 16 million family beneficiaries) in 2007, the estimated number of people covered by health insurance has risen to an unprecedented levels, thanks to four important initiatives, by the central government (through RSBY) and state-sponsored schemes, such as, Rajiv Aarogyasri in Andhra Pradesh, Aligner Scheme in Tamil Nadu, Yeshasvini and Vajapayee Arogyasri in Karnataka. In 2010, along with private health insurance, social-insurance programs and publicly funded schemes, the number of people covered went up significantly to roughly about 302 million, almost one-fourth of the population. While the share of voluntary private health insurance has risen from 24 million in 2007 to about 55 million in 2010, the number covered through the two

old programs of social insurance schemes also increased from about 50 million in 2007 to roughly around 58.5 million in 2010. So, three of the giant schemes (RSBY, Rajiv Aarogyasri and Kalaignar) in a span of three years have a share of roughly 185 million, over one-fifth of India's population.

Chart 6.1

Breadth, Depth and Height of Health Insurance Schemes



Source: The World Health Organisation, World Health Report, 2008

Comparatively, the breadth of the coverage is by any global standards quite considerable and occurred at a rapid rate in a span of three years, and this feat could be achieved even among the vulnerable population and informal workers, where the penetration is otherwise difficult till recently. The commitment to equity and access to poor people is clearly visible, especially in the case of Andhra Pradesh, as it covers over 85% of the states' population. The realisation among the top leadership for the commitment to cover nearly all of the population despite their socio-economic status is quite commendable, since evidence clearly suggests that in India, its not only the poor but a large sections of above poverty line (APL) population also end up paying catastrophic payments and impoverishment due to illness.

As far the depth of coverage is concerned, except ESIS and CGHS, all the other schemes provide only hospitalisation cover to the beneficiaries. Depending on the coverage (the benefit package varies with premium rates), the commercial insurers normally do not provide outpatient coverage and excludes all pre-existing diseases. The RSBY, on the other hand, gives annual inpatient benefits of Rs. 30,000 on a floater basis for a family of five, without any conditions on pre-existing diseases. And, on the

other extreme are Rajiv Aarogyasri and Kalaignar schemes, wherein the maximum benefit package can go upto Rs. 2 lakhs for a defined 938 medical and surgical procedures for a family per annum in Andhra Pradesh. In Tamil Nadu, the number of procedures defined was 626 with a maximum of Rs. One lakh per family for four years.

In terms of benefit-packages, the sharp distinction between various schemes is visible as their priorities appear to be weighed due to different considerations and perceptions. While RSBY's package has been very lukewarm with limited mandate that it had set itself, Rajiv Aarogyasri and Kalaignar scheme have been the most ambitious of all the programs. The disproportionate thrust of these programs lies on tertiary care. For instance, CGHS, which currently covers about 3 million population in the country, spends nearly Rs. 16,000 million, as against Rajiv Aarogyasri, which spends in the range of Rs. 12,000 million for population coverage of about 85% of its 84 million people. The Tamil Nadu's model again covers only high-end surgical procedures to its 13.6 million families, accounting to over 35 million population with a total outlay of over Rs. 5,173 million during 2009-10. The state which has the distinction of being one of the model state in terms of its proactive approach in strengthening public health systems with a primary care focus, appears to have catapulted to the 'consumer demand' and pulls & pressures of commercial medical care fraternity, by giving primacy to tertiary care in private sector.

As far as the health care cost is concerned, the major thrust of the current health insurance schemes are on inpatient care. Except the commercial insurance sector, where households and employers pitch in to cover the costs of premium, in other schemes such as ESIS and CGHS, contributions from employees and employers are obtained. Therefore, the critical indicator of prepayment and risk-pooling is taken into account significantly in these two programs. In fact, the contribution under the CGHS by the employees is at a very minimal level. On the other hand, in all the other schemes, the government makes the contribution – central or state government depends on the scheme. And therefore, there is an element of prepayment and risk pooling, and so the share of entire burden of specialised hospital care for the covered population are borne by the government. To that level, the risk of paying catastrophic costs on illness and the likelihood of being impoverished due to hospitalisation is reduced to a considerable extent. However, available evidence from the National Health Accounts clearly reveals the importance and relevance of outpatient care in health care spending

of households, especially expenditure on drugs that accounts for almost 70-80% of all spending by the households. In the case of RSBY, even the hospitalisation relates only to secondary care, leaving a huge burden still on households.

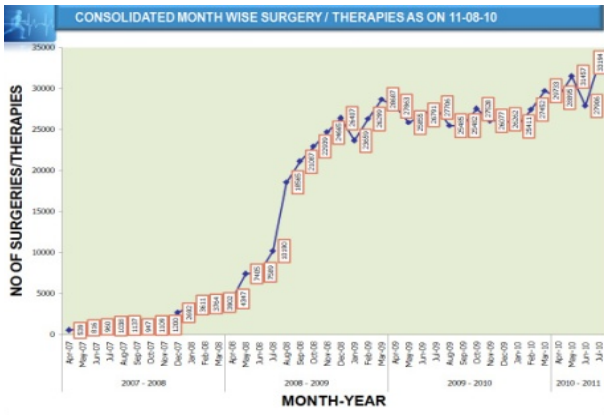
6.2 How sustainable are Current Health Insurance Schemes?

The continuance of various innovative health insurance schemes ultimately hinges on the financial sustainability of the scheme. An early warning for financial trouble could come from claims ratios of the scheme. A continued and significant rise in claims ratios can threaten the continuance of the scheme. Insurers would be forced to hike premiums continuously. In the voluntary private health insurance markets, an unsustainable hike in premiums would have deleterious effect on individual policies, as individuals may be forced to opt out of the scheme while employers may cut back on the contributions. While publicly funded health insurance schemes may factor in rising premiums in the short-run, an increasing hospitalisation rates along with a rising premium is likely to drain the government coffers.

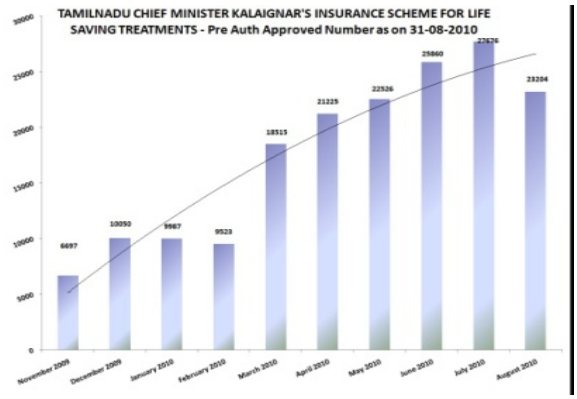
Utilization (Chart 6.2) under various schemes shows an increasing trend over a period of time. As the four graphs reflect, initially the utilization under schemes is low but it escalates suddenly with the rising awareness about the schemes and/or the reaching out of the schemes to more and more beneficiaries (via health camps in the case of Rajiv Aarogyasri). The schemes then tend to plateau after a steep rise. However, steadily increasing utilisation in all schemes makes demand for more and more public funds. This trend is universal and is now being perceived as a concern by various stakeholders including Government, Civil Societies, Media, and Academics etc.

Chart 6.2

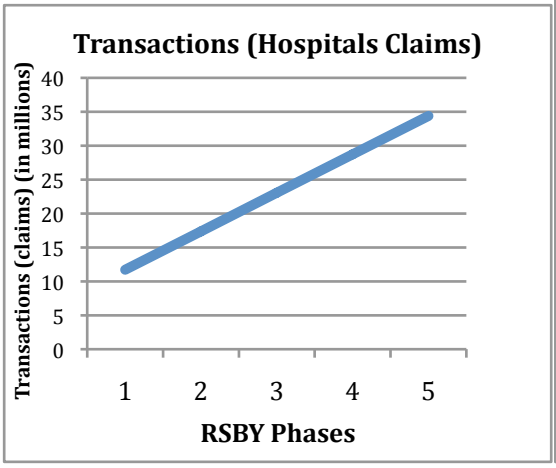
Utilization trends under various schemes

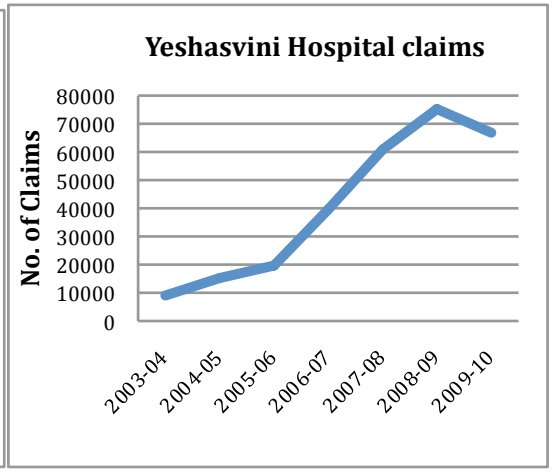


Utilisation trend of Rajiv Aarogyasri Scheme (AP)



Utilisation trend of Kalaignar Health Insurance Scheme





Source-Scheme document/published reports; RSBY transaction of Hospitals claims (Avg. 3 transactions required to approve one claim

The current landscape of various health insurance schemes in the country provides an interesting facet of its rapid expansion in a span of the last 5 years, especially the publicly provided health insurance models. Although voluntary private health insurance accounts for roughly 54% of all health insurance expenditure in the country, the rest 46% of health insurance spending comes from the government sponsored/social health insurance schemes. Although CGHS and ESIS have together accounted for a sizeable share in the past, the last ten years have witnessed rapid expansion of other insurance schemes. The commercial insurance sector has equally expanded in the last ten years since 1999, with the opening of the voluntary private health insurance markets to private players (which was hitherto dominated by the four public sector undertakings). Expenditure on health insurance as a whole (public and

private put together) accounts for roughly 6% of all health spending in the country and about 10% of all public expenditure put together (Tables 1 & 2).

Table 6.1

Contributions of Health Insurance and Tertiary Care Spending

(In lakhs of Rs.)

State	ESIS	CGHS	Expenditure on RSBY & Other State schemes*	Total Expenditure on Health Insurance	Exp. On Tertiary Care	Total Health Expenditure
Andhra Pradesh	16,418	6,611	120,000	143,029	63,102	385,439
Assam	1,742	128	86	1,956	69,852	210,296
Bihar	15,11	1,311	5,204	8,026	55,471	215,414
Chhattisgarh	689	0	3,052	3741	6,753	21,3262
Delhi	49,036	59,475	278	108,789		210,488
Gujarat	11,182	893	4,007	16,082	64,145	214,217
Goa	1378	0	24	1,402		210,234
Haryana	6,873	0	4,753	11,626	47,633	214,963
Himachal Pradesh	1,290	0	509	1,799	23,697	210,719
Jharkhand	1,504	347	2,146	3,997	18,981	212,356
Karnataka	10,691	7,764	5,500	23,955	95,374	281,155
Kerala	9,817	812	5,984	16,613	72,068	216,194
Madhya Pradesh	4,696	1,647	0	6,343	14,933	210,210
Maharashtra	22,904	4,691	7,144	34,739	96,340	217,354
Orissa	2,983	342	0	3,325	33,806	210,210
Punjab	10,569	0	868	11,437	44,307	211,078
Rajasthan	7,566	1,571		9,137	86,849	210,210
Tamil Nadu	16,910	3,165	52,547	72,622	87,596	317,562
Uttar Pradesh	7,683	8,266	10,045	25,994	120,153	812,923
Uttarakhand	521	347	315	1,183	16,381	803,193
West Bengal	14,105	4,518	4,097	22,720	151,879	806,975
Others	14,292	61,626a	299	76,217		268,681
PHI (2009-10)			700,000	700,000		
Total (in lakhs)	214,359	160,015	926,861	1,301,235	1,212,681	6,863,136
Total (in crores)	2,144	1,600	9,269	13,013	12,127	68,631

Source- 1) Tertiary care Exp. Demand for grants for respective States, 2010-11, RE for 2009-10.
2) RSBY 2009-10 expenditure for 145 districts that have completed one year.
3) ESIC & CGHS from the annual reports/data from respective department.
4) State scheme estimates of expenditure for 2009-10 5) Total Health expenditure compiled from RBI website The state finance- study of budget (Volume-II).
Note- 1) Total Health expenditure include Central Expenditure + State Expenditure 2) RSBY figures are the allocations by the central government in respective states while rest are allocation from the state based scheme 3) NA- data not available for state scheme

Table 6.2

Contributions of Health Insurance and Tertiary Care Spending

(In percent)

State	Contribution of Social to Health Insurance (ESIS+CGHS)	Contribution of RSBY/State Scheme to Health Insurance	Health Insurance to health Expenditure	Tertiary Care to Health Expenditure	Tertiary Care + Health Insurance to Health Expenditure
Andhra Pradesh	16%	84%	37%	16%	53%
Assam	96%	4%	1%	33%	34%
Bihar	35%	65%	4%	26%	29%
Chhattisgarh	18%	82%	2%	3%	5%
Delhi	100%	0%	52%	NA	NA
Gujarat	75%	25%	8%	30%	37%
Haryana	59%	41%	5%	22%	28%
Himachal Pradesh	72%	28%	1%	11%	12%
Jharkhand	46%	54%	2%	9%	11%
Karnataka	77%	23%	9%	34%	42%
Kerala	64%	36%	8%	33%	41%
Madhya Pradesh	100%	NA	3%	7%	10%
Maharashtra	79%	21%	16%	44%	60%
Orissa	100%	NA	2%	16%	18%
Punjab	92%	8%	5%	21%	26%
Rajasthan	100%	NA	4%	41%	46%
Tamil Nadu	28%	72%	23%	28%	50%
Uttar Pradesh	61%	39%	3%	15%	18%
Uttarrakhand	73%	27%	0%	2%	2%
West Bengal	82%	18%	3%	19%	22%
Others		0%	28%		28%
TOTAL	29%	71%	19%	18%	37%

Source- 1) Tertiary care Exp. Demand for grants for respective States, 2010-11, RE for 2009-10; NA – Not Available
2) RSBY 2009-10 expenditure for 145 districts that have completed one year.
3) ESIC & CGHS from the annual reports/data from respective department.
4) State scheme estimates of expenditure for 2009-10 5) Total Health expenditure compiled from RBI website The state finance- study of budget (Volume-II).
Note- 1) Total Health expenditure include Central Expenditure + State Expenditure 2) RSBY figures are the allocations by the central government in respective states while rest are allocation from the state based scheme 3) NA- data not available for state scheme

A sudden shift in the contribution of publicly funded schemes, such as, RSBY, Rajiv Aarogyasri in Andhra Pradesh, Kalaignar's Scheme in Tamil Nadu has outweighed CGHS and ESIS in most of these states in the last 3-4 years. Except ESIS, where employer and employee contribute a certain percentage of premium along with the state government, in other schemes, the entire contribution of premium is made by the government themselves, by completely subsidizing the premiums of households. Rajiv

Aarogyasri in Andhra Pradesh and Kalaignar scheme in Tamil Nadu are the most influential models in terms of coverage as well as in terms of spending by the respective states. In fact, expenditure on health insurance as percentage of total public spending accounts for over one-third and one-fifth in the respective states. The only other state that has shown such a trend is Delhi, where health insurance funds account for roughly 52% of all government expenditure. However, Delhi's predominance in the social insurance scheme is to do with the concentration of coverage of both CGHS and ESIS. Moreover, in a strict sense, CGHS cannot be called a health insurance program, as there is hardly any pooling with no involvement of any health insurance companies or trust.

Unfortunately, the focus of the insurance programs be it the social, private or publicly funded programs are targeted at specialists and hospital-care. While households with no financial risk protection end up spending catastrophic payments in accessing care from the hospitals, a large proportion of impoverishment occurs due to spending on outpatient care, especially drugs. But insurance programs typically end up focusing disproportionately on tertiary care. Except ESIS, hospital-centrism is the focus of all these programs. Experience of developed countries suggest that undue thrust on tertiary care can lead to poor value for money. Several middle-income countries such as, Chile, Brazil, Thailand have also witnessed transition from the earlier hospital-centric thrust to primary care, on its way towards achieving universal coverage (WHR, WHO 2008).

Evidence collated from several sources suggests that a disproportionate share of government spending on health care is spent on tertiary care. This is especially true after the launch of publicly funded health insurance programs recently. Tertiary care expenditure of government spending works to little over one-fifth of all government expenditure during 2009-10. However, if one were to combine budget allocation for tertiary care spending (on hospitals and medical colleges) and spending through the health insurance programs, both of which focuses on tertiary care, the overall spending in the country on hospital care works out to around 37%. In fact, states such as, Delhi, Andhra Pradesh and Tamil Nadu are already spending well over half of all government expenditure on tertiary care. Delhi's disproportionate spending on hospital care is well-known for a long time, which now accounts for about 52% percent, Andhra Pradesh and Tamil Nadu have appeared to have fallen pray to a distorted consumer demand, misguided medical profession and the medico-industrial complex. The Tamil Nadu

model, which is credited being a pioneer on several fronts in strengthening public health systems and especially on primary care, unfortunately went on to replicate its neighbor to the detriment of its long-term health system strengthening efforts.

6.3. Can rising Claims Ratio Scuttle the Nascent Health Insurance Programs?

The voluntary private health insurance sector has often registered claims ratio close to or over 100% in the past few years. This has spurred commercial insurers to hike premium rates significantly and is also been the bone of contention for stopping cashless transactions for patients availing hospital care from the provider network hospitals. Table 6.3 clearly reveals that the claims paid ratio has been rising steadily and has exceeded 100% mark during the last two years, 2007-08 and 2008-09. A combination of demand side moral hazard and a supply side provider-induced distortion has appeared to have lead to claims ratio growing considerably above limits, making private health insurance business unfeasible.

Commercial insurance companies have turned their attention at over-billing by hospitals in order to reduce claims ratio in addition to raising premiums. Recently, all the four Public Sector insurance companies (from July 1, 2010) have stopped cashless facilities for few months involving about 150 big hospitals under the Preferred Provider Network. It is reported that commercial insurers under both public and private sector appears to be spending anywhere between Rs. 8 crores to Rs. 10 crores annually to unearth fraud.

However, the government-funded health insurance schemes, which have a experience of 1-3 years in the past, shows lots of variation between states in terms of claims ratio. Although its too early to predict Tamil Nadu's scheme, Andhra Pradesh model has clearly demonstrated the urgency of taking a hard look at the growing claims ratio, which has already reached about 89% during 2009-10, the third year of its operations. The premium amount is certainly not going to remain stable at the range of Rs. 260-Rs. 290 in the following years.

Table 6.3

Claims Ratio in RSBY-Implementing States, 2009-10

State	Avg. Hosp. Ratio per smart card	Bun Out Ratio
Assam	0.24%	27.70%
Bihar	4.33%	60.61%
Chhattisgarh	3.27%	48.47%
Delhi	11.76%	115.86%
Goa	0.20%	27.65%
Gujarat	14.53%	128.37%
Haryana	7.96%	82.14%
Himachal Pradesh	2.32%	46.46%
Jharkhand	4.36%	67.77%
Kerala	13.45%	100.20%
Maharashtra	4.78%	66.04%
Nagaland	8.89%	136.14%
Punjab	2.82%	54.51%
Tamil Nadu	3.46%	46.86%
Uttar Pradesh	7.21%	86.97%
Uttarakhand	2.19%	50.16%
West Bengal	3.92%	72.08%
Chandigarh	0.31%	32.94%
Total	7.15%	79.66%

Source: Data/Information from the Scheme
Note : Data from 145 districts that have completed one yearof RSBY policy in Nov 2010

Table 6.4

Scheme-wise Claims Ratio, 2009-10

Scheme	Claims ratio
ESIS	NA
CGHS	NA
RSBY	80%
Rajiv Aarogysri (AP)	89%
Vajapayee Arogyshri (KN)	NA
Kalaignar (TN)	80%
Yeshaswani (KN)	157%
Vimo SEWA (CBHI)	162%
Private Health Insurance	103%

Source: Scheme document/Annual report/web data

On the other hand, the RSBY, which covers about 23 states and close to about 80 million, the experience with claims ratio is mixed. The variation in burnout ratio (as

against claims ratio) is reported to be in the range of 27-136% in a large number of districts. This is given the fact in several districts; the utilisation rate of hospitals is extremely low. Commercial insurers are obviously making usurious profits. However, several districts reportedly exceeded 100 percent mark, a pointer to be concerned with future premium rate setting. In these districts, the hospitalisation rates are extremely high and insurers are reported to making losses[16].

The claims-ratio statistics of the Yeshasvini scheme in Karnataka clearly shows the growing graph of claims ratio every passing year, from 109% in its first year of its operation in 2003-04, to 150% in 2004-05 and 157% in 2005-06. While much of the costs of the premium are subsidised by the scheme, it remains to be seen if in future such a trend will continue.

[16] See Palacios, Robert (2010), A New Approach to Providing Health Insurance to the Poor in India: The early experience of Rashtriya Swasthya Bima Yojna, Draft Document, RSBY Working Paper No.1, October, 2010.

Chapter 7

The Way Forward

7.1. Are the Current Publicly-funded Schemes Sustainable and Scalable?

7.1.1. How Scalable is RSBY?

The current coverage of RSBY is limited – both the breadth and depth of the coverage. Currently, RSBY covers only the BPL population, using the BPL number derived from the Planning Commission. Several states believe that this list is very limited while states own list may be much larger than that of the Planning Commission. Andhra Pradesh, for instance, uses its own list of BPL population, although the state is already covering most of its population through Rajiv Aarogyasri, both BPL and APL population. It is already covering about 85% of its population, as the rest (mostly higher-middle income and the affluent) are either covered by voluntary private health insurance or are benefited by the government's scheme of civil servants reimbursement for medical benefits.

States like Kerala had committed to cover the non-poor as part of its strategy to extend insurance coverage to its APL population. Currently, it covers about 5.2 million population. On the other hand, Himachal Pradesh provides a top-up to RSBY coverage, in terms of benefit package. For the poor families, in addition to Rs. 30,000 annual coverage, the Himachal Pradesh is offering benefit package for critical cover involving several surgical procedures that can be obtained from both public and private empanelled hospitals situated in the state as well as in the neighbouring states, given the proximity to the states' population. Interestingly, the Delhi government is also going in the direction of Himachal Pradesh, by providing a top-up to RSBY, thereby extending the facilities of critical care to vulnerable sections of society.

In order to control rising budget cost of the state governments due to state-specific schemes, such as, Rajiv Aarogyasri in AP, Kalaignar in TN, Vajapayee Arogyasri in Karnataka, state governments could consider tweaking their original schemes by leveraging RSBY. As far as breadth of the coverage is concerned, if states want to extend the coverage of to APL population, it can do so by using state's own resources for providing cover over and above the RSBY cut-off. In addition, the present benefit coverage of Rs. 30,000 per annum per family looks quite low under RSBY compared to Rajiv Aarogyasri, which offers benefit to the extent of over five times that of RSBY. States that are struggling to control costs and unable to sustain these schemes needs to

consider seriously topping up benefit package over and above RSBY limits, which would to some extent, tide over financial difficulties.

7.1.2. The Role of CGHS and ESIS

Nearly 60 years since the initiation of two of the oldest health insurance schemes in the country (ESIS in 1952 and CGHS in 1954), they together now cover about 58.5 million beneficiaries (ESIS – 55.5 million and CGHS – 3 million). While the annual expenditure of ESIS stood at around Rs. 19,900 million, the CGHS, on the other hand, spent about Rs. 16,000 million, with per capita spending of beneficiaries being Rs. 379 and Rs. 5,333 respectively. The later model is clearly driven by high-end tertiary care being catered largely by big corporate private health facilities (about 562 private hospitals empanelled) while the former relies heavily on its own facilities, thereby reducing supply-side moral hazard to a great extent. Given that ESIS has an extensive network of health facilities that caters to both outpatient (1398 ESI dispensaries and 44 ISM units) and inpatient facilities (about 150 hospitals), is expected to filter out unnecessary tertiary care at the primary referral levels. CGHS on the other hand, although covers outpatient care, the referral systems are not quite robust, with only a few dispensaries while beneficiaries can walk up to tertiary care facilities without referrals.

7.2. The Road Ahead: An Integrated Model

Currently, there are three central government health insurance schemes run by two ministries (CGHS by the Ministry of Health and Family Welfare) and (ESIS and RSBY administered by the Ministry of Employment and Labour). While the CGHS covers largely the civil servants, ESIS is by and large caters to organized/formal sector employees and RSBY facilitates access to secondary care to informal/poor population. These three models independently facilitate health care treatment for different sets of population. Although the care provided by these schemes differ largely, with CGHS driven more by tertiary care, while RSBY catering to secondary care and ESIS providing all three levels of care in addition to referrals outside its system for certain tertiary care.

All three programs provide a diverse mix of population (rich-poor, formal-informal, sick-healthy, old-young). It therefore makes eminent sense to integrate all three schemes under one umbrella in order to leverage the volume and velocity of risk pools

and funds. A combined entity of ESIS-RSBY-CGHS would create a ready pool of about 138 million population with a staggering budget of roughly Rs. 40,000 million with a per capita expenditure of Rs. 290 per annum.

The benefit of such a scheme would provide tremendous value for money for all the stakeholders - payer, purchaser, provider and beneficiary. This would also ensure efficient allocation and utilization of funds. For instance, presently, the ESIS has a large network of hospitals and dispensaries, but underutilized to a large extent. A combined entity would not only allow CGHS beneficiaries but must also open up its facilities to RSBY beneficiaries. The gate-keeping function of referral systems that ESIS is offering at present would be useful in controlling cost. RSBY and CGHS beneficiaries could avail the benefits of ESIS facilities. While efforts could be made to strengthen ESIS facilities for super specialty care as well, the CGHS and RSBY beneficiaries can be allowed to access care from private facilities in a limited manner until such facilities are upgraded.

An autonomous corporate body (on the lines of PSUs – ESIS is already a corporate entity) could be set-up to professionally manage the funds and administration. This is not only possible but also eminently desirable since the ESIS has a total invested funds amounting to Rs.195,830 million (out of which earmarked funds accounted for roughly one-third while ESI General and Contingency reserve accounted for the rest two-thirds). By strengthening its system in the medium term, an integrated model could leverage its budget by empanelling super specialists (on-call) into its hospital facilities. An immediate task would be improve and upgrade its facilities to cater to 8-hour outpatient care to its beneficiaries. Given that outpatient care plays an important role (high-volume), especially involving the cost of medicines, there is a need to spruce up its procurement system. A centralized drug procurement system (similar to TNMSC – with an Essential Drug List and generic medicines in its list) could help achieve value for money and at the same time reduce irrational prescriptions and dispensing.

7.3 Insurance as an Option to Cover Outpatient Treatment

Global experience suggests that several countries include outpatient care, especially drug reimbursement as a critical component of health insurance coverage. Thailand, for instance, a lower-middle income country, provides for reimbursement of drugs in its insurance program. Several industrialized countries also reimburse patients for drugs.

Ideally, it makes sense to include medicine for reimbursement under the Indian conditions, wherein evidence shows that the effect on catastrophic payments and impoverishment in India occurs due to outpatient care especially due to drugs. The accompanying chart clearly reveals the impoverishment effect OOP is largely due to households paying a higher share of their health expenditure on outpatient care, especially on drugs. However, in India, except CGHS and ESIS, none of the insurance program provides for medicine reimbursement. While the private health insurance companies deny the policy-holders of any outpatient coverage, the recent experiences of RSBY, and other state-based schemes also shows that they exclude outpatient coverage, and therefore reimbursement of medicine is not allowed under any of these schemes.

Chart 7.1

Percentage of Rural Households Falling BPL due to Health Care Expenditure

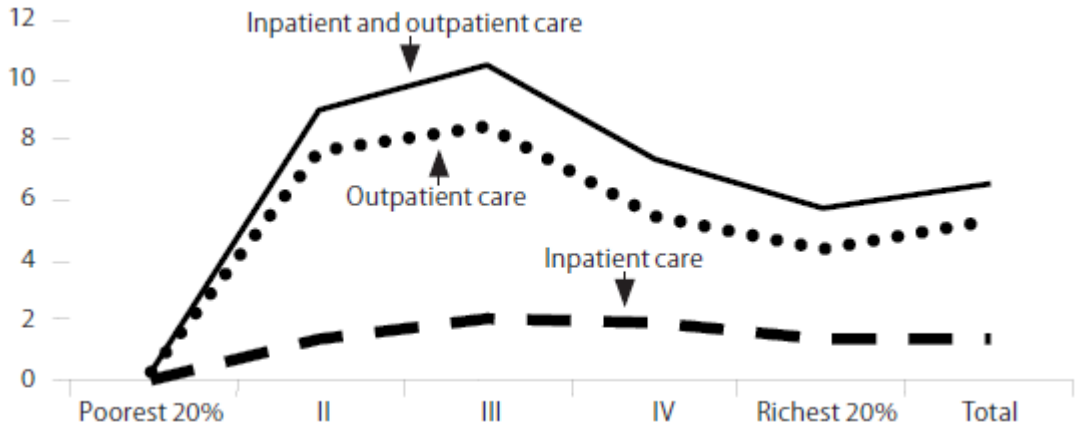
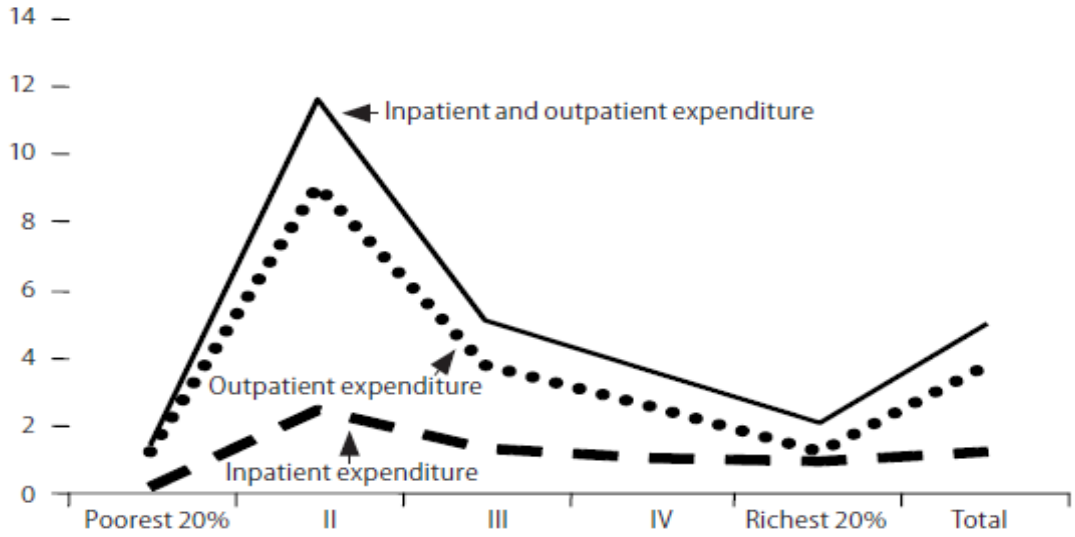


Chart 7.2

Percentage of Urban Households Falling BPL due to Health Care Expenditure



Source: Peter Berman, Rajeev Ahuja, Laveesh Bhandari, The Impoverishing Effect of Healthcare Payments in India: New Methodology and Findings, Economic & Political Weekly, April 17, 2010 vol xlv no 16, p. 67

One of the prime reasons for the denial of coverage of drugs and outpatient coverage is that all the stakeholders, physicians, pharmacists, patients, etc can easily influence the outcome. While physicians have the incentive to increase the number of visits of patients, the prescribers and the pharmacists would be encouraged to prescribe unnecessary and expensive medicines. And insurers on their part could influence outpatient visits by levying a high deductible on the patients. In addition, the administrative cost of managing drug reimbursement could be a nightmare for insurers, as it involves low-value but high-frequency transactions. Moreover, in India it is easy to obtain prescription drugs over the counter at the chemists. And prescribers and chemists in India have the habit of prescribing and dispensing drugs in expensive branded name.

Unnecessary and over prescription of antibiotics is already documented widely in the country. Since physicians do not follow Standard Treatment Guidelines (STGs), it is anybody's guess what they prescribe in the given conditions. Given the lax regulations of drug manufacture and sale in the country, the quality of drugs dispensed by the chemists cannot be assured. Often we find chemists selling drugs after the date of expiry. India's domestic drug distribution system is a complex and a highly fragmented one with its infrastructure lacking adequate cool-chain management, which could pose

life threatening and debilitating actions on patients. The number of retail chemists in the country is estimated to be around 550,000[17], which is a gigantic task if one were to regulate them in order to bring them under the umbrella of health insurance plans.

7.4. Health Insurance for the Non-Poor

It is often contended, which is also clearly articulated and reflected in decision-making at the policy-level, is to target health sector schemes at the BPL level. The intention of these policy-making and strategy is to reach the poor so that they benefit from various schemes. While the fiscal considerations to restrict such programs to only poor population is well understood, if the objective is to roll out any scheme that is intended to achieve universal care, we need to take into account the evidence of composition and structure of the country's population and its workforce.

The accompanying Table 7.1 and Chart 7.2 clearly demonstrate the importance of looking at non-poor population groups when designing insurance schemes or even other non-insurance schemes. The evidence below points out that the extremely poor and the poor population together accounted for about 237 million, accounting for about 21.8% of the country's population. Add to that, about 55% of India's population is estimated to be marginal and vulnerable people, which amounted for roughly 600 million. Therefore, the poor and vulnerable accounted for over three-fourths of country's population (836 million). The rest 253 million belonged to the category of middle and high income.

It is thus amply clear that any strategy which attempts to achieve universal health care must take into account the entire population, or at least the poor and vulnerable, which accounts for over three-fourths of the population. While a contributory mechanism may work among the middle and high-income groups, the same may not hold true for the poor and the vulnerable. The paying capacity of the poor and vulnerable are extremely limited for their day to day living as illustrated in the table, any strategy to compulsory make them to contribute may be of limited impact, or may not work altogether. Thailand's earlier 30-Baht system, which made people to pay 30 Baht as co-payment did not probably work and the co-payment has been withdrawn. Back home, in Andhra Pradesh, the state government has been involved in extending the insurance cover for at least 85% of the population without expecting any registration

[17] As per All India Organisation of Chemists and Druggists, the number of retail chemists in India stood at around 550,000 in 2010, based on their membership in the organization.

payment or copayment. The Tamil Nadu Kalaignar's scheme has precisely done this (although the coverage is over 52% of the population) by not charging the patients – neither registration charges nor any copayments. This is in stark contrast to the RSBY scheme, which charges Rs. 30 per annum for registration.

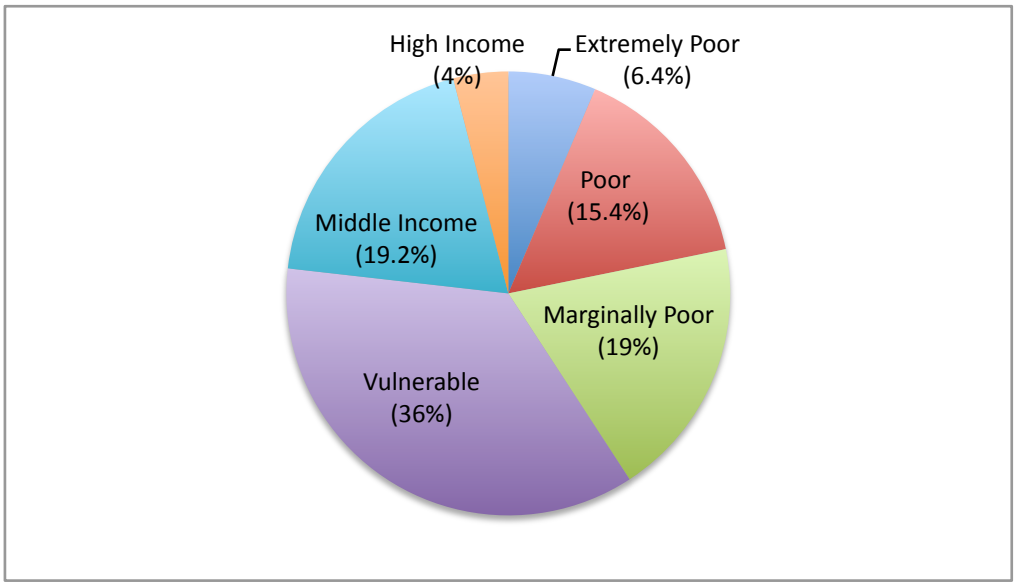
Table 7.1

India's Population by Different Expenditure Class, 2004-05

Expenditure Class	Absolute Population (In Millions) [Percentage Share]	Per Capita Per Day (In Rs.)
a. Extremely Poor (upto 0.75 PL)	70 [6.4]	9
b. Poor (0.75PL to PL)	167 [15.4]	12
c. Marginally Poor (PL to 1.25PL)	207 [19.0]	15
d. Vulnerable (1.25PL to 2PL)	392 [36.0]	20
e. Middle Income (2PL to 4PL)	210 [19.3]	37
f. High Income (>4PL)	44 [4.0]	93
g. Extremely Poor and Poor (a+b)	237 [21.8]	11
h. Marginal and Vulnerable (c+d)	599 [55.0]	18
i. Poor and Vulnerable (g+h)	836 [76.7]	16
j. Middle & High Income (e+f)	253 [23.3]	46
k. Total	1090 [100]	23
Source: Report on Conditions of Work and Promotion of Livelihoods in the Unorganized Sector, NCEUS, Ministry of Labor and Employment, 2009		

Chart 7.3

India's Population by Different Expenditure Class, 2004-05

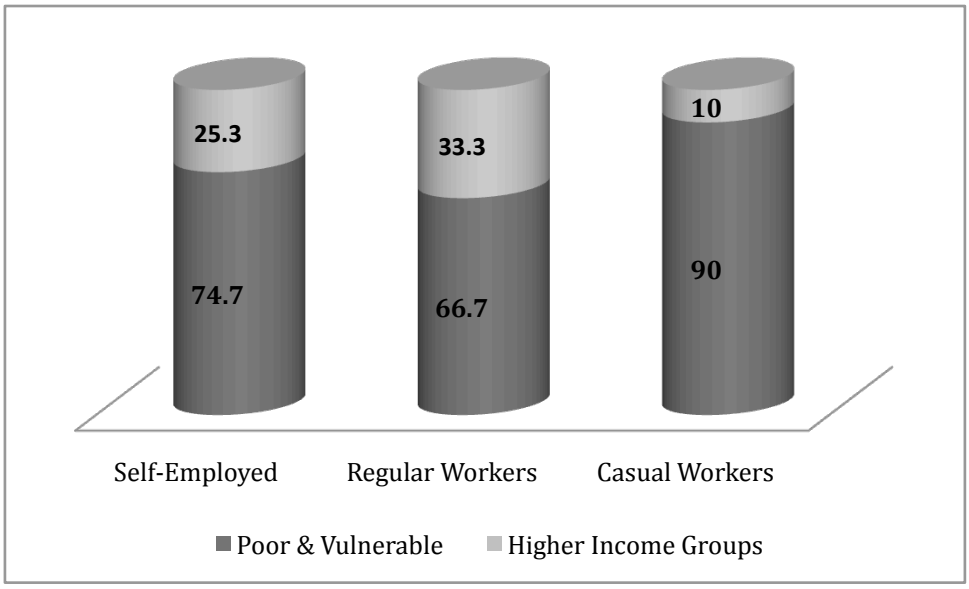


Source: NCEUS, Ministry of Labor and Employment, 2009.

In addition to lack of paying capacity of the poor and vulnerable, the other major bottleneck that is often stated to be a stumbling block for scaling up health insurance in developing countries is the presence of large number of informal/unorganized workers. India has the dubious distinction of possessing the largest informal workforce, to the extent of about 93% of its total workforce. Available evidence further indicates the importance of taking into consideration the characteristics and its distribution of workforce. While among the self-employed, the data shows that three-fourths of them are poor and vulnerable, even among the category of regular wage workers, the share of poor and vulnerable is to the extent of over two-third of total regular workers (see Chart 6.3). However, in the case of casual workers, the poor and vulnerable accounts for 90% of all casual workforce put together.

Chart 7.4

Distribution of Poor and Vulnerable by Workforce Categories



Source: NCEUS, Ministry of Labour and Employment, 2009

7.5. Summing Up:

The current coverage of RSBY is quite subdued – both the breadth and depth of the coverage, by design as well as evidence indicates. State-government based schemes, as in Andhra Pradesh, Tamil Nadu and Karnataka has outpaced other older schemes and RSBY, in terms of breadth and depth of the coverage. However, initial evidence from the experience of Andhra Pradesh program suggests that rising cost of care is a concern for fiscal sustainability. Therefore, these state-based schemes could consider tweaking

their original schemes by leveraging RSBY. As far as breadth of the coverage is concerned, if state wishes to extend the coverage to APL population, it can do so by using state's own resources for providing cover over and above the RSBY cut-off. In addition, the present benefit coverage of Rs. 30,000 per annum per family appears quite low under RSBY compared to Rajiv Aarogyasri which offers benefit to the extent of over five times that of RSBY. States that are struggling to control costs and unable to sustain these schemes needs to consider seriously topping up benefit package over and above RSBY limits, which would to some extent, tide over financial difficulties in the medium term.

Currently, there are three central government health insurance schemes run by two ministries (CGHS by the Ministry of Health and Family Welfare) and (ESIS and RSBY administered by the Ministry of Employment and Labour). While the CGHS covers largely the civil servants, ESIS is by and large caters to organized/formal sector employees and RSBY facilitates access to secondary care to informal/poor population. These three models independently facilitate health care treatment for different sets of population. Although the care provided by these schemes differ largely, with CGHS driven more by tertiary care, while RSBY catering to secondary care and ESIS providing all three levels of care in addition to referrals outside its system for certain tertiary care.

In view of the above, we argue that it would be better to organize all three central schemes into one umbrella and integrate them to achieve value for month. This would also ensure efficient allocation and utilization of funds. Presently, the ESIS has a large network of hospitals and dispensaries, but underutilized to a large extent. A combined entity would not only allow CGHS beneficiaries but must also throw open its facilities to RSBY beneficiaries. The gate-keeping function of referral systems that ESIS is offering at present would be useful in controlling cost. RSBY and CGHS beneficiaries could avail the benefits of ESIS facilities. While efforts could be made to strengthen ESIS facilities for super specialty care as well, the CGHS and RSBY beneficiaries can be allowed to access care from private facilities in a limited manner until such facilities are upgraded.

An autonomous corporate (on the lines of PSUs) body could be set-up to professionally manage the funds and administration of the integrated model. This is not only possible but also eminently desirable since the ESIS has a total invested funds amounting to Rs.

195,830 million (out of which earmarked funds accounted for roughly one-third while ESI General and Contingency reserve accounted for the rest two-thirds).

As far as the question of health insurance covering outpatient care, especially drugs, ideally, it is desirable to include medicine for reimbursement under the Indian conditions in principle. This is due to the fact that evidence clearly shows that the effect on catastrophic payments and impoverishment in India occurs due to outpatient, especially, due to drugs. One of the prime reasons for the denial of coverage of drugs and outpatient coverage is that all the stakeholders, physicians, pharmacists, patient, etc can easily influence the outcome. While physician has the incentive to increase the number of visits of patients, the prescribers and the pharmacists would be encouraged to prescribe unnecessary and expensive medicines. And insurers on their part could influence outpatient visits by levying a high deductible on the patients. In addition, the administrative cost of managing drug reimbursement could be a nightmare for insurers, as it involves low-value but high-frequency transactions. Moreover, in India it is easy to obtain prescription drugs over the counter at the chemists. And prescribers and chemists in India have the habit of prescribing and dispensing drugs in expensive branded name.

Therefore, we argue that in principle while this is desirable but practical implementation and the associated problems of enforcing medicine reimbursement to patients would be a stupendous task and could fiscally strain the coffers of the government. Outpatient care and drug reimbursement must be kept out of the health insurance program while strengthening of public health institutions and sprucing up of medicine procurement & distribution is called for. In addition, as large part of medicine purchase by the households occurs at the private chemists, the need of the hour is to strengthen drug price control by bringing all essential drugs into price control.

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Annexure 1: A Snapshot View of Health Insurance Schemes

Sr. No.	Name of the Scheme	Rashtriya Swasthya Bima Yojna (RSBY)	Chief Minister Kalaignar's Insurance Scheme for life saving Treatments (TN)	Employees State Insurance Scheme (ESIS)	Yeshasvini Co-operative Farmers Health care Scheme (Karnataka)	Vajapayee Arogyasri Scheme (Karnataka)	Central Government Health Scheme (CGHS)	Rajiv Aarogyasri Community Health Insurance scheme (AP)	RSBY Plus (HP))	Apka Swasthya Bima Yojna (Delhi)	Private Health insurance (PHI)
1	**Launch year**	2008	2009	1952 (initially in two states Delhi, Kanpur)	2003	2009	1954	2007	2010	Proposed	1986 & Private Players in 1999
2	**Geographical Area**	Pan India- Currently implemented in 25 states	Entire state of Tamil Nadu	Pan India in notified areas (Generally with higher employer concentration)	Entire state of Karnataka, particularly rural areas	Gulbarga Division of Karnataka, proposed shortly in Bellary division	Pan India, in notified areas in vicinity of CGHS dispensaries	Entire state of Andhra Pradesh	Entire State of Himachal Pradesh	Entire NCT of Delhi	Pan India Mostly urban population with minimal reach in rural area
2	**Target/eligible population**	Below Poverty Line (BPL) families included in the district BPL list prepared by the State government and as per Planning Commission estimates. Total target BPL population 300 million individuals.	BPL + families having annual income less than Rs 72,000 + families of members of 26 welfare boards	All the employees from any establishment having more than 10 employees who earn up to Rs 15000 per month + Their dependants.	Members of the Rural Cooperative Societies (APL & BPL)	Any 5 members of BPL cardholders, as per database of Foods, Civil Supplies and Consumer Affairs	Central government employees+ Certain autonomous, semi-autonomous and semi - government organizations. + Members of parliament, governors, accredited journalists.	All the families in the state who hold a white ration card (BPL card), or health card issued by the scheme (criteria of annual income below Rs 75000) are automatically enrolled in the scheme	All Beneficiaries enrolled under RSBY- which are identified BPL population of HP and as per regularly updated state BPL List	Identified BPL population of Delhi, also follows the specific enrolment already done by RSBY	Voluntary

		New groups: NREGA, BCW, Contractual postmen, Railway coolies and hawkers, Domestic workers									
3	**Number of Beneficiaries (Sep 2010)**	80 million	35 Million	55.5 million	3 Million	1.6 million	3 million	20.4 million families/ About 70 million persons	0.24 million families/about 0.8 million beneficiaries	Planning for 0.65 million population	55
4	**Unit of enrolment (families, individuals, etc.)**	Families	Families	Families	Individuals	Families	Families	Families	Families	Families	Individual
5	**Benefit Package**	All hospitalization charges (except certain specified exclusions) restricted as per package limits. Package rates include transportation costs of RS 100 per visit maximum up to 1000 per	Surgical procedures (626 numbers) for various treatments of cardiology, oncology, nephrology, neurology, orthopaedic surgery, vascular surgery, gastroenterology, plastic surgeries, gynaecology etc (Totally 51) are covered.	Comprehensive coverage includes preventive, primary, secondary and tertiary care, plus Cash Benefits for loss of wages due to Sickness, Maternity, Permanent disablement of self and dependents, funeral expenses, and	All hospitalizations under 1600 notified surgeries except certain specified exclusions (implants) which are to be paid by beneficiary	402 predefined packages + 50 follow-up packages. Scheme covers only Tertiary care.	Medical care at all levels and home visits/care as well as free medicines and diagnostic services	Positive list of 938 identified hospitalization procedures - surgical and medical, primarily tertiary care and some secondary care	It is a top of scheme to mainly cover the tertiary care services not adequately cover the RSBY also pays for transport expenses and transport expenses and limited pre and post hospitalization medical expenses	It's a top up scheme to mainly cover the tertiary care services not adequately covered under RSBY.	All Hospitalization except certain exclusions, Pre-existing not covered, Certain Co-payments, Deductibles, Capping, Sub-limits as per the product involved.

		year.		rehabilitation allowance.							
6	**Maximum insurance cover**	30,000 per family per year	Rs 100,000 over 4 years, per family	There is no limit on the maximum care,which can be availed.	2 lakh per person	Rs. 1.5 lakh per family per year + Rs. 50,000 buffer on case by case basis	There is no limit on the maximum care, which can be availed.	Rs 1.5 lakh per family per year with additional buffer of Rs 50,000	RS. 175,000 beyond the 30,000 covered by RSBY	1.5 lakh per family per year	Ranges from 50,000 to 500000
7	**Hospital empanelment criteria**	At least 10 IPD beds+ fully equipped, medical, surgical, diagnostic facility +Qualified doctors/ Nursing staff+ OT well equipped+ Registration with IT dept. + hardware for use o f smart card.	Min 50 beds	As per CGHS criteria	Min. 50 inpatient beds + ICU+NICU+OT +Ambulance +Qualified doctors	At least 50 beds+ well equipped OT+ train paramedics+ post operative facility with ventilator+ round the clock lab and radiology support+ Availability of specialist.	100 beds in metropolitan cities, 50 IPD beds in other city	Min 50 beds and other infrastructure criteria like ICU with 2 ventilators	N/A	Minimum 50 IPD beds	Different by insurer.
8	**No. of empanelled hospitals (Govt. and private)**	4923 private and 2267 government hospitals total 7190 till Jan 2011	663 Hospitals are currently participating in the scheme, which includes 20 public hospitals.	202 private hospitals + 148 ESI Hospitals total 350 hospitals	450 Hospitals are empanelled under the scheme in which 29 are public hospitals	94 hospitals are empanelled having 8 public and 86 private.	401 Private hospitals for tertiary care. 682 wellness centres for primary care owned and managed by CGHS.	241 private and 97 government hospitals total 338.	14 (2 public Hospitals in HP and 12 private hospitals outside HP)	N/A	More than 10000

9	**Sources of Funds**	75% by Central Government, 25% by state government (In case of North eastern state and J&K 90% centre + 10% state) + Rs.30 collected from the beneficiary at the time of enrolment as a registration fee.	Entirely by State government	Contribution (from employers and employees) and interest income. States bear one-eighth of medical care costs.	Contribution by beneficiary (member) constituted 58% + Government contribution 42 % in 2009-10	100% Government funds	Employee contribution varies from Rs. 15 to Rs 150 per month based on salaries + Central government funds.	100% by state government	State Government	Funded by State government	Self funded
10	**Total Expenditure (millions Rs) in 2009-10**	Approx 4950 (Rs 495 crores)*	5170 (Approx 517 crores)	1990 crore/19900 million	Approx 550 (Rs 55 crores)	NIL	Approx 1600 core (Includes serving employees Exp.)	12000.00 (Rs 1200 crores)	5.6 (RS 56 Lakhs)	Estimated budget for first year Rs 40 to 60 crores	Approx 70000 (Rs 7000 crore)
11	**Premium Rate in 2009-10**	Average around Rs 550 per family per year including service tax	Rs 469 + service tax	Employees contribution is 1.75% of the wage period and employers is 4.75% of the wages (2340-11700) per year	Rs 150 per person per year	NA	Ranging from 50-500 depends on grade pay of the officials (600-6000/year)	Rs. 267 per family.	Rs 364 per family	NA	Avg. 1216 per individual per year.
12	**Provider payment mechanism**	Package rates have been defined for more than 1100	626 procedures predefined on package rates linked to categorization of	Salaries for the physician in own dispensaries and hospitals,	Package rates have been defined for 1600 treatment or Procedures.	Pre-defined package rates for 402 procedures.	Salaries for doctors, + Pre-defined package rates for 1900	Fixed package rates for all 938 covered procedures inclusive of	Fixed package rates for 279 covered procedures.	Pre-defined package rates (Planning phase)	As per package rates or somewhere as per actual with pre defined sub-

		procedures + FFS for non defined packages	hospitals.	package rates for private empanelled hospitals for tertiary/specialty treatment.			procedures.	post-hospitalization medications and transportation reimbursement			limits, co-payments & deductibles.
13	**IT tools used**	Photos and biometric data of families collected on smart chip at enrolment, Smart cards enable offline authorization and batch transfer of data.	Web based pre authorization and claim submission Digital smart card to identify the beneficiary Webcams and CUG for co-ordination and monitoring of Liaison Officers in network hospitals	Largely manual so far, but project Panchdeep being undertaken for comprehensive MIS tools, Digital smart card (Pehchan card). All the branches, hospitals will be connected.	Electronic claims submission software in all network hospitals, linked to TPA's systems.	Comprehensive MIS planned, RFP issued.	OPD software module functional for two years. Recently started claim settlement using UTITSL Smart cards	Comprehensive MIS, field functionaries on CUG, electronic operations and payments, Digital signature for all users, electronic claims process including requirement for patient photographs pre and post procedure etc.	None with the implementing agency. Insurer and its TPAs use their own tools	Online monitoring system planned with the help of National Informatics Center (NIC)	Online monitoring done by intermediary and somewhere by insurer.
14	**Number of hospitalization per year**	6,14,667 for 145 district completed one year	1,53,410 (09-10)	4,17,498	66,749	N/A	N/A	319,446 (2009-10)	N/A	NIL	20,81,297
15	**Utilization rate**	Avg Claim ratio was about 80% in 2009-10	80% Claims Ratio	Average medical care cost was Rs 973 per insured person in 2009-10	Avg Claims ratio is 157%	N/A	N/A	Claims frequency is about 1.6% per family, claim ratio is between 69.6% to 128.3% (89%)	N/A	N/A	Avg claims ratio was about 103% in 2008-09

16	**Commonest procedures**	Medical Treatment, Ophthalmic Procedures, Neurology, Infectious Diseases, Gynae & Obstetric Procedures.	Orthopaedic, Oncology, urology, ENT, Cardiology, Hysterectomy and Ophthalmology.	N/A	Cardiac, ENT, General Surgery, Paediatric, Obstetric, Ophthalmic procedures.	Cardiology, Oncology, Nephrology, Neurology.	N/A	Oncology, CVS, Polytrauma, Genitourinary surgeries, General Surgeries	N/A	N/A	Cardiac, Infectious Diseases, Gastroenterology, Nephrology, Polytrauma.
17	**Implementing agency and legal status**	Ministry of labour and employment (MOLE) + State Nodal Agency (Society or Trust)	TN Health Systems Society	ESIC (Employees State Insurance Corporation)	Government + Trust +TPA (FHP)	Suvarna Arogya Suraksha Trust	Department of Health & family welfare	Aarogyasri Health care trust (Trust)	Health department of HP	Department of Health and family welfare	Insurance Company + Insurance regulatory authority of India (IRDA)
18	**Executing agency**	State nodal agency + Insurance company	Insurance company (Star Health & Allied Insurance as lead insurer of a consortium)	ESIC + State ESIS Departments	TPA (Family Health Plan (TPA) Limited)	TPA	State health department.	Trust + insurance company (Star health & allied)	State department + contractual staff	Apka Swasthya Bima Yojana trust	Insurance Company + TPA
19	**No. of full-time staff, including contract personnel, in implementing agency**	~10 at centre ~100 at state nodal agencies	<10	13585 (includes hospital and dispensary staff)	<10	<10	N/A	117	<10	N/A	N/A
20	**Administrative costs as % of total spending**	N/A	N/A	9.27%	N/A	N/A	N/A	4% (Trust)	N/A	N/A	N/A
21	**Cost containment measures**	Smart card for identity verification and prior	Pre-authorization, screening through health	Health care provided through its own integrated	Scrutiny and second opinion are obtained before giving	Prior authorization, Screening, In-depth analysis	Health care provided through its own	Prior authorization, package rates, MIS	Prior authorization (except for government	Prior authorization, Concurrent review, In-	Prior Authorization, MIS monitoring, Surveillance &

		authorisation closed ended package rates for common procedures. In-depth analysis of claims experience	camps, package cost, In-depth analysis of claims, discharge planning with LO's	network, contracted private practitioners, package rates for tertiary care and outsourced diagnostics	Preauthorization. Verification of High-end surgeries. Scrutiny by TPA as well CA of Trust.	of claims experiences, Gatekeepers, second opinion.	integrated network, fixed package rates for inpatient care and outsourced diagnostics	monitoring, Surveillance and medical vigilance teams, Aarogyamithras in hospitals	medical colleges in HP) Package rates	depth analysis of claims experience	Medical Vigilance by TPA, Co-payments, deductibles, Sub-limits.
22	**Per capita Expenditure**	78	148	359	183	200*	5333	128	NA	NA	1250
23	**Avg. Cost per Hospitalization**	4262	33720	28599	8240	60000#	25000	27848	NA	NA	19637
24	**Number of Hospitalization per 1000 person**	25	4	7.5	22	4	22*	5	NA	NA	64

Source - Compiled from various scheme documents / published report. *-Estimates; #- The calculation is based on two initial months of data; *The information in this matrix will be updated as and when missing or incomplete information is made available by the respective schemes*

Annexure 2 - Scheme wise Benefit package (Systems wise Number of surgical & Medical Packages)

Package	Surgical (S) or Medical (M)	(RSBY) Version II (Nov 2010)	Kalaignar (TN)	Yeshasvini (KN)	Vajapayee Arogyasri (Karnataka)	(CGHS) & (ESIS)	Rajiv Aarogy asri (AP)	RSBY Plus (HP)
Cardiology	S	NA	54	135	133	135	83	93
	M	NA	NA	NA	NA	NA	10	NA
Nephrology	S	118	15	212	20	130	54	54
	M	NA	NA	NA	NA	NA	5	NA
Neurology	S	99	75	67	54	38	66	67
	M	NA	2	NA	NA	NA	12	NA
Orthopaedic	S	145	42	295	12	96	46	24
	M	NA	NA	NA	NA	NA	7	NA
Gastroenter ology	S	NA	32	167	NA	111	55	55
	M	NA	9	NA	NA	NA	19	NA
Oncology	S	10	95	NA	105	8	130	
	M	NA	105	NA	58	3	66	13
Ophthalmol ogy	S	64	21	149	NA	64	29	NA
	M	NA	NA	NA	NA	NA	NA	NA
ENT	S	103	30	150	NA	50	23	NA
	M	NA	NA	NA	NA	NA	NA	NA
Gynaecolog y & Obstetric	S	58	6	61	NA	75	17	NA
	M	NA	NA	NA	NA	NA	NA	NA
General Surgery	S	372	92	NA	NA	70	104	20
	M	NA	NA	NA	11	NA	32	NA
Paediatric	S	30	14	10	9	47	59	NA
	M	NA	NA	NA	NA	NA	65	NA
Plastic Surgery	NA	2	NA	NA	NA	19	NA	
Critical Care/Genera l Medicine	52	NA	7	NA	NA	18	NA	
Dental	14	NA	NA	NA	NA	NA	NA	
Prosthesis	NA	NA	NA	NA	NA	26	NA	
Diagnostic		NA	NA	NA	NA	315	NA	NA
Total	Total Surgical	1013	478	1246	333	824	685	313
	Total Medical	60	124	0	69	3	234	13
Total No of packages		1073	602	1253	402	827	919	326

Source-Authors Calculation from scheme documents/ web data for respective scheme

Annexure 3 - Procedure/Therapy wise Variation in Pricing of Package

Procedure	CGHS	Rajiv Aarogyasri (AP)	Kalaignar (TN)	Yeshasvini (KN)	Vajapayee Arogyasri (KN)	RSBY
Cardiology						RSBY cover Maximum up to 30000.
Coronary bypass surgery	130000	95000	90000	60000	95000	
Mitral Valve Replacement	130000	120000	125000	60000	120000	
Double Valve Replacement (Cost of Valve Extra)	130000	120000	150000	60000	150000	
Aortic Valve replacement	130000 (Without)	150000 (with)	125000	60000	120000	
Coronary Angioplasty	85000	60000	60000	25000	60000	
Permanent pacemaker implantation	130000	75000	75000	8000	75000	
Temporary pacemaker implantation	9000	10000	10000	1000	4000	
Nephrology						
Transurethral Resection of prostate (TURP)	16200	30000	25000	12000	20000	14250
PCNL (Bilateral)	24300	30000	40000	14000	20000	18000
Pyelolithotomy	13000	10000	0	14000	10000	13500
Nephrolithotomy	14100	10000	25000	14000	10000	10000
Lithotripsy	18000	18000	15000	7000	10000	11000
Nepherectomy		40000	40000	14000	10000	10000
Abdomen						
Appendectomy	12000	18000	NA	9000	NA	6000
Cholecystectomy	10200	20000	25000	9000	NA	10000
Orthopaedics						
Open Reduction & Internal Fixation Of Fingers & Toes	4000	15000	20000	NA	NA	12000
Reduction Of Compound Fractures & External Fixation	2000	15000	30000	NA	NA	14500
Total Hip replacement	90000	NA	100000	NA	NA	NA
Total Knee Replacement	110000	NA	100000	NA	NA	NA
Gynae Operation						
Hysterectomy	13000	20000	25000	6000	NA	10000
Oncology						

Radical Treatment	20100	20000	20000	NA	20000	NA
Palliative Treatment	10100	10000	10000	NA	10000	NA
Adjuvant Treatment	16150	15000	15000	NA	15000	NA
Neuro-Surgery						
Craniotomy	31500	60000	NA	30000	40000	NA
Excision of brain tumours	40000	45000	60000*	30000	40000	NA
Obstetric Care						
Normal delivery	6500	NA	NA	3000	NA	2500
Caesarean Section	12000	NA	NA	6000	NA	4500
ENT						
Tonsillectomy	4700	NA	NA	3500	NA	7000
Septoplasty	6800	NA	NA	3500	NA	5500
Tympanoplasty	7050	15000	NA	3500	NA	7000

Source – Authors calculation from - Scheme document/web site data/Published report

Annexure 4 - Percentage of Claimed Amount Paid under Different Schemes

Scheme/Year	Claimed amount (crs)	Paid amount (crs)	% Claim Paid (by amount)
Rajiv Arogysri Scheme (AP)[3]	51.98	50.56	97%
Vajpayee Arogysri Scheme (KN)[4]	49	43	88%
Commercial insurers[5]	2115.48	1777	84%

[3] The data is for Phase I (01-04-07 to 31-03-08) for Anantapur; Mahabubnagar; Srikakulam districts
[4] The data is for a period of two months 02/10 - 04/10
[5] Data for 2005-06, Source: Tariff Advisory Committee, Data Repository

Annexure 5 – Commercial Health Insurance: Disease-wise Number of Claims, Amount Claimed and Paid for 2005-06

Disease Name	Total Claimed Amount (Crs)	Amount not paid (Crs)	% Amount not paid
Accident	8.41	1.45	17%
Arthropathies	97.92	15.77	16%
Blood	7.12	1.33	19%
Cholera	53.63	5.04	9%
Circulatory	295.3	77.81	26%
Clinical Findings	58.66	9.07	15%
Digestive	165.05	19.12	12%
Ear	11.72	1.41	12%
Endocrine	30.19	5.95	20%
Eye	105.48	5.74	5%
Infectious	67.62	8.53	13%
Injury	131.22	21.14	16%
Mental Disorders	2.6	0.38	15%
Neoplasm	111.78	18.71	17%
Nervous	29.88	5.61	19%
Perinatal	3.62	0.71	20%
Pregnancy	72.66	10.42	14%
Respiratory	69.21	8.57	12%
Skin	18.45	2.33	13%
Urology	136.61	15.72	12%
Total	1493.17	238.25	16%

Source: Tariff Advisory Committee, Data Repository