

How Equitable is Employees' State Insurance Scheme in India?: A Case Study of Tamil Nadu

Dash U and Muraleedharan VR

June 2011

This paper is an output of the Consortium for Research on Equitable Health Systems (CREHS). The authors are based at Indian Institute of Technology (Madras), India.

Department of Humanities and Social Sciences Indian Institute of Technology Madras Chennai 600036 India

ABOUT CREHS

The Consortium for Research on Equitable Health Systems (CREHS) is a five year DFID funded Research Programme Consortium that is made up of eight organisations based in Kenya, India, Nigeria, South Africa, Tanzania, Thailand and the United Kingdom.

It aims to generate knowledge about how to strengthen health systems, policies and interventions in ways which preferentially benefit the poorest. The research is organised in four themes: health sector reform, financial risk protection, health workforce performance and scaling up.

The consortium will achieve its aim by:

- working in partnership to develop research
- strengthening the capacity of partners to undertake relevant research and of policymakers to use research effectively
- communicating findings in a timely, accessible and appropriate manner so as to influence local and global policy development

For more information about CREHS please contact: Consortium for Research on Equitable Health Systems (CREHS) London School of Hygiene and Tropical Medicine, Keppel Street, London, UK WC1E 7HT

Email: nicola.lord@lshtm.ac.uk

Website: www.crehs.lshtm.ac.uk

ACKNOWLEDGEMENTS

The initial idea for undertaking a study on the Employees State Insurance Scheme (ESIS) arose during an interaction with policy makers at the Department of Public Health (DPH) in Chennai. We are thankful to the participants of these meetings for inspiring us to undertake this study. The authors of this study gratefully acknowledge the cooperation and assistance of the Department of Health and Family Welfare of the Government of Tamil Nadu (GoTN) and the Employees' State Insurance Corporation (ESIC) for permitting us to consult their records and for providing us with the necessary support during the field work. We are extremely grateful to the various officials who assisted us particularly the Director of Public Health, the Director of Rural and Medical Services and the Director of ESIS. The authors would like to thank several of their colleagues for their stimulating input and for their contributions to this work. Special thanks are due to the field investigators for conducting the field surveys and interviews, and for compiling secondary data sources in an efficient manner. We would also like to thank Kara Hanson, Lucy Gilson, Anne Mills, Viroj Tangcharoensathien, and Phusit Prakongsai for their constant guidance and support in conceptualizing the overall design and for their analysis of the study. We sincerely thank S D Vaishnavi for help during the data collection and analysis. In addition, we would also record our appreciation to CREHS for its initiative to this work and for its financial support.

TABLE OF CONTENTS

List List Exe	of Tables and Figures of Acronyms ecutive Summary	5 6 7
1.	INTRODUCTION	8
1.	ANALYSIS	14
2.	RESULTS	16
4.	RECOMMENDATIONS	23
5.	CONCLUSION	23
6.	REFERENCES	25
7.	ANNEXES	27

List of Tables and Figures

Tables

Table 1: Coverage of the Employee State Insurance Scheme, 2000-2007	10
Table 2: Total Income and Expenditure of Employee State Insurance Corporation during	11
2002-2008	
Table 3: Infrastructure available under the Employees' State Insurance Scheme 2001-2007	12
Table 4: The sample details	14
Table 5: Descriptive Statistics of some of the characteristics of the sampled beneficiaries	15
Table 6: Distribution of the population according to income quintiles	16
Table 7: Place of Treatment for the Out-patient and In-patient care	16
Table 8: Out-patient expenditure per visit in the Employees' State Insurance facilities and	21
Private facilities (figures are in Rs.)	
Table 9: In-patient expenditure per episode in the Employees' State Insurance facilities and	21
Private facilities (figures are in Rs.)	
Table 10: District-wise Number of Hospitals, Dispensaries, Beds, Doctors and Nurses under	27
the Control of the Director of Employees State Insurance in Tamil Nadu (2007-2008)	
Figures	

Figure 1: Utilisation pattern of Employees' State Insurance facilities across quintiles 17

List of Acronyms

DPH	Department of Public Health
ESIC	Employees' State Insurance Corporation
ESIS	Employee's State Insurance Scheme
ESI	Employee's State Insurance
GoTN	Government of Tamil Nadu
IP	Insured Persons
OOP	Out-of-Pocket

Executive Summary

One of the main objectives of a health system is to reduce the monetary cost of accessing health services, thereby enabling individuals with substantial unmet needs to access otherwise unaffordable care (Nyman, 1999). Health insurance protects households against the financial burden of illness, especially large out-of-pocket (OOP) expenses resulting from catastrophic illnesses, while at the same time raising additional resources for the public sector. The purpose of this study is to analyse the health service utilisation of those enrolled in the Employees' State Insurance Scheme (ESIS) and its role in protecting against catastrophic health payments in a low-income country setting. The study uses primary data collected through a semi structured questionnaire which sought detailed information on healthcare utilisation and spending and on other key individual and household factors. The questionnaire was administered by trained research investigators over the period August 2008 to March 2009. The main results are surprising. ESIS is not found to provide financial protection against the risk of catastrophic payments, as the majority of the beneficiaries are seeking care outside the insurance plan from private facilities at a relatively high personal cost. This under use of ESIS services is due to; perceived low quality drugs, long waiting periods, impolite personnel, long delays in reimbursement of money spent on treatment from covered providers, and lack of or low interest of employers and low awareness of Employees' State Insurance (ESI) procedures.

1. INTRODUCTION

An equitable health system must ensure that utilisation conforms with need (equity in delivery) and that payments conform with the ability to pay (equity in financing). A failure to decouple utilisation from payments will have a negative financial impact on the poor who suffer from ill health. The poor lack financial resources to pay for health services. Ill health, through the loss of productive labour, can also undermine their ability to cope financially; thereby strengthening further the nexus between poverty and poor health (Culyer 1993; World Bank 1995). Hence, the purpose of health financing is to use the appropriate funding instruments to set the right financial incentives for providers, and to ensure that all individuals have access to effective public health and affordable personal healthcare. In recent years, India, like several other low-income countries, has established different types of national health insurance scheme. The ESIS is one such scheme. One of its main objectives is to reduce the monetary cost of accessing health services, thereby enabling individuals with substantial unmet needs to access otherwise unaffordable care (Nyman, 1999). Health insurance also protects households against the financial burden of illness, especially large OOP expenses resulting from catastrophic illnesses, while at the same time raising additional resources for the public sector. This helps reduce or eliminate the possibility that an individual will be unable to pay for such care, or will be impoverished trying to do so. Catastrophic health payments have been found to be significant in both rich and poor countries. For example, results from a recent study of healthcare payments in India indicate that around 70% of total health expenditure is made of OOP payments and around 30% of households spend more than 10% of their income on health (Dash et. al 2008; Sakthivel and Karan 2009; Garg and Karan 2009; NSSO 2006). In Vietnam, research indicates that in the 1990s well over a third of the households faced OOP payments in excess of a defined "catastrophic" threshold level of income (Ekman 2007; Wagstaff and Doorslaer, 2003). In Indonesia also, the rich are found to be at risk of experiencing catastrophic health payments defined as exceeding 10% of income (Prescot and Pradhan, 1999) and in the United States certain vulnerable groups are more affected by such payments than other groups (Merlies, 2002). A recent global review of household catastrophic health payments emphasised the role of health insurance as a key instrument in reducing the risk of such payments (Xu et. al, 2003). Given that one of the key purposes of health insurance is to provide protection against particularly high healthcare costs, this study aims to test this proposition empirically in a low-income country setting.

That health insurance is an important policy tool for providing financial health protection is well grounded in both theory and experience. The highly heterogeneous array of health financing arrangements justifies the systematic analysis of individual cases to provide evidence on the practical effects of health insurance programmes. Furthermore, access to the potential benefits of health insurance may be curtailed if indirect financial and non-financial barriers (such as travel and lodging expenses, lost income, and a lack of knowledge of what providers offer) impede the insured from seeking care. Even when care is actually sought, the insured may still face a wide range of hurdles before actually receiving health insurance benefits. Some of these hurdles include the tedious paperwork, the limited portability of the insurance schemes, or the unwelcoming attitude of health staff towards insured patients. Although much has been written on the barriers to access that prevent individuals from seeking appropriate care, comparatively little is known about the factors

influencing the insured person's decision to access their insurance benefits when care is actually sought.

This study was undertaken with the following objectives:

- 1. To analyze overall (all India) trends in utilisation and number of beneficiaries of ESIS over a period of time;
- 2. To assess the effectiveness of the scheme as perceived by beneficiaries, and from utilisation level of ESI facilities, in Tamil Nadu; and
- 3. Analyze the development of ESI policy in the state and factors influencing its implementation.

The Employees' State Insurance Scheme as a Mechanism to Pool Risk

The ESIS was introduced in India in 1955 with the intention of providing financial protection to those in the lowest income groups in the industrial/manufacturing sector. Although it has grown in both size and scope, many have been critical of the scheme. One criticism is that most beneficiaries, or members, of the scheme do not utilise the services for a variety of reasons, the primary one being a perception of the poor quality of care (Sharma 1997; Gumbar 2001).

Description of the Employees' State Insurance Scheme

The promulgation of the ESI Act by the Parliament in 1948 was the first major legislation on social security for workers in India. The Act envisages protection to workers in the organised sector in the case of sickness, maternity and death or disability due to injury at work. Based on the principle of pooling of risks and resources, this health insurance scheme provides medical facilities to beneficiaries and cash compensation for loss of wages or earning capacity while in service. The ESI Act applies to non-seasonal factories or manufacturing units employing ten or more people in a power using factory and twenty or more people in a non-power using factory. Employees drawing wages of up to Rs.10,000 per month (as on Jan 2009) are currently entitled to a health insurance scheme. However the wage ceiling for the purpose of coverage is revised from time to time. To increase the coverage the ESI Act has also been extended gradually to other establishments such as shops, hotels and restaurants, road and motor transport undertakings, newspaper establishments and cinema halls. The ESI Act however, is not applicable to factories or establishments run by the State Governments/Central Government whose employees receive other social security benefits.

Under the ESI scheme, employees contribute 1.75% of their wages and the employers contribute 4.75% of the wages of eligible beneficiaries/employees towards premium payments. Employees earning less than Rs. 50 per day are exempted from contribution towards premium payments. The contributions made by the employees and the employers are deposited in a common pool known as the ESI Fund, which is used for meeting administrative expenses as well as cash and medical benefits to insured persons (IP) and their dependents. The state governments, as per the ESI Act, contribute 12.5% of the total expenditure (within the per capita ceiling of Rs.1000 per annum) incurred by the ESIC on medical care in respective states.

The objectives of ESIS are to provide benefits in cash and kind which include:

- 1. Medical Benefit (for self and family);
- 2. Sickness Benefit (for self);
- 3. Maternity Benefit (for self);
- 4. Disablement Benefit, both temporary and permanent (for self);
- 5. Dependents' Benefit (for family);
- 6. Funeral Expenses (to a person who performs the last rites of an IP);
- 7. Rehabilitation Allowance (for self);
- 8. Vocational Rehabilitation for the IPs;
- 9. Old age Medicare (for self and spouse);
- 10. Medical Bonus (for insured women and IP's wife).

In this study we will confine our discussion to only the medical benefits. Medical care is delivered either through facilities owned by the ESIS (called "service [direct] system"), or through providers outside the ESIS (called "panel [indirect] system"). Medical care is also provided through mobile health units. Care is provided according to various medical systems such as allopathic, ayurvedic or homoeopic medicine.

Typically, insured employees and their dependents are attached to a particular dispensary closest to their residence. The medical staff act as gatekeepers to higher level institutions (maintained either by the ESIS or by the private sector and recognised by the state governments), to which they refer patients. When it was introduced in 1952 the scheme covered a population of only 120,000 people in the entire country. Since then it has grown in size and covers about 10 million employees as of 2007, as shown in Table 1. The total number of beneficiaries (including dependents) is close to 40 million (2007 figures).

Year	2000	2001	2002	2003	2004	2005	2006	2007
Total Centres	655	677	678	687	689	718	728	737
Employees covered (in millions)	7.862	7.754	7,159	7.000	7.082	7.570	8.400	9.238
No. of IP/family units* (in millions)	8.601	8.493	8.004	7.828	7.913	8.498	9.148	10.157
Total Beneficiaries (in millions)	33.37	32.95	31.05	30.37	30.70	32.97	35.49	39.41
No. of Employers covered (in lakhs)	2.25	2.38	2.48	2.54	2.64	2.81	3.05	3.32

Table 1	Coverage of the Fr	nnlovee State	Insurance Schem	e 2000-2007
I able 1.	Coverage of the Er	ipioyee state	insulance schem	e, 2000-2007

*The IP/family units include permanently disabled people, temporarily unemployed people, etc. and therefore the numbers are higher than the number of employees covered.

Source: Income and Expenditure Accounts of Employees' State Insurance Corporation (ESIC)

The ESIS' main sources of income are the premium contributions by beneficiaries and their employers. In addition, state governments contribute one-eighth of the total medical expenditure. For instance, an annual allocation of Rs.1000 per capita is fixed for medical care. Of this, the state government will meet one-eighth of the amount. In practice though, depending on the total

expenditure and the number of beneficiaries, the actual amount reimbursed will be much higher than Rs.1000 and will vary from individual to individual. The impact of this is seen in the total expenditures on medical care, as a proportion of the total income to the ESIC (Table 2). It has increased from 66.3% in 2000 to 78% of total income in 2008.

Head of Account	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008*
Total Income						
(Rs. in lakh)	170,481.05	197,563.6	214,172.05	241,061.77	310,811.19	305,959.5
Contribution	130,238.61	138,071.97	153,240	193,356.47	245,348.37	232,218
Total Expenditure						
(Rs. in lakh)	111,831.71	117,047.53	148,407.3	127,896.16	135,017.14	195,872.58
Medical Benefits	56,520.05	62,038.29	82,763.75	72,411	77,978.47	125,182.55
Administrative						
Expenditure	17,722	18,277.01	2,383.05	21,096.22	22,139.27	27,596.3
Medical benefit as						
% of total Income	66.37	69.30	71.93	72.50	73.95	77.93
* estimates						
Head of Account	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008*
Total Income						
(Rs. in lakh)	170,481.05	197,563.6	214,172.05	241,061.77	310,811.19	305,959.5
	130,238.61	138,071.97	153,240	193,356.47	245,348.37	232,218
Total Expenditure						
(Rs. in lakh)	111,831.71	117,047.53	148,407.3	127,896.16	135,017.14	195,872.58
Medical Benefits	56,520.05	62,038.29	82,763.75	72,411	77,978.47	125,182.55
Administrative	17,722	18,277.01	2,383.05	21,096.22	22,139.27	27,596.3
Medical benefit as						
% of total Income	66.37	69.30	71.93	72.50	73.95	77.93
* estimates						
Head of Account	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008 [*]
Total Income						
(Rs. in lakh)	170,481.05	197,563.6	214,172.05	241,061.77	310,811.19	305,959.5
	130,238.61	138,071.97	153,240	193,356.47	245,348.37	232,218
Total Expenditure						
(Rs. in lakh)	111,831.71	117,047.53	148,407.3	127,896.16	135,017.14	195,872.58
Medical Benefits	56,520.05	62,038.29	82,763.75	72,411	77,978.47	125,182.55
Administrative	17,722	18,277.01	2,383.05	21,096.22	22,139.27	27,596.3
Medical benefit as						
% of total Income	66.37	69.30	71.93	72.50	73.95	77.93
* estimates						

Table 2: Total Income and Ex	penditure of Emplo	ovee State Insurance Co	poration during 2002-2008
Table 2. Total medine and LA	penaltare of Emplo	byce state mountaile co	poration during 2002-2000

Source: Income and Expenditure Accounts of Employees' State Insurance Corporation (ESIC)

Table 3 shows the details of infrastructure under the ESI scheme.

Infrastructure	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Local Offices	626	625	628	628	646	620
ESI Hospitals	141	142	143	144	144	144
ESI Annexes	43	43	43	42	42	42
No. of ESI Beds Constructe	d					
ESI Hospitals	22,620	22,834	23,063	23,063	23,363	23,923
ESI Annexes	867	867	849	849	849	849
Reserved in other	3,165	3,148	3,187	3,187	3,128	2,896
Hospitals						
Total (hospitals)	26,652	26,849	27,099	27,099	27,340	27,668
Dispensaries	1,451	1,447	1,452	1427	1,422	1,388
Insurance Medical	2,789	2,651	2,511	2,135	2,041	1,942
Practitioners						
Capital Constructions (Rs. in Lakh)						
Sanctioned	61,363.89	62,531.06	64,513	66,365.86	67,400.39	70,400.39
Advanced	55,710.73	56,685.77	57,555.34	57,882.33	58,385.88	60,412.88

Table 3: Infrastructure available under the Employees' State Insurance Scheme, 2001-2007

Source: Income and Expenditure Accounts of Employees' State Insurance Corporation (ESIC)

Nearly 13% of the total beneficiaries of the scheme are located in Tamil Nadu. In Tamil Nadu ESIS was first implemented in 5 centres in Coimbatore in January 1955. This was followed by 14 centres in Chennai in November 1955. From its inception in the State, it has gradually and steadily extended to other areas within Tamil Nadu in a phased manner (see Annex 1: District-wise Number of Hospitals, Dispensaries, Beds, Doctors and Nurses available as on 2007-08). Currently, this scheme has been implemented in nearly all districts in Tamil Nadu and provides medical facilities to IPs through its 190 ESI Dispensaries and 9 ESI Hospitals (8 ESI Hospitals under the control of GoTN and 1 ESI Hospital functioning under the control of ESIC, New Delhi). Administratively the facilities are organized under four regions; Chennai, Madurai, Coimbatore and Salem. About 8 million out-patient cases and 0.34 million in-patient cases were treated in these facilities in 2007-08 at a cost of Rs.854 million (GoTN, 2006).

ESIS, though a landmark in the evolution of social security system in India, suffers from poor public perception in terms of coverage, quality and overall effectiveness. This is evident from the tendency among large number of employers of trying to avoid coverage under the scheme (Mavalankar and Bhat, 2000; Gumber and Kulkarni 2000; PRIA, 2004). Studies also show that the system suffers from long recruitment procedures and a low level of satisfaction among users of services.

In light of the unique features of ESIS and the mounting criticism of its effectiveness, this study attempts to provide an empirical basis on how well the scheme is being used by the beneficiaries.

The effectiveness of the scheme -- as perceived by the beneficiaries and as deduced from the utilisation level of Employee State Insurance facilities

In this section, we present the overall effectiveness of the ESI scheme based on (a) the utilisation of services and perceptions of beneficiaries of the overall quality of the scheme and (b) the degree of financial protection provided by the scheme, measured by the direct and other OOP expenses (such as travel cost) incurred by the beneficiaries in various income groups. These results are based on a primary survey carried out in Chennai, Tamil Nadu.

We begin by describing the design of the survey conducted among employees/beneficiaries of the ESI Scheme in the Chennai region. We then present the results of the survey followed by a discussion on issues that influence the overall effectiveness of the scheme.

Survey Design

Sample

A survey of about 900 beneficiaries (officially termed Insured Persons or IPs) was conducted in the Chennai region during August 2007 to March 2008. The beneficiaries were chosen from four different sectors; textiles, engineering, food and beverages (restaurants in particular) and leather and leather products. These four major sectors account for 41% of the total insured population in the Chennai region. Ten industrial units were chosen for this study, based on their willingness to participate. Respondents were selected based on employees who were present on that day and their names were listed as per their identification number. In the second stage, we used the systematic random sampling technique and selected every 5th person amongst those who were present on that day. The details of the samples from various industrial units are given in Table 4.

Survey Instruments

A detailed questionnaire (see Annex 2) was developed to conduct the survey which collected information on the following:

- demographics and socio-economic characteristics;
- household assets owned by the members;
- contributions to ESIS;
- health seeking behaviour and the place of care sought as out-patients and in-patients (ESIS or private); and
- direct medical expenditure, non-medical expenditure and indirect care seeking costs.

The questionnaire was pilot tested and finalised with the help of trained assistants. In some industrial units, due to strict organisational procedures, the management took responsibility for administering the questionnaire. We were given an hour's time to explain the questionnaire to the beneficiaries either during their lunch break or after office hours. The respondents themselves filled in the questionnaires at this time.

The study also developed a topic guide for discussion with employers and ESI officials to understand their perception of the scheme and to identify possible ways to improve its effectiveness.

1. ANALYSIS

Survey results are disaggregated by income group. In order to classify the income groups, we used the overall database (from ESI officials) on the total number of beneficiaries in the entire state and their income range. These were then classified into quintiles (five groups) and the surveyed beneficiaries categorized themselves into these groups based on their reported income.¹ Table 6 shows the distribution of the survey sample according the income quintiles.

Table 4: The sample details

Sector	Name of the company	No: of beneficiaries	Data Collection
		selected	
Textiles	ACL, Textiles,	303	Questionnaire administered by
	Ambattur		trained interviewers
	(Six Units)		
Manufacturing	Brakes India Ltd (TVS	269	Questionnaire administered by
	group)		human resources department,
			Brakes India Ltd (TVS group)
	Real Talent	47	Questionnaire administered by
	Engineering Ltd		human resources department,
			Real Talent Engineering Ltd
Leather	Sahfeeq Shameel & Co	25	Training given to human
			resources department of the
			company
	NMZ Industries Private	17	Training given to human
	Ltd		resources department of the
			company
	N.M. Zackriah & Co	11	Training given to human
	Tannery		resources department of the
			company
	N.M. Zackriah & Co	24	Training given to human
	Footwear Division		resources department of the
			company

¹ Beneficiary analysis requires classification of beneficiaries according their assets or income. In this study, although we eventually used information on beneficiaries' income from their respective employers (which is authentic), we also tried to elicit self-reported asset holdings of beneficiaries at the time of interviews. Beneficiaries were asked to list the assets they own. A list of 15 asset-variables was chosen based on the NFHS methodology. These were: electric fan, refrigerator, mobile phone, landline phone, b/w television, colour television, computer, water pump, pressure cooker, gas stove, sewing machine, electric mixer/grinder, bicycle, two-wheeler powered, motor car. An asset index was compiled using a principal component analysis. Four components were extracted which explained about 49 per cent of the variance. In the second round the four components were considered in the principal component analysis and one factor was extracted. The factor was distributed into quintiles. Along with this classification, the Karl Pearson correlation was generated for distribution of individuals according to income and assets. Though the correlation was positive (0.027) it was very weak. This could be partly due to the workers from the restaurant sector. Most of the workers in this sector have migrated from the rural areas and live in the work place, while their families stay back in the village. This gives rise to the methodological issue of which assets to consider, as they don't own any assets in the location where they work. The income data from the employees were however more robust and reliable. Therefore, we decided not to use the asset index for this study.

	Fawaz Foot wear (P)	16	Training given to human
	Ltd.		resources department of the
			company
	Farida Prime Tannery	39	Training given to human
	Private Ltd.		resources department of the
			company
Restaurant	Vasantha Bhawan	133	Training given to the human
	Chennai (10 units)		resources department of the
			company
Total		884	

Table 5 shows that that a large proportion (26%) of our sample population is from the lowest social groups (Scheduled Castes and Scheduled Tribes). About 40% of the sample population reported not having an out-patient facility within a 10 km radius of their residence. Almost 60% reported that in-patient facilities are also not present within a 10 km radius.

Table 5: Descriptive Statistics of some of the characteristics of the sampled beneficiaries

Description	Percent
Religion	
Hindu	79.89
Islam	12.38
Christian	7.19
Other	0.53

Distance of ESIS- Out-	Percent
patient facility from home	
(n= 589)	
0-2 Km	28.18
2-5 Km	29.20
5-10 Km	25.98
> 10 km	16.64

Social Group	Percent
Scheduled Castes	20.99
Scheduled Tribes	6.82
Other Backward Class	53.61
Other	18.58

Distance of ESIS- In-patient facility from home (n=479)	Percent
0-2 Km	5.85
2-5 Km	9.60
5-10 Km	21.29
10-30 Km	23.59
> 30 Km	39.67

Table 6: Distribution of the population according to income quintiles

Quintile	Range of Income	Frequency	Percent
1	0-2933	885	29
2	2944-3810	732	24
3	3811-4913	763	25
4	4914-6655	244	8
5	6556-10000	427	14
Total		3050	100

2. RESULTS

Table 7 shows some key results of the survey with respect to both out-patient and in-patient consultations.

Table 7: Place of Treatment for the Out-patient and In-patient care

Quintile	Range of Income (in Rs.)	Out-Patien	t		In-Patient			
		No. of the	ESI	Private	Total	ESI	Private	Total
		episodes reported	(Col %)	(Col %)	(Col %)	(Col %)	(Col %)	(Col %)
1	0-2933	640	22	152	174	13	36	49
			(33)	(37)	(37)	(22)	(33)	(29)
2	2944-	421	16	87	103	22	26	48
	3810		(24)	(22)	(22)	(37)	(24)	(28)
3	3811-	560	18	71	89	16	6	22
	4913		(26)	(18)	(19)	(26)	(5)	(13)
4	4914-	170	5	25	30	4	4	8
	6655		(7)	(6)	(6)	(7)	(4)	(5)
5	6556-	210	6	71	77	5	37	42
	10000		(9)	(17)	(16)	(8)	(34)	(25)
Total		2001	67	406	473	60	109	169

We found that a total of 2001 out-patient consultations had taken place during the 30 days preceding the survey. Of the 2001 consultations, only 67 (3%) utilised ESI facilities; 406 patients (20%) chose to visit private facilities. The remaining patients had gone in for self medication, used over the counter medicine prescribed by the pharmacist or didn't seek any care whatsoever from

any source. The primary reasons for not visiting the ESI facilities were: (a) the facility is not within reach; (b) seeking care entailed long waiting time at the dispensaries or the timing of the dispensaries was unsuitable; and (c) the beneficiaries were dissatisfied with the treatment received at the facilities.

Out of 169 insured patients who required in-patient care, only 60 (35%) used ESI facilities, while the remaining 109 (64%) visited private facilities. So only third of those covered did seek care from ESI facilities. Some of the reasons cited for the low level of ESI facilities for in-patient care included; lack of access, the unsatisfactory nature of ESIS services, low quality drugs, long waiting periods, insolence of ESIS personnel, unusual delays in reimbursement of money spent on treatment outside ESI centres, lack of or low interest of employers and low awareness of ESI procedures. Lack of diagnostic facilities, unhygienic conditions and absence of female nurses are some of the factors that dissuade women patients from visiting the facilities.

Around 15% of the out-patients and 35% of the in-patients sought care from the ESI facilities. Despite the overall utilisation of ESI facilities being very low, it is important to note that these facilities are used more by those in the lower income quintiles than those in higher income quintiles. This is true for both in-patient and out-patient care (see Figure 1).



Figure 1: Utilisation pattern of Employees' State Insurance facilities across quintiles

Beneficiaries' perceptions of the Employees State Insurance Scheme:

The following observations reveal a diverse range of perceptions among beneficiaries on the functioning of the ESI facilities, particularly with regard to access, quality and time constraints:

"The timing does not suit our working hours. We find it difficult to take leave or permission to go to the clinic in the morning hours. By the time we leave office the clinic closes (at 6 pm). Finally we end up going to private doctors." (an observation from an IP/beneficiary in a restaurant) "We are staying away from our native place which is 200 km from Chennai. Hence we are not able to treat our family members in the ESI clinic/hospital designated for us in Chennai. The expenditure on travel, food and accommodation becomes expensive in that case." (Textile Sector worker)

Several others echoed the following sentiment of an IP/beneficiary on the overall satisfaction with quality:

"In the out-patient's clinic there are not enough places; with many patients the place is not very comfortable. Receiving the OP card itself takes a long time. The sanitation conditions in these facilities are also not very good." (Leather Industry worker)

"Ambur is industrial area. Work related injuries are frequent. Hence we need a hospital in Ambur itself. Currently, we have to travel up to 20 km for hospitalisation." (Leather Industry worker)

Frequent references to the lack of diagnostics in ESI facilities were common, "Not enough diagnostics facilities are available in these clinics. Again we are forced to go to private labs/clinics for better diagnostic facilities." (Ambur leather factory worker)

This is not to state that respondent's views were uniformly negative. Several had had good experiences also. As a worker from a textile factory in Chennai city said, "I had taken my wife for antenatal care and for delivery to ESI hospital, Aynavaram, Chennai. The treatment was very good."

Many rated the overall quality of care in ESI facilities better than that obtained in the private sector:

"I took my mother for asthma treatment to the ESI hospital Vellore. She was feeling better than when she was treated in a private hospital." (Ambur leather factory worker)

"Fifteen days back I went to the ESI clinic with an ear ache. Medical services were good. I suffer from this complaint frequently. And I visit ESI regularly for treatment. I am satisfied with their service." (Manufacturing Sector worker)

In addition to the need for care, there are substantial differences in the work environment of the surveyed beneficiaries. It is possible that the utilisation of healthcare is determined by socioeconomic factors of beneficiaries in each sector. These factors affect diverse groups of individuals differently and play distinctive roles in the decision to seek medical care (mostly taken by the individual) and in the decision regarding the subsequent number of visits to ESI dispensaries or private facilities.

We observed that beneficiaries in the restaurant sector encountered the most problems. Most of the insured patients live at their workplace, while their family members continue to live in their villages. As the beneficiary is registered with the ESI dispensaries nearest to the workplace, the dependents (who reside elsewhere) are unable to access the ESI health facilities in the case of illness. They have no other option but to seek care either from a public facility or consult a private

physician for treatment. For the beneficiaries themselves, since the opening times of the ESI dispensaries coincide with that of the peak hours of business in the restaurant sectors, the employers discourage their staff from using the ESI facilities.

As one IP from the restaurant sectors says, "The ESIS is of no use for me as my ailing family members who need it more are not getting any benefit whatsoever from the scheme. We can't spend huge amounts of money on transportation...therefore we prefer the local hospitals even though sometimes we have to compromise on the quality of services."

We also observed that three-quarters of those covered did not seek care from ESIS facilities. The unsatisfactory nature of ESIS services, low quality drugs, long waiting periods, insolence of personnel, long waiting spells to unusual delays in reimbursement of money spent on treatment outside, and lack of or low interest of employers and low awareness of ESI procedures were some of the reasons cited for not seeking care from ESIS facilities.

"The service in the dispensary is so shoddy that when the patient does not get well even after a few visits to the dispensary he has no choice but to seek private medical assistance. This is specially so in the case of an emergency. What is worse is that reimbursement at times takes several weeks," said an IP.

Where diagnostic facilities are available most of the doctors are men and female beneficiaries registered under this scheme are reluctant to approach them for diagnosis. They prefer getting treatment from private nursing homes or private clinics. As a result, the number of patients is decreasing with each passing day in these dispensaries.

Each dispensary covers more than 1,500 people depending on the area it is situated in. Generally, a dispensary is headed by one medical officer, who is in charge, and two doctors, one each for the morning and the evening shifts. But these doctors invariably play truant in the absence of any monitoring. A registered beneficiary is issued a card and a corresponding card is sent to the dispensary concerned. Each beneficiary is allotted a dispensary keeping in mind the option sought by him or the proximity of the dispensary to his residence or place of work. In case of an emergency he may go or referred to the nearest ESI hospital or an empanelled private hospital.

For super-speciality medical assistance, the ESI generally refers cases either to the Christian Medical College, Vellore or Chennai.

"The conditions in the dispensaries are appalling. We have to ultimately go to a government hospital or arrange money for private treatment. What then, is the use of the ESI? One feels so cut up to think that a chunk of our hard-earned salary is cut for contributing to the ESI and we get little in return for it," said some of the beneficiaries.

In the dispensaries the conditions are akin to any government-run hospital. A beneficiary has to queue up to see the doctor and then queue up again to get medicines. At times, medicines are not available and the beneficiary has to get the medicines privately and later seek reimbursement against the bill from the ESIC, a procedure which can take some time. ESI beneficiaries also stated

that the general attitude of doctors and other medical personnel in the dispensaries was one of complete apathy. What made matters worse was the long distance the IPs had to travel to reach these dispensaries.

Out-of-pocket expenditure incurred for treatment

Through the survey we have collected the health expenditure the beneficiaries incurred which could be categorised as direct and indirect. Direct medical expenditure are those which would be reimbursable as per the ESI and it includes items such as physician's fees, medicines, diagnostic tests, bed charges, attendant charges, physiotherapy, blood, oxygen cylinder, food etc. Indirect medical expenditure includes transportation cost and the lodging charges of the escort if any.

ESIS covers a large part of OOP expenditures and therefore, we expected that total OOP expenditures—with at least a minimum for transport and other non-medical expenses—would be lower for the members using the ESI facilities. To validate this we collected the medical, transport and the non-medical expenditures incurred by beneficiaries who visited both ESI facilities and the private facilities.

The survey identified two categories of beneficiaries. Category 1 includes those beneficiaries who visited ESI facilities first and obtained free services but might have also been referred by physicians to private facilities for certain services (such as diagnostic services or higher level of care due to non-availability of these services in ESI facilities). Category 2 of beneficiaries includes those who visited private facilities on their own without referrals from ESI providers. As per the current policy, expenses incurred by Category 1 beneficiaries in private facilities are reimbursed, whereas expenses of those in Category 2 are not reimbursed.

Table 8 shows expenses incurred for out-patient care with respect to Categories 1 and 2. Table 9 shows expenses for hospitalisation care with respect to Categories 1 and 2.

From Table 8, it is evident that direct medical expenses incurred by Category 2 beneficiaries (Rs.705) are much higher than by Category 1 (Rs.322). The average medical expense of Rs.322 by Category 1 is fully reimbursed, so the effective cost is zero.

Similarly, the average direct medical expense for in-patient care among Category 2 is Rs.5431, which is much higher than Rs.3136 spent by Category 1 who are fully reimbursed. Not only is the cost of treatment high but the transportation cost and other medical expenditures incurred are higher for those who are seeking treatment from the private sector. While on an average the beneficiaries visiting the ESI facilities incurred Rs. 40 and Rs. 73 respectively for the transportation and other medical expenditures, it costs Rs. 181 and Rs. 281 respectively for the beneficiaries under Category 2. This is primarily because they have to travel to nearby city to access the private doctors.

Quintiles	Direct Medical Expenditure		Transportatio	n	Non medical expenditure		
	Category 1	Category 2	Category 1	Category 2	Category 1	Category 2	
1	30.00	635.96	16.70	142.32	10.00	159.64	
2	Nil	249.37	35.67	45.50	41.67	58.99	
3	152.50	1015.95	21.00	360.09	11.25	447.22	
4	550.00	329.39	102.50	322.10	100.00	243.75	
5	500.00	1279.86	190.00	147.73	200.00	178.44	
Total	322.50	705.64	40.02	181.00	73.06	218.71	

 Table 8: Out-patient expenditure per visit in the Employees' State Insurance facilities and Private facilities (figures are in Rs.)

Similarly, the average direct medical expense for in-patient care among Category 2 is Rs.5431, which is much higher than Rs.3136 spent by Category 1 who are fully reimbursed. Contrary to the outpatient care, in in-patient care the beneficiaries who are visiting the ESI facilities are incurring more indirect expenditure compared to those who are seeking care from the private facilities. This is due to the fact that the ESI owned hospitals and the empanelled hospitals are limited in number and the beneficiaries have to travel long distances to access these facilities. Sometimes the patients may have to travel more than 500kms to access the referred facilities.

 Table 9: In-patient expenditure per episode in the Employees' State Insurance facilities and private facilities (figures are in Rs.)

Quintiles	Direct Medica	al Expenditure	Transportation		Non medical expenditure		
	Category 1	Category 2	Category 1	Category 2	Category 1	Category 2	
1	2250.00	3031.25	505.56	428.95	560.00	387.50	
2	1750.00	8605.56	496.50	378.13	243.75	300.00	
3	3400.00	4462.50	650.71	375.00	423.00	833.33	
4	4750.00	1500.00	714.67	100.00	772.67	350.00	
5	3136.36	4892.31	926.06	496.43	1297.62	629.17	
Total	2250.00	5431.13	505.56	415.45	560.00	481.08	

Administrators/ Policy Makers Impression on the Employees' State Insurance Scheme

It is important to understand why ESI beneficiaries first seek care from private facilities (without referrals) which are not reimbursed. Our analysis in the last section highlighted the perceptions that beneficiaries have of the quality of care obtained in ESI facilities and the reasons for their seeking care from private sector.

We met with a number of officials in ESIC, state officials implementing the ESI scheme, and employers in Tamil Nadu to understand their views on the implementation of the ESI scheme.

During these meetings, our discussions often turned to the reasons for the present health seeking behaviour of beneficiaries, and the ways in which ESI programmes could be implemented more effectively so that their utilisation would increase. In this section, we present their views and suggestions for improving the implementation of the ESI scheme.

Policy makers in ESIC were asked to respond to our results regarding the utilisation pattern of ESI services by beneficiaries. Policy makers attributed the poor utilisation of out-patient services of ESIS to two factors: (a) the easy availability of and access to private health providers and (b) "perhaps the perception of better quality of care obtained from the private sector" in addition to the long travel time from place of residence to ESI dispensaries. The higher utilisation of in-patient services of ESIS on the other hand was largely attributed to the higher cost of in-patient services in the private sector.

4. **RECOMMENDATIONS**

Not only is the utilisation pattern of the ESI facilities relatively very low but the cost of treatment in the private sector is quite high. On an average the in-patients in the private facilities spent around Rs. 6327 (including indirect expenses) and Rs.1104 for out-patient care. This clearly shows that the scheme is failing to provide the financial protection that it should. Based on the responses from policy makers on how to improve the overall effectiveness of the scheme, we offer below some suggestions for improvements.

The government could improve access by constructing more ESI facilities or adding more private facilities to the panel of recognised hospitals where the insured patients can get treatment. The latter is particularly important as the current perception of quality of care among beneficiaries is poor. Private providers are spread throughout rural and urban areas and are available wherever there is a demand for services. They are also more easily accessible to people than public facilities and have flexible opening hours and short waiting times (Ogden et al., 1999; World Bank, 1995). Other documented reasons for their popularity are their greater sensitivity to user needs and the assurance of confidentiality (Bhatia and Cleland, 2001; Kamat, 2001; Ogden et al., 1999). Between 75% and 80% of households in India prefer to use the private sector for treatment of major and minor illnesses respectively (National Council of Applied Economic Research, 1995).

The basic infrastructure of the existing facilities could be improved to provide higher quality of service to the beneficiaries; this includes making basic diagnostic equipment available, providing nursing personnel, laboratory services and making conditions more sanitary.

A multiple card system could be introduced so that the beneficiaries can use a convenient facility whenever required; this will particularly help those employees whose family members or dependents do not live with them. It would mean that employees and their families could hold a card each so that even if they lived apart each could use the most convenient health facility.

Finally, our discussion with policy makers suggest that there has been little continuity in the highest policy making system, thereby considerably weakening the efforts taken to bring about major changes and to improve the overall performance the ESI scheme.

5. CONCLUSION

In this study using the data collected through a primary survey of 884 households we tried to assess the utilisation pattern of the ESI facilities and to what extent the ESI Scheme helps protect the beneficiaries from the catastrophic health expenditure. The findings show that the overall utilisation level is very low due to; perceived low quality drugs, long waiting periods, insolence of personnel, long waiting spells to unusual delays in reimbursement of money spent on treatment outside, lack of or low interest of employers and low awareness of ESI procedures. These findings may reflect the existing problems with the operation of the ESI scheme, the reimbursement and the referral systems adopted by the scheme. More specifically if the ESI enrolees are less likely to access their insurance benefits when seeking care, then one might wonder why do the organisations will voluntarily purchase insurance coverage for their workers?

Like any other study based on a primary survey, some caveats are in order for this study. The use of income to classify beneficiaries into different quintiles has its own problems. In spite of assurances, respondents generally do not reveal the correct income figure or sometimes don't add the incomes from other sources. The data on the use of health insurance card and the various expenses incurred are subject to recall errors.

6. **REFERENCES**

Bhatia, J.C., Cleland, J., 2001. Health-care seeking and expenditure by young Indian mothers in the public and private sectors. *Health Policy Plan* 16, pp.55-61.

Culyer A.J., 1993. Health, health expenditures, and equity. In: E. van Doorslaer, A. Wagstaff and F. Rutten, Editors, *Equity in the finance and delivery of health care*, Oxford: Oxford University Press.

Dash, U., Acharya, D., Muraleedharan, V.R., Vaidyanathan, G., 2008. An Analysis of Efficiency of District Public Health Care System in Tamil Nadu and Orissa. *Working Paper* (submitted to World Bank India).

Ekman B., 2007. Catastrophic health payments and health insurance: Some counterintuitive evidence from one low-income country. *Health Policy*, Volume 83, Issues 2-3, pp.304-313.

Garg, C. and Karan, A.K, 2004. Catastrophic and Poverty Impact of Out of Pocket Expenditure in India: Statewise Analysis. *Working Paper No 23*, New Delhi: Institute for Human Development.

Government of Tamil Nadu (GoTN), 2006. ESI Scheme in Tamil Nadu: Brief Note, Directorate of Medical and Rural Health Services, unpublished.

Gumber A., Kulkarni V. 2000. Health Insurance for Informal Sector: Case Study of Gujarat. *Economic and Political Weekly*, Sep. 30.

Gumber A., 2001.Extending Health Insurance to the Poor: Some Experience from the SEWA Scheme. *Health and Population- Perspectives and Issues* 24(1), pp.1-14.

Kamat, V.R., 2001. Private practitioners and their role in the resurgence of malaria in Mumbai (Bombay) and Navi Mumbai (New Bombay), India: serving the affected or aiding an epidemic? *Soc. Sci. Med.* 52, pp.885-909.

Mavalankar, D. and Bhat, R., 2000. *Health Insurance in India: Opportunities, Challenges and Concerns: Report on One-day workshop.* Indian Institute of Management: Ahmedabad. <<www.iimahd.ernet.in/~rbhat/Download/insurance%20workshop.pdf> accessed on 23.03.09.

Merlis, M. 2002. Family out-of-pocket spending for health services: a continuing source of financial insecurity, The Commonwealth Fund.

National Council of Applied Economic Research (NCAER), 1995. Household survey of health care utilisation and expenditure, *Working Paper No 53*. New Delhi.

NSSO (2006): Morbidity, Health/Care and the Condition of the Aged (NSSO 60th Round, January – June 2006), National Sample Survey Organisation (New Delhi: Ministry of Statistics and Programme Implementation, Government of India).

Nyman, J.A, 1999. The value of health insurance: the access motive. *Journal of Health Economics*, 18, pp.141-152.

Ogden, J., Rangan, S., Uplekar, M., Porter, J., Brugha, R., Zwi, A., Nyheim, D., 1999. Shifting the paradigm in tuberculosis control: illustrations from India. *Int. J. Tuberc. Lung. Dis.*, 3, pp.855-861.

Prescott, N. and Pradhan, M., 1999. *Coping with catastrophic health shocks, Conference on poverty and social protection*. February 4–5, Inter-American Development Bank: Washington, DC.

PRIA, 2004. Revitalisation of the essentials, *Society for Participatory Research in Asia Newsletter*, Volume 5, Issue 1, June 2004.

Sakthivel, S and Karan A.K., 2009. *Deepening Health Insecurity in India: Evidence from National Sample Surveys since 1980s.* Economic & Political Weekly, October 3, Vol XLIV no 40, pp.55-60.

Sharma, A.K., 1997. Factors affecting satisfaction from employees state insurance corporation services provided at the dispensaries *Health and Population - Perspectives and Issues.* 20(1), pp. 38-47.

Xu, K., Evans, D.B., Kawabata, K., Zeramdini, R., Klaus J. and Murray, C.J.L., 2003. Household catastrophic health expenditure: a multicountry analysis. *The Lancet*, 362, pp.111–117.

Wagstaff A., and E. van Doorslaer., 2003. Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993–1998, Health Economics 12, pp.921–934.

World Bank, 1995. *India: Policies and Finance Strategies for Strengthening Primary Health Care Services* (No. 13042-IN). World Bank: Washington DC.

7. ANNEXES

ANNEX 1

Table 10: District-wise Number of Hospitals, Dispensaries, Beds, Doctors and Nurses under theControl of the Director of Employees State Insurance in Tamil Nadu (2007-2008)

Districts	Number of ESI Hospitals	Number of ESI Dispensaries	Number of Beds	Number of Doctors
Chennai	1+1*	22	1008	141
Kancheepuram	-	4	-	14
Tiruvallur	-	14	-	46
Cuddalore	-	3	8	4
Villupuram	-	1	-	-
Vellore	1	10	62	33
Tiruvannamalai	-	1	-	1
Salem	1	11	50	43
Namakkal	-	4	-	3
Dharmapuri	1	4	64	19
Coimbatore	1	36	546	159
Erode	-	3	-	5
The Nilgiris	-	1	-	2
Tiruchirapalli	1	8	98	25
Karur	-	3	3	1
Perambalur	-	1	Nil	2
Pudukkottai	-	2	14	4
Thanjavur	-	2	9	6
Nagapattinam	-	3	3	3
Tiruvarur	-	-	-	-
Madurai	1	10	249	55
Theni	-	2	5	3
Dindigul	-	8	11	14
Ramanathapuram	-	-	-	-
Virudhunagar	1	13	112	37
Sivagangai	-	3	-	3
Tirunelveli	-	10	15	12
Thoothukudi	-	5	56	12
Kanniyakumari	-	5	50	11
Tamil Nadu	8+1*	190	2363	656

*Managed by the ESIC, others are run by the Tamil Nadu Government

ANNEX 2

Questionnaire administered among employees (beneficiaries) of the ESI scheme in Tamil Nadu

Corporation Name	:
Corporation ID	:
Questionnaire ID	:
Survey Date	:
Interviewer's Name	:
Name of the Respondents	:

I. About yourself

- 1. Are you ESIS member?
 - [] Yes, what is your current salary scale______ Rs per month, How much did you pay towards ESIS premium last year? _____Rs per month
 - [] No, what is your salary scale _____ Rs. per month Do you have any other insurance coverage? [] Yes, [] No
 - Would you wish to join the ESIS in future?
 - [] Yes because _____
 - [] No because _____
- Which **dispensary** were you registered with for out-patient services ? (name) ______
- 3. How far it is from your home?
 - a. _____ km.
 - b. _____ minutes on foot,
 - c. _____ Rs for public transport,
 - d. _____ Rs. for private transport.
- 4. How satisfied are you with this dispensary you chose? 1 2 3 4 5

 $\,\circ\,$ score on a scale of 1-5, with 1 for the least satisfaction and 5 for highest

- 5. Which **health centre** (for IP) were you usually referred to for admission? (name)_____
- 6. How far is it from your home?
 - a. _____ km.
 - b. _____ minutes on foot,
 - c. _____ Rs for public transport,
 - d. _____ Rs. for private transport.

- 7. How satisfied are you with this health centre?
 - 1 2 3 4 5
 - $\,\circ\,$ score on a scale of 1-5, with 1 for the least satisfaction and 5 for highest
- 8. Which religion do you belong to?
 - a. Hinduism
 - b. Islam
 - c. Christianity
 - d. Other
- 9. Which social group do you belong to?
 - a. Scheduled Caste
 - b. Scheduled Tribe
 - c. Other backward class
 - d. Others

II. About your dwelling and owership of durables

- 10. Does your family own agricultural land? _____ Acres
- 11. What type of house do you live in?
 - a. self owned
 - b. rented
 - c. company owned
- 12. What type of <u>roof</u> is your dwelling mainly made of?
 - a. Pucca (cemented)
 - b. Semi Pucca (tiled/asbestos sheet)
 - c. Kutcha (thatched)
- 13. What type of floor does your dwelling have?
 - a. Cemented
 - b. Mud
- 14. What type of walls do your dwelling have?
 - a. Pucca (cemented)
 - b. Semi Pucca (tiled/asbestos sheet)
 - c. Kutcha (thatched)
- 15. What type of latrine do you have in your dwelling?
 - a. Septic tank/flush system
 - b. Serviceable pit
 - c. No latrine
 - d. Others

- 16. What type of drainage do you have in your dwelling?
 - a. Underground
 - b. Covered pucca
 - c. Open pucca
 - d. Open kutcha
 - e. No drainage

17. What are your sources of drinking water?

- a. Public tap
- b. Tube-well/hand pump (public)
- c. Tube well hand pump (private)
- d. Tankers (public)
- e. Tanker private
- f. Pucca well (public)
- g. Pucca well (private)
- h. Any other

18. Does your household own the following items

Items			Yes/No	lf Yes, Number
а	э.	Electric fan		
b).	Refrigerator		
C	2.	Land line phone		
d	ł.	Mobile phone		
e	э.	B-W television		
f.	•	Colour televisison		
g	<u>z</u> .	Sewing machine		
h	۱.	Pressure cooker		
i.		Electric grinder/Mixer		
j.	•	Bicycle		
k	κ.	Two wheeler (powered)		
١.		Motor car		
n	n.	Water pump		
n	۱.	Gas stove		
0).	Computer		

III. About your household income and expenditure

- 19. Total income in the previous month [may consider to delete income questions]
 - a. Cash income from wages,
 - b. Selling of agriculture products
 - c. Income transfer from all members of household ______ Rs.
 - d. Income from own consumed agricultural products ______ Rs.

- 20. Total consumption expenditure in the last month for common items (Rs)
 - a. Food and beverage
 - b. Rent
 - c. Clothing
 - d. Education
 - e. Communication (mobile phone expenses etc.,)
 - f. Fuel and Light (gas cylinders and electricity bill)
 - g. Transportation cost
 - h. Others

21. Total consumption expenditure in the last year for non-common items/ durable items (Rs.)

1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Illnesses in the last month															
D	Name (List down all the members of your household)	What is each one's relationship to Household head	Gender	Age	Education	Did you report illness last month?	How many times did you fall ill?	Total absence from regular work or activities	How many visits did you make to health facilities?	For <u>the last reported illness</u> , where did you go?	Is the provider ESIS?	How much did you pay for the doctor, medicines, diagnostics (X ray, lab test) etc.?	How much did you pay for the transport (to & fro)?	How much did you pay for non medical expenditure e.g., food, lodging including for companion?	Satisfaction on non-clinical services (rank in a 1-5 scale where 1 is the least satisfaction and 5 is highest satisfaction)	satisfaction on clinical services rank in a 1-5 scale where 1 is the least satisfaction and 5 is highest satisfaction)
1																
2																
3																
4																
5																

IV. About illnesses and out-patient care in the past month by all members in your household

V. About admissions in the past 12 months of all members in your household

ID	Name	For <u>the last</u>	Is this PHC/	How much did you	How much did	How much did	Satisfaction on	Satisfaction on
		admission, where	hospital	pay for that	you pay for the	you pay for non	non-clinical	clinical services
		did you go?	designated by	admission including	transport (to &	medical	services (rank on a	(rank on a 1-5
		(Name the	ESIS?	fees, surgery, bed	fro)?	expenditure e.g.	1-5 scale where 1 is	scale where 1 is
		hospital or PHC)		charges, medicines,		food, lodging etc.	the least	the least
				diagnostic, surgery,		including for	satisfactory and 5	satisfactory and 5
				etc.?		companion	is highly	is highly
						(patient	satisfactory)	satisfactory)
						caretaker)?		
1								
2								
3								
4								
5								