IMPACT OF BHAMASHAH SWASTHYA BIMA YOJANA (BSBY): A STUDY AMONG THE BPL HOUSEHOLDS OF JAIPUR, RAJASTHAN

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JUNE 2020

DECLARATION

I hereby declare that this dissertation titled ***'Impact of Bhamashah Swasthya Bima Yojana (BSBY): A study among the BPL households of Jaipur, Rajasthan'*** is the bonafide record of my original research. It has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

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CERTIFICATE

Certified that the dissertation titled "Impact of Bhamashah Swasthya Bima Yojana (BSBY): A study among the BPL households of Jaipur, Rajasthan" is a record of the research work undertaken by **ROSELENT JOSEPH** in partial fulfilment of the requirements for the award of the degree of "Master of Public Health" under my guidance and supervision.

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TABLE OF CONTENTS

Items		Page number
List of tables/figures		7
Abbreviations		8
Abstract		9
Chapter 1	**Introduction and Review of Literature**	
1.1	Introduction	10
1.2	Review of Literature	12
1.2.1	Health Insurance-Global scene	12
1.2.1.1	Thailand	12
1.2.1.2	Canada	12
1.2.1.3	The United States of America	13
1.2.1.4	Japan	13
1.2.2	Health Insurance in India	13
1.2.3	Health Insurance in Rajasthan	14
1.2.4	About BSBY	14
1.2.5	Health insurance studies from India	15
1.2.6	Justifications for the study	16
1.2.7	Objectives of the study	16
Chapter 2	**Methodology**	
2.1	Study Design	17
2.2	Study setting	17
2.3	Sample size and sampling	17
2.4	Sample selection	17
2.5	Data Collection Tools	19
2.6	Data Collection	19
2.7	Variables used	20
2.7.1	Dependent variables	20

2.7.2	Independent variables	21
2.7.3	Other variables	21
2.8	Data entry and analysis	22
2.8.1	Univariate analysis	22
2.8.2	Bivariate analysis	22
2.9	Data Storage	23
2.10	Ethical considerations	23
Chapter 3	**Results**	
3.1	Sociodemographic details	24
3.2	Enrolment process	25
3.3	Utilisation pattern	28
3.4	Out of pocket expenditure	30
3.4.1	Sources of financing	34
3.5	Services under Bhamashah scheme	35
Chapter 4	**Discussion**	
4.1	Demographic details	37
4.2	Enrolment process	37
4.3	Utilisation pattern	38
4.4	Out of pocket expenditure	39
4.5	Services under Bhamashah	40
4.6	Conclusion	41
4.7	Future recommendation	41
References		42
Annexure 1		46
Annexure 2		52
Annexure 3		56
Annexure 4		67
Annexure 5		70
Annexure 6		72

LIST OF TABLES AND FIGURES

FIGURES

Figure 2.1 Flowchart showing sample selection

Figure 3.1 Year-wise BSBY enrolment

TABLES

Table 3.1 Socio-demographic details

Table 3.2 Reasons for not enrolling in BSBY

Table 3.3 Sources of information about BSBY

Table 3.4 Enrolment details

Table 3.5 Utilisation pattern among enrolled and non-enrolled respondents

Table 3.6 Treatment in the last one year

Table 3.7 Details of Out of pocket expenditure

Table 3.8 Association between out of pocket expenditure and enrolment status

Table 3.9 Mean out of pocket expenditure among various categorical variables

Table 3.10 Sources of financing in enrolled and non-enrolled respondents

Table 3.11 Sources of financing for general and critical illness

Table 2.12 Proportion of beneficiaries who received the services under BSBY

ABBREVIATIONS

WHO	World Health Organisation
UHC	Universal Health Coverage
GDP	Gross Domestic Product
NHM	National Health Mission
RSBY	Rashtriya Swasthya Bima Yojana
CGHS	Central Government Health Scheme
ESIS	Employees State Insurance Scheme
UHIS	Universal Health Insurance Scheme
BPL	Below Poverty Line
BSBY	Bhamashah Swasthya Bima Yojana
NFSA	National Food Security Act
OOP	Out of Pocket
THE	Total Health Expenditure

ABSTRACT

Impact of Bhamashah Swasthya Bima Yojana (BSBY): A study among the BPL households of Jaipur, Rajasthan

BACKGROUND: Globally out of Pocket (OOP) medical spending is pushing a huge proportion of families into extreme poverty. Rajasthan government, with an aim to provide financial protection to its Below Poverty Line (BPL) population of the state, implemented Bhamashah Swasthya Bima Yojana (BSBY) in 2015. This study attempts to explore the a) the enrolment process b) utilisation pattern c) OOP expenditure and d) services covered under the scheme.

METHODS: A community based cross-sectional study was conducted among BPL households of Jaipur district in Rajasthan. Multi-stage random sampling was done to select the estimated sample (370) of 185 households each from rural and urban Jaipur. Data collection was done by the principal investigator and field assistants using a structured interview schedule and there was 100 percent response rate. Bivariate and Univariate analysis was done using SPSS version 25.

RESULTS: The household size of the respondents was 4.5 ± 1.5. Majority of the head of the households were unskilled labourers (56.2 percent). Middle-aged adults (43.8 percent) and females (52.2 percent) made up higher proportion of the respondents. There was 83 percent enrolment in BSBY and the main reason for not enrolling among the uninsured was not being aware about the scheme and its enrolment processes. More than three-fourths of the respondents were enrolled in the beginning years of the scheme. The study found that insured people had utilised hospital services 2.1(1.2-3.8) times more than uninsured respondents. The proportion of respondents who visited private hospitals was significantly higher in enrolled people. The total median OOP expenditure was INR 1725. Medicines and diagnostics made up the higher share of total OOP spending. People who visited private hospitals and had critical illness had significantly higher mean OOP expenditure. The main source of financing was saving for both enrolled and non-enrolled. Distress financing sources like borrowing, loans from money lenders and selling properties were other sources for the respondents. A huge proportion of the respondents failed to receive these services like coverage of pre hospitalisation expenses (84 percent), post hospitalisation charges (69 percent), cashless treatment (80.7 percent) and services of Swasthya Margadarsh (80 percent).

CONCLUSION: This study evaluated the impact of Bhamashah Swasthya Bima Yojana on its beneficiaries. The study found that there was increased utilisation of the hospital services by the insured. However, 80 percent of the insured respondents had to incur out of pocket expenditure even after having a high coverage limit of 330,000 per household per annum. Also large proportion of the beneficiaries failed to receive the services entitled under the scheme. In view of this study, this health insurance scheme has not achieved its central objective of providing financial protection to its beneficiaries.

Chapter 1:

INTRODUCTION AND REVIEW OF LITERATURE

1.1 INTRODUCTION

A 2015 joint report by World Health Organisation (WHO) and World Bank Group concluded that 0.4 billion people in the world do not have full coverage of essential health services and about six percent of people in developing countries are still being tipped into extreme poverty (catastrophic expenditure) because they have to pay out of their pockets for health care (*WHO*, 2015.). And there exist differences in the share of out of pocket (OOP) spending of the total health expenditure (THE) in various countries. For example, the World Bank data of 2014 shows that low and middle income countries like Sudan (75.5%), Nigeria (71.6%), India (62.4%), and Venezuela (64.33%) have a very high share of OOP expenditure in the THE as compared to high income countries like The Unites States of America (18.2%), Australia (11.02%) and France (6.34%) (Ortiz-Ospina and Roser, 2017), (Out-of-pocket expenditure (% of current health expenditure) | Data, 2014.).

In this scenario all the United Nation member countries endorsed Universal Health Coverage (UHC), Goal number 3 of 'The 2030 Agenda for Sustainable Development-2015', to 'ensure healthy lives and promote well-being for all at all ages' and therefore a robust health financing mechanism and an efficient primary healthcare system are the key areas of focus for countries to progress towards UHC (Universal health coverage (UHC), n.d.). As government spending on healthcare in low and middle income countries is very minimal, ensuring adequate health financing is a major challenge for these countries. As per reports of 2013, of 132 developing countries, only 37 will be able to reach the target of five percent spending of their respective Gross Domestic Product (GDP) on healthcare by 2040 (Garg, 2018)

As health is a state subject in India, many of its central and state policies are programmed and implemented in an approach to address the gap in health financing. The National Health Mission (NHM), Rashtriya Swasthya Bima Yojana (RSBY), state funded health insurance schemes, public private partnership models, National Health Policy-2017 were all designed in this direction (Healthcare Financing, n.d.). Government funded health insurance is a common form of health financing designed to meet the healthcare costs of the economically disadvantaged citizens. Independent India had implemented only three government funded health insurance schemes until 1997 - Central Government Health Scheme-CGHS, Employees State Insurance Scheme-ESIS and Rashtriya Arogya Nidhi Scheme (Patnik et al., 2015). Later the Indian health insurance system has undergone significant changes in the last decade with onset of several health insurance schemes in different states of the country, for example Jeevandai Arogya Yojana in Maharashtra in 1997, Yeshaswini scheme in Karnataka in 2002, Rajiv Arogyasri Scheme in Andhra Pradesh in 2007, Kerala's Comprehensive health insurance scheme in 2008 and Rajasthan government's Bhamashah Swasthya Bima Yojana in 2015 etc. (Hooda, 2020).

The first national health insurance of India was Universal Health Insurance Scheme (UHIS), launched in 2003 by the Ministry of Finance. Even though it was subsidised for the economically deprived population, everyone had to co-pay to avail the benefits of UHIS (Patnik et al., 2015). The second national scheme, Rashtriya Swasthya Bima Yojna (RSBY) was introduced in 2007 by the Central labour ministry and provided cashless insurance cover of INR 30,000 per family of five members per year (RSBY, 2009). In a process towards providing financial protection, the central government in 2018 announced the launch of Ayushman Bharat, India's third national health insurance scheme. This scheme provides an amount of up to INR 500,000 per family per annum for secondary and tertiary care hospitalisation to almost 10 crore financially backward families (About Pradhan Mantri Jan

Arogya Yojana (PM-JAY), 2018.). And a total of 25 states in India have implemented Ayushman Bharat scheme either by insurance mode or trust mode or mixed mode as of May 2020 (Status of Implementation of PM-JAY Across States, 2020)

1.2 REVIEW OF LITERATURE

1.2.1 Health Insurance: Global Scene

Social health insurance is defined 'as one of the possible organisational mechanisms for raising and pooling funds to finance health services, along with tax financing, private health insurance, community insurance and others' (Doetinchem et al., 2010). These health insurance schemes are usually financed by government budget allocation, general taxes, payroll taxes or co-payment. Germany was the first country to introduce social health insurance in 1883 (Busse et al., 2017). In the last few decades, many countries like Brazil, India, Thailand, Sri Lanka, Cuba, Kyrgyzstan, Columbia, Chile, Philippines, Japan, Canada, the United States of America, Ghana etc. introduced various national health insurance schemes. Country examples are given below.

1.2.1.1 Thailand: A middle income country, introduced Universal Coverage Scheme (UCS) in October 2001. This scheme provides comprehensive health care with negligible co-payment. The scheme is financed through general taxes. In 2002, the coverage of the scheme was 76 percent of the total population (Social Health Insurance, 2003). A assessment report on Thailand's UCS after ten years of implementation, indicated that there was increased utilisation of healthcare services, reduced prevalence of unmet healthcare needs, and decreased catastrophic expenditure (Thailand's Universal Coverage Scheme, 2012).

1.2.1.2 Canada: National Health Insurance in Canada was introduced in the year 1971. It is a government funded health insurance system covering the entire population. The insurance is financed through general taxes (a single-payer system). Consumer co-payments are virtually non-existing (Ridic et al., 2012)

1.2.1.3 The United States of America: The USA has no single nationalised health insurance system. Here, citizens purchase health insurance from private insurance companies or the government provides it to certain disadvantaged groups. Medicare, Medicaid and Obamacare are three types of public health insurance schemes in America. Medicare is a health insurance scheme for the geriatric population and differently abled individuals. Medicaid is a tax based scheme for certain economically disadvantaged groups (Ridic et al., 2012). The Affordable Care Act or the Obamacare was introduced in 2010 to extend insurance coverage to families with low income. Even though the health indicators of the country are satisfactory, the weakness of the insurance system lies in the fact that 42 million people (in 2012) in the USA live without any insurance cover (Ridic et al., 2012), (Douthit et al., 2015)

1.2.1.4 Ghana: National Health Insurance in Ghana was established in 2003. This scheme is funded through tax on goods and services, social security tax from formal sector employees, individual premiums. National statistics indicate that half of the population was covered after six years of implementation of the scheme (Blanchet et al., 2012). A study that evaluated the scheme reported that the uninsured were 1.4 to 10 times more likely to incur Out of pocket expenditures than insured and the biggest share of OOP among insured were spent on drugs (Okoroh et al., 2018)

1.2.2 HEALTH INSURANCE IN INDIA

There are four types of health insurance schemes in India. Government funded health insurance schemes (for example – RSBY), Private health insurance (for example – General Insurance corporation), Social health Insurance Schemes (for example – CGHS, ESIS), and Community based Health Insurance Schemes (for example- Yeshaswini Trust). The Indian government uses revenue generated through general taxation to fund the public health insurance schemes.

1.2.3 HEALTH INSURANCE SCHEMES IN RAJASTHAN

Rajasthan is the largest state in India with a population 6.8 crores. Three-fourths of the population of Rajasthan live in rural areas. Proportion of people living below poverty line in the state is 15.28 percentage, which is much below the national average of 26.1 percent. The state health system shoulders a double burden of disease where communicable diseases still account for major share of disease burden (Health Vision 2025, 2019), (Rajasthan, 2010).

Various health insurance schemes in Rajasthan are a) Rajasthan State Dairy Development Corporation Insurance Scheme which is open to all registered milk producers and their families. The plan covers hospitalisations up to INR 100,000 per family per annum. Premium amount to be paid is INR 357 per family b) Mukhyamantri Jeevan Raksha Kosh Scheme which covers State BPL families, people living with HIV/AIDS, selected widows, elderly and differently abled people. This scheme provides cashless treatment to beneficiaries in all government hospitals across the state c) Mediclaim Insurance Policy d) Bhamasha Swasthya Bima Yojana (Health Insurance, 2012).

1.2.4 ABOUT BHAMASHAH SWASTHYA BIMA YOJANA

Bhamashah Swasthya Bima Yojana (BSBY) is a health insurance scheme implemented by the Rajasthan government to provide quality healthcare for the economically backward in the state (About BSBY, 2015). The program targets BPL population covered under National Food Security Act 2013 (NFSA, 2013). The State Health Assurance Agency (SHAA) is responsible for implementation of BSBY and a government insurance company called 'New India Assurance Company' provides insurance services on a fixed premium per family per year on floater basis. SHAA pays a premium of INR 1263 per family per year to the insurance company (Mukul, 2018). The main objectives of the scheme were a) to provide quality healthcare and

financial protection against illnesses by reducing OOP b) to improve health status of the citizens of the state c) to create a health data base for implementing new policies d) to reduce the increasing burden on government facilities by providing a spur to private sector to open hospitals facilities in rural areas e) to hedge government funds (About BSBY, 2015).

The scheme provides INR 30,000 for general illnesses (secondary illnesses) and additional INR 300,000 for critical illnesses (tertiary illnesses) per family per year. BSBY covers 738 packages for secondary illnesses and 663 for tertiary illnesses. There are 984 private hospitals and 519 government hospitals empanelled in the scheme. Other salient features of the scheme include cashless in-patient treatment for beneficiaries, empanelment of both private and government, transportation allowance of INR 500 per year for cardiac and poly-trauma cases, coverage of pre-hospitalisation charges up to 7 days and post-hospitalisation charges up to 10 days (About BSBY, 2015).

1.2.5 HEALTH INSURANCE STUDIES FROM INDIA

Health insurance studies from India majorly studied Rashtriya Swasthya Bima Yojana (RSBY) implemented in various states of the country (Ghosh, 2014), (Shoree et al., 2014) . Other health insurance schemes studied were Rajeev Aarogyashree Scheme of Andhra Pradesh (Mitchell et al., 2011a), (Dhanaraj and UNU-WIDER, 2014) and Comprehensive Health Insurance Schemes (CHIS) of Kerala (Philip et al., 2016a) and Tamil Nadu(Selvavinayagam and Vijayakumar, 2012). Insurance studies mainly focused on utilisation of healthcare services, financial protection assessed by out of pocket expenditure and awareness about the scheme in the eligible population.

A systematic review that assessed the impact of publicly funded health insurance schemes in India was conducted in 2017. The review concluded that all the studies that focused on utilisation of healthcare services had found a positive impact of increased utilisation of hospital services by the insured. It also found that 70 percent of the studies showed no financial

protection for the insured, whereas the rest 30 percent papers, especially state sponsored insurance schemes had brought about a slight decline in out of pocket expenditure (Prinja et al., 2017).

1.2.6 JUSTIFICATION FOR THE STUDY

The studies conducted to evaluate various insurance schemes in India looked into awareness, utilisation pattern and out of pocket expenditure. No study from India focused on the enrolment process of health insurance schemes or proportion of coverage of services under these schemes and hence there exists a definite knowledge gap. There are also no health insurance studies from Rajasthan and the literature on Bhamashah Swasthya Bima Yojana (BSBY) is just limited to newspaper articles and vigorous research on this flagship insurance scheme is lacking

1.2.7 OBJECTIVES

The study mainly focused on these objectives:

1. To study the enrolment process of the scheme

2. To study the utilisation pattern of Bhamashah Swasthya Bima Yojana in Jaipur district, Rajasthan

3. To understand the Out-of-Pocket health expenditure of eligible households (both insured and uninsured) of BSBY in Jaipur

4. To find the proportion of beneficiaries who received different services under BSBY

Chapter 2: METHODOLOGY

2.1 STUDY DESIGN

The design adapted for the present study is a community based cross-sectional design. A survey was conducted among the BPL (Below Poverty Line) households of Jaipur district. The list was generated by the Food Department Jaipur, as per the National Food Security Act (NFSA), 2013.

2.2 STUDY SETTING

The present study was conducted in Jaipur district, Rajasthan, India. Jaipur district comprises of 47.6 percent rural and 52.4 percent urban population. NFSA has identified 59 percent of the households in the district as Below Poverty Line (BPL) and are eligible for Bhamashah Swasthya Bima Yojana (BSBY). As per the official records from BSBY website (List of Empaneled Hospitals, 2020) there are 26 government and 276 private hospitals empanelled in Jaipur.

2.3 SAMPLE SIZE AND SAMPLING

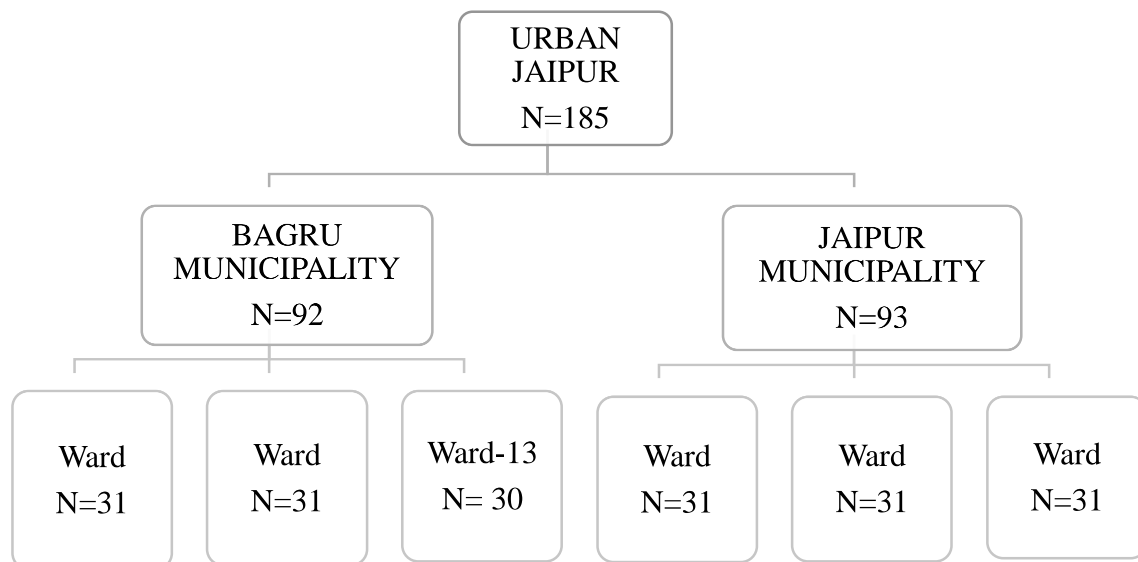
Sample size for the present study was estimated with an assumption of 20 percent enrolment among BPL households of Rajasthan in the BSBY scheme (CGD, 2017) using OpenEpi software version 3.01. With the alpha error at 5 percent and beta error at 80 percent, the sample size was estimated as 246 households. After adjusting for the design effect of 1.5, the new sample size was calculated to be 369 and later rounded to 370 households.

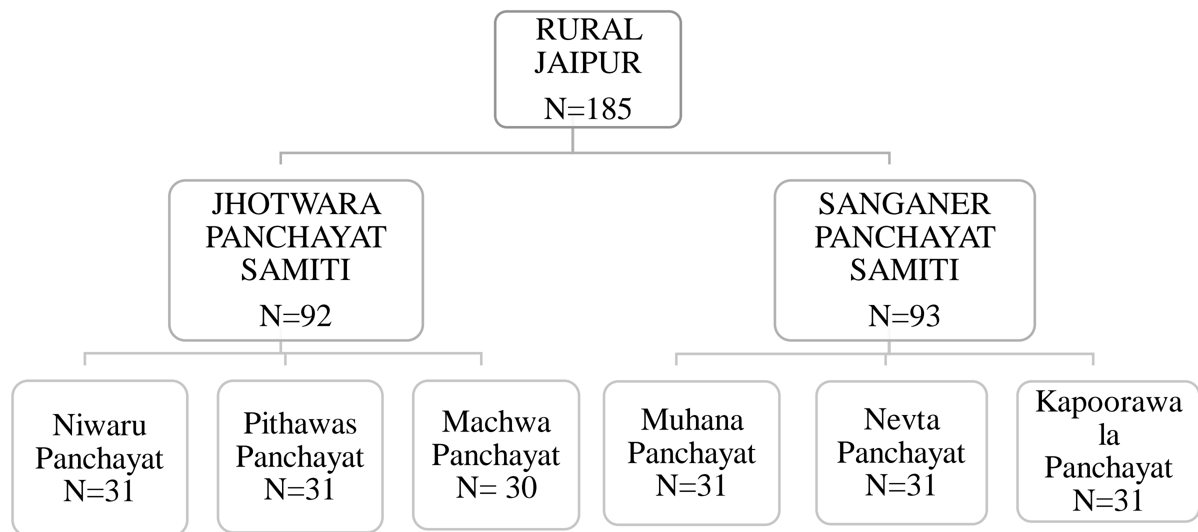
2.4 SAMPLE SELECTION

The households for the present survey was selected using multi-stage random sampling. From the lists of Panchayats and Municipalities of Jaipur district, two Panchayat Samitis and two Municipalities were selected. From each of the two Municipalities, three wards were randomly

selected. Similarly, three panchayats each were chosen from the two Panchayat Samitis. A list of all BPL households belonging to these six wards and six panchayats was generated by Food Department Jaipur and a total of 370 houses were selected from this list by using random sampling technique. If there were more than one adult member in the household, KISH grid method was used to select the respondent. KISH grid is a method for selecting members within a household to be interviewed. It uses a pre-assigned table of random numbers to find the person to be interviewed. The flowchart of sample selection is shown Figure 2.1

Figure2.1 Flowchart showing sample selection





2.5 DATA COLLECTION TOOLS

For the cross-sectional survey an English to Hindi-translated **structured interview schedule** was used. Details on information sheet was explained to the respondents and informed consent form was signed and obtained prior to the interview. The interview schedule was divided into six sections that captured the socio-demographic details of the household and the participant, the enrolment processes involved in the scheme, out of pocket expenditure, details of hospital visits and services under the BSBY scheme received by the respondents. Field notes were also maintained to record observations during data collection.

2.6 DATA COLLECTION

For the present study, 185 households from urban Jaipur and 185 households from rural Jaipur were randomly selected as in figure 2.1. Data was collected from 12th December, 2019 to 21st February, 2020 by the principle investigator and three field assistants using the structured interview schedule. There was 100 percent response rate and all 370 households were interviewed.

Data was collected only after explaining the details on information sheet and obtaining informed consent from the participants. All the interviews were conducted at the residence of the respondents'. Respondents were assured that data collected from them will be strictly confidential and will be used only for research purposes.

2.6.1 Inclusion criteria

- Respondents must be above 18 years old
- The households must possess a BPL or Annapurna or Antyodaya Ration card

2.6.2 Exclusion criteria

- Persons with terminal illness or with severe illness
- Bed-ridden persons

2.7 VARIABLES USED

2.7.1 Dependent Variables

The two dependent variables used in the study are: insurance status and whether or not the respondents took treatment during the last one year

a) Insurance status: The respondents were grouped into enrolled and non-enrolled groups as reported

b) Treatment in the last one year: As reported by the respondents, they were categorised into: treatment taken in the last year and did not take treatment in the last one year.

c) Out of Pocket expenditure: OOP measures the expenses incurred by the households while availing hospital services in the time period of January 2019 to December 2019. These expenses could be medical as well as non-medical expenditures. The components of OOP expenditures included were transportation charges, consultation charges,

investigation/diagnostic charges, medicine charges, treatment/procedure charges, loss of wages, room rent, charges spent for bystander, money spent on food and other consumables.

2.7.2 Independent Variables

a) Household and individual demographics

1. Place of residence: Pre-determined as urban or rural (refer figure 2.1)

2. Household size: Number of family members in the household

3. Occupation of the head of the household: As reported by the respondent. This variable was categorised into: skilled labour, unskilled labour, self-employed and unemployed.

4. Age of the respondent: Age in years as reported by the respondent. Age was grouped into three categories: Young adults (18-35 years), Middle-aged adults (36-55 years), Older adults (>55 years).

5. Sex of the participant: This was categorised into male, female and others.

6. Status of the Bhamashah card: Active or Inactive as reported

b) Utilisation pattern

1. Illness category: Illnesses for which the respondents took treatment in the last year were categorised into General illness (or secondary package) and Critical illness (or tertiary package) based on the Bhamashah insurance policy document.

2. Type of Hospital visited for treatment: Categorised into government and private facility.

2.7.3 Other Variables

1. Reason for not enrolling in BSBY

2. Source of information about BSBY

3. Year of enrolment in the scheme

4. Place of enrolment

5. Documents submitted for enrolment

6. Balance amount in the BSBY card

7. Sources of financing for medical expenses

8. BSBY insurance services received by the beneficiary

2.8 DATA ENTRY, CLEANING AND ANALYSIS

Data entry, data cleaning and data analysis were done using SPSS version 25. All data sheets were manually checked for missing data or mismatches and were corrected. Then computerised data cleaning was performed. Univariate analysis was done to look at sample characteristics. Bivariate analysis was done to find the association between the dependent and independent variables of the study.

2.8.1 Univariate Analysis

- To describe the socio-demographical characteristics of the household and the respondent
- To find the enrolment numbers and percentage
- To calculate the Out of Pocket expenditure of the respondents
- To find the proportion of beneficiaries who received different services under BSBY

2.8.2 Bivariate Analysis

- Pearson Chi square test: To identify the association between enrolment status and different independent variables like demographic details, hospital utilisation in the last one year, illness category and type of hospital visited for treatment.

- Mann-Whitney U test (when normality test was performed for continuous variables, it was found to be significant. Hence this non-parametric test was used): To compare mean OOP expenditure within groups of different independent variables like enrolment status, place of residence (urban, rural), status of the card, sex of the respondent, age of the respondent, and type of hospital visited for treatment.

2.9 DATA STORAGE

All data collected for this study are kept with the principal investigator, who shall bear sole responsibility for safety and confidentiality of the all the information. The identifiers and the data is stored separately. Transfer of data was kept to a minimum. The data will not be shared with any party. Data will be stored securely in the PI's laptop protected with a password.

2.10 ETHICAL CONSIDERATIONS

The Institutional Ethics Committee of Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum, Kerala had reviewed the study and gave clearance to conduct the study (IEC Regn. No. ECR/189/Inst/KL/2013/RR-16). Details of information sheet were explained and written informed consent was obtained from all participants before administering the interview schedule. The respondents had the freedom to refuse participation at the outset or during any stage of the interview schedule. There was no anticipated risk for participating in the study.

Chapter 3: RESULTS

This chapter has five sections. The first section deals with the socio-demographic details of the respondent. In the second section insurance enrolment process is discussed. Third section presents the findings on utilisation pattern and its association with other factors. Fourth section is a detailed analysis of Out of pocket expenditure and sources of financing among the respondents and the final section presents the proportion of beneficiaries in the sample who received the services provided under the Bhamashah scheme.

3.1 SOCIO-DEMOGRAPHIC DETAILS

Details such as household size, type of ration card, occupation of the head of the household and demographic details like age and sex of the respondents for all 370 households are presented here. As given in figure 2.1, 185 households were selected from urban areas of Jaipur and 185 households from rural areas of Jaipur. The mean household size of the respondents was 4.5 ± 1.5. Most of the households possess a BPL ration card (93.8 percent). More than half of the Heads of the households were unskilled labourers (56.2 percent), one fifth were skilled labourers (21.1 percent), about 16 percent of them were self-employed and seven percent were unemployed.

Table 3.1. Socio-demographic details

DEMOGRAPHIC DETAILS	**Frequency (%)**
Ration card type	
• BPL	347 (93.8%)
• Annapurna	12 (3.2%)
• Antyodaya	11 (3%)

Age of the participant (years)	
• Young adults (18-35)	134 (36.2%)
• Middle-aged adults (36-55)	162 (43.8%)
• Older adults (>55)	74 (20.0%)
Sex of the participant	
• Female	193 (52.2%)
• Male	177 (47.8%)

3.2 ENROLMENT PROCESS

Out of the 370 households participated 308 (83.2%) were enrolled in the Bhamashah health insurance scheme. The rest 62 (16.8%) people were asked about the reasons for not enrolling in the scheme and are given in table 3.2.

Table 3.2. Reasons for not enrolling in BSBY

REASONS	**FREQUENCY (%)**
Not aware of the scheme	46 (74.1)
Aware but not aware of the enrolment process	6 (9.7)
Aware but subscribed to other health insurance schemes	2 (3.2)
Others reasons	8 (13.0)
Total	62 (100)

The other reasons (13 percent) given by the respondents were about not having an aadhar card (three) and not received the Bhamashah card even after applying (five).

Table 3.3 gives details of source of information about BSBY for the respondents enrolled in the scheme. More than half of the beneficiaries reported that they received information about the scheme from Panchayat (61 percent) who did mass campaigning through public announcements, conducting camps and distributing leaflets.

Table 3.3. Sources of information about BSBY

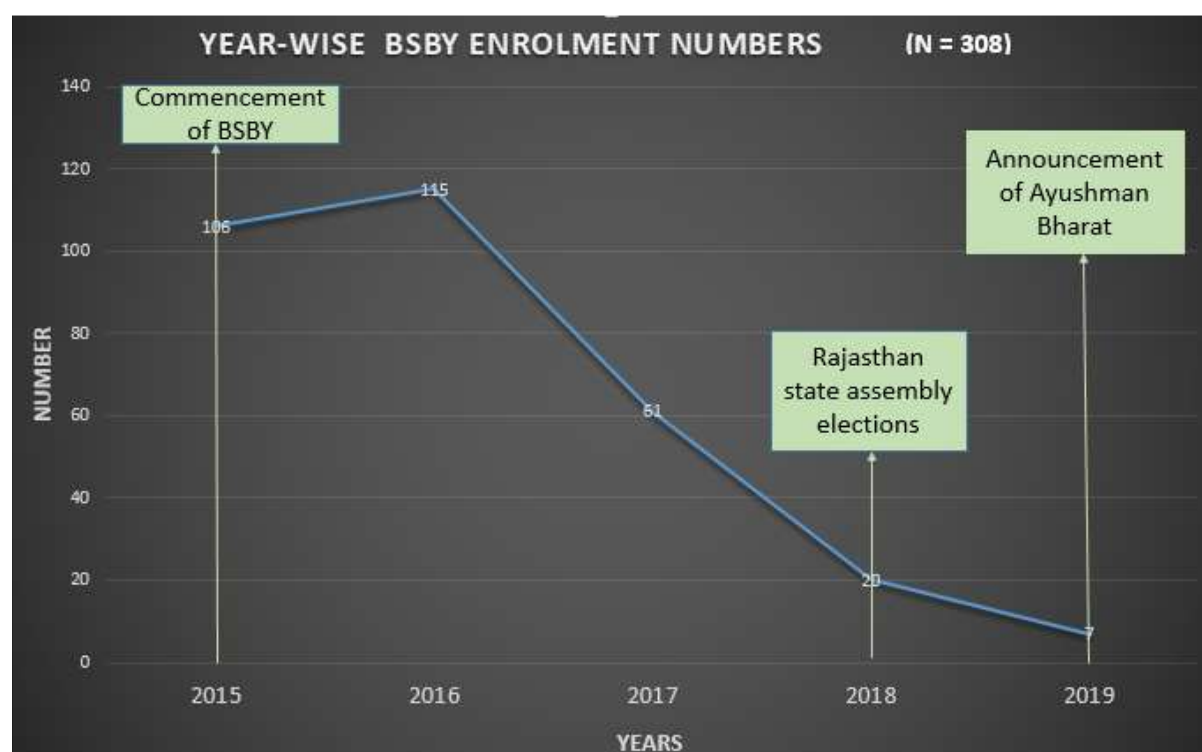
Source of information about BSBY	FREQUENCY (%)
Panchayat	188 (61)
Friends/Relatives	91 (29.6)
Television/Newspapers	29 (9.4)
Total	308 (100)

More than three-fourths of the respondents were enrolled in the beginning years of the scheme (34.4 percent in 2015 and 37.3 percent in 2016) and this rate started declining from 2017 to 2019 (refer table 3.4 and figure 3.1). The respondents stated that in the early years when the scheme was started, government had initiated Bhamashah enrolment through camps in each Gram Panchayat in rural areas and in each ward in urban areas of Rajasthan. Almost half of the households in this study reported that they went to camps (48.1 percent) to get enrolled. Beneficiaries said that they needed to submit a duly filled Bhamashah enrolment form, ration card, aadhar card, bank account details, electricity bill and photographs of the family members for enrolment.

Table 3.4 Enrolment details

ENROLMENT DETAILS	FREQUENCY (%) N= 308
Year of enrolment	
• 2015	106 (34.4%)
• 2016	115 (37.3%)
• 2017	60 (19.5%)
• 2018	20 (6.5%)
• 2019	7 (2.3%)
Place of enrolment	
• E-mitra	90 (29.2%)
• Panchayat office	70 (22.7%)
• Camp	148 (48.1%)

Figure 3.1 Year-wise BSBY enrolment



3.3 UTILISATION PATTERN

Table 3.5 shows association between the enrolment status of the respondents and predictors. Chi-square test was performed to find the statistically significant predictors. The study found that people who were enrolled in the BSBY scheme had 2.1(95% CI: 1.2 – 3.8) times higher chance of visiting a hospital for treatment than non-enrolled. The type of illness (general or critical) was found to be not significantly associated with enrolment status. In the study population, the proportion of respondents who visited private hospitals was significantly higher in enrolled group than in non-enrolled group. The urban-rural differences and the occupation of the head of the household were found to have no statistically significant association with the enrolment status.

Table 3.5. Utilization pattern among enrolled and non-enrolled participants

VARIABLES	ENROLMENT		p-value (Chi square test)	ODDS RATIO (95% CI)
	ENROLLED N=308	NON-ENROLLED N=62		
Treatment in the last one year				
• Taken treatment	238 (77.3%)	38 (61.3%)	0.008	2.1 (1.2 – 3.8)
• Haven't taken treatment	70 (22.7%)	24 (38.7%)		
Illness				
• General illness	203 (85.3 %)	35 (92.1%)	0.258	0.5 (0.1 – 1.7)
• Critical illness	35 (14.7%)	3 (7.9%)		
Hospital visited				
• Government facility	87 (36.6%)	26 (68.4%)	<0.001	0.3 (0.1- 0.6)
• Private facility	151 (63.4%)	12 (31.6%)		

Place of residence				
• Urban	150 (48.7%)	35 (56.5%)	0.265	0.7 (0.4 – 1.2)
• Rural	158 (51.3%)	27 (43.5%)		
Occupation of the head of the household				
• Unskilled labourer	172 (55.8%)	36 (58.1%)		
• Skilled labourer	68 (22.1%)	10 (16.1%)	0.194	
• Self-employed	44 (14.3%)	14 (22.6%)		
• Unemployed	24 (7.8%)	2 (3.2%)		

The following section examines the association of whether or not got treated in the last one year (2019) with age and sex of the participant. The proportion of young adults, middle aged adults and older adults were found to be significantly different in the group that had taken treatment and in the group that had not taken treatment (refer table 3.6). However, the association between sex of the participant and treatment status was not significant in the sample.

Table 3.6. Treatment in the last one year

VARIABLES	**TREATMENT IN THE LAST ONE YEAR**		**p-value (Chi square test)**
	TREATMENT TAKEN	**TREATMENT NOT TAKEN**	
Age of the respondent			
• Young adults	79 (28.6%)	55 (58.5%)	
• Middle-aged adults	129 (46.7%)	33 (35.1%)	<0.001
• Older adults	68 (24.6%)	6 (6.4%)	

Sex of the respondent			
• Male	131 (47.5%)	46 (48.9%)	0.805
• Female	145 (52.5%)	48 (51.1%)	

3.4. OUT OF POCKET EXPENDITURE

Out of pocket expenditure was calculated for all the participants who had taken treatment in the last one year. The components of out of pocket expenditure (OOP) includes transportation charges, ticket (consultation) charges, investigation charges, medicine expenditure, procedure charges, room rent, loss of wages, bystander expenses, money spent on food and other consumables. Many participants especially who availed their Bhamashah benefits were not able to provide the break-up of the expenses. The hospitals where they were treated did not provide them the receipt. None of the Bhamashah beneficiaries (238) who had taken treatment in the last one year knew how much money was remaining in their card as the hospitals never inform them how much was deducted from their health card. For patients who had their bills, the OOP amount was calculated. The mean OOP expenditure of the respondents was INR 7863.8 ± 17690.2. This huge variation is due to the range of OOP expenditure which was from INR 120 to 144500. The median OOP expenditure was INR 1725.00. Similarly, OOP for transportation and medicine were INR 86.7 ± 132.5 and 986.6 ± 910.5 respectively. Other charges are presented in Table 3.7.

Table 3.7. Details of Out of Pocket Expenditure

VARIABLES	N	TRIMMED MEAN ± STANDARD DEVIATION (INR)	MEDIAN (INR)	RANGE (INR)
Total Out of pocket expenditure	224	7863.8 ± 17690.2	1725.00	5 - 144500
Transportation charges	211	86.7 ± 132.5	40	5 - 800
Medicine charges	142	986.6 ± 910.5	700	100 - 6000
Investigation charges	55	1864.5 ± 2603.7	750	100 - 12000
Treatment/Procedure charges	44	16778.4 ± 24971.1	8000	100 - 140000
Loss of wages	18	2838.9 ± 2294.0	2200	300 - 8000

Table 3.8 shows the association between the enrolment status and OOP status. People who are enrolled in the scheme have 0.8 times chance of having Out of pocket medical expenditure than people who are not enrolled and it was not found to be significant.

Table 3.8. Association between out of pocket expenditure and enrolment status

ENROLMENT	OUT OF POCKET EXPENDITURE		p-value (Chi square test)	ODDS RATIO (95% CI)
	Had out of pocket expenditure	Did not have out of pocket expenditure		
Enrolled	192 (80.7%)	46 (19.3%)	0.604	0.8 (0.3-1.9)
Non-enrolled (Reference category)	32 (84.2%)	6 (15.8%)		

Mann-Whitney U test was done to find statistical difference in mean OOP expenditure of different groups. Enrolment status, sex of the participant and age of the participant were not found to have significant difference in mean OOP expenditure difference between the groups defined under these variables (table 3.9). Whereas card status, hospital visited for treatment, and illness category were significantly associated. Enrolled respondents had a higher mean OOP than non-enrolled respondents but the mean difference was not found to be significant. Respondents with an active Bhamashah card had a significantly lower mean OOP than participants with an inactive Bhamashah card. The Bhamashah beneficiaries' response to a question on whether the amount provided to them by the scheme was sufficient for their family for a year, 80 percent (63) of the respondents with an active card said that the amount was sufficient and about 97 percent (194) of the beneficiaries with an inactive card said that they didn't know if the amount will suffice for a year.

Similarly, respondents who had visited a government facility for treatment had a significantly lower mean OOP expenditure than respondents who visited a private facility for treatment in the last one year. Also the study found that people with critical illnesses had significantly higher mean OOP than people with general illness.

Table 3.9. Mean Out of pocket expenditure among various categorical variables

VARIABLES	MEAN OOP ± STANDARD DEVIATION	P-VALUE (Mann Whitney U test)
Enrolment		
• Enrolled (192)	8264.7 ± 18616.9	0.407
• Non-enrolled (32)	5458.1 ± 10428.3	
Card status		
• Active (45)	4905.7 ± 6073.5	0.024
• Inactive (146)	9349.1 ± 20983.6	
Hospital visited		
• Government (85)	4756.8 ± 11926.3	0.021
• Private (139)	9763 ± 20237.0	
Illness category		
• General (189)	4946.3 ± 11000.3	0.002
• Critical (35)	23618.3 ± 32872.8	
Sex of the respondent		
• Male (114)	7978.9 ±15452.2	0.921
• Female (110)	7744 ± 19816.2	
Age of the participant		
• Young adults	6736.2 ± 12569.3	0.251 (ANOVA)
• Middle aged adults	6787.2 ± 16574.3	
• Older adults	11400.5 ± 24050.7	

3.4.1 Sources of financing

More than half of the enrolled participants (59.6 percent) could pay for the medical expenses from their own savings. Only 45.2 percent of the non-enrolled participants used their savings. One reason for higher number of participants being able to pay using savings is that 50 percent of the people with OOP had an expense of less than INR 1725.0 (median- INR 1725). Among the sources of distress financing, borrowing from friends/relatives and taking loans from money lenders remained the highest proportion in both enrolled and non-enrolled respondents.

Table 3.10. Sources of financing in enrolled and non-enrolled respondents

Sources of financing	**Enrolment status**		p-value (Chi square test)
	Enrolled	**Non-enrolled**	
Savings	112 (59.6%)	14 (45.2%)	0.242
Loan from bank	3 (1.6%)	1 (3.2%)	
Loan from money lenders	21 (11.2%)	2 (6.5%)	
Pledging properties/assets	9 (4.8%)	1 (3.2%)	
Selling properties/assets	7 (3.7%)	1 (3.2%)	
Borrowed from friends/relatives	36 (19.1%)	12 (38.7%)	

Table 3.11 shows the sources of financing for the two illness categories. About two-thirds of the respondents with general illness could pay from their savings. Only around one-fifth respondents with critical illnesses paid from their savings. Other important sources of financing for people with critical illnesses were taking loan from money lenders and borrowing from

friends/relatives. The proportion of respondents using different sources of financing is found to be significantly different in general and critical illness categories.

Table 3.11 Sources of financing for general and critical illnesses

Sources of financing	Illness category		p-value (chi square test)
	General illness	Critical illness	
Savings	118 (64.1%)	8 (22.9%)	<0.001
Loan from bank	1 (0.5%)	3 (8.6%)	
Loan from money lenders	14 (11.2%)	9 (25.7%)	
Pledging properties/assets	8 (4.3%)	2 (5.7%)	
Selling properties/assets	4 (2.2%)	4 (11.4%)	
Borrowed from friends/relatives	39 (21.2%)	9 (25.7%)	

3.5 SERVICES UNDER BHAMASHAH SCHEME

The following section assesses the proportion of beneficiaries who received some of the services provided under the Bhamashah health insurance scheme. This study found that only 43 percent of the beneficiaries with an active card who took treatment last year received cashless treatment. Other services are presented in table 3.12

Table 3.12. Proportion of beneficiaries who received the services under BSBY

SERVICES	RECEIVED	NOT RECEIVED
Coverage of pre-hospitalisation charges	2 (16%)	10 (84%)
Requirement for pre-authorization	6 (12%)	44 (88%)
Cashless treatment	46 (19.3%)	192 (80.7%)
Coverage of post – hospitalisation charges	15 (31%)	34 (69%)
Swasthya Margdarsh services	10 (20%)	39 (80%)

Chapter 4: DISCUSSION

To the best of my knowledge, there are no studies in India that looked into the impact of Bhamashah Swasthya Bima Yojana (BSBY), a flagship health insurance scheme by Government of Rajasthan. This study aimed to understand the enrolment percentage, process of enrolment, utilisation pattern, out of pocket expenditure and services covered under the scheme.

4.1 DEMOGRAPHIC CHARACTERISTICS.

This study collected data from 370 Below Poverty Line (BPL) households. The average household size was 4.5 ± 1.5 in the study sample and according to Census 2011 the average household size in Jaipur district was 5.6 (Jaipur-District Census, 2011). As per the National Food Security Bill 2013, 'the eldest woman in the family, aged above 18 years, shall be considered as the head of the household for the purpose of distributing ration cards' (The National Food security Act, 2013). This study conducted in Jaipur, Rajasthan however found that the ration cards still have eldest male member as the head of the households (pictures are attached in the annexure 5). But Bhamashah cards have been issued in the name of the eldest female in the family.

4.2 ENROLMENT PERCENTAGE AND PROCESSES

The present study found that the population coverage of BSBY in Jaipur is only 83 percent after 4 years of implementation and about three-fourths of the non-enrolled respondents reported lack of awareness about either the scheme itself or the enrolment processes. This is in agreement with a study from Kerala that reported one of the major factors for low coverage of government funded health insurance schemes to be low awareness about the scheme among the eligible population (Philip et al., 2016). In the present study about 75 percent of the enrolled households got themselves enrolled in the first 2 years (2015 and 2016) of commencement of the scheme but in the later years (2017, 2018 and 2019) the enrolment rate was found to be

declining, with a mere 2.3 percent enrolment in 2019. The very high rate of enrolment in the beginning years was because of the large scale campaigning by the government. In the later years the opposition party came in to power in Rajasthan after the 2018 State Assembly elections. The new government formed on 17th December, 2018, came out with an announcement about introducing Ayushman Bharat health insurance scheme (of the central government) by merging with the existing Bhamashah Swasthya Bima Yojana in the state (Health.Rajasthan, 2019). In the field notes maintained during interview schedule conducted for this study, respondents mentioned that they were confused about the future of Bhamashah Swasthya Bima Yojana and were apprehensive about the new health insurance (Ayushman Bharat Mahatma Gandhi Rajasthan Health Insurance Scheme). Another discontentment mentioned was the cessation of the free medicine scheme (Mukyamantri Nishulk Dava Yojana) and the free diagnostic scheme (Mukyamantri Nishulk Janch Yojana) in the state. Even though the government that rolled out Bhamashah health insurance scheme had said that BSBY would not cut into the existing free medicine and diagnostic schemes, the insurance-based model of healthcare (BSBY) had actually compromised and marginalised the free medicine and free diagnostic schemes that were operational in the state (Prasad and Jesani, 2018). These examples show how difficult citizens find to cope up with new health policies introduced when different governments come into power.

4.3 UTILISATION PATTERN

Utilisation pattern varied among enrolled and non-enrolled BPL households. The present study found that enrolled beneficiaries utilise hospital facilities twice more than their non-enrolled counter parts. Many studies on government financed health insurance schemes in India reported higher hospital utilisation among insured than non-insured (Philip et al., 2016b), (Sood et al., 2014), (Ngaihte, 2016), (Ghosh, 2014). The present study on BSBY found that insured people utilised private health facilities more than government health facilities but vice-versa in non-

insured people. This is in agreement with an earlier study from India done on 'behaviour of poor in micro health insurance' which also found statistically significant increase in the rate of hospitalisations after being insured. Data from the same study also suggested that insured people are likely to use or go to private facilities more after being insured. The authors call it 'changing behaviour and preferences' of BPL people after getting enrolled in a health insurance scheme (Sihare, 2011). Another explanation for increased utilisation of private hospitals is that there are ten times more number of private hospitals enrolled in Bhamashah health insurance scheme than compared to government facilities in Jaipur district (List of Empaneled Hospitals, 2020). Statistically significant results showed that middle aged participants utilised hospitals than young adults or older adults in the last one year. This is in contrast with a study on determinants of hospital utilisation which documented increase in utilisation of hospital services with increase in age (Dey and Mishra, 2014)

4.4 OUT OF POCKET EXPENDITURE

Both direct and indirect medical expenditures were estimated while calculating the out of pocket (OOP) expenditure. The critical goal/target of any government funded health insurance scheme is to provide financial protection to the people by reducing the OOP spending on healthcare (Selvaraj and Karan, 2012). Bhamashah Swasthya Bima Yojana also aimed to reduce the out of the pocket medical spending and to provide financial protection to the BPL households of Rajasthan. Nevertheless, 80 percent of insured respondents who utilised hospital facilities in the last one year had incurred out of pocket expenditure and cost of drugs and diagnostics were significant components of OOP for which the patients had to spend out of their pockets. This finding is line with the arguments of studies on effect of health insurance in reducing financial burden in India (Mahapatro et al., 2018) (Karan et al., 2017). The uninsured were more likely to incur OOP expenditure than uninsured but the mean OOP expenditure of the insured people was higher than non-insured people and both these findings were not found

to be significant in this study. And literature on mean OOP expenditure of insured and non-insured from India showed mixed results: (Philip et al., 2016) and (Mitchell et al., 2011b) found positive results whereas (Sood et al., 2014) found negative results. Patients who sought medical care from private hospitals had twice higher mean OOP than people who utilised government hospitals, and this lends support to other studies with similar results (Nandi et al., 2017), (Rent and Ghosh, 2015), (Mahapatro et al., 2018).

Main source of financing of insured and uninsured respondents was savings as the median OOP was INR 1725.0. Other significant sources of distress financing found in this study were borrowing (29.1 percent), loans from money lenders (8.85 percent) and selling assets/properties (6.5 percent). This finding adds further evidence to existing literature in India that studied health insurance impact (Mahapatro et al., 2018), (Mishra and Mohanty, 2019).

4.5 SERVICES COVERED UNDER BHAMASHAH HEALTH INSURANCE

The beneficiaries of BSBY have entitlements to various services provided under the scheme. More than half of the respondents failed to receive these services like coverage of pre hospitalisation expenses, post hospitalisation charges, cashless treatment and services of Swasthya Margadarsh.

Strengths of the study

- To the best of my knowledge, there are no studies in India that looked into the impact of Bhamashah Swasthya Bima Yojana (BSBY).

Limitations of the study

- This study measured self-reported expenditure which can lead to over-estimation
- Recall bias could have occurred since data for the last one year was collected

4.5 CONCLUSION

This study evaluated the impact of Bhamashah Swasthya Bima Yojana on its beneficiaries. The study found that there was increased utilisation of the hospital services by the insured. However, 80 percent of the insured respondents had to incur out of pocket expenditure even after having a high coverage limit of 330,000 per household per annum. Also large proportion of the beneficiaries failed to receive the services entitled under the scheme. In view of this study, this health insurance scheme has not achieved its central objective of providing financial protection to its beneficiaries.

Incorporation of primary and preventive care coverage in the scheme, regulation of private hospitals from avoidable charging and better monitoring of hospitals are a few measures of reformation to be considered as Rajasthan is implementing the new insurance scheme (‘Ayushman Bharat Mahatma Gandhi Rajasthan Health Insurance’).

4.6 FUTURE RECOMMENDATIONS

1. Further research to understand how political ideologies or political system can affect health seeking behaviour of the citizens.

2. Further research to probe into the reasons behind increased hospital utilisation among insured people.

3. Studying the presence and extent of supplier induced demand in a health insurance setting is a potential area for research

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ANNEXURE 1

STRUCTURED INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

IMPACT OF BHAMASHAH SWASTHYA BIMA YOJANA (BSBY): A STUDY AMONG THE BPL HOUSEHOLDS IN JAIPUR DISTRICT, RAJASTHAN

A. GENERAL INFORMATION

1.	**Date of the interview**	
2.	**Respondent ID**	
3.	**Panchayat**	
4.	**Village**	
5.	**What is the occupation of head of the household?**	
6.	**How many members are there in your family?**	
7.	**What type of public distribution system (Ration card) card do you have?** ☐ Annapoorna card ☐ Antyodaya card ☐ BPL card	
8.	**What is your (informer) relationship with head of the household?** ☐ Spouse ☐ Grandchild ☐ Daughter ☐ Son ☐ Other	

B. HOUSEHOLD INFORMATION

SL NO	9. Household member's relationship to the head of the household	10. Age in years	11. Sex	12. Marital Status	13. What is your highest level of education?	14. What is your occupation
A						
B						
C						
D						
E						
F						

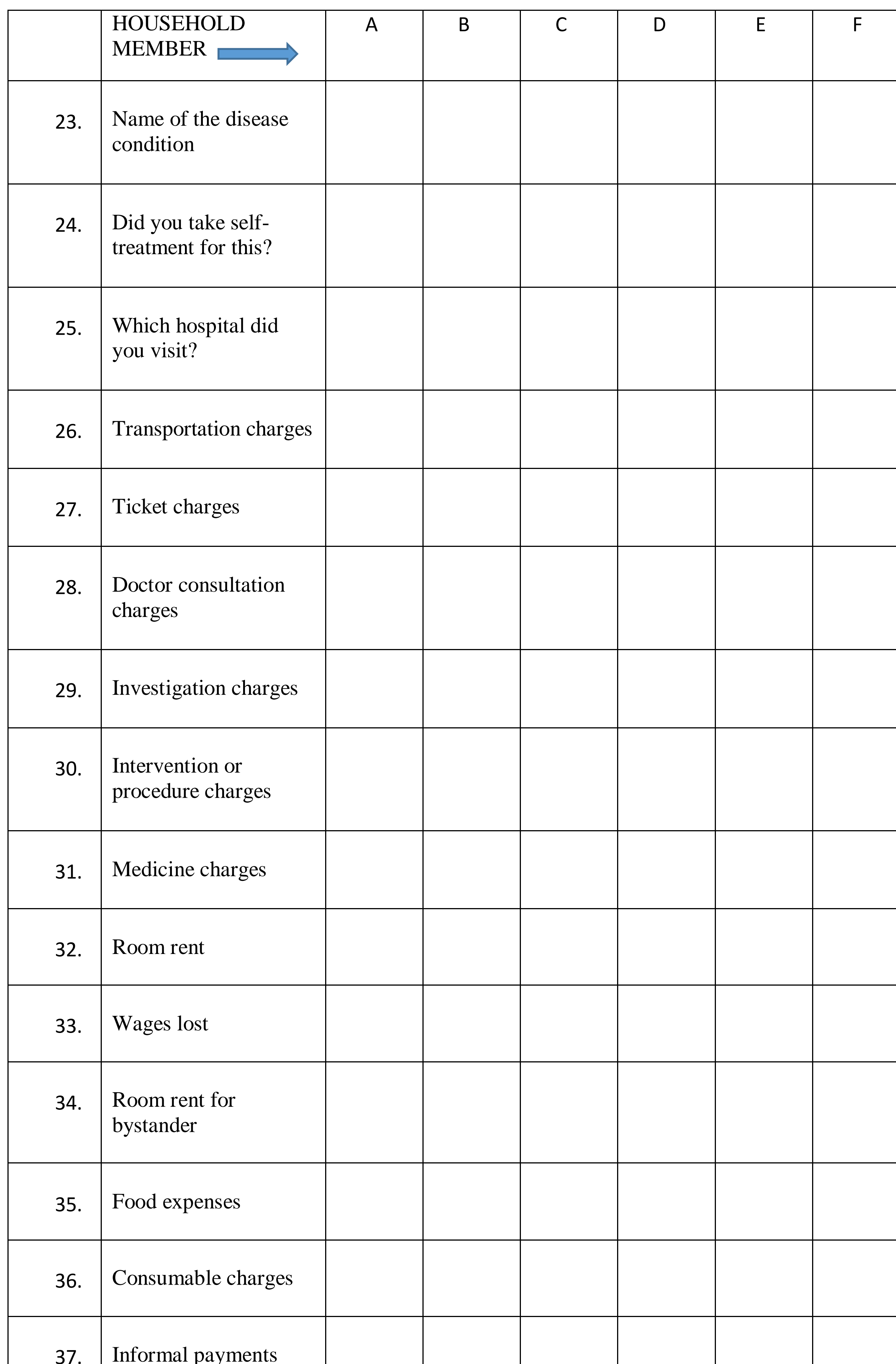
C. ENROLMENT DETAILS

15.	**Have you enrolled your family in the Bhamashah health insurance scheme?** ☐ Yes ☐ No **16a. If NO, why**? ☐ I am not aware about the scheme ☐ Didn't know where to enrol ☐ Place to enrol was far from home ☐ Heard that the enrolment procedures were difficult ☐ My friends/relatives told me not to join ☐ I have other health insurance schemes ☐ Didn't feel it would be useful (Then skip to question no **21**)	
16.	**How did you come to know about the scheme?** ☐ From relatives ☐ From friends ☐ From colleagues/employer ☐ From television or newspaper ☐ From my doctor	

17.	**What do you know about the BSBY?**	
18.	**When did you get enrolled in the scheme?**	Month ------------- Year------------
19.	**Where did you go to get yourself enrolled?**	
20.	**What all documents did you submit while enrolling?** ☐ Aadhar card ☐ Ration card ☐ Bhamashah card ☐ Rajasthan citizen card ☐ Other identity cards	
21.	**Did you pay any money to get enrolled?** ☐ Yes ☐ No **22a. If YES, how much?** ☐ For registration ------------ ☐ For any other services ----------------	

D. DISEASE PROFILE AND HOSPITALISATION EXPENSES

22.	**Did anyone in your family get treated for any illness in the last 1 year?** ☐ Yes ☐ No (skip to question 40) **If YES, please fill in the following details:**	



	HOUSEHOLD MEMBER →	A	B	C	D	E	F
23.	Name of the disease condition						
24.	Did you take self-treatment for this?						
25.	Which hospital did you visit?						
26.	Transportation charges						
27.	Ticket charges						
28.	Doctor consultation charges						
29.	Investigation charges						
30.	Intervention or procedure charges						
31.	Medicine charges						
32.	Room rent						
33.	Wages lost						
34.	Room rent for bystander						
35.	Food expenses						
36.	Consumable charges						
37.	Informal payments						

38.	**How much balance amount is remaining in the Bhamashah insurance card?** **39A. If money has exhausted,** **What do you do when someone in your family gets sick now?** ☐ Do not go to hospital ☐ Go to quacks ☐ Self-medication ☐ Take loans ☐ Borrow money	
39.	**Is the amount provided by the scheme sufficient for your family's medical expenses for a year?** ☐ Yes ☐ No ☐	
40.	**How did you meet the extra expenses at the hospital?** ☐ Loan from bank ☐ Loan from cooperative societies ☐ Loan from money lender ☐ Savings ☐ Pledging properties ☐ By selling properties/assets ☐ Borrow from friends/relatives	

SERVICES COVERED UNDER BHAMASHAH SCHEME

	CHECKLIST QUESTIONS	YES	NO
1.	Were the Pre-hospitalisation charges reimbursed?		
2.	Was the treatment and hospitalisation cashless?		
3.	Was pre-authorisation required before getting the treatment/investigation done?		
4.	Were the Post-Hospitalisation charges covered?		
5.	Were your transportation charges covered by the hospital? (only for cardiac patients and accident cases)		
6.	Was there a hospital-appointed person to assist you with the claim procedures? (Swasthya Margadarsh)		

ANNEXURE 2

PARTICIPANT INFORMATION SHEET
AND
CONSENT FORM

RESEARCH SUBJECT INFORMATION SHEET

I am Dr.Roselent Joseph, a final year Master of Public Health (MPH) student from Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum, Kerala. As a part of my course I am doing a thesis titled **"IMPACT OF BHAMASHAH SWASTHYA BIMA YOJANA (BSBY): A STUDY AMONG THE BPL HOUSEHOLDS OF JAIPUR DISTRICT, RAJASTHAN".** For this purpose, I am conducting a survey among the BPL households of Jaipur. This information sheet may contain words that you do not understand. Please ask me if any words or information is not clearly understood by you.

PURPOSE OF THE STUDY:

With an objective to reduce the out of pocket medical expenditure, to provide financial protection to the poor families and to ensure delivery of quality healthcare, Rajasthan government launched their health insurance scheme called Bhamashah Swasthya Bima Yojana. This survey is undertaken to access the impact of the scheme by estimating the out of pocket expenditure (OOP) of the eligible households, the utilisation pattern among the beneficiary households and the process of enrolment. Your household has been randomly selected from the NFSA (National Food Security Act) list for this village. A total of 370 households will be included and interviewed from 15 different panchayats of Jaipur for this study.

PROCEDURE

The survey would take approximately 30 - 45 minutes of your valuable time. You will be asked questions in private. These will pertain to demographic details about you and your household, details of illnesses in the household, hospitalization history of last one year. You will be asked questions on the expenses that you incurred both, during Out-Patient or In-Patient visits to any hospital you have had in the past 1 year and also details as to how you/the patient financed the treatment. This collected data will be used for research purposes only.

RISKS AND DISCOMFORTS

Participation in this study imposes no risk to your health. However, you would be asked questions which you may find personal in nature.

BENEFITS

There may not be any direct benefit for you from this study. The information collected from you and from other participants will help to understand whether Bhamashah health insurance scheme succeeded in achieving its objectives and I hope government can use this data to make policy level changes if required.

CONFIDENTIALITY

You will be interviewed in private. All information related to you will be kept confidential and anonymous that is, at no stage will your identity be revealed. A respondent identification number will be assigned to each participant that will help in maintaining the confidentiality of the data collected. Access to this number will be restricted to those analysing the data only.

CONTACT INFORMATION

If you have any research related questions or you would like to verify my credentials, you may contact me or a member of our institute's Ethics Committee

Name and Address: Roselent Joseph

Achutha Menon Centre for Health Science Studies

Sree Chitra Tirunal Institute of Medical Sciences and Technology

Trivandrum- 695011, Kerala

Contact number: 8217317293

Email-id: roselentjoseph@gmail.com

***Name and Address*:** Dr. Mala Ramanathan

Institutional Ethics Committee Secretary

Sree Chitra Institute of Medical Sciences and Technology

Trivandrum- 695011, Kerala

Office number: 0471-2524234

Email-id: iec.mem.sec@sctimst.ac.in

VOLUNTARY PARTICIPATION

Your participation in this study is purely voluntary which means you can decide whether to participate in the study or not. If at any stage you wish to discontinue, you are free to do so without any adverse consequences.

Respondent ID: _______________

CONSENT FORM

"IMPACT OF BHAMASHAH SWASTHYA BIMA YOJANA (BSBY): A STUDY AMONG THE BPL HOUSEHOLD IN JAIPUR DISTRICT, RAJASTHAN"

I have read / been read out the information in the information sheet. The nature of the study and my involvement has been explained and all my questions have been answered satisfactorily. By signing this consent form, I indicate that I understand what will be expected from me and that I am willing to participate in this study. I know that I can withdraw at any time. I have been informed who should be contacted if the need arises.

Respondent's sign/ thumb impression:

Place:

Date:

Interviewer's Name:

Interviewer's sign:

ANNEXURE 3:

ENGLISH TO HINDI TRANSLATED

STRUCTURED INTERVIW SCHEDULE,

PARTICIPANT INFORMATION SHEET

AND

CONSENT FORM

साक्षात्कार का समय

भीमाशाह स्वाध्याय भीमा योजना (बीएसबीवाई): जयपुर जिले, राजस्थान में बीपीएल परिवारों का अध्ययन

A. सामान्य जानकारी

1.	**साक्षात्कार की तिथि**	
2.	**प्रतिवादी आईडी**	
3.	**पंचायत**	
4.	**गांव**	
5.	**घर के मुखिया का व्यवसाय क्या है?**	
6.	**आपके परिवार में कितने सदस्य हैं?**	
7.	**आपके पास किस प्रकार का सार्वजनिक वितरण प्रणाली (राशन कार्ड) कार्ड है?** □ अन्नापोरना कार्ड □ अंत्योदय कार्ड □ बीपीएल कार्ड	
8.	**घर के मुखिया के साथ आपका (सूचनादाता) क्या संबंध है?** □ पति या पत्नी □ पोता या पोती □ बेटा □ बेटी □ अन्य	

B. परिवार के बारे में जानकारी

क्रमांक	9. घर के सदस्यों का मुखिया से संबंध	10. आयु (वर्षों में)	11. लिंग	12. वैवाहिक स्थिति	13. आपकी शिक्षा का उच्चतम स्तर क्या है?	14. आपका व्यवसाय क्या है?
A						
B						
C						
D						
E						
F						

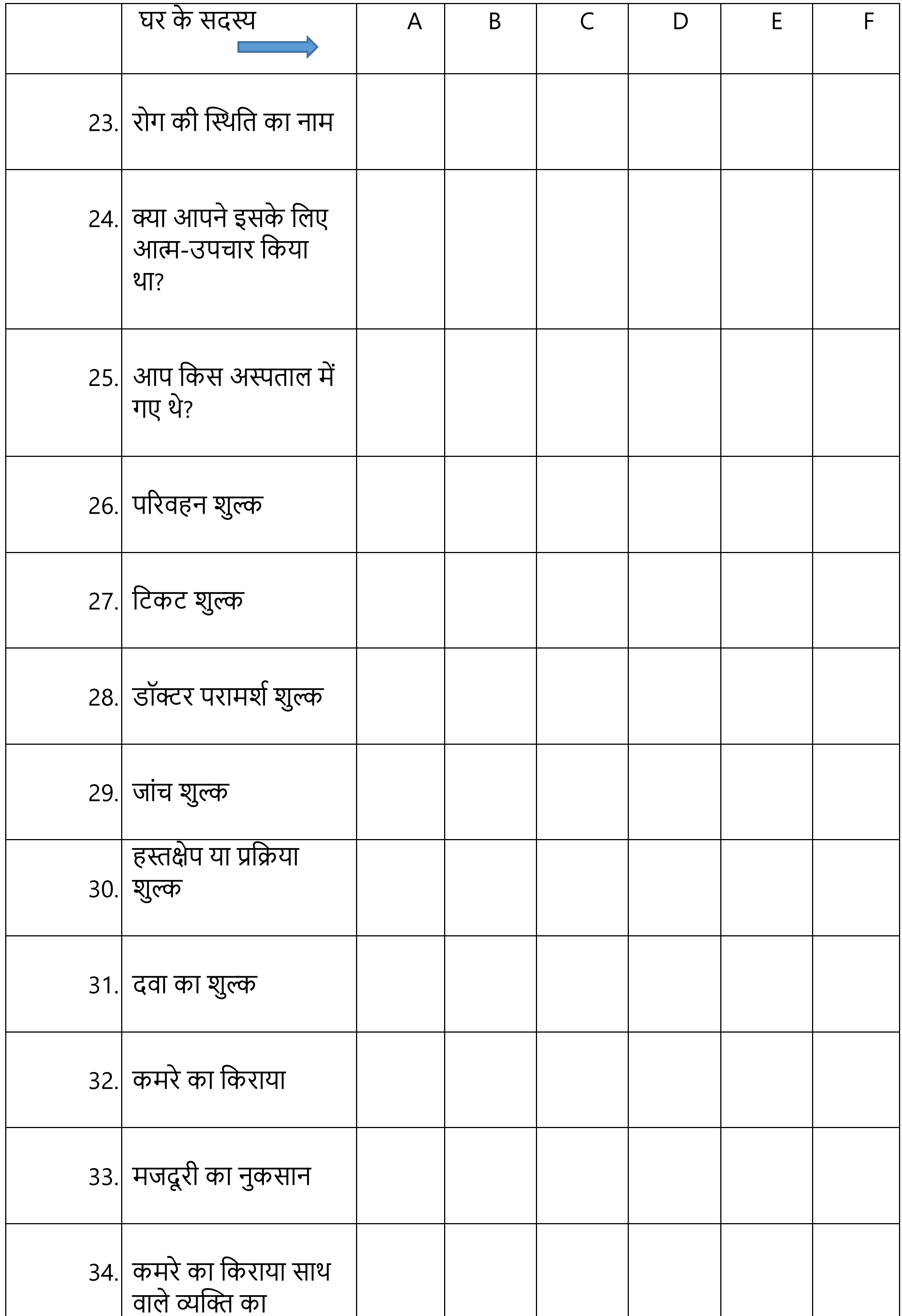
C. नामांकन जानकारी

15.	**क्या आपने अपने परिवार को भामाशाह स्वास्थ्य बीमा योजना में नामांकित किया है?** □ हाँ □ नहीं **16a. यदि नहीं, तो क्यों?** □ मुझे योजना के बारे में जानकारी नहीं है □ पता नहीं था कहाँ दाखिला लेना है □ नामांकन करने का जगह घर से दूर था □ सुना है कि नामांकन प्रक्रिया मुश्किल है □ मेरे दोस्त / रिश्तेदारों ने कहा कि शामिल होने की जरूरत नहीं है □ मेरे पास अन्य स्वास्थ्य बीमा योजनाएं हैं □ ऐसा नहीं लगता कि यह उपयोगी होगा **(फिर प्रश्न संख्या 21 पर जाएं)**	
16.	**आपको इस योजना के बारे में कैसे पता चला?** □ रिश्तेदारों से □ दोस्तों से □ सहयोगियों/ कर्मचारियों से □ टेलीविजन या अखबार से □ मेरे डॉक्टर से	
17.	**आप बीएसबीवाई के बारे में क्या जानते हैं?**	
18.	**आपने इस योजना में कब दाखिला लिया?**	महीना ---------- साल ---------
19.	**आप अपने दाखिला लेने के लिए कहाँ गए थे?**	

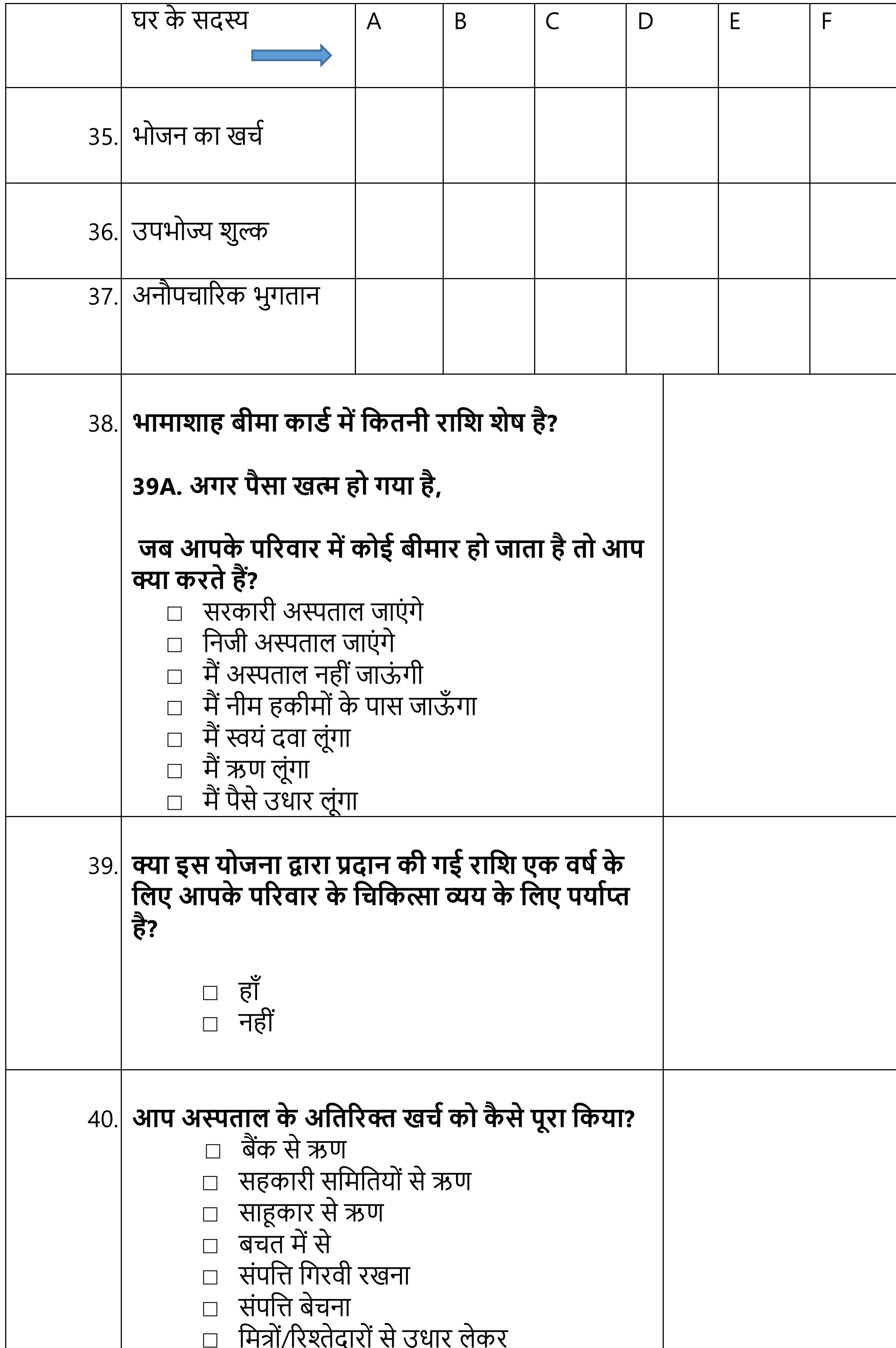
20.	**नामांकन के दौरान आपने कौन-से दस्तावेज प्रस्तुत किए?** □ **आधार कार्ड** □ **राशन कार्ड** □ **भामाशाह कार्ड** □ **राजस्थान नागरिक कार्ड** □ **अन्य पहचान पत्र**	
21.	**क्या आपने नामांकित होने के लिए पैसा दिया था?** □ हाँ □ नहीं **22a. यदि हाँ, कितना?** □ पंजीकरण के लिए ------ □ किसी भी अन्य सेवाओं के लिए ------------	

D. रोग प्रोफ़ाइल और अस्पताल का खर्च

22.	**क्या आपके परिवार में किसी ने पिछले 1 साल में किसी बीमारी का इलाज करवाया था?** □ हाँ □ नहीं (40 प्रश्न पर जाओ) **यदि हाँ, तो कृपया निम्नलिखित विवरण भरें:**	



	घर के सदस्य	A	B	C	D	E	F
23.	रोग की स्थिति का नाम						
24.	क्या आपने इसके लिए आत्म-उपचार किया था?						
25.	आप किस अस्पताल में गए थे?						
26.	परिवहन शुल्क						
27.	टिकट शुल्क						
28.	डॉक्टर परामर्श शुल्क						
29.	जांच शुल्क						
30.	हस्तक्षेप या प्रक्रिया शुल्क						
31.	दवा का शुल्क						
32.	कमरे का किराया						
33.	मजदूरी का नुकसान						
34.	कमरे का किराया साथ वाले व्यक्ति का						



	घर के सदस्य	A	B	C	D	E	F
35.	भोजन का खर्च						
36.	उपभोज्य शुल्क						
37.	अनौपचारिक भुगतान						
38.	**भामाशाह बीमा कार्ड में कितनी राशि शेष है?** **39A. अगर पैसा खत्म हो गया है,** **जब आपके परिवार में कोई बीमार हो जाता है तो आप क्या करते हैं?** □ सरकारी अस्पताल जाएंगे □ निजी अस्पताल जाएंगे □ मैं अस्पताल नहीं जाऊंगी □ मैं नीम हकीमों के पास जाऊँगा □ मैं स्वयं दवा लूंगा □ मैं ऋण लूंगा □ मैं पैसे उधार लूंगा						
39.	**क्या इस योजना द्वारा प्रदान की गई राशि एक वर्ष के लिए आपके परिवार के चिकित्सा व्यय के लिए पर्याप्त है?** □ हाँ □ नहीं						
40.	**आप अस्पताल के अतिरिक्त खर्च को कैसे पूरा किया?** □ बैंक से ऋण □ सहकारी समितियों से ऋण □ साहूकार से ऋण □ बचत में से □ संपत्ति गिरवी रखना □ संपत्ति बेचना □ मित्रों/रिश्तेदारों से उधार लेकर						

लाभार्थियों के लिए पॉलीसी कार्यान्वयन की सूची

	चेकलिस्ट प्रश्न	हाँ	नहीं
1.	अस्पताल में पहले की भर्ती के शुल्क की प्रतिपूर्ति की गई थी?		
2.	उपचार और अस्पताल में भर्ती नगदीरहित था?		
3.	क्या इलाज / जांच करवाने से पहले पूर्व-प्राधिकरण की आवश्यकता थी?		
4.	क्या अस्पताल में भर्ती के बाद के शुल्कों की प्रतिपूर्ति की गई थी?		
5.	क्या आपके परिवहन शुल्क अस्पताल द्वारा दिए गए थे? (केवल हृदय रोगियों और दुर्घटना के मामलों के लिए)		
6.	क्या कोई अस्पताल-नियुक्त व्यक्ति था जो आपको दावा प्रक्रियाओं में सहायता करने के लिए था? (स्वस्त्य मार्गदर्शक)		

शोध के विषय में सूचना पत्र

मैं डॉ. रोसलेंट जोसेफ, श्री चित्रा इंस्टीट्यूट ऑफ मेडिकल साइंसेज एंड टेक्नोलॉजी, त्रिवेंद्रम, केरल से अंतिम वर्ष के मास्टर ऑफ पब्लिक हेल्थ (एमपीएच) की छात्रा हूं। अपने पाठ्यक्रम के एक भाग के रूप में, मैं थिसिस कर रही हूं, जिसका शीर्षक है " **भामाशाह स्वास्थ्य बीमा योजना (बीएसबीवाई) का महत्व: जयपुर जिले, राजस्थान में बीपीएल हाउसहोल्ड पर एक अध्ययन"।** इस उद्देश्य के लिए मैं जयपुर के बीपीएल परिवारों के बीच एक सर्वेक्षण कर रही हूं। इस सूचना पत्र में ऐसे शब्द हो सकते हैं जिन्हें आप नहीं समझते हैं। अगर कोई शब्द या जानकारी आपके द्वारा स्पष्ट रूप से नहीं समझी गई है तो आप मुझसे पूछ सकते है ।

अध्ययन का उद्देश्य:

स्वयं के चिकित्सा व्यय को कम करने, गरीब परिवारों को वित्तीय सुरक्षा प्रदान करने और गुणवत्तापूर्ण स्वास्थ्य सेवा सुनिश्चित करने के उद्देश्य से , राजस्थान सरकार ने भामाशाह स्वास्थ्य बीमा योजना नामक अपनी प्रमुख स्वास्थ्य बीमा योजना शुरू की। यह सर्वेक्षण पात्र परिवारों के जेब खर्च (ओओपी) , लाभार्थी उपयोगियों के बीच उपयोग रीती और नामांकन की प्रक्रिया का आकलन करके योजना के प्रभाव का उपयोग करने के लिए किया जा रहा है । इस गाँव के एनएफएसए (राष्ट्रीय खाद्य सुरक्षा अधिनियम) सूची से आपके घर को अनियमित रूप से चुना गया है। इस अध्ययन के लिए जयपुर के 15 विभिन्न गांवों से कुल 370 घरों को शामिल किया जाएगा और उनका साक्षात्कार लिया जाएगा।

प्रक्रिया:

सर्वेक्षण में आपके मूल्यवान समय के लगभग 30 - 45 मिनट लगेंगे। आपसे प्राइवेट में सवाल पूछे जाएंगे। ये आपके और आपके घरवालों के बारे में जनसांख्यिकीय विवरण, घर में बीमारियों का विवरण, पिछले एक साल का अस्पताल में भर्ती इतिहास से संबंधित होंगे। आपसे उन खर्चों पर सवाल पूछे जाएंगे, जो आपने पिछले 1 साल में किसी भी अस्पताल में आउट-पेशेंट या इन-पेशेंट के दौरे के दौरान किए हैं और यह भी बताना है कि आप / मरीज ने किस तरह से इलाज के खर्चो को पूरा किया है। इस एकत्र किए गए जानकारी का उपयोग केवल अनुसंधान उद्देश्यों के लिए किया जाएगा।

खतरे और असुविधाएँ:

इस अध्ययन में भाग लेने से आपके स्वास्थ्य को कोई खतरा नहीं है। हालाँकि आपसे ऐसे प्रश्न पूछे जाएंगे जो आपको स्वभाव से निजी लग सकते हैं।

लाभ:

इस अध्ययन से आपको कोई प्रत्यक्ष लाभ नहीं हो सकता है। आपसे और अन्य प्रतिभागियों से ली गई जानकारी यह समझने में मदद करेगी कि क्या भामाशाह स्वास्थ्य बीमा योजना अपने उद्देश्यों को प्राप्त करने में सफल रही है और मुझे उम्मीद है कि सरकार आवश्यकता पड़ने पर नीतिगत स्तर में बदलाव करने के लिए इस जानकारी का उपयोग कर सकती है।

गोपनीयता:

आपसे अकेले में साक्षात्कार किया जाएगा। आपसे संबंधित सभी जानकारी को गोपनीय और गुमनाम रखा जाएगा, जो कि किसी भी स्तर पर आपकी पहचान को उजागर नहीं करेगी। प्रत्येक प्रतिभागी को एक प्रतिवादी पहचान संख्या सौंपी जाएगी जो एकत्र किए गए जानकारी की गोपनीयता बनाए रखने में मदद करेगा। इस नंबर तक पहुंच केवल जानकारी का विश्लेषण करने वालों तक ही सीमित रहेगी।

संपर्क जानकारी:

यदि आपके पास कोई अनुसंधान संबंधी प्रश्न हैं या आप मेरी प्रमाणिकता सत्यापित करना चाहते हैं, तो आप मुझसे या हमारे संस्थान की आचार समिति के सदस्य से संपर्क कर सकते हैं।

नाम और पता: रोसलेंट जोसफ

अचुता मेनन सेंटर फॉर हेल्थ साइंस स्टडीज
श्री चित्रा इंस्टीट्यूट ऑफ मेडिकल साइंसेज एंड टेक्नोलॉजी
त्रिवेंद्रम- 695011, केरल
संपर्क नंबर: 8217317293
ईमेल-आईडी: roselentjoseph@gmail.com

नाम और पता: डॉ। माला रामनाथन

संस्थागत आचार समिति के सचिव
श्री चित्रा इंस्टीट्यूट ऑफ मेडिकल साइंसेज एंड टेक्नोलॉजी
त्रिवेंद्रम- 695011, केरल
कार्यालय संख्या: 0471-2524234
ईमेल आईडी: iec.mem.sec@sctimst.ac.in

वल्कलरी भागीदारी:

इस अध्ययन में आपकी भागीदारी विशुद्ध रूप से स्वैच्छिक है जिसका अर्थ है कि आप यह तय कर सकते हैं कि अध्ययन में भाग लेना है या नहीं। यदि किसी भी स्तर पर आप बंद करना चाहते हैं, तो आप बिना किसी प्रतिकूल परिणाम के ऐसा करने के लिए स्वतंत्र हैं।

प्रतिसाद आईडी: _______________

सहमति पत्र

" भामाशाह स्वास्थ्य बीमा योजना (बीएसबीवाई) का महत्व: जयपुर जिले, राजस्थान में बीपीएल हाउसहोल्ड पर एक अध्ययन "

सूचना पत्र की जानकारी मैंने पढ़ी है / पढ़ी गयी है। अध्ययन की प्रकृति और मेरी भागीदारी को समझाया गया है और मेरे सभी सवालों का संतोषजनक जवाब दिया गया है। इस सहमति पत्र पर हस्ताक्षर करने से, मैं इंगित करता हूं कि मैं समझता हूं कि मुझसे क्या अपेक्षा की जाएगी और मैं इस अध्ययन में भाग लेने के लिए तैयार हूं । मुझे पता है कि मैं किसी भी समय अध्ययन को छोड़ सकता हूं। मुझे सूचित किया गया है कि यदि आवश्यकता पड़ी तो किसको संपर्क किया जाना चाहिए।

प्रतिवादी का हस्ताक्षर / अंगूठे का निशान:

जगह:

दिनांक:

साक्षात्कारकर्ता का नाम:

साक्षात्कारकर्ता का हस्ताक्षर:

ANNEXURE 4:

IEC CLEARANCE CERTIFICATE

श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेन्द्रम
तिरुवनन्तपुरम - ६९५०११, केरल, इंडिया

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY, TRIVANDRUM
Thiruvananthapuram - 695 011, Kerala, India
(An Institute of National Importance under Govt. of India)

Grams : Chitramet, Phone : +91-471-2443152, Fax : +91-471-2550728 / 2446433, E-mail : sct@sctimst.ac.in, Website : www.sctimst.ac.in

Institutional Ethics Committee

(IEC Regn No. ECR/189/Inst/KL/2013/RR-16)

SCT/IEC/ 1443/NOVEMBER-2019 14.11.2019

Ms. Roselent Joseph
MPH Student, AMCHSS
SCTIMST, Thiruvananthapuram

Dear Ms. Roselent Joseph,

The Institutional Ethics Committee reviewed and discussed your application to conduct the study entitled "IMPACT OF BHAMASHAH SWASTHYA BIMA YOJANA (BSBY): A STUDY AMONG THE BPL HOUSEHOLDS OF JAIPUR DISTRICT, RAJASTHAN (IEC/1443)" on 2nd November, 2019.

The following documents were reviewed:

Original submission

1. *Covering letter addressed to the Chairman, IEC, SCTIMST dated 17.10.2019 with checklist*
2. *Full proposal*
3. *IEC application form*
4. *TAC Approval letter*
5. *Forwarding letter from HOD and Guide*
6. *Interview schedule in English and Hindi*
7. *Participant Information Sheet and Consent Form in English and Hindi*
8. *CV of Principal Investigator*

Revised submission

1. *Covering letter addressed to the Chairman, IEC, SCTIMST dated 06.11.2019 with checklist*
2. *Copy of IEC Recommendation Letter dated 05.11.2019*
3. *Full proposal*
4. *IEC application form*
5. *TAC Approval letter*
6. *Forwarding letter from HOD and Guide*
7. *Interview schedule in English and Hindi*
8. *Participant Information Sheet and Consent Form in English and Hindi*
9. *CV of Principal Investigator*

The following members of the Ethics Committee were present at the meeting held on 2nd November, 2019 at G. Parthasarathi Board Room, AMCHSS, SCTIMST

SL. No.	Member Name	Highest Degree	Gender	Scientific /Non Scientific	Affiliation with Institution(s)
1.	Dr. Harikrishnan S	MD, DM (Cardiology) DNB (Cardiology)	Male	Clinician	Yes
2.	Dr. Kala Kesavan. P	MBBS, MD	Female	Basic Medical Scientist	No
3.	Smt. Sathi Nair	MA (English Literature)	Female	Lay Person	No
4.	Dr. Christina George	MD Psychiatry	Female	Clinician	No
5.	Dr. Mala Ramanathan	PhD	Female	Social Scientist (Member Secretary)	Yes

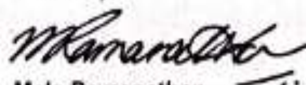
IEC Decision

The IEC approved the conduct of the study in the present form.

Remarks:
The Institutional Ethics Committee expects to be informed about the progress of the study, any SAE occurring in the course of the study, any changes in the protocol and patient information/informed consent and asks to be provided a copy of the final report.

There was no member of the study team / Guide who participated in voting / decision making process. The ethics committee is organized and operated according to the requirements of Good Clinical Practice and the requirements of the Indian Council of Medical Research (ICMR).

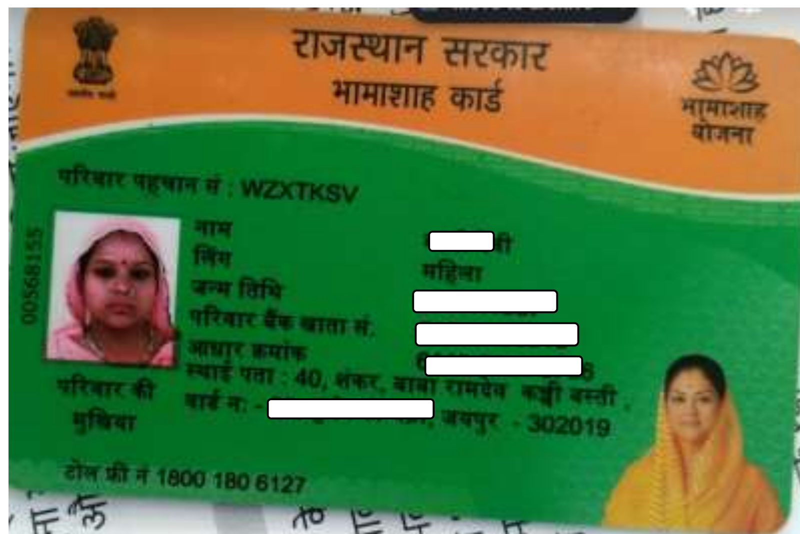
Sincerely,



Mala Ramanathan
Member Secretary, IEC

ANNEXURE 5:

PHOTOGRAPHS



राजस्थान सरकार
परिवार राशन कार्ड

बारकोड संख्या
पंचायत समिति झोटवाडा
ग्राम पंचायत पीथावास
ग्राम पीथावास
मुखिया का नाम प्रकाश चन्द
पिता/माता का नाम नाथूलाल
यू.आईडी क्रमांक
पूरा पता सामुदायिक भवन के पीछे, पीथावास, हाथोज, जयपुर, झोटवाडा, जयपुर, पीथावास, झोटवाडा, जयपुर, 302012

गैस कनेक्शन प्रकार डबल / Indian Oil Coporation
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उपभोक्ता सेवा क्रमांक
आयकर दाता नहीं पैन
उचित मूल्य की दुकान का विवरण
दुकान का नंबर 216/2006
दुकान का नाम RAJESH YADAV
पता पीथावास, झोटवाडा, जयपुर
मोबाइल नं.

Signature valid

सरपंच
ग्राम पंचायत पीथावास
पं.स. झोटवाडा, जयपुर

परिवार का विवरण

ANNEXURE 6:

PLAGIARISM REPORT

Document Information

Analyzed document	theisversion2forPlagplagiar.docx (D70722482)
Submitted	5/11/2020 9:18:00 AM
Submitted by	Srinivasan Kannan
Submitter email	ksrini@sctimst.ac.in
Similarity	0%
Analysis address	ksrini.sctims@analysis.urkund.com

Sources included in the report