


# Knowledge of Public Health Insurance Schemes in People Living in Urban Slums: A Cross-Sectional Study from Western India

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## ABSTRACT

With the rise in the burden of non-communicable diseases along with pre-existing communicable diseases in developing nations, out of pocket healthcare expenditure has become a significant burden for lower socioeconomic strata. To provide financial safeguarding, the Central and State Governments have developed PFHI schemes. Our study found factors associated with the level of awareness about PFHI schemes. In terms of housing, the highest level of awareness was seen in Kutcha house owners. Similarly, respondents who had completed schooling were more aware of the scheme as compared to those who were illiterate. With regards to family structure, nuclear families were the most well-informed among the respondents.

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## INTRODUCTION

There has been a steady rise in the burden of non-communicable diseases in South Asian nations, including India (Siegel et al., 2014). An important contributor to the above problem is the inaccessibility of healthcare and lack of screening. At the same time, communicable diseases and malnutrition are widely prevalent in India, adding to the overall burden on the healthcare system. It has been shown that medical Out of pocket expenditure (OOPE) can be financially draining, and 100 million people across the world have been impoverished due to catastrophic health expenditure (CHE) (Garrett et al., 2009). Hence, Financial Risk Protection is essential, and a few PFHI (Public Funded Health Insurance Schemes) have been launched by the Central and State Governments. The

concept of Universal Healthcare by the WHO aims to provide patients with the services they require in a timely fashion without financial constraints.

In line with the concept of Universal Healthcare for all, the Government of India launched the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) in 2018 to succeed the previous program Rashtriya Sashtha Bima Yoga, which was operational since 2008. It covers around half a billion people belonging to vulnerable households, providing a financial cover of 5,00,000 rupees per family every year for secondary and tertiary hospitalization (Joseph et al., 2021). The Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY) is a health insurance scheme implemented by the Government of Maharashtra for patients belonging to below the poverty line and some above the poverty

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line with certain diseases. The eligible beneficiaries can avail of a predefined set of 972 diagnostic and therapeutic services at empanelled Government hospitals.

Beneficiaries are people who have one of the following:

- Yellow Ration Card
- AAY (Antyodaya Anna Yojana) Card
- Annapurna card
- Orange Ration Card

Sum insured – 1,50,000 Rs per year per family. Salient features include completely cashless transactions and online settlement of the claim (Kolekar et al., 2024). In the present study, we evaluate the awareness about the Publicly Funded Health Insurance schemes in the state of Maharashtra and the factors determining the same.

## METHODS

This is a four-month cross-sectional study from February to May 2018. Convenient sampling was used to include 145 families in the Dharavi slum of Mumbai, India. The research comprised people aged 16-60 who had lived in the area for at least the previous six months. Following their consent, the head of each household was interviewed using a standardized interview schedule. If the family was not present at the time, other members above the age of 16 who were competent were chosen. The data was collected with the assistance of 12 qualified field investigators in the specified locations. If any of the chosen families were unable to participate in the survey for whatever reason, the next family was chosen for an interview. Eligible individuals who were unable to communicate or interpret the questions remained excluded. We employed a semi-structured interview questionnaire that we created ourselves in vernacular language (Hindi).

**Table 1**  
Predictors of awareness of government insurance schemes

Variables	p-value	OR	95% CI for OR	
			Lower Bound	Upper Bound
Gender of the Respondent (Male)†	<0.001	1.20	1.01	1.39
Type of Family				
Nuclear	-	1.29	0.36	1.66
Extended	-	0.99	0.93	1.48
Joint	-	1.10	0.78	1.19
Education of the Head of the family				
Illiterate	-	2.17	0.71	6.67
Completed School	-	8.22	3.73	18.11
Graduate/Postgraduate	-	1.07	0.71	3.78
Mean age of the head of the family	-	-1.32	0.08	1.34
Quality of Housing				
Pucca (concrete)	-	4.01	0.74	7.31
Katcha (shanty)	-	2.00	1.02	4.44
Semi-pucca (mixed)	-	0.99	0.33	2.76
Mean number of rooms†	<0.001	-1.32	1.08	1.34
†Significant (p < 0.05)				

A participant was deemed aware of any social welfare scheme if he or she knew the name of the government-launched scheme. Before entering data, the Principal Investigator reviewed all completed semi-structured interview schedule forms for completeness and consistency. Data were input into a Google spreadsheet. Wherever possible, proportions or means are used to characterize a participant's demographic and socioeconomic features. Binomial logistic regression was utilized to analyse the parameters influencing PMJAY and MJPJAY awareness in the study population. A P value of 0.05 or less was considered statistically significant. For the quantitative data analysis, the Statistical Package for Social Sciences (SPSS) version 15 was used. The ethical clearance was sorted by ethical committee.

## RESULTS

### Demographic Characteristics

Out of the 145 families interviewed, the mean age of participants was 37.7 +/- 14 years. The mean age of the head of the family was 41.3 +/- 10 years. All the people were residents of urban areas. Male to female ratio was 1.3.

### Awareness of PMJAY

Only 41% of the families/family heads were aware of the PMJAY. But surprisingly, 49% were aware of the insurance scheme among those who were eligible.

### Awareness of MJPJAY

44% of the families/family heads were aware of the MJPJAY. But surprisingly, of those who were eligible, 51% were aware of the insurance scheme.

### Factors Affecting Awareness of Government Insurance Schemes

For the factors affecting awareness of the government schemes, binomial logistic regression was performed, the results of which are depicted in table 2.

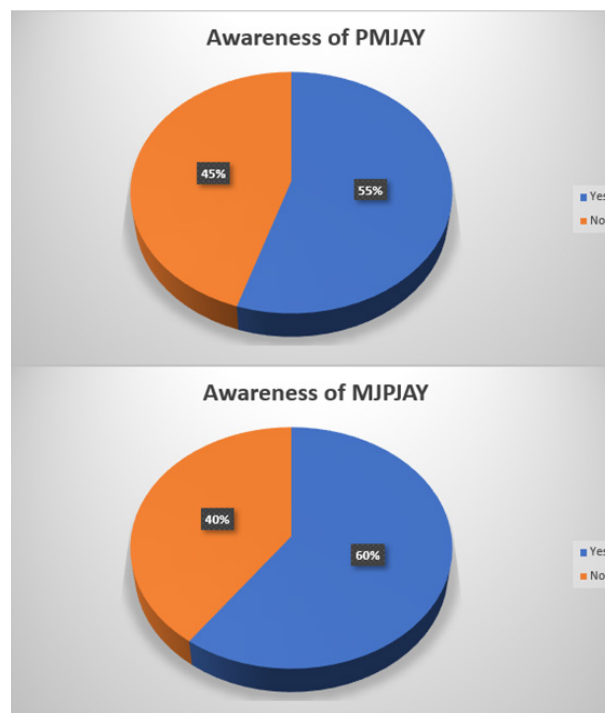


Fig. 1. Pie charts showing awareness of Government Insurance Schemes in India

## Discussion

The Central and State Governments have implemented numerous PFHI initiatives for financially safeguarding vulnerable populations against OPE. A study found out that middle and upper lower households are often pushed into poverty due to CHE, with 14.86% of households experiencing CHE due to a member with an NCD (Swetha et al., 2020; Sapkal & Deshpande, 2019). These schemes offer the opportunity to financially weaker sections of the society to avail quality healthcare in a timely and efficient manner through designated hospitals. It has been observed that the fear of a catastrophic medical expenditure often leads to hesitancy among the poorer sections of society, often leading them to neglect their health conditions and avoid visiting healthcare facilities altogether.

Lack of awareness about the eligibility and scope of services is a major reason for not availing of the services, a study found. In this study, we discovered that the awareness in the community about these schemes was low. Only around half of the eligible

population were aware of the existence of government insurance schemes. Our study found factors associated with the level of awareness about PFHI schemes. In terms of housing, the highest level of awareness was seen in Kutcha house owners. Similarly, respondents who had completed schooling were more aware of the scheme as compared to those who were illiterate. With regards to family structure, nuclear families were the most well-informed among the respondents. The low level of community awareness about the existence of PFHI schemes makes spreading information essential in the form of mass media and community healthcare workers.

## Acknowledgment

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## Competing Interest

The authors had no competing interests.

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