

Awareness, Enrolment and Utilization of Ayushman Bharat -PMJAY among eligible families residing urban and rural field practice area of Madhubani Medical College, Madhubani, Bihar

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Abstract:

Background: Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PM-JAY) is India's flagship health program designed to provide universal health coverage and reduce catastrophic out-of-pocket expenditure (OOPE) for low-income families. While Bihar is one of the states most in need of such financial protection, its implementation and awareness rates have historically lagged behind national averages.

Objectives: This study aimed to investigate the level of awareness, enrolment, and utilization of the AB-PMJAY scheme among eligible families residing in the urban and rural field practice areas of Madhubani Medical College, Bihar.

Material and Methods: A community-based descriptive cross-sectional study was conducted over two months among 100 eligible families. Participants were selected via purposive sampling and interviewed using a pre-designed, pre-tested questionnaire. Data analysis included descriptive statistics and independent sample T-tests to determine statistical significance.

Results: The study found a high level of engagement with the program, with 74% of households being both aware of and enrolled in PM-JAY. The primary source of information was the public relations (PR) outreach campaigns conducted by the hospital (55%), followed by mass media (35%). Service utilization was robust; the most frequent uses were for surgical procedures (n=26), medical procedures (n=21), and invasive medical services like dialysis (n=12). Significantly, 100% of enrolled households reported that the scheme successfully decreased their out-of-pocket expenses.

Conclusion: Awareness and utilization in the study area were considerably higher than the state average. This success is attributed to intensive hospital-led PR campaigns and the accessibility of a tertiary care facility empanelled with the scheme. The findings underscore the importance of localized outreach in achieving the goals of universal health coverage.

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Introduction

Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (PM-JAY) is the flagship program of the Government of India which aims to provide comprehensive health care to rural and urban low-income families. The program seeks to achieve the vision of universal health coverage and reduce the catastrophic out of the pocket expenditure (OOPE). The program intends to provide financial protection of ₹ 500,000 per family per year and cover all

medical expenses for secondary and tertiary care [1]. As of 2019, 32 states and union territories have started enrolling 10.2 crore families [2]. Bihar is the third most populous state in the country and accounts for 8.6% of the country's population. It is among the eight socioeconomic backward States and called Economic Action Group State (EAG) since it lags in demographic transition and has a high infant mortality rate. Bihar has the lowest Gross

State Domestic Product (GSDP) among EAG group states and has poor performance among most health indicators. The state government of Bihar has increasingly focused on health and its budgetary allocation for health in the year 2019 is 14% more compared to last year. Still, the increase has not kept up with the pace of economic growth, and hence it is bound to increase OoPE and push many into poverty [3].

PM-JAY is a vital lifeline that the poor of this state need as it will not only increase the government expenditure on health but also reduce OoPE and help improve health indicators. PM-JAY was started in Bihar on 23rd September 2018 to provide free health insurance coverage to eligible 1,08,95,571 families living in the state. However, until 2019 only 58% of the eligible families have been covered [4]. Furthermore, reports on the ranking of various states and union territories on the development of Ayushman Bharat - Health and Wellness Centres (AB-HWCs) found that Bihar was among the worst performer and had a meagre total score. The District of Madhubani is the 4th most populous in the state, with 96.04% of the population living in the 1110 villages [5]. NFHS -4 study carried out in the district in 2015 showed that only 12.1% of the household in the region had any form of health insurance [6]. The present status of health insurance coverage in the district after the introduction of PM-JAY is not known. The present study intends to investigate the awareness, enrolment, and utilization of Ayushman Bharat among eligible families.

Review of Literature: Catastrophic OOP is one of the major factors responsible for pushing millions into poverty in middle and low-income countries, with numerous studies confirming it [7-10]. The absence of health insurance compounded with poor public expenditure on health increases the financial burden on households. In India, the government expenditure on health is 1% of GDP and OOP is 71%. However, various policy documents indicate the importance of increasing expenditure on health by 5% of GDP and providing financial protection to vulnerable sections. PMJAY is vital for decreasing OOP and increasing public expenditure on health. However, data on awareness enrolment and utilization of the scheme from various states thought rising are still insufficient. The present study is an endeavour in this regard to filling the knowledge gap [11].

Aim: Awareness, Enrolment and Utilization of Ayushman Bharat -PMJAY among eligible families residing urban and rural field practice area of Madhubani Medical College, Madhubani, Bihar.

Objectives

1. To Aware the eligible Families about AB-PMJAY residing in the Urban and Rural Field practice area.

2. To Estimate Enrolled families benefitted by AB-PMJAY in Urban and Rural field practice area.
3. Utilization of AB-PMJAY among eligible families in Urban and Rural field practice area.

Material and Methods

- **Study Design:** Community Based Descriptive cross-sectional study
 - **Study Setting:** Urban and Rural Field practice area of MMCH, Madhubani, Bihar
 - **Study Duration:** Two Months
 - **Study Population:** Families eligible for Ayushman Bharat programme.
 - **Inclusion Criteria:** Families who are eligible for Ayushman Bharat program and give consent to participate in the study
- Definition of Eligible Family**

In Rural Areas

- a. Those living in scheduled caste and scheduled tribe households
- b. Families with no male member aged 16 to 59 years
- c. Beggars and those surviving on alms
- d. Families with no individuals aged between 16 and 59 years
- e. Families having at least one physically challenged member and no able-bodied adult member
- f. Landless households who make a living by working as casual manual labourers
- g. Primitive tribal communities
- h. Legally released bonded labourers
- i. Families living in one-room makeshift houses with no proper walls or roof
- j. Manual scavenger families

In Urban Areas

- a. Washerman / chowkidars
- b. Rag pickers
- c. Mechanics, electricians, repair workers
- d. Domestic help
- e. Sanitation workers, gardeners, sweepers
- f. Home-based artisans or handicraft workers, tailors
- g. Cobblers, hawkers and others providing services by working on streets or pavements
- h. Plumbers, masons, construction workers, porters, welders, painters and security guards
- i. Transport workers like drivers, conductors, helpers, cart or rickshaw pullers
- j. Assistants, peons in small establishments, delivery boys, shopkeepers and waiters.

Families which are not eligible for Ayushman Bharat -PMJAY are

- a. Households having motorized 2/3/4 wheeler/fishing boat
- b. Households having mechanized 3/4 wheeler agricultural equipment
- c. Households having Kisan Credit Card with credit limit above Rs. 50,000
- d. A member of the household is a government employee
- e. Households with non-agricultural enterprises registered with the government
- f. Any member of household earning more than Rs. 10,000 per month
- g. Households paying income tax
- h. Households paying professional tax
- i. House with three or more rooms with pucca walls and roof
- j. Owns a refrigerator
- k. Owns a landline phone
- l. Owns more than 2.5 acres of irrigated land with 1 irrigation equipment
- m. Owns 5 acres or more of irrigated land for two or more crop season
- n. Owning at least 7.5 acres of land or more with at least one irrigation equipment

- **Exclusion Criteria**

- a. Families who are not eligible for Ayushman Bharat-PMJAY.
- b. Families who do not give consent to participate in the study.

Sample Size: 100 families.

Sample size was calculated using the formula, $4pq/d^2$, P =prevalence, $q = 1-p$, d = absolute error. The GOI report shows (3) coverage of scheme reported to be 58% the sample size was calculated with 95% CI at 10% absolute error to be $n = 4 \times 0.58 \times 0.42 / 0.10 \times 0.10$ $n = 0.97 / 0.01 = 97$

Rounding off to nearest number a sample of **100 families** is taken and decided take 1/3 of sample will be taken for urban area with 2/3rd was from the rural area since the rural population is larger than the urban population.

- **Sampling Procedure:** Purposive sampling
- **Study Tools:** Pretested and Pre designed Questionnaire

- **Data Collection Procedure:** Households were randomly selected from the line list of all the household in the field practice area, following which a door to door survey was carried out search of all the families who were eligible for Ayushman Bharat -PMJAY. The eligible families were informed about the purpose of the study and written consent was obtained. Families whose consent to participate were interviewed using a predesigned and pretested questionnaire. The non- consenting families and those who could not be contacted during the period of study were not included in the study.

Statistical Analysis

- a. Data collected was entered in the Microsoft excel worksheet. The descriptive statistics was displayed using the appropriate table and graphs.
- b. The continuous variable is showed using Mean \pm SD. A p value more than 0.05 was suggestive of normal distribution. Independent sample T test was then applied to check for the mean difference among the groups and a p value less than 0.05 was considered statistically significant.

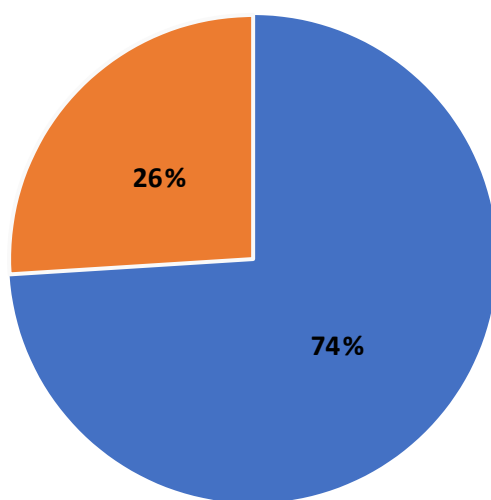
Results

The total household enrolled for the study was 100; the socio-demographic characteristic of the participant (Table 1) suggests that the majority of study participants are Hindu by religion, living in joint families with only one earning members. 74% of households were aware and enrolled in the PMJAY (Figure 1). Utilization of services by enrolled households varied. A majority of 26 households used PMJAY for the surgical procedure, 21 used it medical procedure, 12 for invasive medical (like dialysis or coronary angiography), 10 for orthopedic surgeries, 5 for OBG, and 1 for Ophthalmology (Figure 3). However, all the households said it did decrease their OOP. The source of information for PMJAY (Figure 3) among the study population was PR campaign outreach carried by the hospital (55%), followed by mass media 35%.

Table 1: Socio-Demographic Details of Study Population (N=100)

Characteristics	Frequency	Percentage
Religion		
Hindu	62	62
Muslim	38	38
Category		
General	19	19
EBC	11	11
OBC	61	61
SC	9	9

Residence			4
Urban	4		96
Rural	96		
Type of Family			5
Nuclear	5		95
Joint	95		
Occupation of HOF			50
Unskilled Worker	50		50
Skilled Worker	50		
Type of House			52
Katcha	52		30
Pakka	30		18
Mixed	18		
Family with Vulnerable Population			6
ANC mothers	6		26
Under 5 children	26		45
Geriatric population	45		
Family with NCD			32
Hypertension	32		28
Diabetes Mellitus	28		
Median Number of Household Member – 5, IQR – 2			
Median Number of Earning Member- 1, IQR -0			



■ Aware ■ Unaware

Figure 1: Awareness and Enrollment about PMJAY

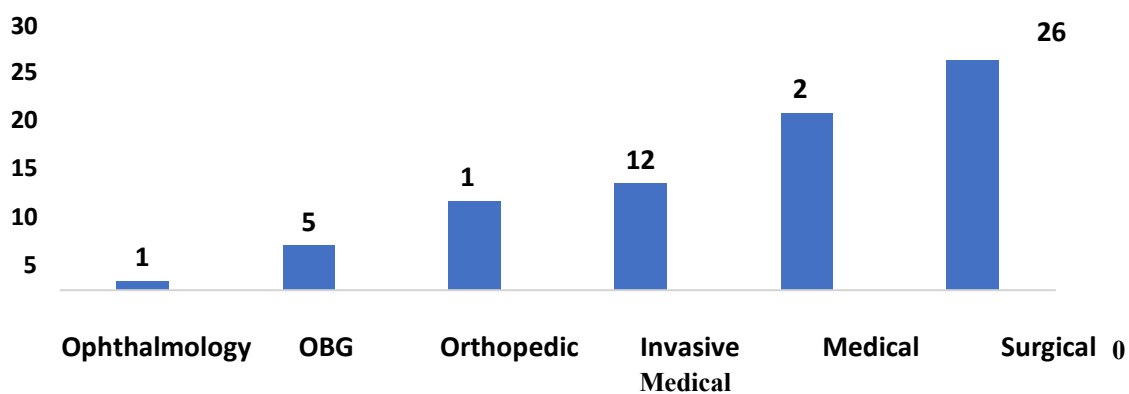


Figure 2: Utilization of various services at hospital under PMJAY (n=74)

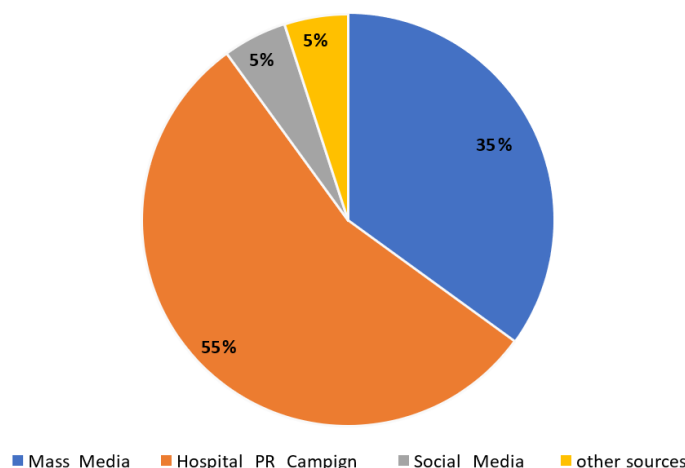


Figure 3: Source of Information for PMJAY

Discussion

The present study was conducted in the field practice of Madhubani Medical College to estimate the awareness, enrollment, and utilization of PMJAY by eligible households. We found that the study population's awareness and enrollment were high, and all the enrolled households have used the services. The study conducted by Panda et al. [12] in rural Bihar has shown an enrollment rate of just 30% in an eligible household. A study conducted by Vishnu Priya et al. [13] in rural field practice of Saveetha Medical College, Tamil Nadu, found that the awareness was 77.3% which is similar to our study. Various other studies [14 – 17] have also suggested the awareness and enrolment rate similar to our study. The high awareness in our population is due to the high public relation campaign carried out by our hospital and increased mass media coverage which was validated by Figure 3. Utilization of services was high; 100% of our enrolled household in PMJAY used the services with the last one year; this can attribute to fact that our hospital is a tertiary care hospital and explained with PMJAY, which make it easier for the user to access the services. Increased utilization of service has significantly reduced OOP, which has been reported in our study and also in other studies [10,17,18,19].

Summary and Conclusion

The awareness, enrolment and utilization of PMJAY among eligible families residing in the field practice area of Madhubani Medical College were high compared to the state average due to the increased public relations campaign carried out by the hospital.

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