

A Study on Social Equity and Access to Affordable Medicines Under Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) in Surat City

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Abstract:

This study investigates the effectiveness of the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) in promoting social equity and ensuring access to affordable medicines among the residents of Surat City. By employing a structured questionnaire and analysing 130 responses from a diverse demographic using SPSS, the research examines key dimensions such as public awareness, accessibility and availability, affordability, and social equity with generic medicines offered under the scheme. The findings reveal significant variations in awareness and utilisation across income and education levels, highlighting both the achievements and challenges in equitable healthcare delivery. The study provides valuable insights for policymakers to strengthen the outreach, affordability, and trust in generic medicines, ultimately contributing to more inclusive and sustainable public health outcomes.

Keywords: Social equity, accessibility, affordability, PMBJP, generic medicines

Introduction:

Access to affordable and quality healthcare is a fundamental need in any society, yet it remains a persistent challenge for a large section of India's population. One of the most pressing concerns is the high cost of medicines, which contributes significantly to out-of-pocket healthcare expenses, particularly among economically disadvantaged groups. In a country where a majority of health expenditures are borne directly by patients, the affordability of essential medicines becomes a matter of both public health and social justice.

Recognizing this critical issue, the Government of India, under the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, launched the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) in 2008, intending to make quality generic medicines available at lower prices through dedicated outlets known as Janaushadhi Kendras. The initiative aims to promote health equity by reducing the financial burden of treatment and ensuring that essential drugs are accessible to all, irrespective of socioeconomic status. Though there were only 80 Janaushadhi Kendras until 2014-15, this scheme gained momentum when the government revamped it as 'Pradhan Mantri Jan Aushadhi Yojana' in 2015. The scheme was then renamed as 'Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana (PMBJP)' in 2016. Through this scheme, the citizens save approximately Rs. 340 crores F.Y. 2025-26 as on 30-04-2025.

Total Kendra in India as of 21-05-2025: 16290

Total Kendra in Gujarat as of 21-05-2025: 800

Total Kendra in Surat as of 21-05-2025: 114

Definition:

1. **Social Equity:** ensuring everyone gets what they need to live a good life.
In the context of the research paper, it refers to the fair distribution of affordable medicines to all sections of society.
2. **Access:** being able to reach and use something people need.
In the context of the research paper, it means the ease with which people can find and use generic medicines.
3. **Affordable:** means people can pay for something without struggling.
In the context of the research paper, it means that the generic medicines are financially within the reach of people.
4. **Generic medicines:** equivalents of branded medicines that have the same medical benefits.

Literature Review:

1. (V. Sankar*, 2023), in their study 'Impact of Pradhan Mantri Bhartiya Janaushadhi Pariyojana Scheme -A review,' highlighted the importance of this scheme. They further suggested that the product basket under this scheme should be expanded, and awareness campaigns should be undertaken.
2. (Paswan, 2022) researched in their study 'Evaluating the Role and Challenges of the Pradhan Mantri Jan Aushadhi Pariyojana in Enhancing Healthcare Access: A Social Scientific Study of Palamu and Gumla Districts in Jhaarkhand' about the impact of this scheme. Using purposive sampling to collect responses from 100 respondents and snowball sampling to collect responses from 50 local doctors, they found out that there is still unawareness among people, as well as 53% of respondents in Palamu and 32% in Gumla believed that the effectiveness of generic medicines is less than branded medicines. it was also observed that the majority of doctors in Gumla prescribe generic medicines, while in Palamu, the majority of doctors prescribe both branded and generic medicines.
3. (Ghosh, 2022) surveyed their research, 'Improving access to medicines by popularising generics: a study of 'India's People's Medicine' scheme in two districts of Maharashtra'. To find out the availability of medicines at stores and to check the stock-out situation of medicines at the stores, they interviewed 11 pharmacies in Mumbai and Palghar. It was found out that overall, only 47% of essential medicines are available at stores. They suggested that the supply of medicines should be increased, and they should be properly tested.
4. (Manoj Pareek, 2019) in their study 'Providing generic medicines to the poor in India: An overall assessment of government-run generic medicine scheme Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) with reference to the experience of store owners in the city of Jaipur' assessed the impact of the scheme. To know whether doctors working in government and private hospitals prescribe generic medicines and do Jan Aushadhi stores stock branded medicines, a survey of 10 store owners in the urban area of Jaipur was conducted. It was concluded that the majority (70%) of the prescriptions of generic medicines come from government hospital doctors, while the store owners admitted that they store branded medicines due to a shortage of generic medicines. It was suggested

that there should be a proper mechanism to know whether the doctors are prescribing generic medicines or not, as well as the production of generic medicines should be increased.

Research Methodology:

Objectives:

1. To assess the level of awareness and usage of PMBJP among different socio-economic groups.
2. To assess the accessibility and availability of medicines under the PMBJP scheme
3. To evaluate access to affordable medicines provided under PMBJP.
4. To examine the extent to which PMBJP promotes social equity in medicine access.

This study used a descriptive research design to evaluate the awareness, accessibility, affordability, and equity aspects of the PMBJP scheme. A sample of 130 respondents was selected using a non-probability, convenience sampling technique. Primary data was collected through a structured questionnaire comprising demographic details and Likert-scale-based items aligned with the study objectives. The collected data was then analysed using SPSS software, where appropriate non-parametric statistical tests such as Chi-Square and Kruskal–Wallis were applied.

Hypothesis:

1. H0(1): There is no significant association between a respondent's education level and their awareness of the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP).
2. H0(2): There is no significant difference in perceptions of accessibility and availability of PMBJP medicines across different monthly income groups.
3. H0(3): There is no significant difference in how different income groups perceive the affordability and economic relief provided by PMBJP medicines.
4. H0(4): There is no significant difference in perceptions of equity and inclusion under PMBJP across different income groups.

Limitations of the study:

1. The study is restricted to Surat City only.
2. The response from the respondents may be biased.
3. It focuses only on the perspectives of the end-user and not on the supply-side.

Significant association between Awareness and Education

Table 4.1.1: Awareness * Education level crosstabulation

AWARENESS * EDUCATION Crosstabulation						
			EDUCATION			Total
			UPTO SCHOOL	GRADUATION	POST-GRADUATION	
AWARENESS	NO	Count	6	18	6	30
		% within AWARENESS	20.0%	60.0%	20.0%	100.0%
	YES	Count	5	44	51	100
		% within AWARENESS	5.0%	44.0%	51.0%	100.0%

Total	Count	11	62	57	130
	% within AWARENESS	8.5%	47.7%	43.8%	100.0%

Table 4.1.2: Awareness * Education level test result

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.433 ^a	2	.002
Likelihood Ratio	12.232	2	.002
Linear-by-Linear Association	12.179	1	.000
N of Valid Cases	130		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.54.

Interpretation:

The Chi-Square test shows a statistically significant relationship between education level and awareness of PMBJP ($p = .002$), indicating that awareness increases with higher education. Among those aware, 51% are post-graduates, while only 5% of them have an education up to school level. This suggests that individuals with more education are more likely to be aware of the PMBJP scheme.

Significant difference in the mean ranks of Accessibility & Availability and Monthly Household Income

Table 4.2.1: Accessibility & Availability and Monthly Household Income Crosstabulation

Ranks			
	MONTHLY INCOME	N	Mean Rank
Janaushadhi Kendras are located at a convenient distance from my home.	BELOW 10,000 Rs	22	84.77
	10,000 Rs - 20,000 Rs	25	69.62
	20,001 Rs TO 30,000 Rs	51	59.25
	ABOVE 30,000 Rs	32	59.00
	Total	130	
The medicines I need are usually available at the Kendra.	BELOW 10,000 Rs	22	84.48
	10,000 Rs - 20,000 Rs	25	65.82
	20,001 Rs TO 30,000 Rs	51	54.89
	ABOVE 30,000 Rs	32	69.11
	Total	130	
I do not face difficulty in reaching the PMBJP store.	BELOW 10,000 Rs	22	86.91
	10,000 Rs - 20,000 Rs	25	65.08
	20,001 Rs TO 30,000 Rs	51	55.15
	ABOVE 30,000 Rs	32	67.61
	Total	130	
The store hours are suitable for working individuals.	BELOW 10,000 Rs	22	93.23
	10,000 Rs - 20,000 Rs	25	65.24

	20,001 Rs TO 30,000 Rs	51	52.75
	ABOVE 30,000 Rs	32	66.97
	Total	130	

Table 4.2.2: Accessibility & Availability and Monthly Household Income test result

Test Statistics ^{a,b}				
	Janaushadhi Kendras are located at a convenient distance from my home.	The medicines I need are usually available at the Kendra.	I do not face difficulty in reaching the PMBJP store.	The store hours are suitable for working individuals.
Kruskal-Wallis H	10.002	11.035	12.152	19.896
df	3	3	3	3
Asymp. Sig.	.019	.012	.007	.000
a. Kruskal Wallis Test				
b. Grouping Variable: MONTHLY INCOME				

Interpretation:

The Kruskal–Wallis test shows a significant difference in perceived accessibility of PMBJP services across income groups ($p < 0.05$ for all items). Respondents with lower incomes consistently reported higher satisfaction with store location, availability, ease of access, and store hours. This indicates that the PMBJP scheme is more accessible and beneficial to economically weaker sections.

Significant difference in the mean ranks of Affordability & Economic Relief and Monthly Household Income

Table 4.3.1: Affordability & Economic Relief and Monthly Household Income Crosstabulation

Ranks			
	MONTHLY INCOME	N	Mean Rank
Medicines at PMBJP are cheaper than other private pharmacies.	BELOW 10,000 Rs	22	89.41
	10,000 Rs - 20,000 Rs	25	64.90
	20,001 Rs TO 30,000 Rs	51	56.58
	ABOVE 30,000 Rs	32	63.75
	Total	130	
I am able to afford a full course of medicines due to low prices.	BELOW 10,000 Rs	22	78.66
	10,000 Rs - 20,000 Rs	25	67.16
	20,001 Rs TO 30,000 Rs	51	58.54
	ABOVE 30,000 Rs	32	66.25
	Total	130	
PMBJP has reduced my overall monthly health expenditure.	BELOW 10,000 Rs	22	84.14
	10,000 Rs - 20,000 Rs	25	68.92
	20,001 Rs TO 30,000 Rs	51	57.59
	ABOVE 30,000 Rs	32	62.63

	Total	130	
I prefer PMBJP medicines because they help me save money.	BELOW 10,000 Rs	22	87.61
	10,000 Rs - 20,000 Rs	25	69.76
	20,001 Rs TO 30,000 Rs	51	55.97
	ABOVE 30,000 Rs	32	62.16
	Total	130	

Table 4.3.2: Affordability & Economic Relief and Monthly Household Income test result

Test Statistics ^{a,b}				
	Medicines at PMBJP are cheaper than other private pharmacies.	I am able to afford a full course of medicines due to low prices.	PMBJP has reduced my overall monthly health expenditure.	I prefer PMBJP medicines because they help me save money.
Kruskal-Wallis H	13.808	4.971	8.836	12.661
df	3	3	3	3
Asymp. Sig.	.003	.174	.032	.005
a. Kruskal-Wallis Test				
b. Grouping Variable: MONTHLY INCOME				

Interpretation:

The Kruskal–Wallis test indicates that perceptions of affordability significantly differ by income group for three out of four items ($p < 0.05$). Lower-income respondents (below ₹10,000) gave higher ratings for affordability, reduced health expenditure, and preference for PMBJP medicines. The item on affording a full course of medicine was not statistically significant ($p = 0.174$), suggesting uniform agreement across income groups on that point.

Significant difference in the mean ranks of Equity & Inclusion and Monthly Household Income

Table 4.4.1: Equity & Inclusion and Monthly Household Income Crosstabulation

Ranks			
	MONTHLY INCOME	N	Mean Rank
PMBJP benefits are equally accessible to all income groups.	BELOW 10,000 Rs	22	80.82
	10,000 Rs - 20,000 Rs	25	70.20
	20,001 Rs TO 30,000 Rs	51	55.35
	ABOVE 30,000 Rs	32	67.47
	Total	130	
The scheme is more helpful for low-income families.	BELOW 10,000 Rs	22	93.23
	10,000 Rs - 20,000 Rs	25	57.92
	20,001 Rs TO 30,000 Rs	51	56.67
	ABOVE 30,000 Rs	32	66.44
	Total	130	
PMBJP has improved healthcare access in my community.	BELOW 10,000 Rs	22	89.20
	10,000 Rs - 20,000 Rs	25	64.14

	20,001 Rs TO 30,000 Rs	51	54.73
	ABOVE 30,000 Rs	32	67.44
	Total	130	
I believe PMBJP reduces health inequality.	BELOW 10,000 Rs	22	88.43
	10,000 Rs - 20,000 Rs	25	66.50
	20,001 Rs TO 30,000 Rs	51	56.52
	ABOVE 30,000 Rs	32	63.27
	Total	130	

Table 4.4.2: Equity & Inclusion and Monthly Household Income test result

Test Statistics ^{a,b}				
	PMBJP benefits are equally accessible to all income groups.	The scheme is more helpful for low-income families.	PMBJP has improved healthcare access in my community.	I believe PMBJP reduces health inequality.
Kruskal-Wallis H	9.379	17.574	14.190	12.738
df	3	3	3	3
Asymp. Sig.	.025	.001	.003	.005
a. Kruskal-Wallis Test				
b. Grouping Variable: MONTHLY INCOME				

Interpretation:

The Kruskal–Wallis test shows a significant difference in perceptions of equity and impact of PMBJP across income groups ($p < 0.05$ for all items). Lower-income respondents consistently rated the scheme more positively, indicating that PMBJP is perceived as more beneficial and impactful by economically weaker sections.

Consolidated table of hypothesis test results:

Variable Name / Statement	p-value	Chi-square / Kruskal-Wallis Value	Hypothesis Result	Significance
Awareness of PMBJP scheme across different education levels	0.002	Pearson Chi-square = 12.433	Rejected	Significant
"Janaushadhi Kendras are located at a convenient distance from my home" across different income groups	0.019	Kruskal-Wallis H = 10.002	Rejected	Significant
"The medicines I need are usually available at the Kendra" across different income groups	0.012	Kruskal-Wallis H = 11.035	Rejected	Significant
"I do not face difficulty in reaching the PMBJP store" across different income groups	0.007	Kruskal-Wallis H = 12.152	Rejected	Significant

Variable Name / Statement	p-value	Chi-square / Kruskal-Wallis Value	Hypothesis Result	Significance
"The store hours are suitable for working individuals" across different income groups	0.000	Kruskal-Wallis H = 19.896	Rejected	Significant
"Medicines at PMBJP are cheaper than other private pharmacies" across different income groups	0.003	Kruskal-Wallis H = 13.808	Rejected	Significant
"I am able to afford a full course of medicines due to low prices" across different income groups	0.174	Kruskal-Wallis H = 4.971	Failed to Reject	Not significant
"PMBJP has reduced my overall monthly health expenditure" across different income groups	0.032	Kruskal-Wallis H = 8.836	Rejected	Significant
"I prefer PMBJP medicines because they help me save money" across different income groups	0.005	Kruskal-Wallis H = 12.661	Rejected	Significant
"PMBJP benefits are equally accessible to all income groups" across different income groups	0.025	Kruskal-Wallis H = 9.379	Rejected	Significant
"The scheme is more helpful for low-income families" across different income groups	0.001	Kruskal-Wallis H = 17.574	Rejected	Significant
"PMBJP has improved healthcare access in my community" across different income groups	0.003	Kruskal-Wallis H = 14.190	Rejected	Significant
"I believe PMBJP reduces health inequality" across different income groups	0.005	Kruskal-Wallis H = 12.738	Rejected	Significant

FINDINGS:

Objective	Question	Findings
1. To assess the level of awareness and usage of PMBJP among different socio-economic groups	Section 2 Q1 (Awareness), and Section 1 (Education)	Awareness of PMBJP is significantly associated with education level; higher-educated individuals show greater awareness (p = .002).
2. To assess the accessibility and availability of medicines under the PMBJP scheme	Construct 2: Accessibility & Availability	Respondents with lower income levels reported significantly better access and availability of medicines at PMBJP stores (p < .05).
2. To evaluate access to affordable medicines provided under the PMBJP	Construct 3: Affordability	Perceptions of PMBJP affordability differ significantly across income groups; lower-

Objective	Question	Findings
		income respondents benefit more (3 out of 4 items, $p < .05$).
3. To examine the extent to which PMBJP promotes social equity in medicine access	Construct 5: Equity & Inclusion	PMBJP is perceived to improve healthcare equity more strongly by lower-income groups, with significant differences across income levels ($p < .05$).

CONCLUSION:

This study assessed the awareness, accessibility, affordability, and equity of the PMBJP scheme in Surat. The findings reveal that awareness of PMBJP significantly increases with higher education levels. Accessibility and affordability of medicines are perceived to be better by lower-income groups, indicating that the scheme is effectively reaching its target beneficiaries. Most respondents from economically weaker sections reported high satisfaction with store location, medicine availability, and pricing. However, perceptions varied across income levels, showing disparities in experience. The scheme is widely seen as promoting healthcare equity, especially among low-income families. Overall, PMBJP is achieving its goal of providing affordable medicine and improving access for underprivileged communities. Continued efforts in awareness generation and store coverage can further enhance its impact.

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