

AN ECONOMIC IMPACT OF JANAUSHADHI ON THE GENERAL PUBLIC: A STUDY IN BELTHANGADY TALUK

Abstract

Indian health sector (public) comprises of 18% of all outpatient treatment and 44% of all inpatient care. In India, people of middle and high class tend to use public healthcare less frequently than people with lower standards of living. The public health care system was initially created to give everyone access to healthcare, regardless of caste or socioeconomic position. In order to provide health care services to the underprivileged population by providing medicines at significantly reduced rates, the central government launched the Jan Aushadhi Scheme. In this regard, the current study is an effort to analyse the economic impact of the programme. The area of the present study is the Maladi village in the Belthangady taluk of the Dakshina Kannada District. Both primary and secondary data are used in the study.

Keywords: PMBJP (Pradhan Mantri Bhartiya Janaushadhi Pariyojana), CAGR (Compound Annual Growth Rate), Pharmaceutical, US Food and Drug Administration (USFDA).

Authors

Naresh Shasthry K
PG Studies in Economics
SDM PG Centre,
Ujire, Karnataka, India.
nareshshasthryk9648@gmail.com

Dr. Mahesh Kumar Shetty H
Assistant Professor
Department of Economics
Sri Dharmasthala Manjunatheshwara
College (Autonomous)
Ujire, Karnataka, India.
maheshksh@sdmcejire.in

I. INTRODUCTION

Increased healthcare expenses continue to be a major concern throughout the world, especially in developing and impoverished countries where the majority of the populace cannot afford them. India is no exception. We are all known that India has the highest percentage of young people among developing nations. Individual medical expenses are found to be particularly high as a result of the availability of expensive branded pharmaceuticals on the market. The expensive branded pharmaceuticals have the biggest an influence on middle-class and lower-class people.

Therefore, the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) programme was developed to overthrow this administration. This programme strives to offer affordable, high-quality medications to the general populace. Numerous Jan Aushadhi medical outlets will be established across the nation to supply generic medications that are comparable to branded medications in terms of quality and chemical composition in order to make this programme successful. All types of medications will be cheaper at these Jan Aushadhi drug outlets.

The Department of Pharmaceuticals, Ministry of Chemicals, and Ministry of Fertilisers oversee the administration of the Janaushadhi scheme, which was launched by the Indian government in November 2008. The first Jan Aushadhi Shop opened its doors at the Amritsar Civil Hospital on November 25, 2008. In November 2016, the scheme was once more rebranded as the "Pradhan Mantri Bhartiya Janaushadhi Pariyojana" to give it greater vigour. This plan intends to provide high-quality generic drugs at a lesser cost, especially to the nation's weaker and more underprivileged population. To that end, Janaushadhi medical stores are being established across the country. These Janaushadhi pharmacies are also known as Janaushadhi Kendra.

II. REVIEW OF LITERATURE

1. R.K. Srivastava and Sanjiwani J. K. (2014) in their article "Understanding of consumer's awareness about brands in the pharmaceutical industry: An empirical study," claimed that the results of the study will aid the industry in promoting the medication for the condition in which it must be taken. The outcomes also assist the pharmaceutical sector in strengthening its position and promoting better health.
2. Kanchan Mukherjee (2017), 'A Cost Analysis of the Jan Aushadhi Scheme in India' revealed that the janaushadhi price is among the lowest on the market for medications like atorvastatin and alprazolam. The study strongly advises the Indian government to review the pricing policy of the janaushadhi medicines.
3. Shamiya et al. (2017) research publication "Knowledge, Attitude, and Practises towards Jan Aushadhi Scheme," reveals that some physicians are still unconvinced of the effectiveness and promptness of the Jan Aushadhi medications. The majority of doctors rarely recommend generic medications. The majority of doctors rarely inform their patients about the Janaushadhi scheme.
4. Deshpande P.R. et al. (2018) in their research paper "Functioning and Productivity of Jan Aushadhi Stores in India: The Owners' Perspective" demonstrates that janaushadhi

medications are the most affordable and high-quality medicines among all the brands that are currently accessible. The patients will greatly benefit from these two factors. It also discusses some of the negative aspects of Jan Aushadhi Medicals, such as the limited selection of pharmaceuticals offered, the lack of knowledge about the drugs, etc. These are the main problems with Jan Aushadhi Medicals.

5. Charan et al. (2019) In their study titled "Patients Opinion on the Use of Generics and Factors Associated with it: A Cross Sectional Study," discovered that patients' age and educational attainment were positively correlated with their degree of knowledge on Jan Aushadhi medications.
6. Nagarajappa and Srinivasan (2019) in their article "Modelling Customers' Buying Behaviour of Jan Aushadhi (Generic Medicines)" that when choosing a generic medication, consumers gave careful consideration to the following factors: product quality, price, doctor-provided education, and ease of use of the Jan Aushadhi medical stores.
7. Solomon and Sundar (2019), In their study "Impact of Brand Awareness and Customer Satisfaction towards Services of Jan Aushadhi Medical Stores" discovered that the authors discovered that accessibility, tangibility, reliability, and responsiveness are the four key elements that have the greatest impact on customers' satisfaction with the services rendered by Jan Aushadhi medical store employees. Additionally, they claimed that the consumers are being badly impacted by the staff's actions.
8. Ashwini and Nivedita Sanil (2020) in their research article "A Study on Jan Aushadhi Shops of Udupi District," the majority of people are aware of janaushadhi stores, and people of all income levels favour them.
9. Koshi and Panicker (2020) in their research article "A study on satisfaction level of Jan Aushadhi stores" reveals that, most of 40 to 50 age group people benefitted from the janaushadhi. Middle class families dominate the purchasing of Janaushadhi products comparatively others. Friends and relatives are sources for the gets information regarding Janaushadhi stores.
10. Pawar et al. (2021) In their article "Paralleling the quality and economy of levofloxacin hemihydrate and cefuroxime axetil tablets," found no discernible difference between the efficacy and quality of generic medications sold in Jan Aushadhi medical stores and those sold under other brand names.
11. Manjula Bai H (2021) in her research study titled "A Study on Customer Awareness towards Pradhan Mantri Bharatiya Jnanaushadi Kendra's with Reference to Shimoga" showed that more individuals are becoming aware of Jan Aushadhi schemes and visiting these stores to purchase medications. The percentage is moving more and more in favour of PMBJP.
12. R. Rajasekaran et al. (2021) in their study, 'A study on customer awareness towards Pradhan Mantri Bharatiya Janaushadhi Kendra's with reference to Tirupur district' discovered that the majority of customers were satisfied with the Jan Aushadhi store and

demographic variables such as age group, gender, and occupation had less of an impact on customer satisfaction.

13. Gauthaman J (2022) in his research article "A cost analysis and availability scenario of drugs and oral care products prescribed for common oral conditions with reference to the current Indian market prices, Jan Aushadhi, and the state medical commissions" revealed that oral care is a crucial component of the healthcare system. Only six medications and one oral care item were offered in Jan Aushadhi medical outlets in this regard. People are forced to purchase them at retail pricing from private sectors due to a lack of availability.

III. OBJECTIVES

- To investigate public perceptions of Jan Aushadhi Medical Outlets.
- To investigate public knowledge of the Jan Aushadhi medical programme.
- To determine the extent to which consumers are satisfied with the Jan Aushadhi medical program's provision of medicines in terms of their effectiveness, cost, and other factors.
- To make policy recommendations to improve the Jan Aushadhi medical programme.

IV. METHODOLOGY

The Belthangady taluk of the Dakshina Kannada district is where the current study was carried out. For its analysis, this study used both primary and secondary data. Books, journals, newspapers, periodicals, government reports, articles in reputable journals, and other published and unpublished sources were used to gather secondary data. Primary data were gathered from the field investigation using pre-tested, structured interview schedules with the general audience. About 50 respondents have been chosen, and data has been gathered, keeping in mind the scope, objective, time commitment, and financial load. Simple statistical methods like average, percentage, and so on were used to assess the data.

V. PHARMACEUTICAL INDUSTRY

The Indian pharmaceutical business is well-known worldwide for its low-cost vaccines and generic medications. Indian Pharma is currently ranked third in pharmaceutical manufacture by volume after developing through time into a vibrant sector. Over the last nine years, the Indian pharmaceutical business has grown consistently at a CAGR of 9.43%. Trade surpluses have consistently been produced by the pharmaceutical sector. In the years 2020–21, pharmaceutical exports reached 180555 crore (USD 24.35 Bn), while imports reached 49436 crore (USD 6.66 Bn), creating a trade surplus of USD 17.68 Bn. Up through the end of September 2021, pharmaceutical exports were 87864 crore (USD 11.88 Bn), while imports totaled 33636 crore (USD 4.66 Bn), resulting in a trade surplus of 54228 crore (USD 7.22 Bn).

Additionally, significant on the international stage is India's pharmaceutical industry. The majority of pharmaceutical production facilities that are compliant with the US Food and Drug Administration (USFDA) are located in India, which is located outside of the USA. Around 8% of the global markets for active pharmaceutical ingredients (API) are produced by 500 companies. India produces 60000 unique generic brands in 60 therapeutic categories,

or around 20% of the generic drug supply worldwide. India's capacity to offer accessible, affordable HIV therapy is one of medicine's greatest success stories. India is one of the biggest global producers of low-cost vaccinations. Due to their low price and high quality, Indian pharmaceuticals are highly liked and have earned the country the well-deserved moniker "pharmacy of the world". Pharmaceutical businesses manufactured drugs worth 3.03 lakh crore in the fiscal year 2015–16; this amount increased to 3.98 lakh crore in the following year and 4.27 lakh crore in the following year. Using an estimated trend growth rate (CAGR) for the output, which was 9.77% from 2013–14 to 2019–20.

VI. PRADHAN MANTRIBHARTIYAJANAUSHADHIPARIYOJANA (PMBJP)

Even though India is one of the world's leading exporters of generic drugs, the majority of its citizens lack proper access to affordable medications. Branded generic drugs cost far more than unbranded generic ones despite offering similar therapeutic effects. The Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) was launched by the Department of Health and Human Services (Department) in 2008 with the intention of making high-quality generic drugs affordable to everyone, particularly for the disadvantaged and impoverished.

The Pharmaceuticals & Medical Devices Bureau of India (PMBI) is responsible for putting the PMBJP into action. As part of this project, specialised pharmacies called Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJK) are established all over the country to provide the common population with generic pharmaceuticals. The first Jan Aushadhi Kendra in Amritsar, Punjab, was opened on November 25, 2008. The Bureau was registered as a society independent in April 2010 under the Societies Registration Act of 1860 as a unique independent legal body. As of March 31, 2014, only 80 stores were operational because the strategy failed to take off. The Committee of Secretaries, which the Hon'ble Prime Minister had created to study health-related issues, recommended the expansion of "Jan Aushadhi Kendras" in 2015. In order to encourage individual business owners to apply for establishing up and maintaining PMBJP Kendra, a franchisee-like business model was developed, and a comprehensive marketing campaign was launched in national and local periodicals. In response, each application was thoroughly reviewed, and those who met the requirements were given assistance in starting Kendras in the form of a drug licence and other required infrastructure. Private participation in the acquisition and sale of pharmaceuticals was made possible.

The target of opening 3000 Kendras was reached in December 2017. Additionally, in March 2020, the new target of 6,000 outlets total was reached. As of December 31, 2021, 8640 Janaushadhi Kendras were open for business. 240 pieces of surgical equipment and 1451 medications are offered by the PMBJP. The Pariyojana's product basket will contain 75 Ayurvedic medications, which are AYUSH goods that the PMBJP has selected to include. The PMBI has developed an electronic tender for the acquisition of the same. With the primary objective of establishing a focused and empowered framework to carry out the Jan Aushadhi Campaign, the Department formed the Pharmaceuticals & Medical Devices Bureau of India (PMBI), formerly known as the Bureau of Pharma Public Sector Undertakings of India (BPPI), on December 1st, 2008. PMBJP reported sales of 433.61 crore (at MRP) for the fiscal year 2019–20. As a result, the country's common citizens have saved about 2500 crore because these medications are 50% to 90% less expensive than the going market rate. Sales

of 665.83 crore were made in the financial year 2020–21, which allowed people to save around 4000 crore compared to purchasing branded medications. From January 1, 2021, through December 31, 2021, PMBI generated sales of 652.67 crore rupees, resulting in savings for the public of over 3,800 crore rupees. As on 31.12.2021, 8640 PMBJP Kendras are functional across the country.

VII. RESEARCH RESULTS, DISCUSSION & INTERPRETATION

The goal of the current study is to assess research findings and analyse and interpret field survey data that was collected through scheduled, organised interviews in the study area. For the primary level survey, 50 sample respondents were randomly selected from Maladi village in Belthangady taluk of Dakshina Kannada district.

1. **General Information of Respondents:** A field study was conducted in the month of June 2023, with a total of 50 respondents chosen at random. About 88% of the respondents were married, while the remaining 12% were unmarried, indicating that a large number of married people use Jan Aushadhi medicines. Age-wise dividing is useful in the study, as it shows which age group people are the most beneficiaries of the scheme. It demonstrates that the working population of the study area is the study's primary focus. Without a question, education is important in everyone's life and aids in overall development. One of the most effective instruments for development is education. The majority of respondents, according to the field inquiry, had at least a primary and secondary education, and the percentage of respondents with a university or undergraduate degree was, respectively, roughly 14% and 8%. A person's occupation can even be considered a vital component of their existence. About 34% of the total respondents who were interviewed relied on self-employment, with another 26% and 12% working as labourers in various sectors and cultivators in their own fields, respectively. A family's annual income demonstrates how much they spend on daily expenses. People in rural areas make very little money each year. They do both to survive and spend money very deliberately. About 86% of the total respondents who were questioned had annual earnings of less than \$1,000,000; the remaining 14% was dispersed between \$1 lakh and \$5 lakh throughout the research region. It demonstrates that middle class individuals today generally favour Jan Aushadhi medications.
2. **Awareness of the Scheme and Sources of Information:** Jan Aushadhi left in 2008, but after 2015, it became popular. People today must and should take Jan Aushadhi medications and be aware of this scheme. The field study provides proof that every respondent was aware of the Jan Aushadhi Scheme, which is now operating in their area. In India, the PMBJP has more than 8,500 medical outlets. A minimum of one in every taluk. People learned about the Janaushadhi plan from a variety of sources. Table-01 contains information on the PMBJP awareness raising methods.

Table 1: The Way of Knowing About PMBJP

Source of Awareness	Frequency	Percentage
Hoardings and Poster	3	6.0
Word of Mouth	6	12.0

Observation	21	42.0
News and Media	2	4.0
Doctors' advice	5	10.0
Hoardings and Poster & Observation	2	4.0
Word of mouth & Observation	6	12.0
Word of mouth & Observation & News and Media	1	2.0
Observation and News and Media	3	6.0
Hoardings, Word of mouth, Observation & Doctors Advice	1	2.0
Total	50	100.0
Source: Primary Data collected in the month of July 2023		

According to data in table 01, 42 percent of those surveyed learned about the programme through observation, and word-of-mouth advertising was another effective method. In the research region, other sources like billboards, posters, news, and media have also played a significant role in raising awareness of the PMBJP.

- 3. Usage Status Jan Aushadhi Medicines:** These days, India has a rather substantial usage of Jan Aushadhi medications. It is due to the affordable availability of medications. A preliminary investigation suggests that 39 out of 50 responders utilise Jan Aushadhi medications in some capacity. The remaining 11 responders in the research area did not use any Jan Aushadhi medications. In daily living, people experience a variety of health-related issues and must visit the doctor frequently. In this regard, Table-02 provides data gathered regarding the number of visits to the Jan Aushadhi medicines in a daily life.

Table 2: Frequency of using Jan Aushadhi Medicines

Frequency of Using	Frequency	Percentage	Cumulative Percent
Never	11	22.0	22.0
Daily	6	12.0	34.0
Monthly	5	10.0	44.0
Occasionally	28	56.0	100.0
Total	50	100.0	
Source: Primary Data collected in the month of July 2023			

The field study demonstrates that more than half of the respondents (56%) had sporadically visited to purchase necessary medications in Jan Aushadhi pharmacies in their region. Additionally, around 22% of them had never utilised Jan Aushadhi medicines, and about 13% went every day to the study location to receive the medications they needed for one reason or another.

- 4. Money Spent on Jan Aushadhi Medicines:** People used to spend a lot of money on medications before to Jan Aushadhi, especially diabetes and sugar sufferers. However, it rapidly diminished after the Jan Aushadhi scheme was implemented. Table-03 details the monthly spending on Jan Aushadhi medications in the stud area.

Table 3: Money Spent on Jan Aushadhi Medicines (Monthly)

Monthly Spending	Frequency	Percentage
Not Spend on Jan Aushadhi medicines	11	22.0
Up to 500	35	70.0
501 to 1000	1	2.0
1001 to 1500	1	2.0
More than 1501	2	4.0
Total	50	100.0
Source: Primary Data collected in the month of July 2023		

The table-03 shows that the majority of respondents, or 70%, spent up to Rs. 500 per month on Jan Aushadhi medications, and that 8% of them collectively paid between Rs. 501 and more than Rs. 1501 on this purpose in the study region. Additionally, 22% of respondents said they bought their medications from other general medical stores rather than Jan Aushadhi.

- 5. Preference of Jan Aushadhi Medicines:** Jan Aushadhi remedies are currently gaining popularity on the market. People favour using Jan Aushadhi over branded pharmaceuticals. Table-04 lists the benefits of using Jan Aushadhi medications versus branded ones.

Table-04: -Preference of Jan Aushadhi over the Branded Medicines

Preference over the Branded Medicines	Frequency	Percentage	Valid Percent
Affordability	2	4.0	5.1
Availability	9	18.0	23.1
Advice of the expert	1	2.0	2.6
Financial Compulsion	12	24.0	30.8
Affordability and Availability	3	6.0	7.7
Availability and Financial Compulsion	11	22.0	28.2
Affordability, Availability & Financial compulsion	1	2	2.6
Total	39	78.0	100
Not Applicable	11	22.0	
Total	50	100.0	
Source: Primary Data collected in the month of July 2023			

Data in table 04 showed that due to budgetary constraints and the easy access to such medications there, about 30.8 and 23.1% of respondents preferred to purchase their medications at the adjacent Jan Aushadhi Kendra. Additionally, due to the affordability and financial necessity of these medications at local Jan Aushadhi stores in the research region, roughly 28.2% of them used to purchase them.

- 6. Continuation of the Jan Aushadhi Medicines in Future:** Once someone becomes dependent on a certain thing, they only want that product. It also holds true in the case of

prescription drugs. Table-05 depicts the continued use of Jan Aushadhi medications in the study region in the years to come.

Table 5: Continue of Jan Aushadhi Medicines in Future also

Continuation of Jan Aushadhi Medicines	Frequency	Percentage
Yes	39	78.0
Not Applicable	11	22.0
Total	50	100.0

Source: Primary Data collected in the month of July 2023

The information in table-05 showed that the respondents who had already bought Jan Aushadhi medications are willing to do so in the future as well. They claimed that the primary driver for the ongoing purchase of Jan Aushadhi medications is financial need.

VIII. FINDINGS OF THE STUDY

Based on the discussion of primary data in the previous chapter, the researcher discovered some noteworthy conclusions of the study, which are given below.

- More than 90% of the people who use to have Jan Aushadi Medicines are from below middle income category people due to their financial compulsion.
- The people of the study area largely depend on the labour work and self-employment are highly dependent on Jan Aushadi Medicines.
- Based on primary datanearly 80% of the people using Jan Aushadhi medicines.
- The spending amount largely decreased, 90% of population spends less than 200Rs. for their medicines monthly. It has significantly reduced the burden on the common people.
- More than 50% respondents in the study region are availing all prescribed medicines at Jan Aushadhi outlets and some peoples are not due to non-availability.
- The current beneficiaries of the Jan Aushadhi medicines are willing to continue the Jan Aushadhi medicines in future also.
- Large number of respondents said that, government should increase the product range, so that more people are getting the benefit.

IX. SUGGESTIONS OF THE STUDY

Based on the above findings, researcher offered some suggestions which are helpful for the effective implementation of PMBJP in the study region in particular and country as a whole in general.

- The shops should require greater marketing initiatives.
- The makers should perform a survey to improve their product promotion.
- Medicines should be accessible through nearby retailers and online.
- Government should host the awareness campaigns rural communities so as to access the medicines at reasonable price.

- Government must take an initiative to promote Jan Aushadhi Medicines at all private as well government OPDs/Clinics.

X. CONCLUSION

Jan Aushadhi outlets have been developed to provide customers with cost-effective, high-quality generic drugs that are comparable to expensive branded drugs in terms of quality and effectiveness. The Jan Aushadhi Medicine Scheme has been quite successful in reaching the population in need, according to the report, but public authorities must still host activities to provide services to the greatest possible number of individuals.

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