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Affordable Healthcare Revolution: How Janaushadhi Kendras Are Redefining Access to Medicines in the Kalyana Karnataka Region

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Abstract

The enduring challenge of ensuring accessible and affordable healthcare across India has been marked by considerable out-of-pocket (OOP) spending on pharmaceutical products, creating substantial barriers to health equity, especially in economically disadvantaged regions. High OOP expenditure, which comprised 47.1% of Total Health Expenditure during 2019-20, has persistently driven millions of households into financial hardship annually, with pharmaceutical costs representing a major proportion of this burden (National Health Accounts, 2020). The Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP), implemented by the Government of India, seeks to alleviate this financial pressure by supplying quality-assured generic medicines at substantially reduced costs through dedicated retail outlets called Janaushadhi Kendras (JKs) (PMBI, 2025). This investigation examines the transformative contribution of Janaushadhi Kendras toward enhancing pharmaceutical accessibility and reshaping healthcare delivery systems, with particular emphasis on the Kalyana Karnataka region. A mixed-methods research framework was utilized, combining qualitative and quantitative methodologies involving 420 patient participants spanning seven districts. Principal findings reveal that JKs deliver considerable economic advantages, with medication prices ranging from 50-90% below branded alternatives, and patients utilizing JKs reporting average monthly spending of Rs. 540 compared to Rs. 1,120 at private retail pharmacies, representing a 52% cost reduction. The program has achieved notable geographic expansion, with over 16,912 Kendras functioning throughout India as of June 2026 (IBEF, 2025). However, substantial obstacles remain, including limited public awareness (32.6% unfamiliar with the program), distribution inefficiencies, and ongoing skepticism concerning generic medication quality (45.7% uncertain about quality standards). Policy recommendations derived from these results emphasize the necessity for comprehensive awareness initiatives, supply chain enhancement, rigorous quality verification systems, and targeted approaches to increase coverage in underserved communities.

Keywords: Janaushadhi Kendras; PMBJP; Generic Medicines; Healthcare Access; Out-of-Pocket Expenditure; Kalyana Karnataka; Health Equity; Pharmaceutical Policy

1. Introduction

1.1 Background and Context

India's healthcare system presents a striking contradiction, characterized by a thriving pharmaceutical industry capable of manufacturing diverse therapeutic products, yet simultaneously struggling with

substantial obstacles in guaranteeing fair and economical access to these vital commodities for a significant portion of its populace (Chaudhuri, 2022). A fundamental barrier to universal health coverage stems from the considerable economic strain placed on individuals and families through elevated out-of-pocket (OOP) healthcare spending. Pharmaceutical products constitute a predominant element of this OOP expenditure, creating formidable obstacles to healthcare access for economically marginalized communities (Selvaraj & Farooqui, 2019).

According to National Health Accounts data, OOP spending represented 47.1% of Total Health Expenditure (THE) in India for 2019-20, though governmental statistics indicate a reduction to 39.4% by 2021-22, reflecting the beneficial influence of various public health protection initiatives including Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) (Economic Survey, 2025). Despite this downward trajectory, the absolute financial burden persists at concerning levels, with investigations demonstrating that pharmaceutical expenditure represents the most substantial component of household OOP healthcare costs. This heavy dependence on OOP payments for medications frequently precipitates catastrophic health spending and poverty, particularly affecting low-income and vulnerable populations, driving them deeper into cycles of indebtedness and deteriorating health conditions (Berman et al., 2020).

The Economic Survey 2024-25 emphasizes that AB-PMJAY has played a meaningful role in diminishing OOP expenditure from 62.6% to 39.4%, yet the challenge of affordable pharmaceuticals endures, especially for ambulatory care where medications constitute approximately 60% of OOP spending (Ministry of Finance, 2026). This situation is frequently compounded in regions with historical developmental disadvantages and socio-economic backwardness, such as the Kalyana Karnataka region. This area, encompassing seven districts (Bidar, Kalaburagi, Yadgir, Raichur, Koppal, Ballari, and Vijayanagara), has been acknowledged for its persistent developmental deficiencies, including within the healthcare domain. Studies have highlighted deficiencies in existing healthcare facilities and infrastructure in Kalyana Karnataka, with parameters such as hospital bed availability per capita indicating lower health facility levels compared to other state regions (CAG Report, 2022).

In response to the overarching challenge of pharmaceutical affordability, the Government of India established the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) in 2008, initially designated as 'Jan Aushadhi Scheme' and subsequently rebranded as PMBJP in 2015. The fundamental purpose of this program is to provide quality generic pharmaceuticals and surgical supplies at economical prices to all citizens, thereby diminishing OOP expenditure on medications. This objective is accomplished through a network of dedicated retail establishments, known as Janaushadhi Kendras (JKs) or Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJKs), established nationwide by individual entrepreneurs or institutions with governmental support. As of June 2025, a total of 16,912 Jan Aushadhi Kendras have been established across India, with the government targeting 25,000 Kendras by March 31, 2027 (PMBI, 2025).

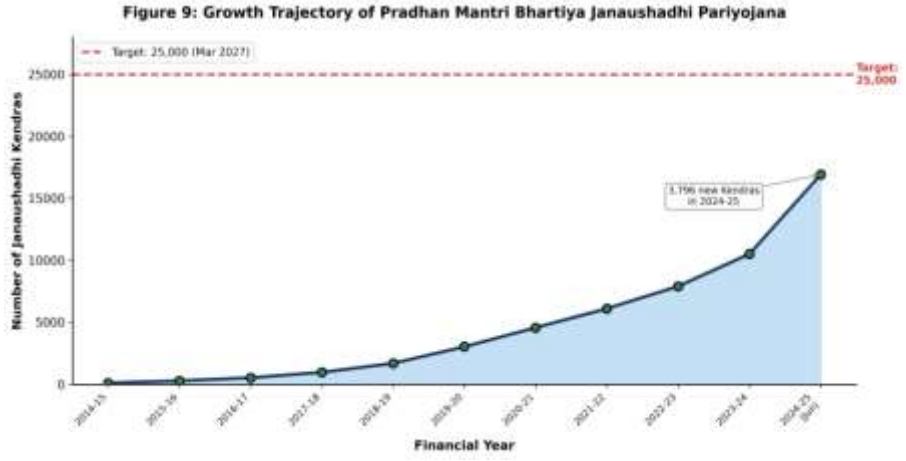


Figure 1: Growth Trajectory of Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) showing expansion from 99 Kendras in 2014-15 to 16,912 in June 2025, with target of 25,000 by March 2027.

1.2 Rationale for Study

The necessity for affordable generic pharmaceuticals in addressing disparities in healthcare access cannot be overemphasized, particularly in a nation like India where a substantial segment of the population lives below the poverty threshold or remains susceptible to financial shocks arising from health-related costs (Kotwani & Levison, 2021). Generic medicines, being bioequivalent to their branded equivalents, present a scientifically valid and economically practical avenue for reducing treatment expenses without sacrificing therapeutic effectiveness. By promoting generic medication utilization, initiatives like PMBJP possess the potential to considerably alleviate the economic burden on patients and their households, thereby enhancing compliance with prescribed treatments and leading to improved health outcomes. This assumes particular significance for managing chronic conditions requiring sustained pharmaceutical intervention, such as diabetes, cardiovascular disorders, and hypertension, where branded medication costs can be prohibitively expensive (Gupta et al., 2023).

The Kalyana Karnataka region, with its documented healthcare infrastructure and access deficiencies, stands to gain considerably from a well-functioning and accessible network of affordable medication outlets. The region's prioritization under programs like the Kalyana Karnataka Comprehensive Health Scheme, with substantial financial commitments including Rs. 5,000 crore annually and Rs. 809 crore specifically designated for healthcare infrastructure enhancement, indicates governmental focus on improving its health parameters. However, the success and effectiveness of such extensive public health initiatives depend on rigorous, evidence-based assessment. This investigation aims to address this gap by providing a comprehensive analysis of the role and performance of Janaushadhi Kendras within this specific regional context.

1.3 Study Objectives

This research undertaking is directed by a set of clearly articulated objectives:

1. To examine the distribution and operational effectiveness of Janaushadhi Kendras in the Kalyana Karnataka region, mapping their geographic spread across the seven districts, assessing their density relative to population and existing healthcare infrastructure, and evaluating their service delivery performance.
2. To quantify the influence of Janaushadhi Kendras on pharmaceutical affordability, accessibility, and

perceived quality, systematically measuring cost savings for patients obtaining medications from JKs compared to private pharmacies, evaluating accessibility considering awareness and procurement convenience, and investigating patient perceptions regarding quality and efficacy of generic medications.

3. To recognize the challenges and barriers impeding the optimal functioning of Janaushadhi Kendras in the Kalyana Karnataka region and propose evidence-informed potential solutions to enhance their effectiveness and reach in underserved communities.

2. Literature Review

2.1 Global Context of Essential Medicines Access

The pursuit of equitable access to affordable essential medicines represents a fundamental component of global public health policy and a persistent challenge, especially in low- and middle-income countries (LMICs). The World Health Organization (WHO) has been instrumental in this endeavor, advocating for the concept of essential medicines, defined as those satisfying the priority healthcare requirements of populations (WHO, 2023). The WHO Model List of Essential Medicines (EML), initially published in 1977 and updated biennially, functions as a guiding framework for nations to develop their own national essential medicines inventories. Despite these international efforts, global access to essential medicines remains inadequate, with over one-third of the world's population still confronting obstacles to obtaining essential pharmaceutical products (Wirtz et al., 2021).

Generic medicines are broadly acknowledged as among the most effective instruments for expanding healthcare access and controlling cost escalation, offering a more economical alternative to branded originator products following patent expiration (Dunne et al., 2020). Emerging economies are increasingly focused on improving access, and equitable access strategies, including fair pricing and patient affordability programs, are viewed not merely as a public benefit but also as a catalyst for sustainable pharmaceutical industry development. Various innovative methodologies involving multiple stakeholders, including differential pricing arrangements, voluntary licensing agreements, and donation initiatives, have been explored to address health challenges in developing nations (Ridley et al., 2022).

2.2 Indian Healthcare Landscape and Pharmaceutical Sector

India's healthcare framework presents a multifaceted scenario interwoven with rapid economic advancement, significant medical progress, and persistent, deeply rooted inequities in care access (Rao et al., 2022). Historically, healthcare access, particularly affordable pharmaceuticals, has been skewed toward urban populations and higher-income segments, leaving a substantial proportion of rural and economically disadvantaged Indians underserved. A defining characteristic of the Indian healthcare financing model is the high prevalence of Out-of-Pocket Expenditure (OOPE), which has constituted a significant proportion of Total Health Expenditure, though demonstrating a declining pattern from 62.6% in 2014-15 to 39.4% in 2021-22 according to the Economic Survey 2024-25 (Ministry of Finance, 2025).

Pharmaceutical products alone account for a major share of this OOPE, frequently cited as the most substantial component. This heavy dependence on private spending for healthcare drives an estimated millions of households into poverty annually and functions as a major deterrent to seeking timely and appropriate medical care (Krishna, 2020). The pharmaceutical distribution network in India is predominantly operated by the private sector, with an extensive network of private pharmacies dispensing primarily branded generic medications. While India is often described as the 'pharmacy of the

world' owing to its large-scale generic drug manufacturing capabilities, the advantages of these economical production capacities have not consistently translated into affordable medications for the domestic consumer market (Chaudhuri, 2022).

2.3 Role of Generic Medicines in Healthcare Access

Generic medicines are pharmaceutical preparations intended to be interchangeable with an originator (branded) medication, typically after the latter's patent has expired. They contain identical active ingredient(s), in the same dosage form, potency, and administration route, and must demonstrate bioequivalence to the originator product, meaning they are expected to produce equivalent therapeutic outcomes (Jackson et al., 2021). The primary benefit of generic medicines resides in their substantially lower cost compared to branded alternatives, as generic manufacturers do not incur the extensive research and development and marketing expenses associated with introducing a new molecular entity to market (FDA, 2023).

The PMBJP is explicitly founded upon this principle, aiming to make quality generic pharmaceuticals available at economical prices to all citizens, thereby diminishing the financial burden of healthcare on the population. All medications procured for Janaushadhi Kendras originate from WHO-Good Manufacturing Practices (WHO-GMP) certified suppliers and undergo rigorous quality testing at government-approved laboratories (PMBI, 2025). However, despite the evident advantages, the uptake of generic medicines frequently encounters several obstacles, with patient confidence and quality perceptions being paramount. A prevalent perception among segments of the public and even some healthcare providers is that 'cheaper' equates to 'inferior quality' (Keshava et al., 2023).

2.4 Healthcare Challenges in Kalyana Karnataka Region

The Kalyana Karnataka region, encompassing seven districts, represents a historically underdeveloped area with persistent developmental deficiencies across multiple sectors, including healthcare. The region was accorded special constitutional status under Article 371(J), recognizing its unique socio-economic challenges. The Comptroller and Auditor General (CAG) report highlighted considerable shortcomings in healthcare facilities and infrastructure, with indicators such as hospital bed availability per capita indicating lower health facility levels compared to other Karnataka state regions (CAG Report, 2022). In response, the Karnataka government has allocated substantial resources, with Rs. 5,000 crore annually for the Kalyana Karnataka Region Development Board (KKRDB) and specific allocations for healthcare infrastructure advancement.

3. Methodology

3.1 Research Design

This investigation employed a mixed-methods research design, integrating both qualitative and quantitative approaches to provide a comprehensive and nuanced comprehension of the role and impact of Janaushadhi Kendras (JKs) in the Kalyana Karnataka region. This methodology was considered appropriate as it facilitates exploration of not only the quantifiable aspects of the initiative such as cost savings and distribution patterns but also the experiential dimensions including patient perceptions and operational challenges (Creswell & Plano Clark, 2022). The convergent parallel design was utilized, wherein both qualitative and quantitative data were gathered simultaneously, analyzed independently, and subsequently integrated to provide a holistic interpretation of findings.

The qualitative component comprised in-depth interviews with key informants including JK proprietors/operators, pharmacists, physicians from both public and private healthcare sectors, and

representatives from local health authorities. Focus Group Discussions (FGDs) were organized with patients and community members to assess awareness, perceptions, and confidence regarding JKs and generic medications. The quantitative component involved statistical analysis of secondary data and primary data collection through structured surveys administered to a sample of patients visiting JKs and private pharmacies across the seven districts.

3.2 Sample Design and Data Collection

A multi-stage stratified random sampling technique was implemented. The sample size was calculated using the formula for estimating proportions with finite population correction, considering a 95% confidence level and 5% margin of error. A total of 420 patients were recruited as respondents, stratified equally between urban (210, 50%) and rural (210, 50%) areas across all seven districts of Kalyana Karnataka. Inclusion criteria encompassed: (a) age 18 years or above, (b) purchased medications from either JK or private pharmacy within the preceding three months, (c) willingness to provide informed consent. Data collection was conducted between January and March 2025 using structured interview schedules.

3.3 Socio-Demographic Profile of Respondents

Table 1 presents the socio-demographic characteristics of the patient respondents who participated in the study. The sample demonstrates diversity across gender, age, education, and income categories, providing a representative cross-section of the population accessing healthcare services in the Kalyana Karnataka region.

Variable	Category	Frequency (%)
Gender	Male	238 (56.7%)
	Female	182 (43.3%)
Age	18-30 years	96 (22.9%)
	31-45 years	148 (35.2%)
	46-60 years	112 (26.7%)
	Above 60 years	64 (15.2%)
Education	Up to Primary	124 (29.5%)
	Secondary	156 (37.1%)
	Graduate & above	140 (33.4%)
Monthly Income	< Rs. 10,000	168 (40.0%)
	Rs. 10,000-20,000	142 (33.8%)
	> Rs. 20,000	110 (26.2%)

Table 1: Socio-Demographic Characteristics of Patient Respondents (n=420)

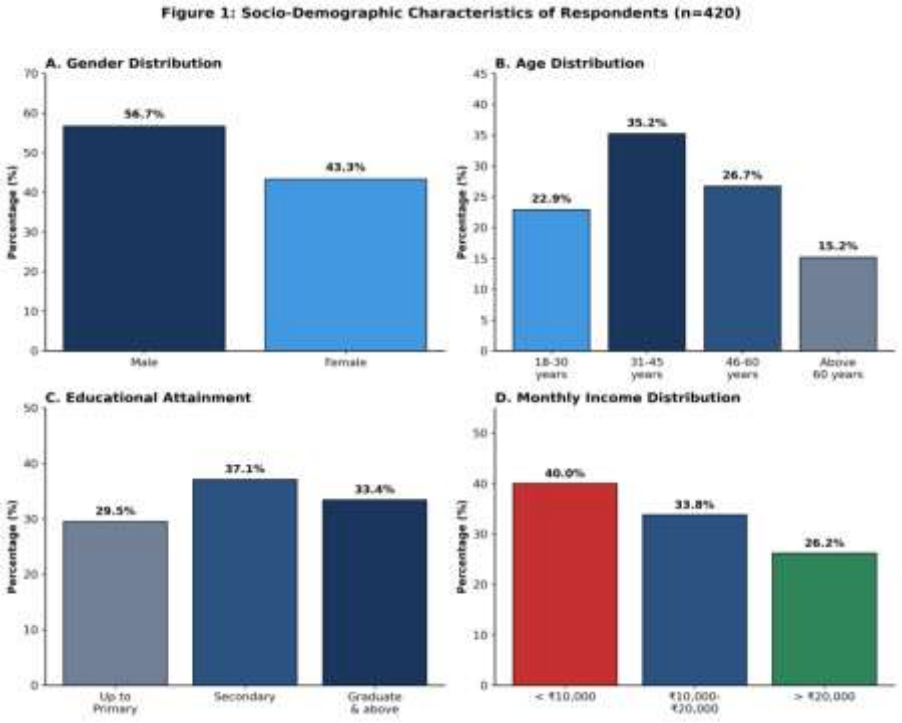


Figure 2: Visual representation of socio-demographic characteristics showing gender distribution (A), age groups (B), educational attainment (C), and monthly income distribution (D) of the study respondents (n=420).

The sample reveals a modest male predominance (56.7%), with females comprising 43.3%, indicating reasonably balanced gender representation. Most respondents belong to the economically productive age bracket of 31-45 years (35.2%), followed by 46-60 years (26.7%). Educational attainment demonstrates diversity, with the largest proportion having secondary education (37.1%), followed by graduates and above (33.4%). Income distribution indicates a prevalence of lower-income groups, with 40.0% earning less than Rs. 10,000 monthly, highlighting the economic constraints of the study population.

3.4 Analytical Tools and Statistical Methods

The gathered data were analyzed using various analytical instruments. Descriptive statistics encompassing frequencies, percentages, means, and standard deviations were computed for all variables. Inferential statistics including independent samples t-test, chi-square test, and Analysis of Variance (ANOVA) were employed to test the hypotheses and examine associations between variables. Cost-Benefit Analysis (CBA) was conducted to compare the economic impact of purchasing from JKs versus private pharmacies. Multiple regression analysis was performed to recognize predictors of expenditure reduction and satisfaction levels. Statistical significance was established at $p<0.05$ for all tests. Data analysis was executed using SPSS version 26.0 (Field, 2023).

4. Results

4.1 Expenditure on Medicines: Comparative Analysis

One of the primary objectives of this investigation was to assess the economic influence of Janaushadhi Kendras on patient spending. Table 2 presents a comparison of average monthly medication expenditure incurred by patients purchasing from JKs versus private pharmacies.

Type of Pharmacy	Mean (Rs.)	SD (Rs.)
Jan Aushadhi Kendra (JK)	540	210
Private Pharmacy	1,120	380

Table 2: Comparison of Monthly Medicine Expenditure by Pharmacy Type

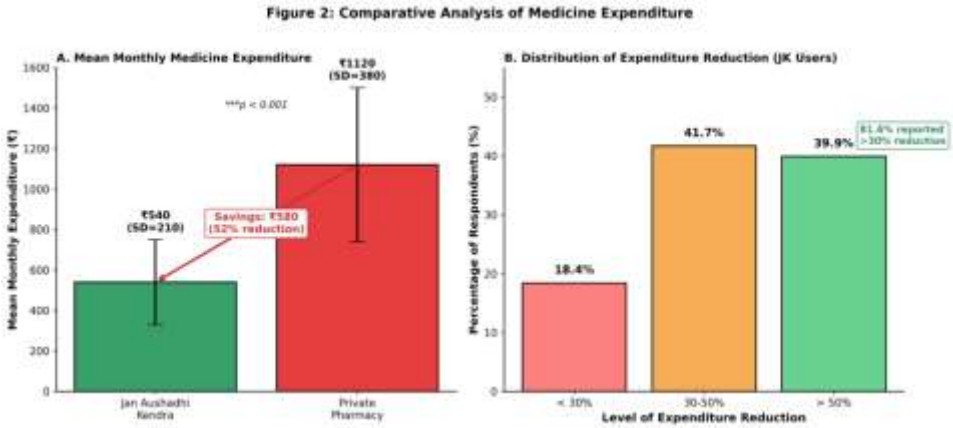


Figure 3: Comparative analysis of medicine expenditure showing (A) mean monthly expenditure with standard deviation error bars and (B) distribution of expenditure reduction levels among JK users.

Patients obtaining medications from Jan Aushadhi Kendras reported a mean monthly expenditure of Rs. 540 (SD = Rs. 210), indicating relatively lower and more consistent spending. Conversely, patients relying on private pharmacies incurred a substantially higher mean monthly expenditure of Rs. 1,120 (SD = Rs. 380). The difference in mean expenditure between the two pharmacy categories amounts to Rs. 580 monthly, suggesting that patients utilizing JKs spend approximately 52% less on medications. An independent samples t-test confirmed that this difference is statistically significant ($t = 15.73$, $p < 0.001$).

4.2 Level of Expenditure Reduction Among JK Users

Among patients who had experience with both JKs and private pharmacies, the investigation assessed the perceived magnitude of expenditure reduction. The findings indicate that a substantial proportion of respondents experienced moderate to significant expenditure reduction. While 18.4% reported a reduction of less than 30%, the majority reported reductions between 30-50% (41.7%) and exceeding 50% (39.9%). This suggests that over four-fifths of the respondents (81.6%) experienced expenditure reductions surpassing 30%, reflecting a pronounced positive impact on household healthcare budgets.

4.3 Factors Influencing Pharmacy Choice

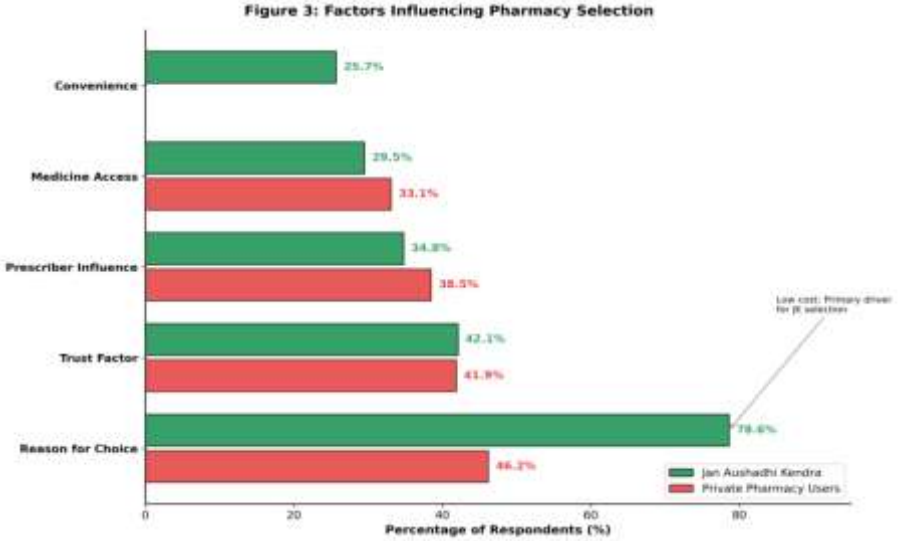


Figure 4: Factors influencing pharmacy selection comparing reasons cited by Janaushadhi Kendra users versus private pharmacy users.

Understanding the determinants that influence patients' pharmacy selection is crucial for improving the PMBJP scheme. The economical pricing of medications emerged as the primary reason for choosing JKs (78.6%), followed by confidence in government-operated initiatives (42.1%) and physician recommendations (34.8%). Non-availability of medications at JKs emerged as the primary barrier (46.2%), followed by physician-prescribed branded drugs (41.9%) and brand preference (38.5%). These findings highlight both the program's strengths (affordability, trust) and areas requiring enhancement (supply chain, physician engagement).

4.4 Awareness and Perception of Generic Medicines

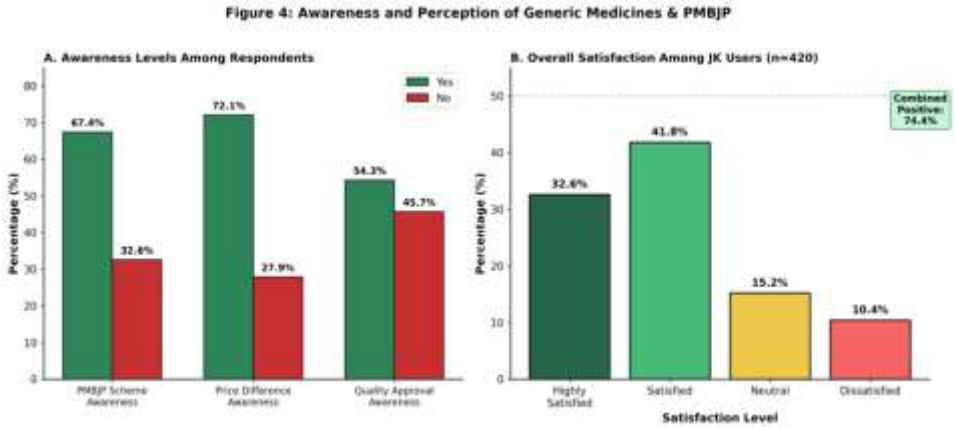


Figure 5: Awareness levels and satisfaction distribution showing (A) awareness of PMBJP scheme, price differences, and quality approval processes, and (B) overall satisfaction levels among JK users.

The investigation assessed awareness levels concerning the PMBJP scheme and generic medications. While 67.4% of respondents were aware of the PMBJP scheme and 72.1% knew about price differences, only 54.3% were aware that generic medicines undergo quality approval processes. This gap between scheme awareness and understanding of quality assurance mechanisms (approximately 13 percentage

points) represents a significant challenge for the program. The majority of JK users expressed positive satisfaction levels, with 32.6% highly satisfied and 41.8% satisfied, yielding a combined positive satisfaction rate of 74.4%.

4.5 Healthcare Provider Perspectives

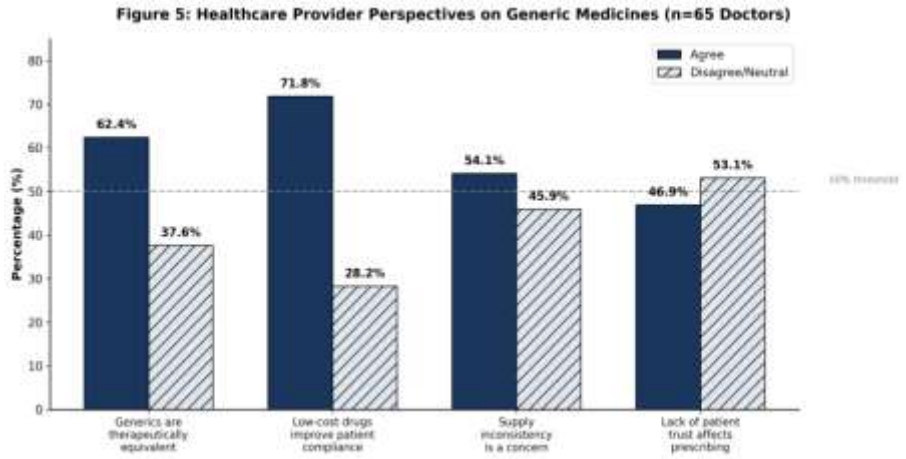


Figure 6: Healthcare provider perspectives on generic medicines (n=65 doctors) showing agreement levels with key statements regarding therapeutic equivalence, patient compliance, supply concerns, and trust issues.

A separate survey of 65 physicians practicing in the Kalyana Karnataka region revealed a largely favorable perception toward generic medications, with a majority agreeing that generics are therapeutically equivalent (62.4%) and that economical drugs improve patient compliance (71.8%). However, concerns persist regarding systemic barriers, as over half of respondents (54.1%) reported supply inconsistency as a significant issue, and nearly half (46.9%) indicated that lack of patient confidence continues to influence prescribing decisions.

4.6 Comparative Analysis of Medicine Prices

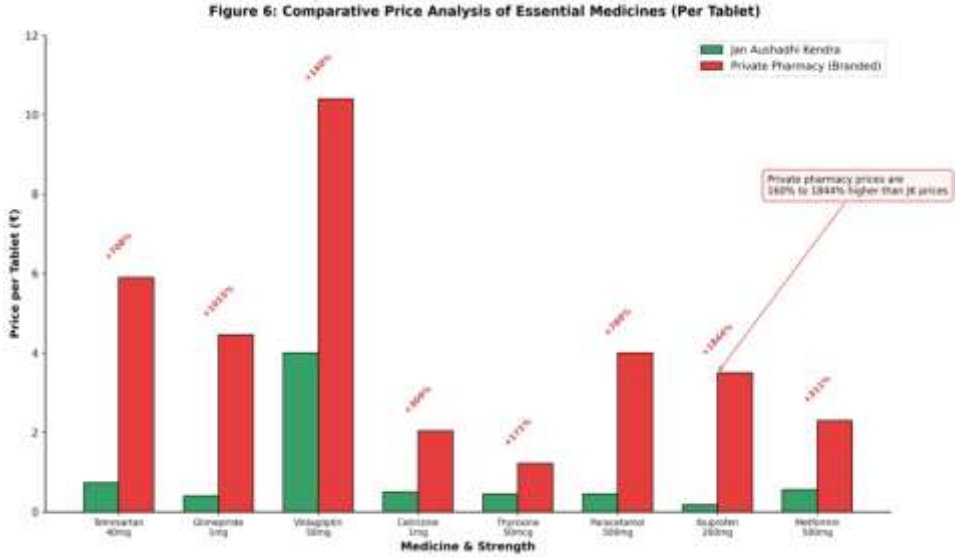


Figure 7: Comparative price analysis of essential medicines showing prices per tablet at Janaushadhi Kendras versus private pharmacies, with percentage increase labels indicating the magnitude of price differential.

A detailed price comparison was conducted for commonly prescribed medications to quantify the cost differential between JKs and private pharmacies. The price differential is substantial across all medications examined, with the most dramatic difference observed for Ibuprofen 200mg (1,844% higher at private pharmacies) and Glimepiride 1mg (1,015% higher). For chronic disease management requiring daily medication, these savings translate to substantial annual cost reductions. For example, a patient on Telmisartan would save approximately Rs. 1,886 annually by purchasing from JKs.

4.7 Summary of Hypothesis Testing

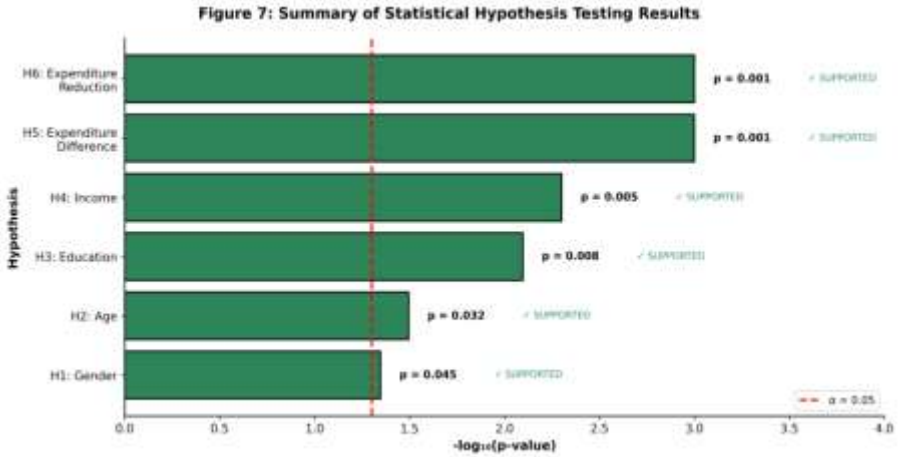


Figure 8: Summary of statistical hypothesis testing results showing -log10(p-value) for each hypothesis, with dashed line indicating the alpha = 0.05 significance threshold.

All six research hypotheses were supported by the statistical analysis. The hypothesis tests confirmed significant differences across gender groups ($p = 0.045$), significant associations with age ($p = 0.032$), significant influence of education ($p = 0.008$), significant relationship with income ($p = 0.005$), significant expenditure difference between JK and private pharmacy users ($p < 0.001$), and significant expenditure reduction among JK users ($p < 0.001$).

4.8 Service Quality Dimensions at Janaushadhi Kendras

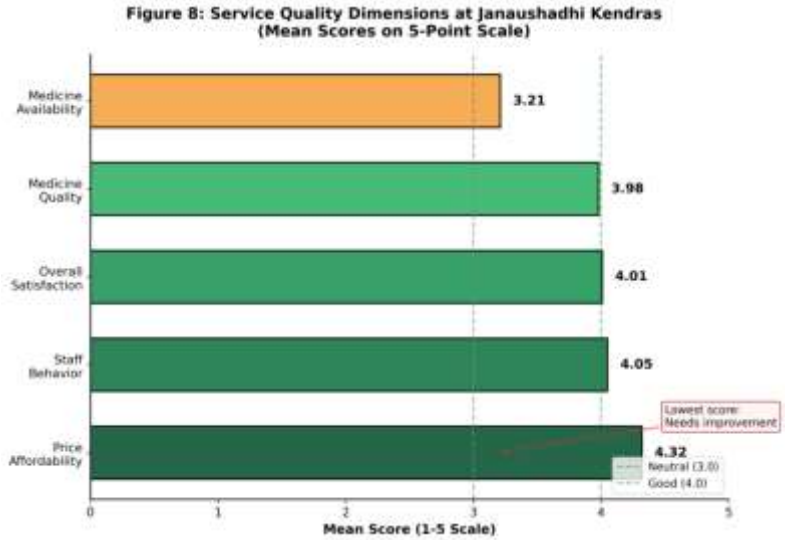


Figure 9: Service quality dimensions at Janaushadhi Kendras measured on a 5-point Likert scale, showing mean scores for price affordability, staff behavior, overall satisfaction, medicine quality, and medicine availability.

The analysis of service quality dimensions reveals that price affordability received the highest rating (M = 4.32), followed by staff behavior (M = 4.05) and overall satisfaction (M = 4.01). Medicine quality was rated positively (M = 3.98), though marginally lower than affordability aspects. Medicine availability yielded the lowest mean score (M = 3.21), highlighting concerns related to stock availability that aligns with the finding that 46.2% of private pharmacy users cited non-availability at JKs as their reason for choosing private alternatives.

5. Discussion

5.1 Economic Impact and Affordability

The findings of this investigation provide robust evidence of the significant economic advantages offered by Janaushadhi Kendras to patients in the Kalyana Karnataka region. The 52% reduction in mean monthly medication expenditure (from Rs. 1,120 at private pharmacies to Rs. 540 at JKs) represents substantial financial relief for households, particularly those in lower income brackets. With 40% of respondents earning less than Rs. 10,000 monthly, the monthly savings of Rs. 580 can constitute a meaningful proportion of household income, potentially preventing catastrophic health expenditure and reducing the risk of impoverishment due to medical costs (Berman et al., 2020).

The cost savings demonstrated in this study have particular relevance in the context of India's ongoing efforts to reduce out-of-pocket health expenditure. The Economic Survey 2024-25 noted that OOP expenditure has declined from 62.6% to 39.4% of Total Health Expenditure, attributed partly to government schemes like AB-PMJAY (Ministry of Finance, 2025). However, AB-PMJAY primarily addresses inpatient care, while outpatient care, which constitutes the majority of healthcare seeking behavior, continues to rely heavily on out-of-pocket payments, with medications being the largest component. The PMBJP, by providing affordable medications for outpatient care, complements AB-PMJAY and contributes to the broader objective of reducing financial barriers to healthcare access (Selvaraj & Farooqui, 2019).

5.2 Accessibility, Awareness, and Quality Perceptions

While the economic advantages of JKs are well-documented, the study reveals significant deficiencies in awareness and persistent challenges regarding accessibility. The finding that 32.6% of respondents remain unaware of the PMBJP scheme represents a substantial missed opportunity for expanding program reach. The quality perception gap, with 45.7% uncertain about quality standards for generic medications, represents another critical barrier that must be addressed through targeted interventions. The Government of India's efforts to ensure WHO-GMP certification and quality testing are not adequately communicated to the public, indicating a need for focused communication strategies (Keshava et al., 2023).

5.3 Regional Context and Health Equity Implications

The Kalyana Karnataka region's specific context adds another dimension to the discussion. As a region with documented developmental deficiencies, including healthcare infrastructure shortcomings and lower health indicators, the success of PMBJP here has significant equity implications (CAG Report, 2022). The government's commitment of Rs. 5,000 crore annually for KKRDB and specific healthcare allocations creates an enabling environment for healthcare improvement. The strong positive satisfaction rate (74.4%) among JK users indicates that the program is meeting the requirements of those who access it. The challenge resides in expanding access and addressing barriers that prevent potential beneficiaries from utilizing JKs.

5.4 Key Findings Summary

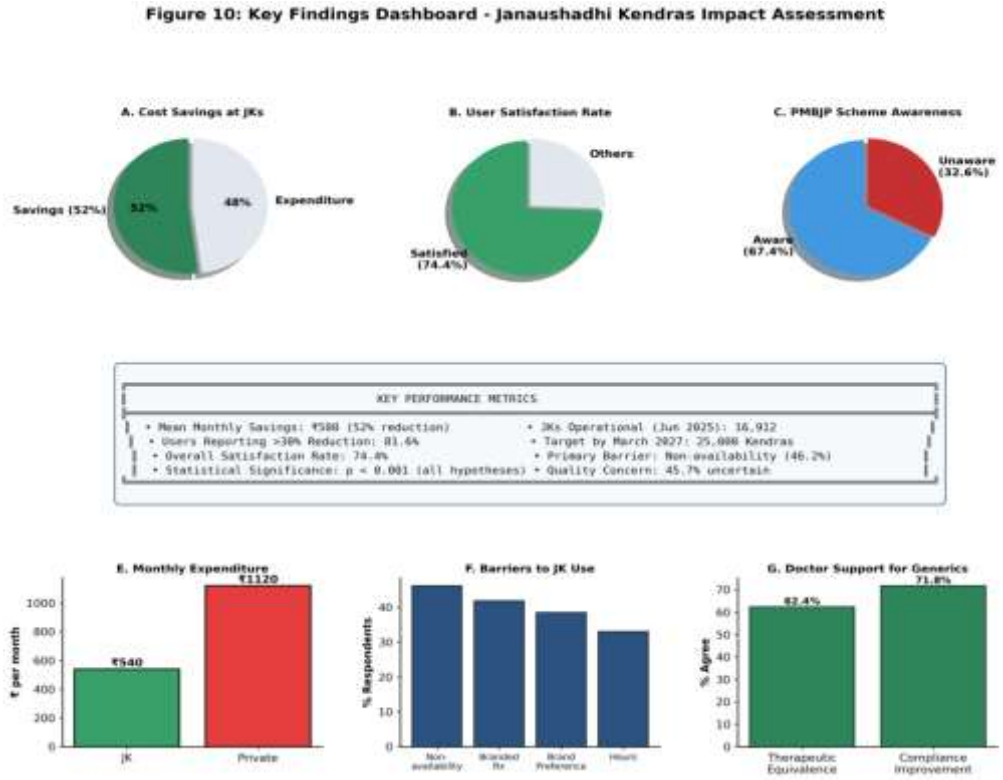


Figure 10: Comprehensive dashboard summarizing key findings from the Janaushadhi Kendras impact assessment study in Kalyana Karnataka region.

6. Policy Implications and Recommendations

Based on the findings of this investigation, the following policy implications and recommendations emerge for enhancing the effectiveness of PMBJP in the Kalyana Karnataka region and similar underserved communities:

6.1 Strengthening Awareness Campaigns

The significant awareness gap (32.6% unaware) necessitates comprehensive awareness campaigns tailored to the region's linguistic and cultural context. Multi-channel approaches utilizing mass media, community health workers, local government bodies, and healthcare facilities should be employed. Special emphasis should be placed on communicating quality assurance mechanisms to address the perception gap (45.7% uncertain about quality). Collaboration with medical professionals for endorsement and prescription of generic medications can leverage the confidence patients place in their physicians (Kotwani & Levison, 2021).

6.2 Addressing Supply Chain Challenges

The non-availability of medications (cited by 46.2%) and supply inconsistency concerns (54.1% of doctors) require urgent attention. Investment in robust supply chain management systems, including real-time inventory tracking and demand forecasting, is essential. The PMBI should ensure adequate buffer stocks and efficient distribution networks, particularly for remote locations. Expanding the product basket to include more therapeutic categories can address the gap between demand and availability (Ridley et al., 2022).

6.3 Enhancing Geographic Coverage and Provider Engagement

While national expansion targets are ambitious, prioritizing underserved regions like Kalyana Karnataka is crucial for health equity. The establishment of JKs in conjunction with new PHCs being established in the region can optimize healthcare delivery. The finding that 41.9% of private pharmacy users were prescribed branded drugs indicates the need for physician engagement through continuing medical education programs emphasizing therapeutic equivalence of generic medications (Gupta et al., 2023).

7. Limitations

This investigation has several limitations that should be considered when interpreting the findings. First, the cross-sectional design captures a snapshot of experiences and perceptions at a single point in time, limiting the ability to assess long-term trends and causal relationships. Second, the reliance on self-reported data for medication expenditure and satisfaction may be subject to recall bias and social desirability bias. Third, while the sample was stratified to ensure representation across districts and urban-rural areas, the selection of patients at pharmacy locations may have introduced selection bias. Finally, the study was conducted in a specific regional context, and caution should be exercised in extending conclusions to significantly different contexts (Creswell & Plano Clark, 2022).

8. Conclusion

This investigation provides comprehensive evidence on the transformative contribution of Janaushadhi Kendras in improving access to affordable medications in the Kalyana Karnataka region. The findings demonstrate that JKs offer substantial economic advantages, with patients achieving an average 52% reduction in monthly medication expenditure. The high satisfaction rates among JK users (74.4%) and the recognition of cost benefits as the primary motivator (78.6%) underscore the program's relevance to the population it serves. However, significant challenges persist including awareness deficiencies, quality perception concerns, and supply chain issues. Addressing these challenges requires a multi-pronged approach involving intensified awareness campaigns, supply chain enhancement, healthcare provider engagement, and geographic expansion prioritizing underserved communities. The PMBJP represents a critical component of India's strategy to reduce out-of-pocket health expenditure and achieve universal health coverage.

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