THE ECONOMICS SOCIETY, SRCC

PROJECT JAANKARI

Analysing the PMBJP Scheme

SESSION 2024-25

· Project Jaankari ·

· PMBJP Scheme ·

PROJECT JAANKARI

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ABBREVIATIONS

Abbreviation	Full Form
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
B. Pharma	Bachelor of Pharmacy
CHC	Community Health Centre
CHISQ	Chi-Square (Statistical Test)
CSR	Corporate Social Responsibility
D. Pharma	Diploma in Pharmacy
GMP	Good Manufacturing Practices
IEC	Information, Education and Communication
JAK	Jan Aushadhi Kendra
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NABL	National Accreditation Board for Testing and Calibration Laboratories
NCC	National Cadet Corps
NGO	Non-Governmental Organisation
NITI	National Institution for Transforming India (NITI Aayog)
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
NSS	National Service Scheme

Abbreviation	Full Form
PHC	Primary Health Centre
PMBJP	Pradhan Mantri Bhartiya Janaushadhi Pariyojana
PMBJK	Pradhan Mantri Bhartiya Janaushadhi Kendra
PMBI	Pharmaceuticals and Medical Devices Bureau of India
PoS	Point of Sale
SDG	Sustainable Development Goals
Sig.	Significance Level
SPSS	Statistical Package for the Social Sciences
STATA	Software for Statistics and Data Analysis
UPHC	Urban Primary Health Centre
WHO	World Health Organisation

INTRODUCTION

About Public Healthcare

As Prime Minister Modi aptly stated on the occasion of Ayushman Bharat Diwas, "Good health is the foundation of human progress and prosperity." This statement summarises not only the importance of public healthcare but also the need for it to be equitable and freely accessible. Ensuring good health and well-being is of utmost importance for any country to develop and grow, and this has been outlined by the United Nations in its Sustainable Development Goals, specifically under SDG 3 (Good Health and Well-Being), which emphasises the same.

Public healthcare is a fundamental pillar of SDG 3 and stands as a unique target to be met within the ambit of this SDG. Specifically, Target 3.8 of this SDG states, "Achieve universal health coverage including financial risk protection, access to quality essential healthcare services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all." Two indicators measure the progress of this target: namely, the coverage of essential health services and the proportion of the population with large household expenditures on health as a share of total household expenditure or income.

The Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) Scheme exactly seeks to improve India's position on these two critical metrics, first, by ensuring access to affordable medicine for all, and second, by encouraging the adoption of generic medicine among all such that the proportion of income being spent only on healthcare is reduced. With India's expenditure on healthcare being only 1.9% of its GDP, cost-efficient initiatives like the PMBJP become even more important for medical accessibility. Most of the healthcare spending in India is 'out-of-pocket'; that is, the expenditure on healthcare is met more out of what people earn in the immediate time period, rather than from past savings, thus decreasing the ready money available to spend on other necessities like housing, food, etc. This makes schemes like PMBJP essential for reducing the financial burden on people.

About PMBJP

The Pradhan Mantri Bhartiya Janaushadhi Pariyojana Scheme is a social welfare scheme launched initially in 2008 by the Government of India, under the ambit of

the Ministry of Chemicals and Fertilisers. Under the ambit of the Pradhan Mantri Bhartiya Janaushadhi Pariyojan, medical shops called 'Jan Aushadhi Kendras', which exclusively sell 'Generic Medicines' were set up. Generic medicines contain the same salts, active ingredients, and dosage and ensure similar efficacy as their branded counterparts. These generic medicines are much cheaper due to the absence of related marketing expenses and brand promotions. The PMBJP Scheme follows a two-pronged approach in enhancing healthcare

First, it facilitates the setting up of a Kendra by anyone and run it as a profit entity, thus providing a great source for self-employment. By allowing the Kendra's to operate for profits, it automatically ensures the store owner is committed to giving their best in running the Kendra, and thus improving customer service, undertaking decentralised marketing, etc, which is again beneficial for the average consumer of medicine.

Second, by offering generic medicines that offer the exact same efficacy as branded medicines, albeit at almost 75% less cost, the scheme aims to increase the number of people that fall within the ambit of Public Healthcare schemes, and ensure they can be on-boarded as beneficiaries for other complementary health schemes, like Ayushman Bharat.

The scheme was revamped in 2015 by increasing the number of Kendras, improving supply chains, and expanding the list of medicines sold. As of today, 14000+ Jan Aushadhi Kendras are operating, with a product basket of 2332 medicines and medical equipment. Currently, there are 4 warehouses built for this scheme, which are spread all across India, namely in Bangalore, Gurugram, Guwahati, and Chennai, and 36 distributors have been on-boarded to ensure optimal supply of medicine to each Kendra. The supply chain in particular has been optimised regularly to prevent all delays through a complete digital process, right from the order of fresh medicines, to the disposal of expired ones.

In Delhi particularly, the PMBJP scheme has seen widespread acceptance among all. From having the country's first Jan Aushadhi Kendra to now having over 450 Kendras, these numbers themselves speak of the resounding success of the scheme. The basic premise of the scheme is to ensure equitable access to medicine for all. The scheme aims to make medicines both affordable and accessible by offering high-quality medicines at low prices. Regular audits and compliance with WHO-GMP (good manufacturing practices) ensure the high efficacy of medicines. The government is striving to introduce more life-saving drugs and medicines for chronic diseases like diabetes, heart problems, cancers, etc.

About the Pharma and Medical Bureau of India

The Pharma and Medical Bureau of India

(PMBI) was established in December 2008, under the Department of Pharmaceuticals, Ministry of Chemicals and Fertilisers. PMBI is also a registered society under the Societies Registration Act, 1860, as a separate legal entity in 2010.

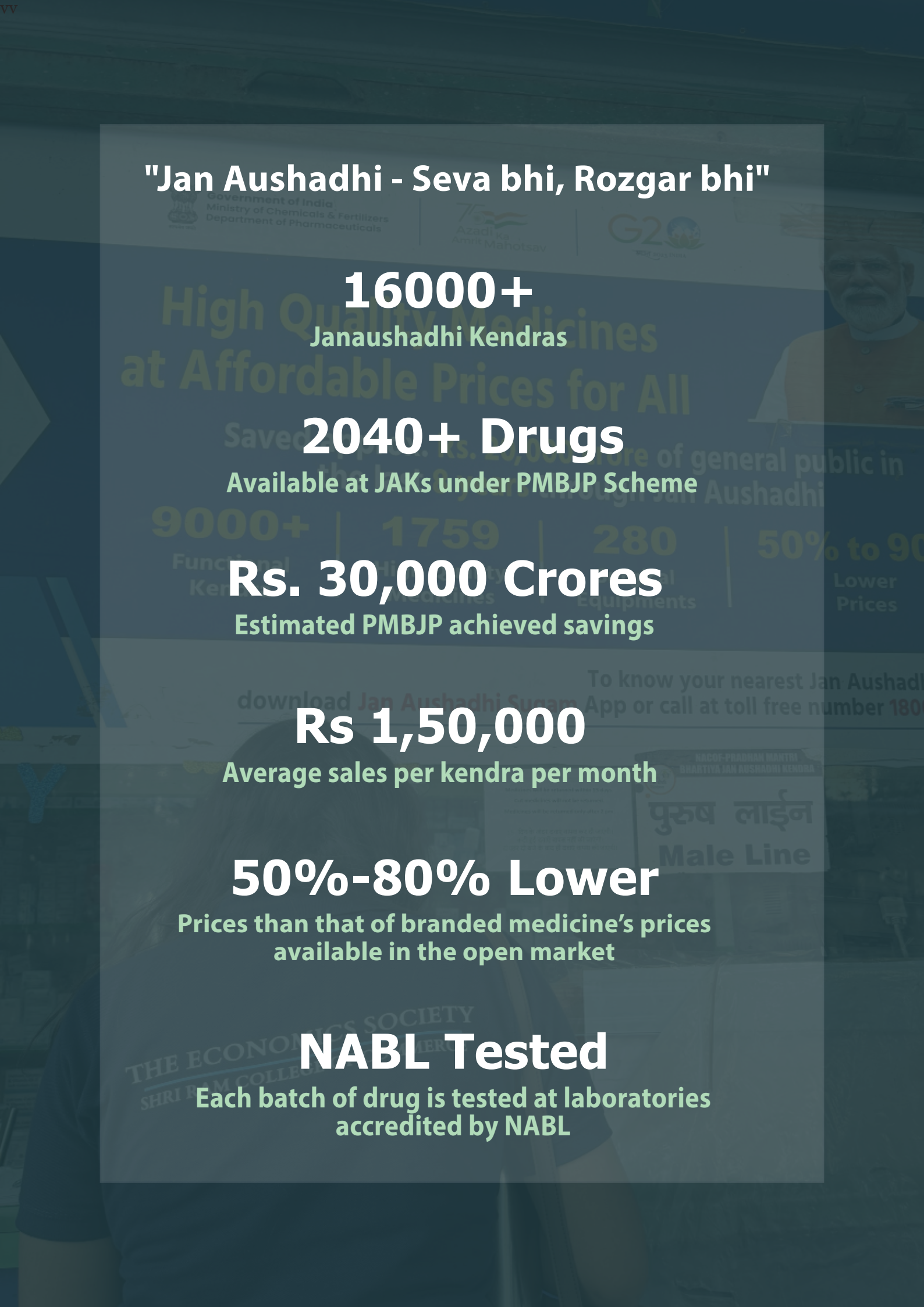
The PMBI is the governing body for the effective implementation and achievement of the objectives of the Pradhan Mantri Bhartiya Janaushadhi Pariyojana. It is in charge of ensuring the smooth functioning of all Jan Aushadhi Kendras. It focuses on monitoring and revising the list of medicines and surgical equipment. It oversees an extensive supply chain network, ensuring uninterrupted availability of medicines and surgical equipment.

Further, the PMBI also takes extensive efforts in publicising the merits of generic medicine, and subsequently, Jan Aushadhi Kendras. Particularly for PMBJP, the PMBI undertakes extensive awareness campaigns, especially targeted towards the weaker sections of society, to inform them about the cheaper alternatives available. The PMBI has partnered with both governmental and non-governmental organisations to hold awareness campaigns and medical camps.

More Information

The scheme offers an extensive product basket that includes 2,047 medicines and 300 surgical devices catering to various therapeutic groups. This impressive growth has been supported by citizens across the country who have increasingly adopted generic medicines through more than 14,000 JAKs. The initiative reached a major milestone with Janaushadhi medicines worth ₹1,000 crore sold in the financial year 2024-25, as of 20th October 2024, two months earlier than the previous year. In September 2024 alone, PMBJP achieved sales of ₹200 crore, underlining its rising popularity. The government estimates that the scheme has led to savings of over ₹30,000 crore across India, significantly reducing healthcare costs for households.

The network of Kendras has also expanded remarkably, from just 80 in 2014 to over 16,000 today, marking a 170 fold increase within a decade. Looking ahead, the government aims to establish 25,000 Kendras nationwide within the next two years to further enhance accessibility and equity in healthcare.


"Jan Aushadhi - Seva bhi, Rozgar bhi"
16000+
Janaushadhi Kendras
2040+ Drugs
Available at JAKs under PMBJP Scheme
Rs. 30,000 Crores
Estimated PMBJP achieved savings
Rs 1,50,000
Average sales per kendra per month
50%-80% Lower
Prices than that of branded medicine's prices available in the open market
NABL Tested
Each batch of drug is tested at laboratories accredited by NABL

OBJECTIVE

This study looks at how the PMBJP scheme This Project Jaankari looks at how the PMBJP scheme is working in reality and what impact it has on people. It focuses on the availability of medicines, public awareness, affordability, and overall experience with Janaushadhi Kendras. The aim is to understand both the benefits and the challenges so that the scheme can be improved further. The objectives are as follows:

1. Access Public Awareness

The research will gauge the level of public awareness of the PMBJP scheme and the degree of success achieved by the government in spreading the scheme and achieving public awareness. By the extent of public information, it will be in a position to assess if the programme has reached the desired beneficiaries.

2. Examine Accessibility Challenges

This objective aims to define the boundaries of access to Janaushadhi Kendras (JAKs). This involves examining the availability of JAKs in rural and urban areas, proximity to targeted groups, and operating factors like business hours, stock availability, and overall effectiveness. These will be addressed to improve access to affordable medicine.

3. Assess Affordability and Cost-Effectiveness

The study will ascertain the affordability of generic drugs under PMBJP by referencing prices to branded drugs. This will aid in determining their cost implications to clients and if affordable medicines improve compliance with treatment and overall health outcomes.

4. Understanding Public Perception of Generic Drugs

It is critical to know how much awareness among the masses regarding the distinction between generic and branded drugs exists. Consumer beliefs, preferences, and misconceptions, if any, toward the effectiveness and trustworthiness of generic drugs will be explored throughout the study.

5. Evaluate Economic and Employment Impact

The research will look at how the JAKs help in earning revenues for employees, operators, and entrepreneurs. It will also determine if the scheme has enhanced entrepreneurship in the pharmaceutical industry, resulting in economic growth and employment.

6. Access Compliance with Government Regulations

This goal is directed towards determining if JAKs are aligned with the regulatory requirements of the government and operational expectations. Determining contradictions or compliance gaps will assist policymakers in enhancing the effectiveness and timely implementation of the initiative.

7. Assess Customer Satisfaction and Willingness to Recommend

The research will measure overall customer satisfaction based on the most important service factors, including the availability of medicines, price, and quality. It will also determine the probability of customers recommending JAKs to others, which is essential in ascertaining the level of public trust in the programme.

8. Analyse the Role of Doctors in PMBJP

Doctors' recommendation and prescription are the major drivers of consumer behavior. The research will analyse whether doctors prescribe generics and the impact of their role on the public's trust and buying behavior for JAK products.

9. Identify Marketing and Awareness Gaps

Monitor the success of JAKs awareness and generic drug campaigns. Determine marketing planning areas that would keep more use of lower-priced medicines out of reach and how such areas would be addressed.

10. Determine Supply Chain and Logistics Efficiency

The supply chain will be measured for its efficiency so that the right amount of stock is sent to the JAKs. We can determine the right locations where drugs can be stored and shipped so that it can reach individuals precisely when they require it.

Alongside consumable medicines, JAK also aims to provide surgical items, sanitary pads, medical devices such as BP and diabetes monitors, vaccinations, and nutraceuticals at economic costs. The policy states that the prices of the Jan Aushadhi medicines are 50%-80% less than that of branded medicine's prices available in the open market.

Secondary objectives of the policy include popularising generic medicines among the public by dispelling the notion that generic medicines are of inferior quality, promoting menstrual hygiene, and generating employment by enabling entrepreneurs through the opening of more Jan Aushadi Kendras. It is proposed that at least one PMBJK will be opened in each of the 785 districts in the country, with expansion to sub-divisional levels, as well as major towns and village centers.

POLICY REVIEW

Initiatives/Rules taken under the ambit of PMBJP:

1. Compliance with WHO:

Medicines supplied under the scheme are procured from World Health Organisation - Good Manufacturing Practices (WHO-GMP) certified suppliers only to ensure high-quality standards. Each batch of drugs, after its receipt at the warehouses, is tested at laboratories accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL). Any batch failing to meet these tests is returned to the supplier.

2. Jan Aushadhi Suvidha Sanitary Pad:

To achieve its objective of promoting health security and menstrual hygiene, Jan Aushadhi Suvidha Oxo-biodegradable Sanitary Napkins was launched on 27th August 2019. Oxo-biodegradable pads incorporate oxo-biodegradable plastics, which decompose faster than their traditional counterparts. These sanitary pads are available at the nominal cost of Rs. 1 per pad, ensuring easy availability for all Indian citizens.

3. Jan Aushadhi Sugam Mobile Application:

A mobile application with the name 'Jan Aushadhi Sugam' was launched in August 2019. The application allows users to locate nearby Jan Aushadhi Kendras as well as compare the prices of generic medicines available at Jan Aushadhi Kendras to their branded counterparts from different brands, highlighting the difference in prices and savings.

4.Pharmacist Qualification:

As per the policy, any individual applicants other than doctors and registered medical practitioners must at least have a B. Pharma and D. Pharma Degree. Similarly, any organisation applying for a PMBJK must employ B. Pharma / D. Pharma degree holders and produce proof of the same at the time of submitting applications.

5.Procurement:

Medicines are procured through an open tender system from private manufacturers as well as Central Public Sector undertakings. Each batch of procured medicines is tested by

empanelled NABL laboratories and sent to the Jan Aushadhi Kendras through a distribution network.

6.Incentives & Relief Measures:

Normal Incentive:

- **Eligibility:** Applies to PMBJKs run by other entrepreneurs, pharmacists, NGOs, and charitable organisations connected to PMBI headquarters via software.

- **Amount:** 20% of monthly purchases from PMBI or Rs. 20,000 per month, whichever is lower. This also includes PMBJKs operated by eligible special incentive groups.

- **Applicability:** Existing PMBJKs that have already received Rs. 2.50 lakhs in incentives can receive an additional Rs. 2.50 lakhs based on their purchases. PMBJKs in government premises are also eligible for normal incentives as those in private premises.

50% of the total incentive will be disbursed based on purchases made by Kendra in a month, and the remaining 50% of the incentive will be based on the stocking mandate, that is, if Kendra has maintained a sufficient stock of 200 medicines during the month. The incentive will be calculated as follows:

› 10% incentive on a purchase basis (up to a max. of Rs. 10,000/-) will be auto-calculated by the PoS System based on the monthly purchases made by Kendra.

› The remaining 10% incentive based on a stock mandate (up to a max. of Rs. 10,000/-) is calculated based on the product range maintained. The stocking mandate will include 200 medicines, which shall include the top 100-selling PMBJP products and 100 fast-selling medicines in the market.

- **Stocking Mandate:** This incentive also applies to PMBJKs opened by women entrepreneurs, ex-servicemen, Divyang, SC, ST & entrepreneurs who have established Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJKs) in aspirational districts as notified by the NITI Aayog, as well as in Himalayan, Island territories, and North-Eastern States.

Product Range	Payment (in %)
<100	0
100-149	50%
150-179	80%
180-200	100%

Existing PMBJKs whose incentive limit of Rs. 5 Lakh has been fully disbursed and will also be eligible for incentives based on purchases made from PMBI, according to other applicable terms and conditions.

Special Incentive:

- **Eligibility:** Special incentives are available to women entrepreneurs, persons with disabilities (Divyaang), Scheduled Castes (SCs) and Scheduled Tribes (STs), ex-servicemen, and any entrepreneur opening a PMBJK in

aspirational (backward) districts, as notified by NITI Aayog, and in Himalayan, Island territories, and North-Eastern states.

- **Amount:** An additional Rs. 2.00 lakhs will be provided on top of normal incentives. This includes:
  - Rs. 1.50 lakh reimbursement for furniture and fixtures.
  - Rs. 0.50 lakh reimbursement for a computer, internet, printer, scanner, etc.

- **Conditions:** This is a one-time grant provided upon submission of original bills, limited to the actual expenditure incurred.

- **Restriction:** The special incentive follows a "One Family – One Grant" formula, meaning only one member of a family can receive this incentive. "Relative" is defined as husband, wife, unmarried dependent brother or sister, or any lineal ascendant or descendant.

7. Application Fee Relief:

A non-refundable application fee of Rs. 5,000/- is to be submitted along with the application form except for applicants belonging to the categories of women entrepreneurs, Divyang, SC, ST, ex-servicemen, or any entrepreneurs from aspirational districts (backward districts) as notified by the NITI Aayog, as well as those from Himalayan, island territories, and North-Eastern states, who are exempted from the fee upon submission proof of their category.

8. Requirements for opening PMBJK:

- The space might be owned or hired, but it must be a minimum of 120 sq. ft, which is to be duly supported by a proper lease agreement or space allotment letter. The Applicant will arrange the space for establishing and smooth functioning of a Pradhan Mantri Bhartiya Janaushadhi Kendra, & PMBI will have no role in arranging space for the same.

- At or before the time of final approval, proof of securing a pharmacist with a name as well as the registration with the State Council must be provided.

- The applicant must provide a valid certificate or proof from the relevant authorities, along with an undertaking, if applying under the category of Women Entrepreneurs, Ex-Servicemen, Divyang (Persons with Disabilities), SC, ST, or entrepreneurs from aspirational districts (as notified by NITI Aayog), as well as those in Himalayan, Island territories, and North-Eastern States. The selected category must be mentioned in the application form to avail of the corresponding benefits. Once the category is chosen, it cannot be changed at a later stage for any reason.

- A distance of a minimum of 1 KM is to be maintained between two Kendras

while approving a new Kendra in all Districts throughout the country. There are no distance restrictions for setting up a store within 500 meters of District Government Hospitals, Private Hospitals with 100+ beds, or Hospitals linked to Medical Colleges.

- The applicant must provide three cheques from an Indian Nationalised Bank, payable to PMBI (Pharmaceuticals & Medical Devices Bureau of India), which will be used for payments for the supply of goods. Additionally, the applicant must submit one cancelled cheque from the same bank to PMBI.

9. Role of PMBI in fostering PMBJKs:

PMBI will provide all necessary support to the operating agency to ensure the smooth operation of the Pradhan Mantri Bhartiya Janaushadhi Kendra (PMBJK) and promote the objectives of the Pradhan Mantri Bhartiya Janaushadhi Pariyojana. Additionally, PMBI will facilitate the supply of affordable, high-quality generic medicines, surgical items, and consumables through its supply chain, based on advance payment for the dispatch of goods.

Policy Gaps

Issue 1: Unavailability of medicines at Jan Aushadhi Kendras

Often, certain medications are not available at Jan Aushadhi Kendras. This is mainly due to two issues. The first is a supply-side shortage, wherein the government cannot adequately provide medicines to these Kendras. The second cause is that many stores do not order non-generic drugs as they are not bought often.

Issue 2: Usually, generic medications are not prescribed by doctors

More often than not, doctors prescribe branded drugs instead of generic drugs. Unknown patients prefer to stick with the exact medicine prescribed. For example, people may be prescribed crocin (a crude example) instead of paracetamol. This leads to people not buying generic medicines from Jan Aushadhi Kendras and spending more money on buying branded medicines.

Issue 3: Sometimes, skilled pharmacists are not available at the Jan Aushadhi Kendra

To open a Jan Aushadhi Kendra, a B. Pharma or a D. Pharma degree must be possessed by the person opening these Kendras, or they must employ someone who holds the aforementioned qualification. However, it is often seen that such regulations are only followed on paper, and there is not actual degree holder on these sites.

Issue 4: Double selling at Jan Aushadhi Kendras

Jan Aushadhi Kendras are not allowed to sell general store items. However, it has been noted that many of these Kendras engage in this activity and earn huge

profit margins based on the incentives offered by the government for running Jan Aushadhi Kendras.

Issue 5: Unavailability of certain drugs (often for chronic illnesses) at these Kendras

Highlighting a point mentioned under the explanation of the first point, there is often a supply-side shortage from the government's end in supplying medicines to these clinics.

METHODOLOGY

In-person surveys were conducted to obtain primary data for the report. A total of 2138 surveys were conducted, with a team of 50 surveyors across a period of nine days. The surveys were conducted across 10 zones- South Delhi, South West Delhi, South East Delhi, New Delhi, Central Delhi, North Delhi, North West Delhi, North East Delhi, East Delhi and West Delhi.

A detailed questionnaire involving both qualitative and quantitative questions was prepared. The sample space was divided into demand and supply sides. Different sets of questions were prepared for each group of stakeholders.

The demand side included -

- Customers
- General Public
  - › Those who were aware of JAKs.
  - › Those who weren't aware of JAKs.

The supply side included -

- Owners/Operators
- Employees

The team of researchers posed questions to the team members and gathered information from the owners of Jan Aushadhi Kendras regarding their sales trends, delays in delivery, and general operational issues. Further information was collected related to their views on the demand for generic and branded medicines their perspectives on the impact of their sales.

The customers and general public gave insights on their buying patterns, levels of awareness about generic and brand medicines, and how often they visited. Students also interviewed them about how satisfied they were with the efficiency of medicines and the service at Jan Aushadhi Kendras.

A group of 3-5 students was given the task of interviewing at several Jan Aushadhi Kendras. Additional segregation of responses was performed to effectively analyse the views of both the supply (employees and owners) and demand (customers and general public) sides. The survey was able to generate interesting insights about the efficiency and accessibility of Jan Aushadhi Kendras.

The survey served as a structured effort to capture diverse perspectives on the Jan Aushadhi Kendra ecosystem from both users and operators. Conducted across 10 zones of Delhi with a large and varied

sample, it covered essential operational and behavioral dimensions through a mix of qualitative and quantitative questions. Stakeholder groups were clearly segmented to allow targeted questioning and better comparability of responses. The systematic approach and field-based execution ensured that the collected data reflects a holistic view of accessibility, functioning, and perceptions around PMBJP, forming a strong basis for analysis and suggestions.

Overall, the survey design ensured both breadth and depth in data collection. The structured questionnaire captured measurable trends such as visitation frequency, sales patterns, and delivery delays, along with perceptual aspects including awareness of generic medicines, trust, and service satisfaction. Including respondents who were both aware and unaware of Jan Aushadhi Kendras helped identify gaps in outreach and awareness.

The parallel analysis of demand-side and supply-side stakeholders enabled a balanced understanding of consumer experiences and operational challenges. Inputs from owners, operators, and employees provided context on supply chain and operational issues, while feedback from customers and the general public reflected how these factors influenced accessibility and satisfaction.

Each region was analysed individually to account for zone-specific variations. Statistical analysis was carried out using software such as SPSS Statistics, employing methods including cluster analysis, correlation analysis, and KMO tests to ensure robustness and validity of results. The coverage of all ten zones of Delhi enhanced the representativeness of the findings and reduced regional bias. Overall, the survey provides a strong empirical base to evaluate the functioning of Jan Aushadhi Kendras under PMBJP and supports evidence-based recommendations to improve efficiency, accessibility, and public perception.

Demand Side

General Public

- Basic Details

I. If they are aware of Janaushadhi Kendra
- Purchasing pattern
- Healthcare preferences
- Cost and saving perception
- Trust and Awareness
- Priorities and feedback

II. If unaware of Janaushadhi Kendra
- Medicine and healthcare awareness
- Cost and savings perception
- Priorities and feedback

Walk in Customers

- Basic Details - Age, Gender, Profession
- Usage and Frequency
- Availability and access
- Purchasing behaviour
- Cost and savings perception
- Trust and reliability
- Service experience and satisfaction
- Awareness and other products
- Feedback and suggestions

Supply Side

Owners

- Basic Details
- Number of staff (employees & pharmacists)
- Working hours
- Average Footfall
- Monthly Sales
- Availability of digital systems for inventory and billing
- Frequency of stock replenishment
- Issues faced in procurement
- Licensing and documentation challenges
- Government support and subsidies
- Delivery Services to Customers
- Operating Hours

Employees

- Number of working hours
- Salary and job security
- Workload and responsibilities
- Specifications of medicines available
- Contribution to sales
- Awareness about Expiry Settlement Policy

PROJECT JAANKARI

REGION PROFILES

NORTH WEST DELHI

JAKs SURVEYED

Shop No-13, DDA Market, Avinitika Sec-1, Rohini

Shop No. 20, DDA Market B-4, Sec- 8, Rohini

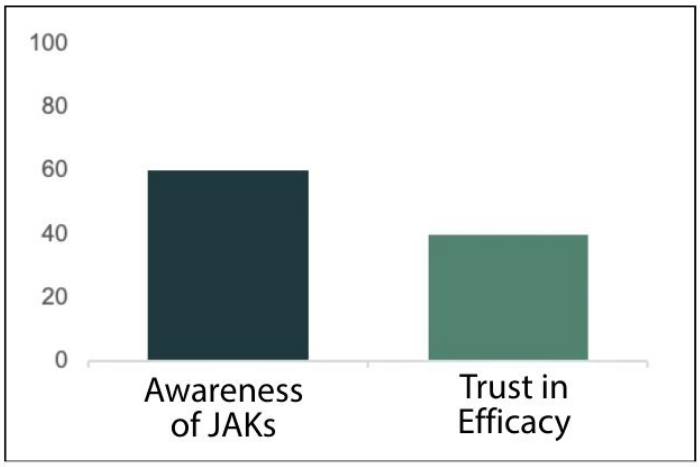
AA Block, Poorbi, Shalimar Bagh

123
Estimated Footfall

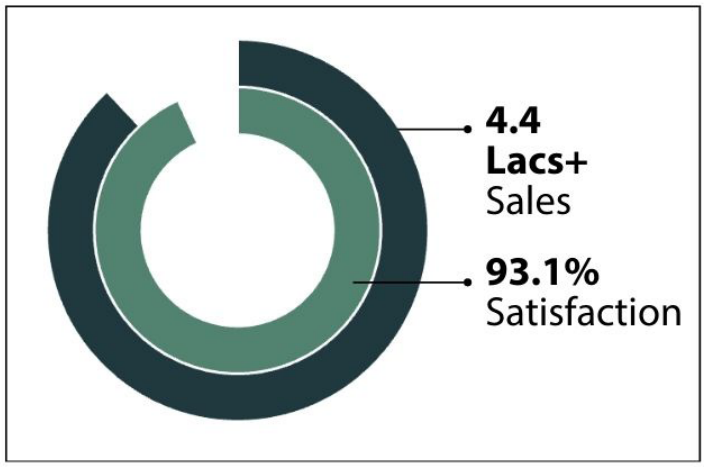
2.6 km
Average Proximity

83%
Stock Efficiency

3.8
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS Stock shortages | Perception of limited savings | Community-driven reliance

QUALITATIVE INSIGHTS

- Stock inefficiencies were the most common complaint in North West Delhi. Customers often reported multiple trips for a single prescription, which eroded their satisfaction despite valuing affordability. This mismatch highlighted a structural weakness in stocking frequency.

- Despite frustrations, word-of-mouth and peer influence played an important role in sustaining demand. Customers often recommended Jan Aushadi to friends and family, especially in lower-income areas. This showed that trust was building slowly but organically within local communities.

CENTRAL DELHI

JAKs SURVEYED

4980 Pvt No -3 G/F Gali - 1-2, Shiv Nagar Karol Bagh Park

Shop no.6, Block, Pvt, 9A/1, WEA, Karol Bagh

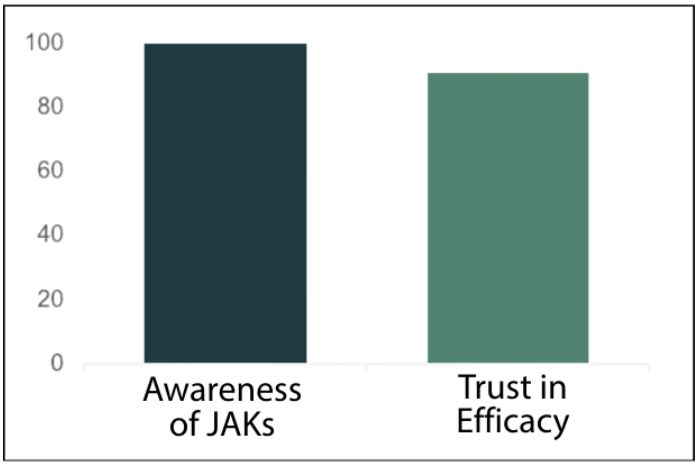
Shop no. 7, Ground Floor, Plot No-47, Old Rajinder Nagar

138
Estimated Footfall

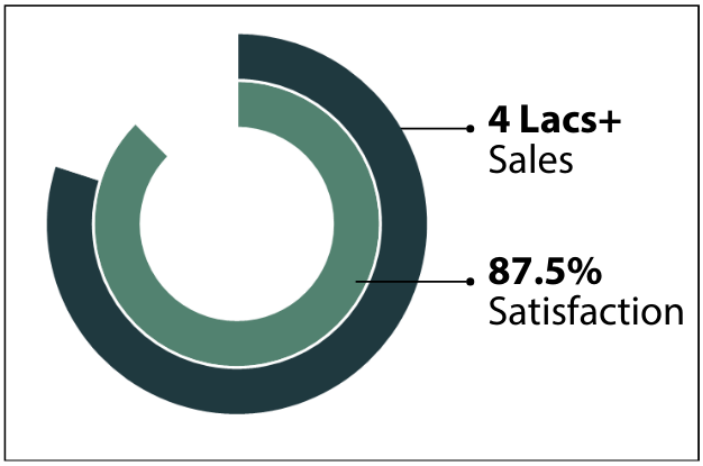
1.5 km
Average Proximity

84%
Stock Efficiency

3.9
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | Moderate Footfall in Kendras | Fundamental Supply Gaps | Price Sensitivity

QUALITATIVE INSIGHTS

- Kendras in Central Delhi displays a highly inconsistent customer flow, with peak hours concentrated around office breaks. This creates immense pressure on the staff, leading to longer waiting times and occasional dissatisfaction despite otherwise adequate stock levels. This also leads to long hours where the flow is really marginal and the staff is idle.

- Customers often compared Jan Aushadi prices to nearby private chemists in this zone, with some perceiving savings as less significant without additional discounts. This reflected a delicate balance between perceived affordability and real impact on reported sales volumes.

EAST DELHI

JAKs SURVEYED

74, Main Bazaar Road, Guru Ram Das Nagar, Laxmi Nagar

B-136, Mangal Bazar Road, Near V3S Mall, Laxmi Nagar

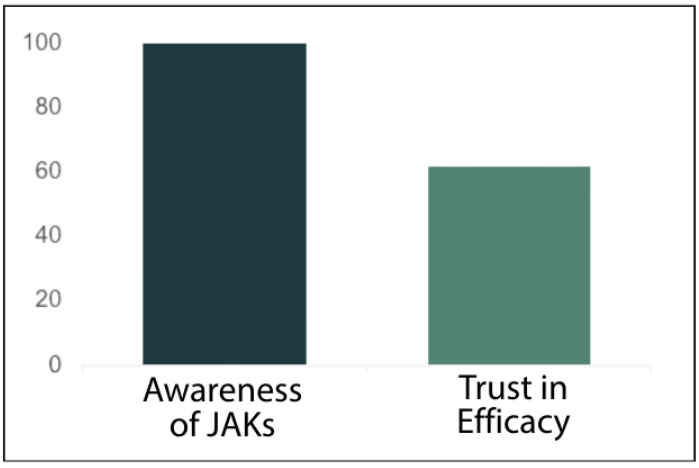
Shop 2 Plot no. K, 14-B, Bhagat Singh Road, Krishna Nagar

122
Estimated Footfall

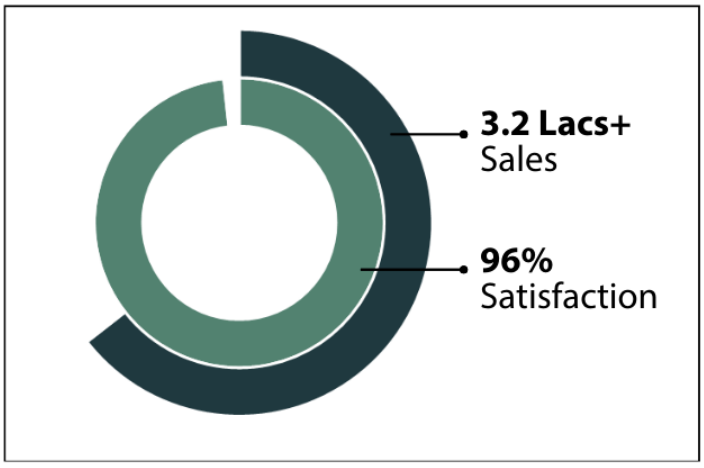
3.7 km
Average Proximity

63%
Stock Efficiency

4.2
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | High awareness | Stock pressure in high-demand drugs | Service quality

QUALITATIVE INSIGHTS

- East Delhi showed relatively strong awareness about the Jan Aushadi scheme, but this awareness did not always convert into trust. Customers frequently asked for reassurance on quality, requesting detailed explanations from pharmacists. This reflected a gap between technical knowledge and consumer confidence in generics.

- Stock shortages of essential medicines, especially for chronic conditions, created repeat dissatisfaction. Customers expressed frustration at having to return multiple times, undermining the otherwise strong affordability appeal. This revealed how stock efficiency directly impacted both customer satisfaction and loyalty.

NORTH DELHI

JAKs SURVEYED

Shop 12&13, MP Block DDA Market, Pitampura 110034

1723, Outram Lines, GTB Nagar, Mukherjee Nagar

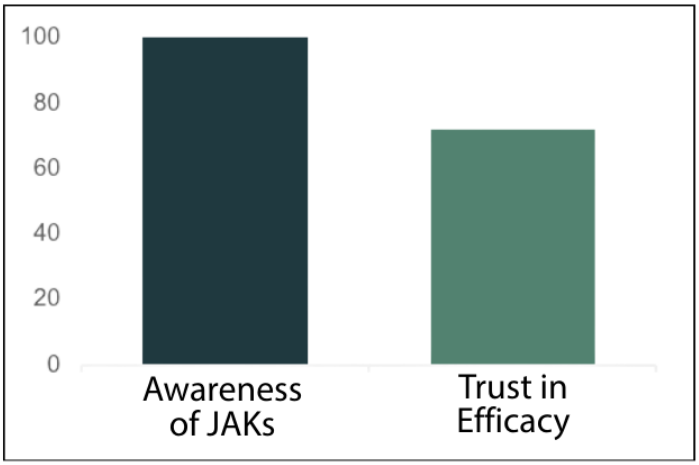
NCR Region, Shop No 14, Old Market Timarpur

133
Estimated Footfall

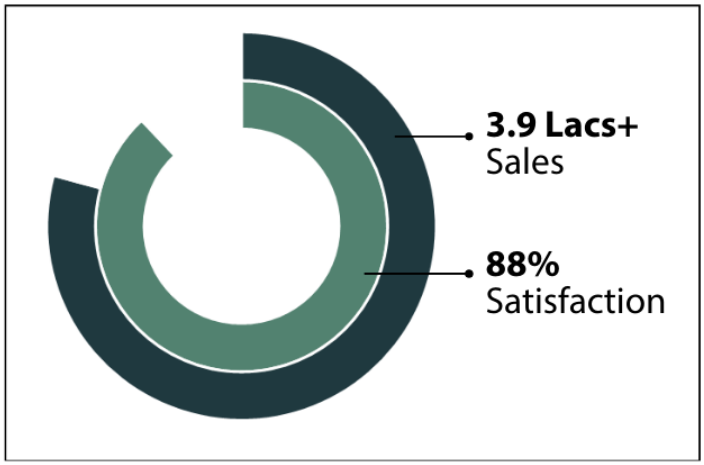
2.3 km
Average Proximity

74%
Stock Efficiency

3.6
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | Affordability gap in specialised medicines | Loyalty linked to availability

QUALITATIVE INSIGHTS

- North Delhi Kendras attracted a wide base, with significant reliance on low-income customers. These customers valued affordability highly but often noted that certain specialised medicines were missing, forcing supplementary purchases elsewhere. This reduced the completeness of the affordability narrative.

- Repeat customers expressed higher satisfaction, reporting that a consistent supply of regular medicines built long-term confidence. In contrast, new visitors remained hesitant and sceptical until they had personal experience, showing how loyalty was built gradually through reliability rather than campaigns.

NEW DELHI

JAKs SURVEYED

Dr. RML Hospital, Front Of Mortuary Gate, New Delhi

Opposite Bikanervala, Maharaja Agrasen Marg

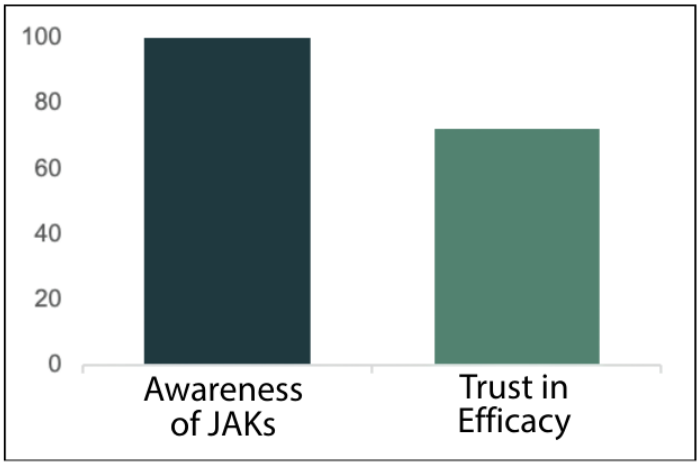
6771/A, Beri Wala Bagh, Kishan Ganj, New Delhi

142
Estimated Footfall

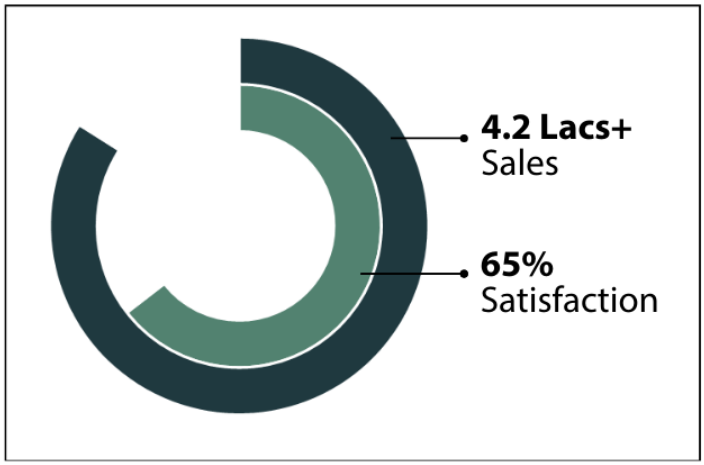
2 km
Average Proximity

70%
Stock Efficiency

3.7
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | Heavy footfall | Trust divide | Operational strain due to hospital proximity

QUALITATIVE INSIGHTS

- Kendras in New Delhi, particularly near government hospitals, faced overwhelming footfall. Staff often prioritised quick transactions over patient engagement, leaving little time to build trust in generic medicines. This operational strain affected service quality and consistency.

- Customers showed mixed levels of trust - while some expressed full confidence in government-backed generics, others were openly sceptical. Concerns over efficacy and side effects remained common, showing that awareness had not yet fully bridged the trust gap. The divide created a dual consumer base with contrasting behaviours.

SOUTH DELHI

JAKs SURVEYED

Shop no.2 GF, A-9, Amar Colony, Lajpat Nagar

K1/51 Ground Floor, Chittaranjan Park

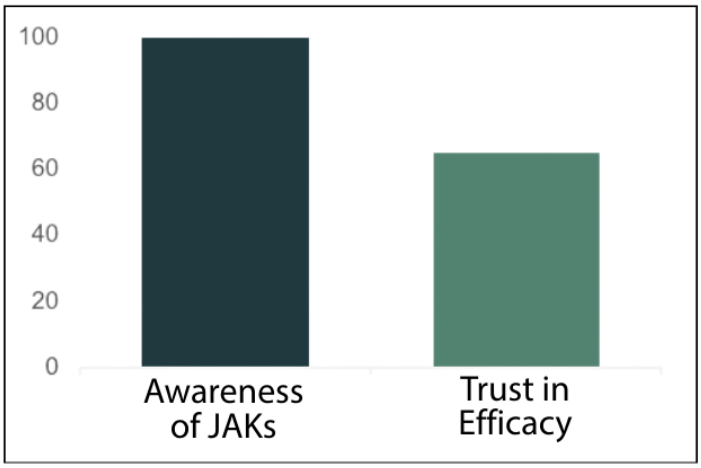
Shop No-4, 88-A, Amrit Puri, Garhi, East of Kailash

100
Estimated Footfall

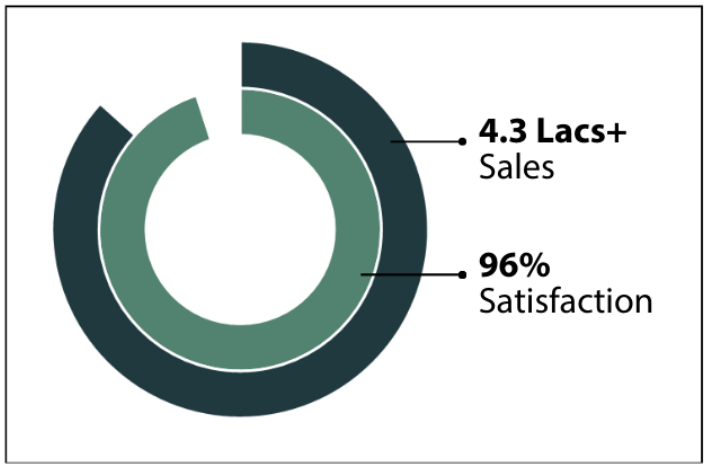
1.6 km
Average Proximity

92%
Stock Efficiency

4
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | Diverse socio-economic demands | Service delays at busy centres

QUALITATIVE INSIGHTS

- South Delhi Kendras catered to highly diverse populations, from low-income patients to middle-class families. Expectations varied sharply, while affordability satisfied some, others compared services to private chemists and complained of delays. The diversity made it challenging to serve all groups equally.

- Awareness of the Jan Aushadi scheme was relatively high, but trust lagged. Many customers still questioned whether generics were as effective as branded medicines. This created a paradox where potential demand existed but conversion into regular sales remained inconsistent.

SOUTH WEST DELHI

JAKs SURVEYED

Safdarjung Hospital,
Room No. 119,
South Delhi Hospital

OG-1, Plot 2, Odeon
Plaza-1, Sector 6
Dwarka

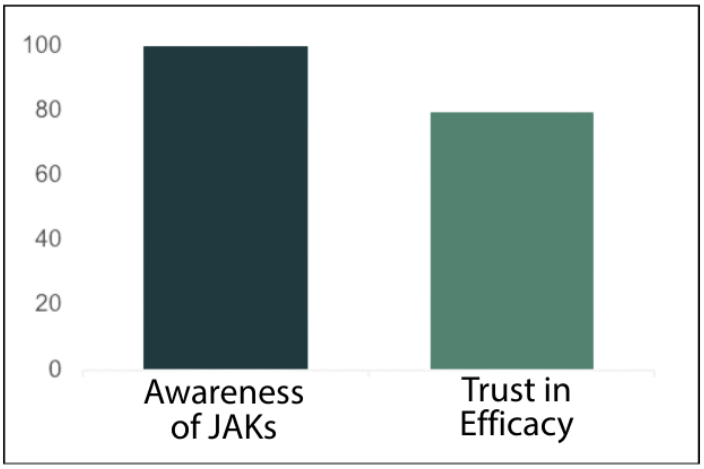
Shop no.11,
Nanakpura Market,
Block I, Moti Bagh,

90
Estimated Footfall

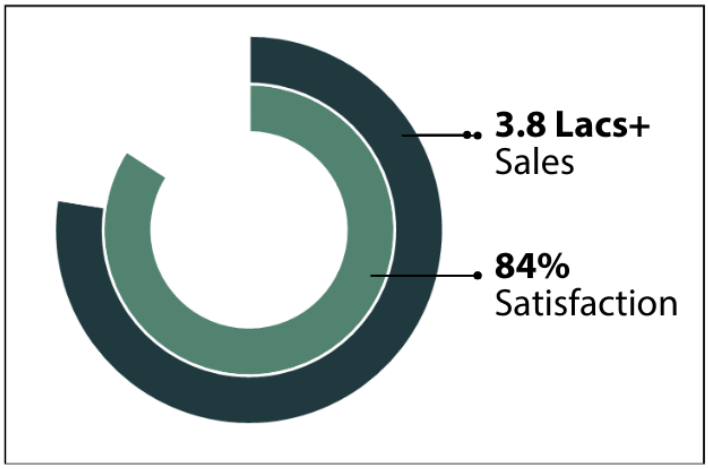
3.8 km
Average Proximity

72%
Stock Efficiency

3.8
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | Heavy hospital-driven crowds | Price concerns | Variation in trust levels

QUALITATIVE INSIGHTS

- At Kendras near large hospitals like Safdarjung, customer traffic was overwhelming. Staff struggled to balance transaction speed with meaningful engagement, creating operational bottlenecks. The heavy footfall often concealed inefficiencies such as delayed restocking.

- Customers voiced strong concerns about medicines being sold strictly at MRP without additional discounts. Perceptions of generics varied widely, with some strongly supportive and others deeply sceptical. This split highlighted the challenge of standardising consumer trust in such high-pressure environments.

WEST DELHI

JAKs SURVEYED

Shop 30, DDA Centre, Block CB, A-block, Naraina

Shop no. 33 Pandav Nagar, Opposite Naraina Bus Depot

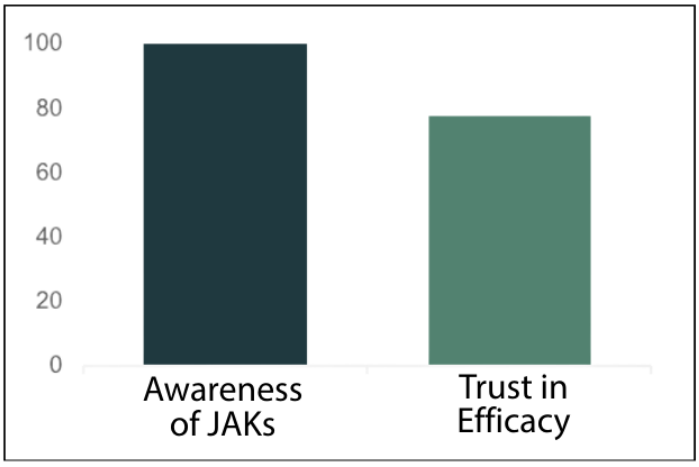
11/57 A, Mangal Bazar Rd, Block 16, Tilak Nagar

150
Estimated Footfall

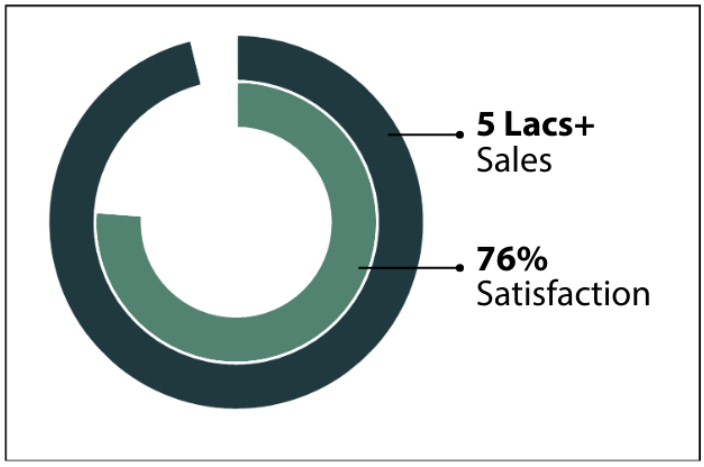
2.2 km
Average Proximity

50%
Stock Efficiency

3.3
Affordability Rating



Awareness vs Trust in Generic Medicines



Affordability vs Reported Sales Volumes

FOCUS AREAS | Predictable demand | Affordability-linked loyalty | Efficient stock management

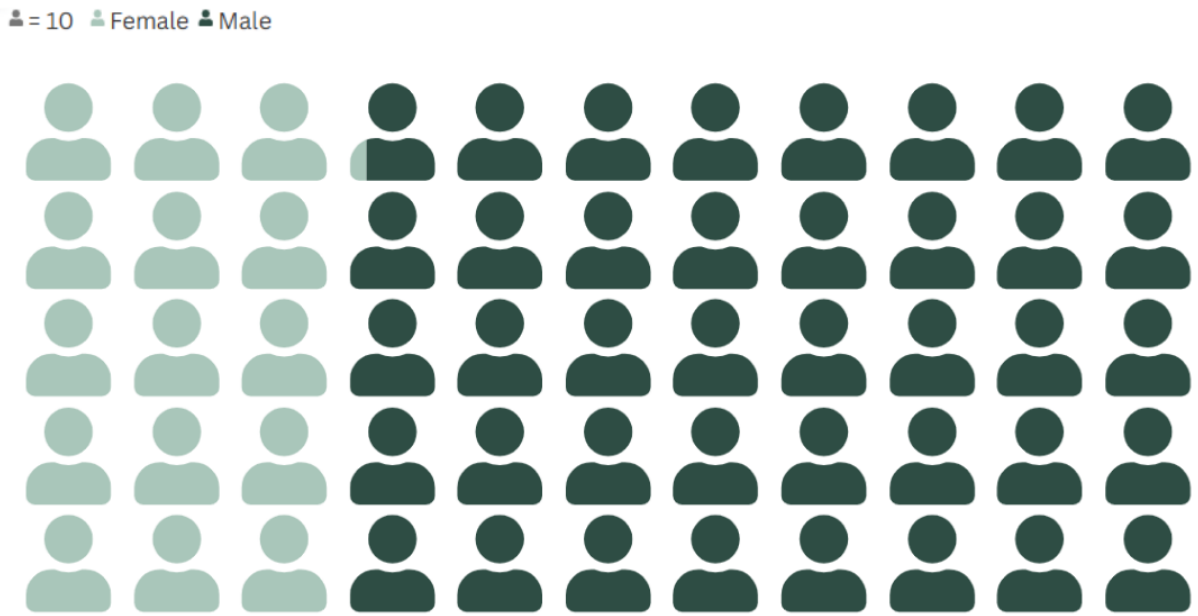
QUALITATIVE INSIGHTS

- West Delhi Kendras enjoyed relatively steady and predictable demand compared to other districts. This stability enabled smoother inventory management and fewer instances of stock shortages, which directly boosted satisfaction.

- Customers generally perceived the scheme as providing genuine value-for-money. Trust levels were higher than in other parts of Delhi, with many customers returning regularly. This showed that where affordability aligned with operational efficiency, loyalty grew consistently.

UNIVARIATE ANALYSIS

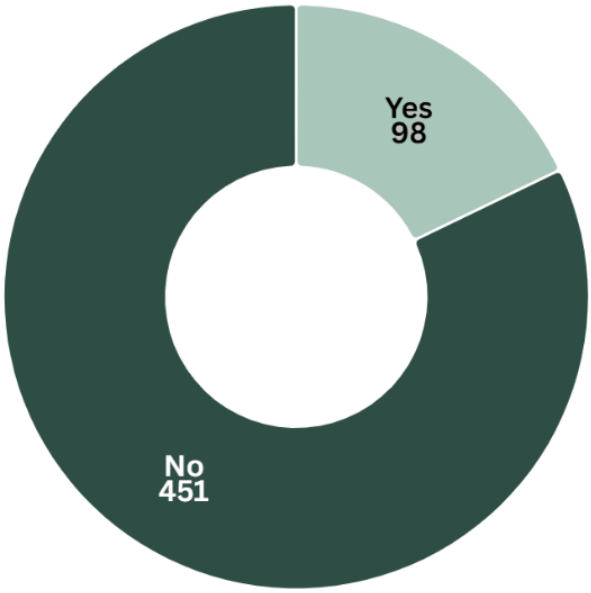
Gender- wise division of respondents



The graph identifies the gender make-up of the consumers visiting the Kendras, which shows a stark male dominance amongst respondents. Of the total 2,010 people surveyed to see how demand-side forces are at play, just 558 were women respondents. This sizeable difference speaks of a gender skew in participation and indicates that men are likely to take up more of the services provided by the Kendras than women.

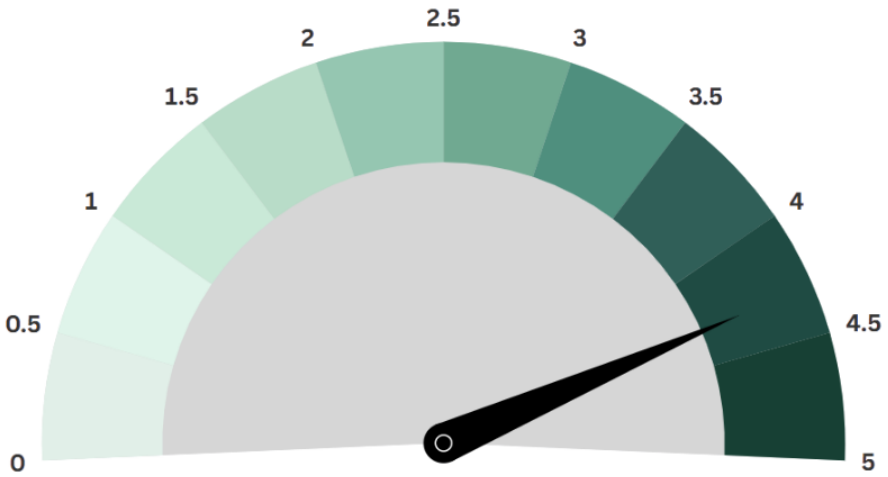
This trend is in line with larger socio-economic patterns that are generally observed among rural and semi-urban regions, where male involvement in external and institutional activities is more noted. Lower female mobility, fewer digital skills, and socio-cultural restriction could be some reasons behind the comparatively lower female participation. The results highlight the necessity of focused efforts to strengthen the access and inclusion of women in such service platforms, so that the advantages of the Kendras are passed on to all segments of the population more evenly.

Frequency of Doctors referring Customers to JAKs



The overwhelming majority of respondents (451) report that doctors do not refer them to Jan Aushadhi Kendras, compared to just 98 who receive such referrals. This disparity suggests limited engagement by medical professionals in directing patients to these affordable medicine outlets, highlighting a potential area for increased advocacy and sensitisation among healthcare providers.

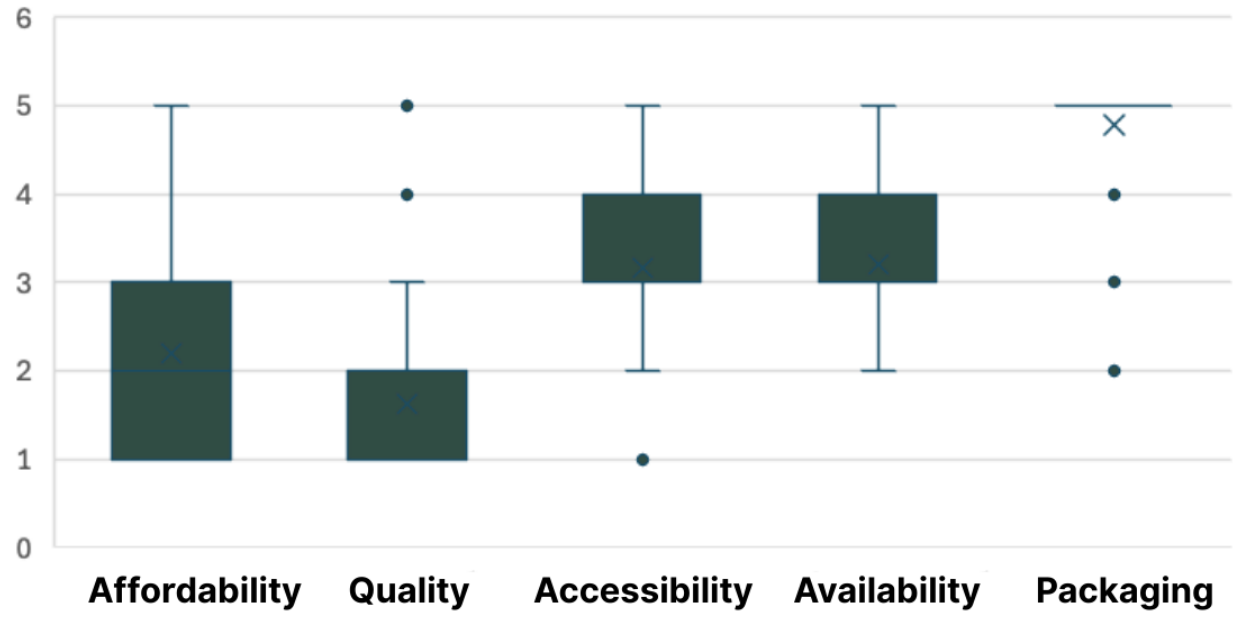
Average Customer Satisfaction Rating



Average Rating - 4.3

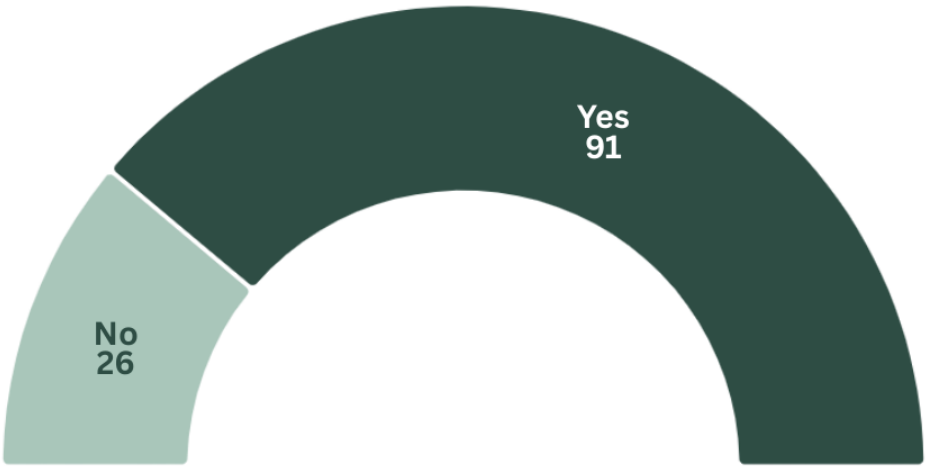
With an average customer satisfaction rating of 4.3 out of 5, the results reflect a notably high level of contentment among users. The gauge's position close to the maximum scale suggests that most respondents have had positive experiences, indicating strong approval of the services provided.

Ranking of Parameters



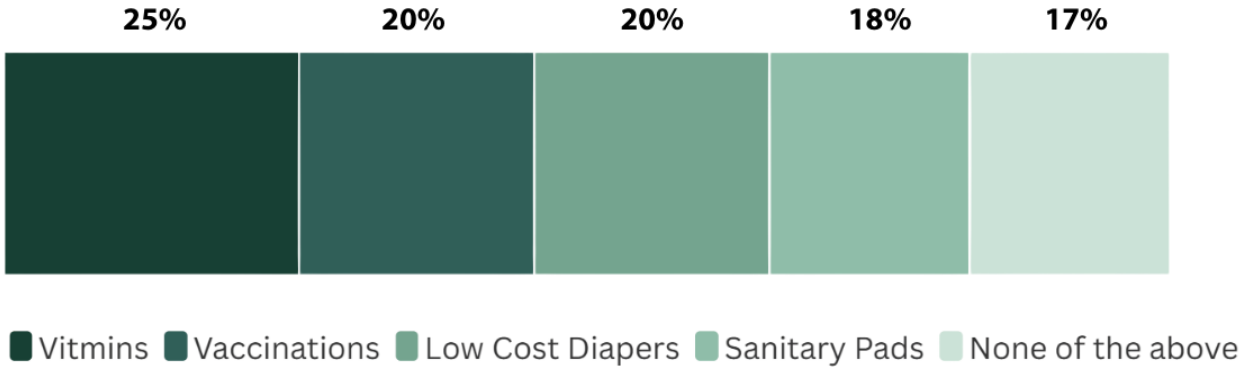
The box plot compares rankings of Affordability, Quality, Accessibility, Availability, and Packaging, showing that Packaging is rated highest with the smallest spread (indicating strong consensus), while Quality is generally ranked lowest; Affordability displays the widest variation, suggesting differing priorities among respondents, and both Accessibility and Availability have similar, moderately high rankings with some outliers, highlighting their consistent but not universal importance.

Provision of Delivery Services at JAKs



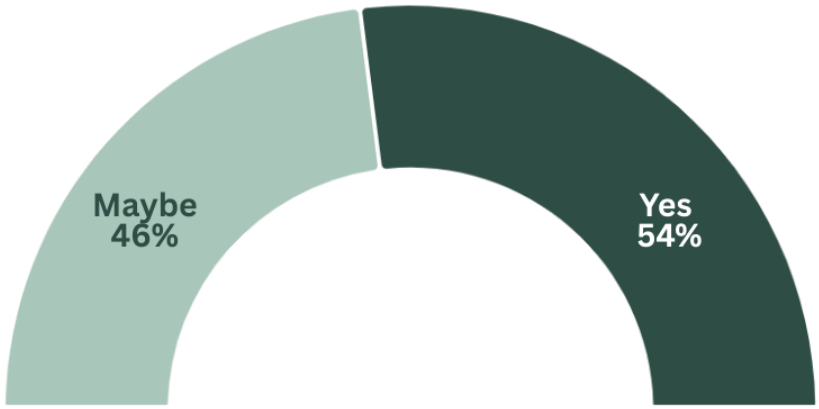
Around 91 JAKs have the provision of delivery services, whereas 26 respondents do not provide such services. This indicates that the majority of JAKs offer door-to-door services.

Awareness of Special Schemes



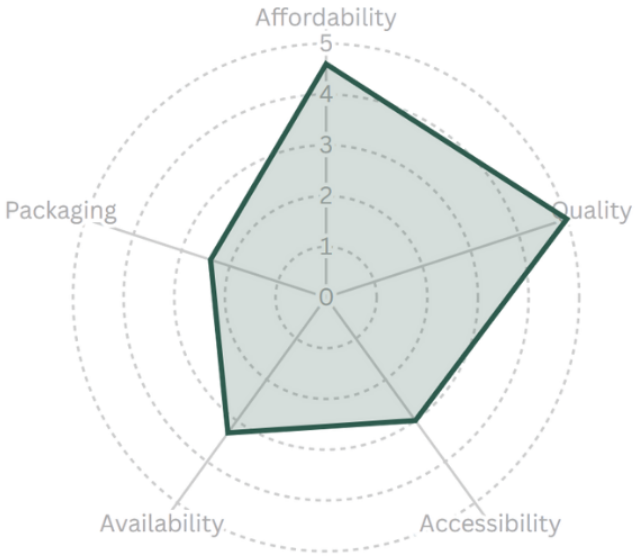
This chart highlights that vitamins have the greatest level of awareness among the surveyed special schemes, commanding 25% recognition. Vaccinations follow closely but trail slightly, indicating a gap that may warrant targeted outreach. Notably, awareness regarding low-cost diapers and sanitary pads remains lower, suggesting these schemes could benefit from enhanced visibility and education initiatives. The presence of respondents selecting 'None of the Above' (20%) reveals a considerable segment potentially unaware of all options, pointing to an opportunity for broader public communication.

Awareness of Expiry Settlement Policy



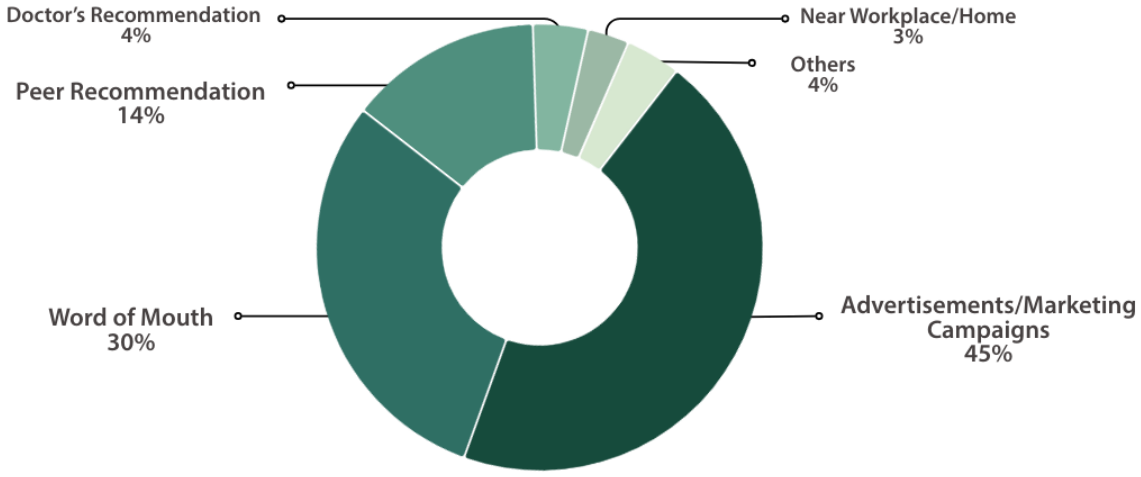
A slim majority of respondents clearly acknowledge familiarity with the expiry settlement policy, as indicated by the 54% affirmative response. The substantial portion expressing uncertainty (46% indicating 'Maybe') points to gaps in understanding or incomplete communication. This division highlights a need for clearer policy dissemination to move hesitant individuals towards greater certainty and informed action.

Quality Preferences



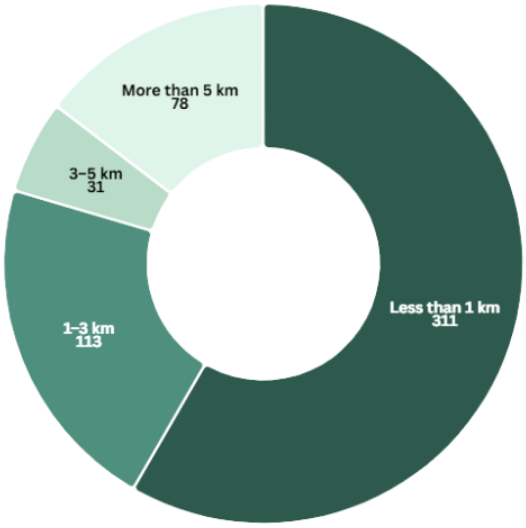
The given radar chart depicts the average preference ranks across the various locations of Delhi. There is a clear biasness towards quality and affordability, with packaging being the least preferred option. Availability and Accesibility are similar in ranks as well. This depicts the Indian consumer mindset of prioritising affordability over any other factor.

Source of Awareness about Jan Aushadhi Kendras



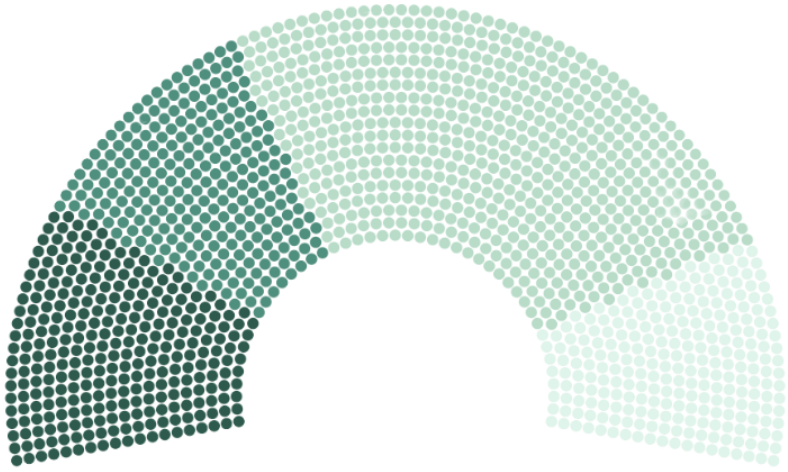
Advertisements and marketing campaigns stand out as the primary driver of awareness about Jan Aushadhi Kendra, contributing 45% of responses. Word of mouth plays a significant supplementary role, accounting for 30%, while peer recommendations provide additional support at 14%. The contributions of doctor's recommendations, proximity to workplace/home, and other channels are modest, collectively representing less than 15% of the awareness sources.

Proximity of Jan Aushadhi Kendras



The majority of respondents (311) have a Jan Aushadhi Kendra located within 1 km, indicating strong accessibility for most users. Fewer individuals report travelling 1-3 km (113), 3-5 km (31), or more than 5 km (78), suggesting that proximity is generally not a barrier for most participants, although some still face notable distances.

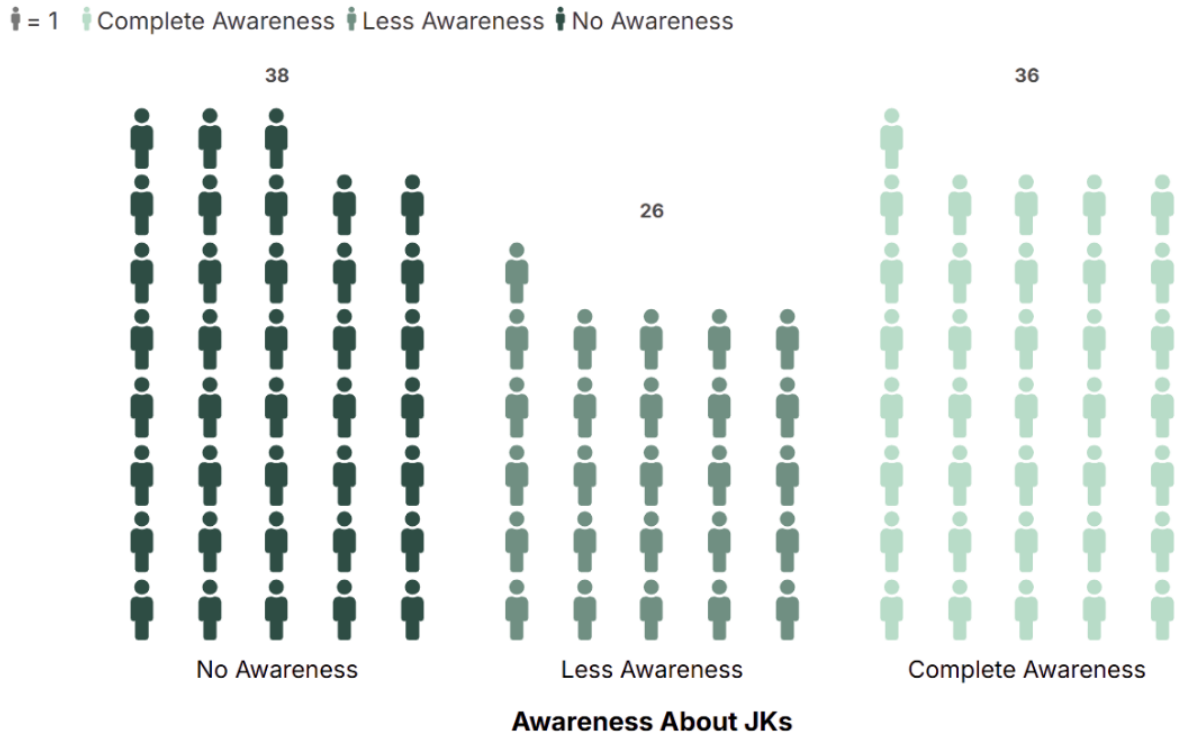
Doctors' Influence on Customers and General Public



Classification	Number of Respondents
Private Doctors - Customer	290
Govt Doctors - Customer	259
Private Doctors - Public	655
Govt Doctors - Public	250

The distribution shows that private doctors influence both customers (290) and the public (655) more significantly compared to government doctors. Government doctors account for 259 customer engagements and 250 public interactions, suggesting private practitioners have a broader reach and potentially greater impact within the surveyed population.

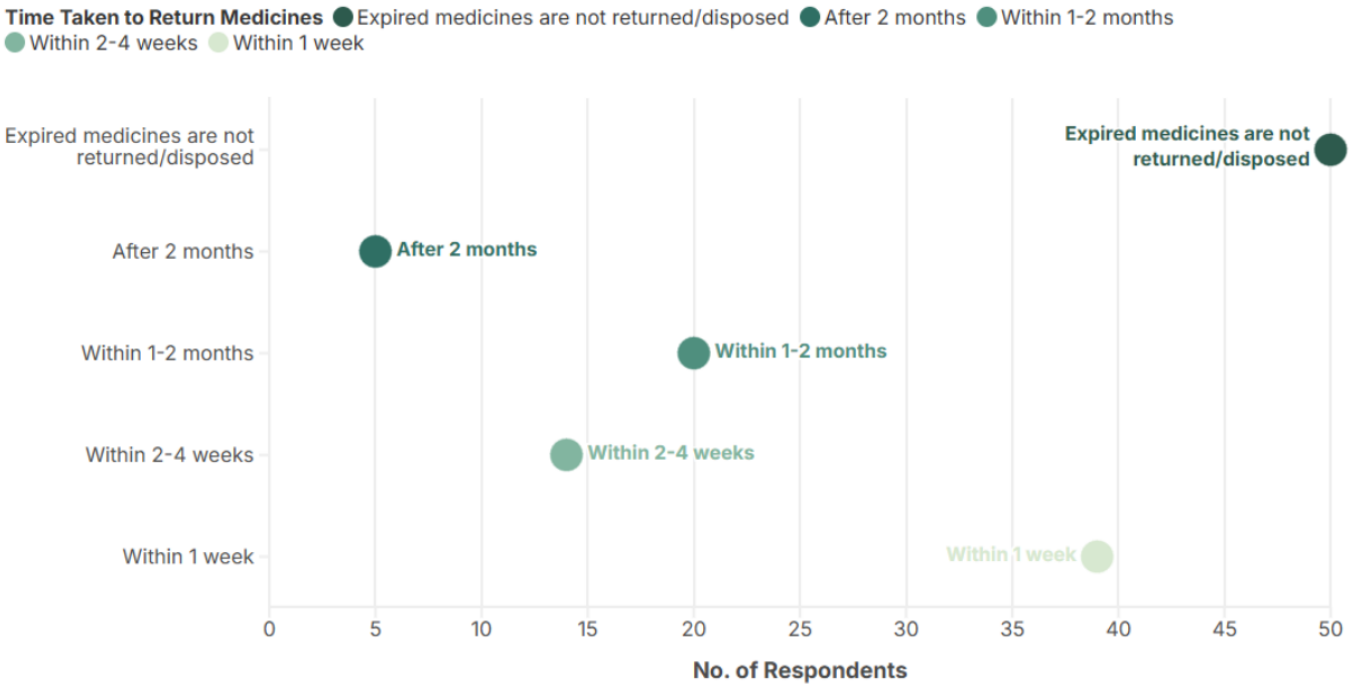
Percentage Awareness of JAKs among General Public



The normalised pictogram gives a comparable and intuitive picture of public awareness about the Jan Aushadhi Kendras (JAKs) by scaling the responses to a base of 100 people. This way of presentation allows for an easy comprehension of how awareness is spread among the surveyed populace, facilitating easy comparison of the level of awareness across various demographic or geographic segments.

Through normalisation of the data, the pictogram serves to emphasise differences in communication coverage and promotional effectiveness, providing a useful insight into the extent to which the JAKs scheme has been advertised and taken up amongst citizens.

Time Taken to Return Medicines as per the Expiration Settlement Policy

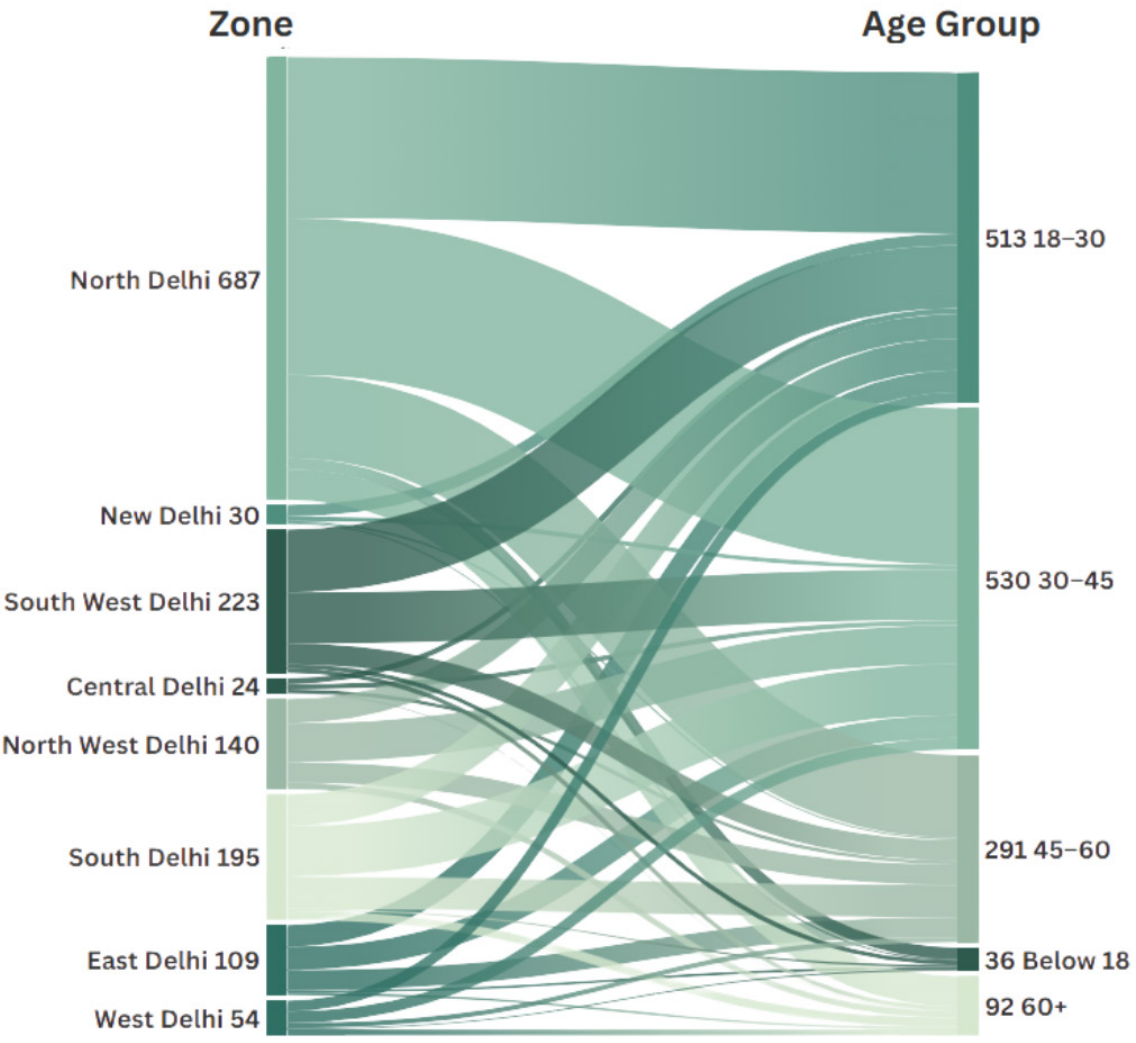


This chart examines the time lag in returning expired medicines to Jan Aushadhi Kendras (JAKs) by suppliers under the Expiration Settlement Policy, revealing notable inefficiencies in its implementation. The delays suggest gaps in coordination and communication between suppliers and Kendras, which can disrupt inventory management and lead to financial losses.

The most prominent finding is that many suppliers reported no proper return facility, indicating either limited awareness of the policy or shortcomings in its execution. Only about 40 suppliers manage to return expired stock within a week, likely the more organized or experienced ones, while 20 do so within one to two months, 15 within two to four weeks, and a few after over two months.

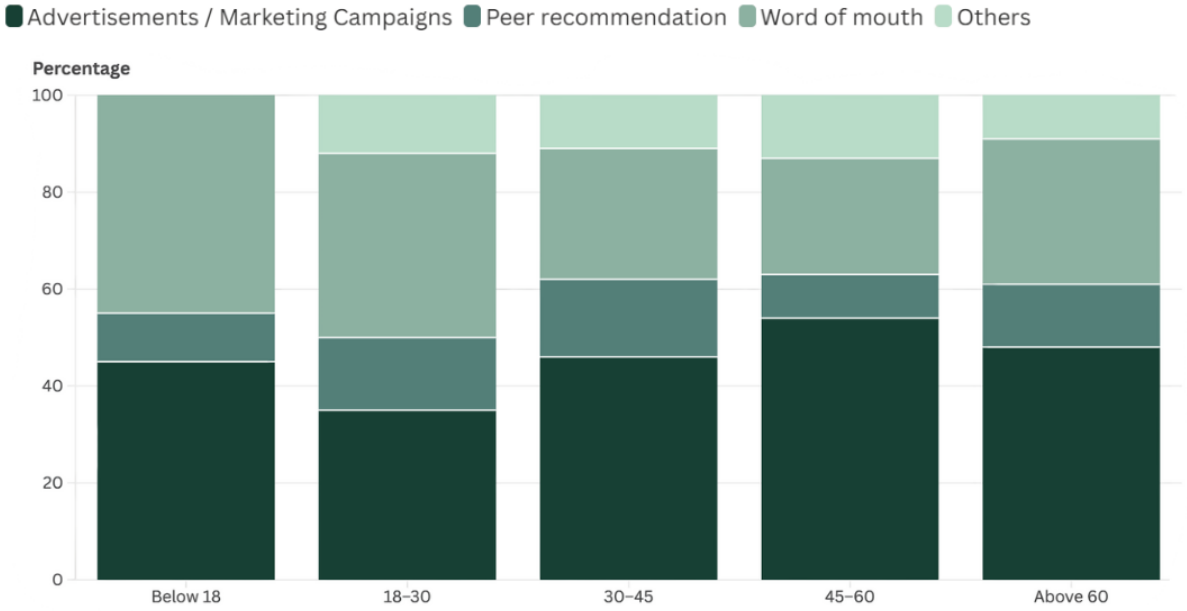
MULTIVARIATE ANALYSIS

Region-wise and Age-wise division of respondents



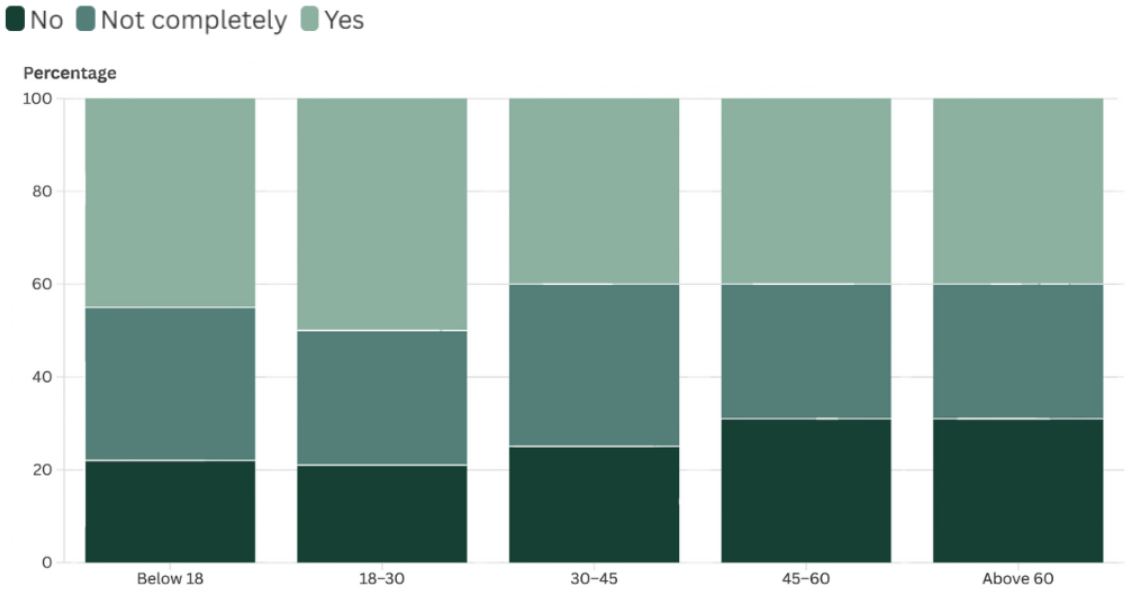
The adjacent diagram represents the division of the respondants based on their locations and age. A major chunk of respondants are from the age group 30-45 while the age groups 18-30 and 45-60 are not far behind. There is a uniformity in the age of the respondants across Delhi.

Initial awareness sources for Jan Aushadhi Kendras



The graph shows how different age groups first learned about JAKs. Advertisements and marketing dominate among those aged 45 and above, suggesting older people are more influenced by mass media. Younger groups rely more on peer recommendations and word of mouth.

Age-wise awareness of generic and non generic medicines

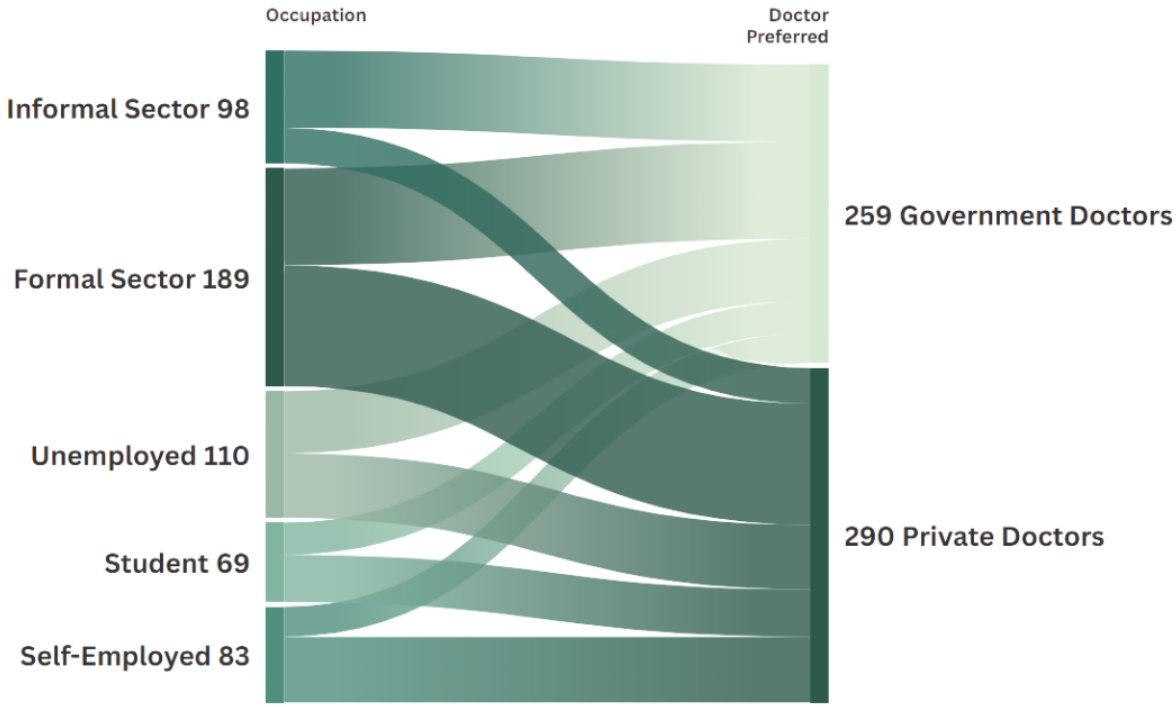


The given bar chart represents the awareness of consumers about the difference between regular and generic medicines. A higher awareness can be seen in the youth (18-30) age group. The awareness has a declining trend with age, with the lowest numbers in the above 60 age group.

Trust In Generic Medicines As Per Doctors Visited

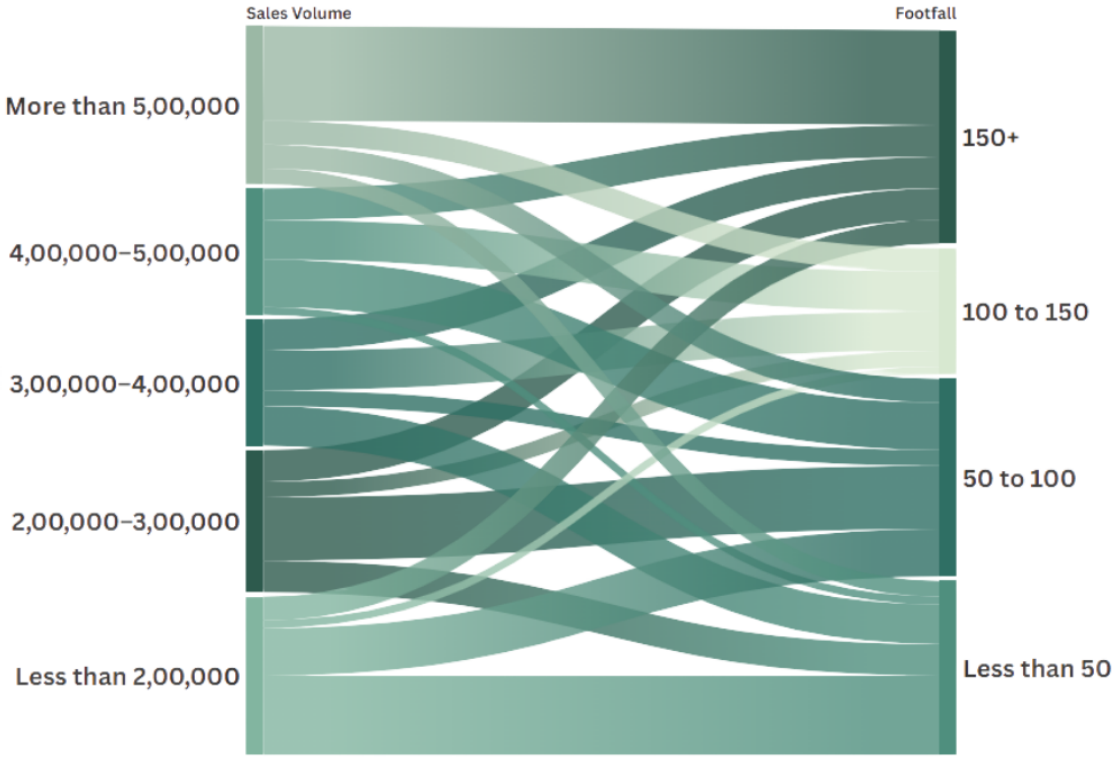
These donut charts show the trust of people in generic medicines based on the type of doctors visited. Those visit private doctors have the least amount of trust on generic medicine. Nearly 50% of those visiting both government and private doctors trust generic medicines.

Prescription Source Among Different Occupations



This alluvial chart shows the sources of getting prescription by different occupations. People from the Informal sector prefer government doctors while the self-employed ones prefer going to private doctors.

Footfall and Sales Volume for JAKs



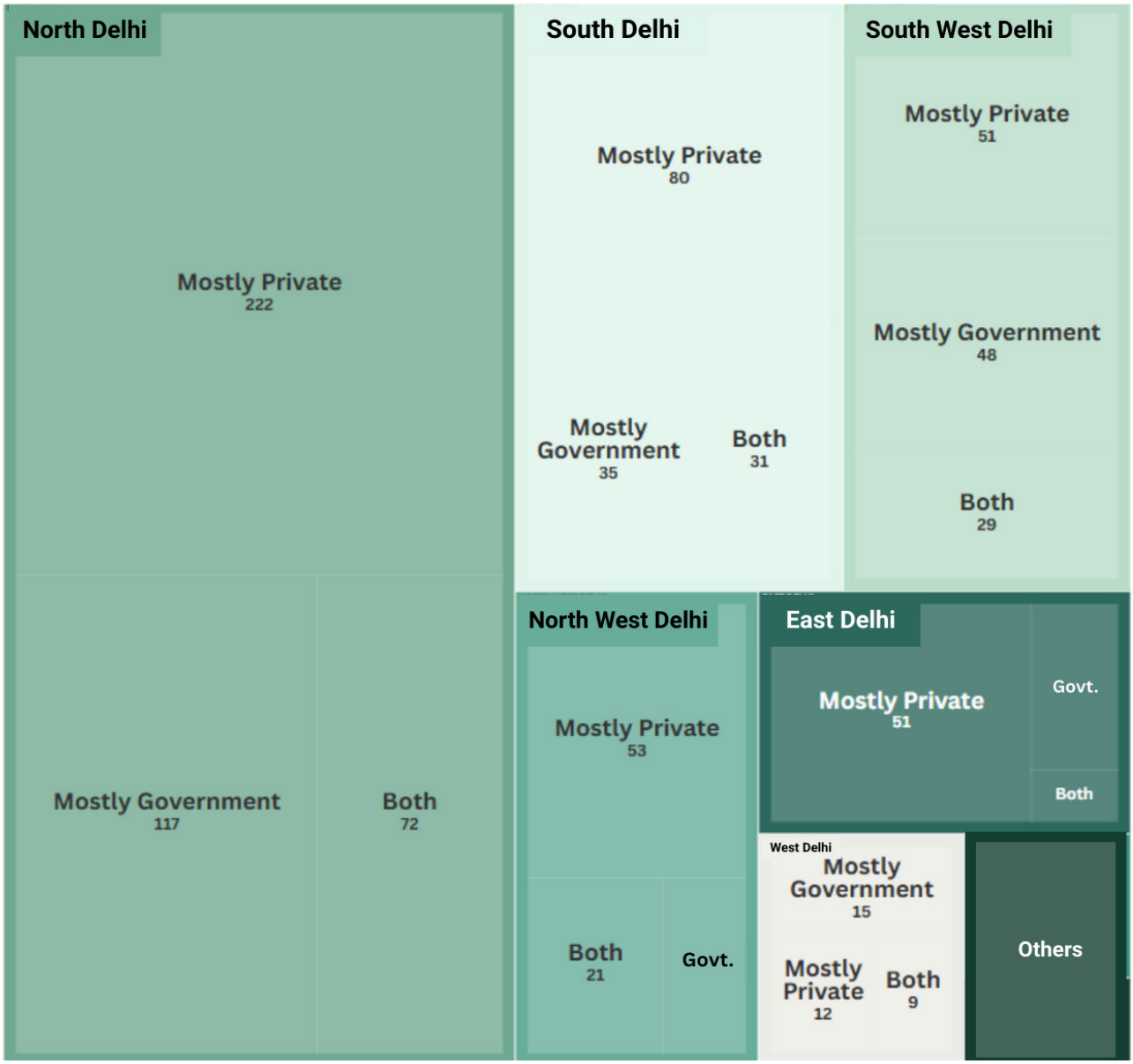
This Sankey Chart depicts the correlation between the revenues from Jan Aushadhi Kendras (JAKs) and customer visits at these stores, providing a visual image of how customer movement becomes sales performance. In all, the chart depicts a strong positive correlation between the number of visitors and revenues - a natural situation in that increased footfall generally leads to increased sales of medication.

Gender- wise characteristic ranking

Regions	Accessibility	Affordability	Quality	Packaging	Availability
Central Delhi	20.46	20.69	24.83	14.94	19.08
East Delhi	20.07	22.36	24.59	14.14	18.84
New Delhi	20.42	22.92	25	12.92	18.75
North Delhi	18.64	21.88	25.84	13.63	20.01
North West Delhi	20.64	21.23	25.86	12.82	19.45
South Delhi	20.66	22.23	27.66	10.28	19.17
South West Delhi	19.18	22.01	25.42	13.83	19.56
West Delhi	18.74	24.29	27	11.96	18

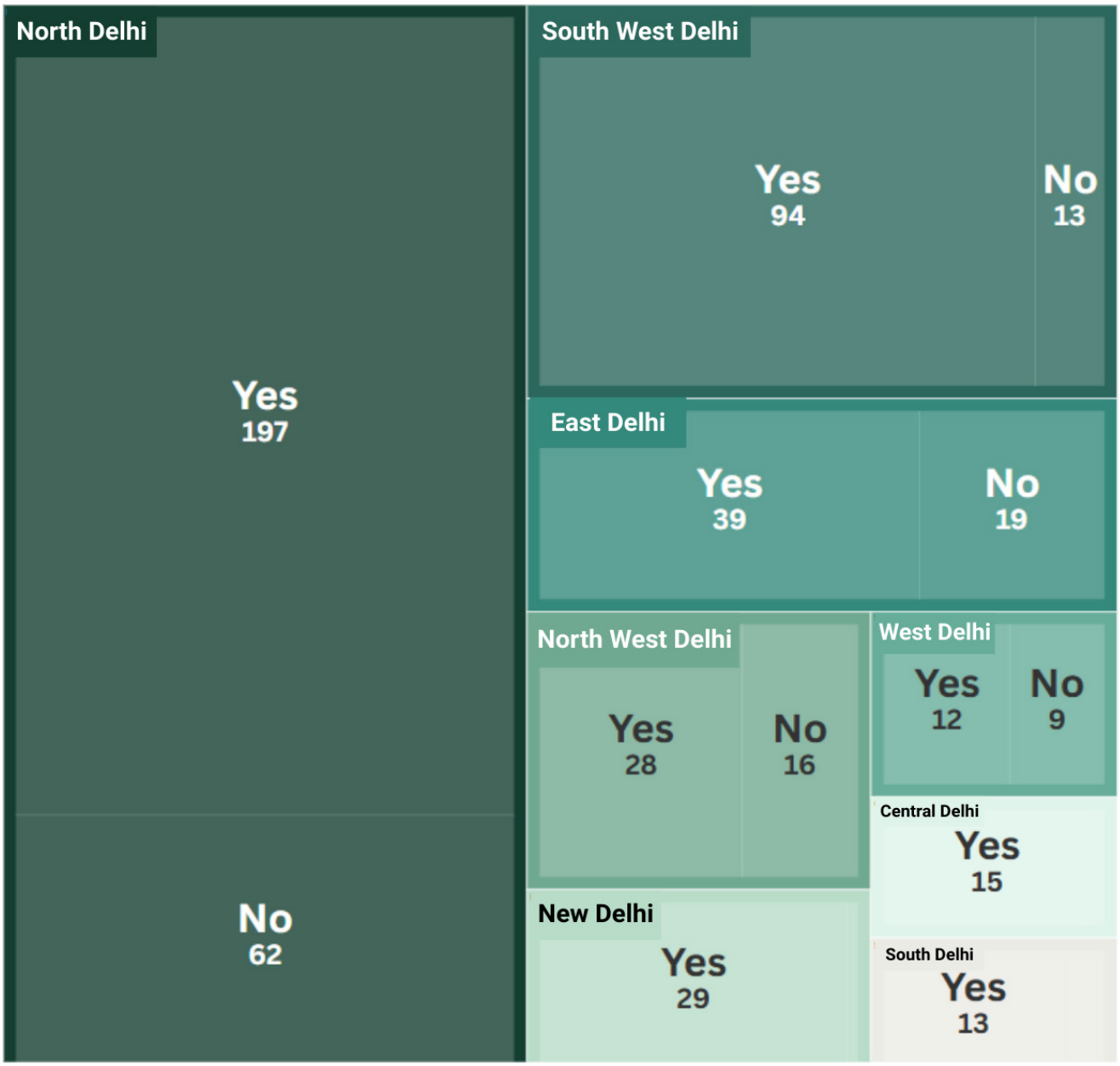
Clear trend can be observed across all the zones, Quality of the medicines offered by the Pharmacy are the matter of utmost importance for customers. They are least concerned with the quality of packaging of the medicines. Across regions, the respondents have similar views. The radar chart below summarises the factors for all regions.

Type of Doctor Visited According to Area



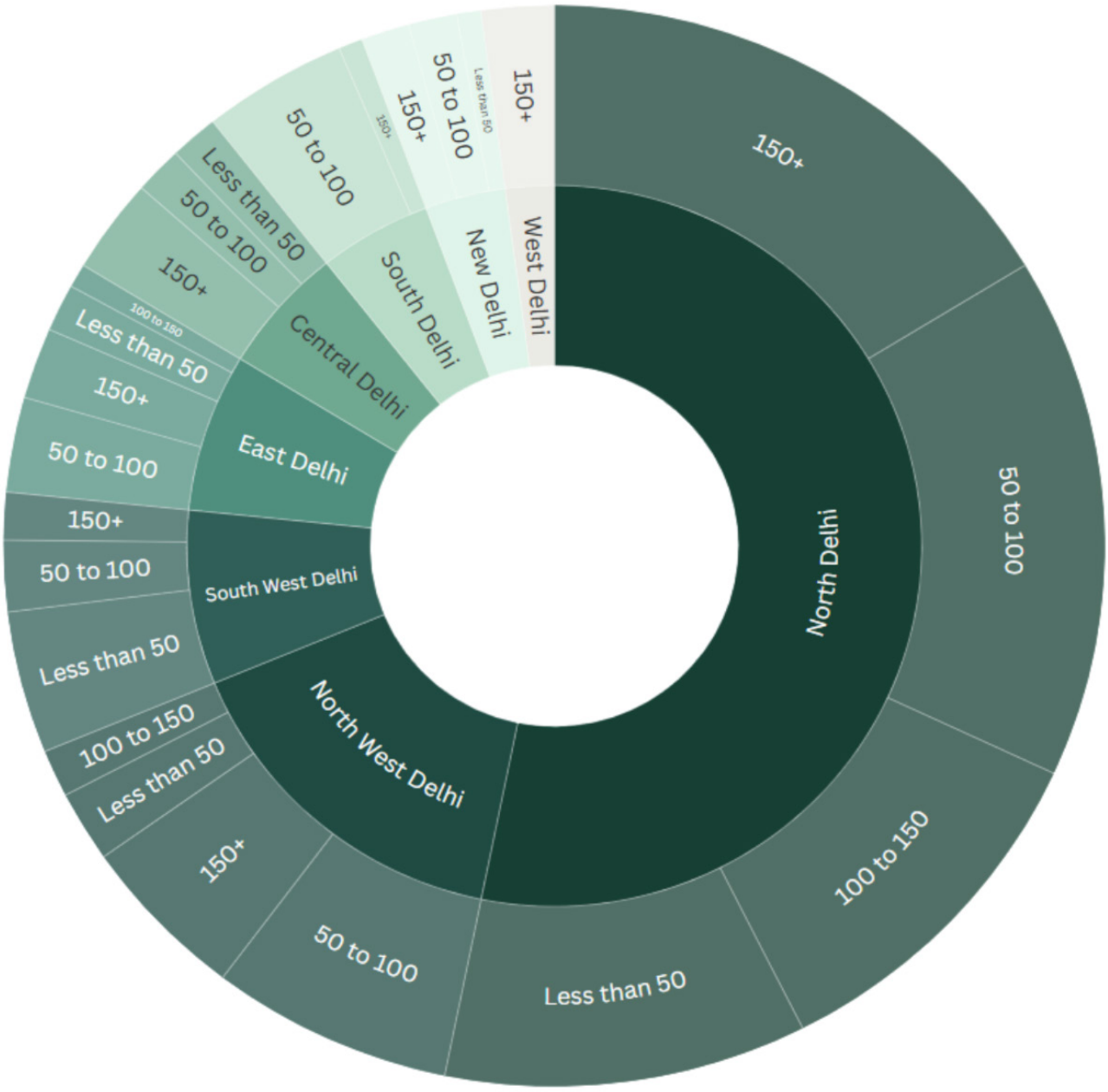
The adjacent chart represents the division of the respondents based on their preferred doctors across locations. In majority of the cases, a clear gap can be seen, with private doctors leading the charts. An astonishing insight reveals that a significant number of respondants don't have a priority towards any of the two.

Zone-Wise Requirement of Jan Aushadhi Kendras



This treemap shows the zone-wise requirement of more Jan Aushadhi Kendras in Delhi according to the customers from surveyed from the demand side. In each of the zones of Delhi surveyed, majority of the customers are of the opinion that more Jan Aushadhi Kendras are required in their area, showing the overhwhelming need for more Jan Aushadhi Kendras and the positive outlook of the customers regarding the same.

Region-wise average footfall across different JAKs



The adjacent graph represents the average footfall in Jan Aushadi Kendras across the localities of Delhi. Majority of the Kendras receive footfall between 50 to 100 customers while a significant number of JAKs have customer range well over 150. This can be particularly seen in the areas of North and North-west Delhi. A few Kendras are less functional as well, with customers less than 50 per day, especially in North Delhi.

SCIENTIFIC ANALYSIS

Cluster Analysis

Methodology

The survey responses were encoded as contained in the spreadsheet Encoding List Hierarchical Clustering was performed first to visually determine the number of clusters through Ward linkages on the dendrogram. Further K-means clustering was performed on the data to find the clusters and the distance of individual points from their centroids.

Interpretation and Result

Customers

4-Cluster

No. of iterations before convergence: 15

Davies-Bouldin Index Value = 13.781287546

Customer Profiling

Cluster	1	2	3	4
Location	North/South West Delhi	East/West Delhi	Central/New Delhi	North Delhi
Age (Average)	30 - 45	30 - 45	30 - 45	30 - 45
JAK Visit Frequency	Bi-weekly	As per need	Monthly	As per need
Frequency of out of stock medicines	N/A	Never / Rarely	Rarely	Rarely
JAK Distance	3 - 5 KM	< 1 KM	1 - 3 / 3 - 5 KM	< 1 KM / 1 - 3 KM
Requirement of More JAKs	Yes	Yes	Yes	Yes
Awareness of Difference in Medicine	Don't know the complete difference	Don't know the complete difference	Don't know the complete difference	Don't know the complete difference
Trust on Safety and Efficacy	No	Yes	Yes	Yes
Affordability	Somewhat Affordable	Very Affordable	Somewhat Affordable	Somewhat / Very Affordable
Satisfaction	Neutral / Somewhat Satisfied	Somewhat Satisfied / Satisfied	Somewhat Satisfied	Somewhat Satisfied / Satisfied

Employee Profiling

Cluster	1	2	3	4
Location	Northwest Delhi	North Delhi	North Delhi	West Delhi
Footfall	100 - 150	50 - 100	100 - 150	50 - 100
Sales	2 lac - 3 lac	< 1 lac	4 lac - 5 lac	2 lac- 3 lac
Delivery Preference	< 10% of customers	10 - 30%	< 10%	< 10%
Staff (in numbers)	4 - 5	3 - 4	3 - 4 / 4 - 5	1 - 2
Return of expired goods	Within 2 - 4 weeks	Within 1 week	Within 1 week	Not Returned
Restocking Frequency	Bi-weekly	Bi-weekly	Bi-weekly	Weekly
Value of Order Placed with Supplier	Rs. 5000 - Rs. 10000	Rs. 5000 - Rs. 10000	> Rs. 10000	Rs. 5000 - Rs. 10000
Occurrence of Delay in Stock Delivery	Rarely	Rarely	Never / Rarely	Rarely
Lead Time	< 1 week	< 1 week	< 1 week	< 1 week
Employee Satisfaction	Govt. compensated for insufficient salary	Govt. compensated for the insufficient salary	Owner compensated sufficient salary	The owner compensated sufficient salary

Public Profiling

Cluster/Parameter	1	2	3
Age	45-60	30-45	18-30
Awareness of Jan Aushadhi Kendras	Yes	General Awareness	No
Preference for Pharmacy	Private	Jan Aushadhi	Private
Purchased from JAK	No	Yes	No
Expensive (on a scale of 1-5)	1	5	5
Doctor Preference	Both	Government	Private
Awareness of Difference between branded and generic	Yes	Yes	Yes
Frequency of being prescribed a generic (on a scale of 1-5)	2	5	0
Trust in Generic	No	Yes	No

8-Cluster
No. of iterations before convergence: 9
Davies-Bouldin Index Value = 13.575500048

Thus, 4-cluster provides a better cluster quality due to a higher Davies-Bouldin Index Value.

Employees
No. of iterations before convergence: 7
Davies-Bouldin Index Value = 11.277616244

General Public
No. of iterations before convergence: 8
Davies-Bouldin Index Value = 9.16192105

Correlation Analysis

Methodology:

A Spearman's Rank Correlation was conducted using SPSS to evaluate the direction and strength of relationships between important variables associated with Jan Aushadhi Kendras. A coefficient matrix was produced through the analysis, which was subsequently displayed as a heatmap to highlight variables in different colours according to the level of correlation. It was checked whether there was any logical relationship between the variables, and the two-tailed significance is low, which indicates that a relationship is not due to random probability occurrence.

Particular attention was given to pairs of contextually relevant variables, such as awareness versus purchase behavior, affordability versus visit frequency, and age versus accessibility.

Inferences have been give on the adjacent table.

Factor Analysis

Methodology:

A factor analysis was conducted on the survey data using SPSS to evaluate and reduce the variables into some combined factors. Factor Analysis examines the correlation between different variables, identifies groups of variables that are highly related and can be explained by a common underlying factor or construct.

Similar encoded data, as has been used for the regression and correlation analyses, has been used. The output of the analysis begins with a correlation matrix examining interrelationship between all pairs of variables. This is followed by a Kaiser-Meyer-Olkin (KMO) test to examine the data sampling adequacy. It has to be ensured that the value is >0.5. Bartlett's Test of Sphericity is used to test whether the variables are significantly correlated for the factor analysis to be conducted. A p-value of <0.05 indicates the same.

Once this is the ensured, the analysis is conducted, which reveals the following:

Commonalities: The extraction values

Correlation Table

Var 1	Var 2	Correlation	Inference
Age Encoded	Encoded Visit	0.18	No to very weak relation between these factors.
Age Encoded	Non-availability issues	0.149	Not a significant relation between these factors.
Type of Doctor	Diff. between Branded and Generic	-0.154	Not a significant relation between these factors.
Distance to the nearest JAK	Need for more JAKs	0.222	Very weak correlation, The +ve value suggests that the greater the distance to the nearest JAK, the more likely respondents are to feel that additional JAKs are needed. This indicates that accessibility might be a concern.
Trust on Generic Medicine	Would recommend JAKs	0.317	A moderately confident inference can be drawn that, people who trust the generic medicines seem to be much more likely to recommend JAKs to others.
Distance	Customer Satisfaction	-0.259	There is a weak -ve correlation, the respondents who live closer to the JAK might have a much better experience.
Non-Availability issues	Customer Satisfaction	-0.195	The negative correlation indicates that when medicines are frequently unavailable at JAKs, it negatively impacts the overall satisfaction of the users.
Non-Availability issues	Visits	0.309	Moderate correlation, customers may have to visit a greater number of times due to some medicine not being available.
Diff. between Branded and Generic	Recommend to others	0.144	Not a significant relation between these factors.

**Correlation values range from -1 to +1, indicating the strength and direction of the relationship between two variables. In practical terms, correlations with an absolute value between 0.00 and 0.10 are considered negligible, those between 0.10 and 0.30 are weak, between 0.30 and 0.50 are moderate, and values above 0.50 represent strong relationships. None of the relations found above are significant enough for us to be completely sure of the inferences.*

indicate the proportion of each variable's variance explained by the extracted factors. A higher value indicates that the variable is adequately represented in the factors.

Total Variance Explained: The total variance explained table reveals crucial information regarding the Eigenvalues, % of variance explained by each factor and the cumulative % of variance explained by each factor. Eigenvalues represent the amount of variance explained by a factor. Factors with values of greater than 1 are taken as the final factors. Then, only those selected factors and their variance percentages are shown in extraction and rotated forms.

Component and Rotated Component Matrix

The component matrix indicates the correlations between each original variable and the extracted principal components, also known as factor loadings. High values (positive or negative), indicating strong correlations, mean that the variable is heavily influenced by that component. A rotated component matrix is a variation of the original component matrix, which makes the factor loadings clearer and easier to interpret. The rotation can be done using various methods. In this case, a varimax rotation method has been used. A varimax rotation rotates the components (or factors) in such a way that it maximises the variance of the squared loadings on each factor. The goal is to achieve a simple factor structure in which each variable loads strongly on only one factor and weakly or not at all on the others.

Component Transformation Matrix

The component transformation matrix is a matrix of values that defines the rotation which is applied to the initial component loadings. These values are derived from the chosen rotation method, in this case Varimax. This matrix is multiplied by the original factor loadings to get the rotated loadings.

Interpretation and Result

KMO and Bartlett's Test:

A KMO value of 0.648, which is >0.5, indicates the adequacy of the sample.
The Bartlett's Test provides a significance of 0.000, indicating that the variables are correlated enough for the factor analysis.
Communalities: Most variables have a communality of >0.5, which indicates that they are adequately represented in the factor selection extracted.

Total Variance Explained: The table reveals that 7 factors have been extracted based on the Eigen value criterion of >1 and the cumulative variance explained by these 7 factors is 59.41%.

Rotated Component Matrix

Factor loadings from the rotated component matrix reveal he following factors as given in the adjacent table:

Results from Rotated Component Matrix

Factor 1: Satisfaction & Advocacy

Variable	Loading
recommend JAK	0.835
Satisfied CS	0.823
Visit Fn	0.663
Affordability	0.588
Encoded Trust	0.578

This component is primarily associated with variables measuring overall satisfaction, trust, affordability, and the likelihood of recommending the product. Respondents reporting higher satisfaction scores also tended to express greater trust and willingness to recommend, with moderate association observed with affordability and number of visits.

Factor 2: Visit Frequency & Engagement

Variable	Loading
Frequency Encoded	0.753
Encoded Visit	0.733
Visit Fn	0.258

This factor reflects the behavioural engagement of respondents, measured through frequency and regularity of visits. A significant proportion of the sample reported moderate to high engagement, indicating a pattern of repeated interaction with the product or service.

Factor 3: Affordability vs Availability Trade Off

Variable	Loading
Rank Affordability	0.757
Encoded Do you understand diff	0.489
Rank Availability	-0.731

This factor indicates an inverse association between perceptions of affordability and availability. Higher scores for affordability correspond to lower scores for availability. Additionally, understanding of the product appears to influence how respondents evaluate this trade off.

Factor 4: Accessibility & Doctor Influence

Variable	Loading
Encoded need for JAKs	0.688
Encoded Doctor	0.637
Encoded Distance	0.617

This component is defined by the relationship between perceived need, medical recommendation, and physical proximity. Respondents who reported shorter distances or a recommendation from a doctor were more likely to indicate a need for the product.

Factor 5: Demographics

Variable	Loading
Age Encoded	0.647
Encoded Occupation	-0.786

This factor captures variance explained by demographic variables. Age and occupation appear to have a significant and contrasting influence on responses. Younger and professionally active respondents exhibit patterns distinct from older or non-working groups.

Factor 6: Quality-Oriented Preference

Variable	Loading
Rank Quality	0.802
Encoded Do you understand diff	-0.381

This component is associated with the prioritisation of quality. However, it also shows a negative loading with the variable representing understanding of the product, suggesting a divergence between perceived importance of quality and actual product knowledge.

Factor 7: Location & Gender Differentiators

Variable	Loading
Encoded Location	0.695
Encoded Gender	0.662

This factor reflects variability in responses attributable to location and gender. Differences across geographical and demographic groups contribute meaningfully to the overall variance, indicating heterogeneity in experiences or perceptions within the sample.

Behavioural Analysis

Kruskal-Wallis H Statistic

Methodology:

To analyse whether the perceived affordability of medicines varies significantly across different respondent categories, we applied the Kruskal-Wallis H Test. This non-parametric test is ideal for comparing more than two independent groups when the dependent variable is ordinal and the assumptions of normality and equal variances may not hold.

Dependent Variable:

- Affordability score on a Likert scale from 1 (Very Unaffordable) to 5 (Very Affordable)

Independent Variables (Grouping Factors):

- Prescription Type: Branded, Generic, Both
- Doctor Referral Type: Yes, No, Yes but Rarely

The Kruskal-Wallis H statistic was computed using the formula:

$$H = \frac{12}{N(N+1)} \sum_{j=1}^{k} \frac{R_j^2}{n_j} - 3(N+1)$$

Where:
H = Kruskal-Wallis test statistic
N = Total number of observations
k = Number of groups
Rj = Sum of ranks in group j
nj = Number of observations in group j

The p-value was calculated on Microsoft Excel using the formula CHISQ.DIST.RT(H, k-1), where k is the number of groups.

Significance Level: $\alpha = 0.05$

Results and Interpretation

1. Prescription Type

Groups: Branded, Generic, Both (k = 3)
Test Statistic (H): 0.0510
Degrees of Freedom (df): 2
p-value: 0.9748

Since p = 0.9748 > 0.05, we fail to reject the null hypothesis. There is no statistically significant difference in affordability perception across the three prescription types.

2. Doctor Referral Type

Groups: Yes, No, Yes but Rarely (k = 3)
Test Statistic (H): -0.05557621261
[Negative value-likely a calculation error; H should never be negative]
Corrected p-value: 0.05557621261

Since p = 0.05557621261> 0.05, we again fail to reject the null hypothesis. There is no statistically significant difference in affordability perception across the three doctor referral types. However, since the p-value is close to the threshold, there may be a weak trend worth exploring further with more data.

Chi Square Test

To examine whether there is a statistically significant association between trust

in generic medicines (Yes/No) and the respondent's top-ranked priority while purchasing medicines (e.g., Affordability, Quality, Accessibility, etc.).

Null Hypothesis (H_0): There is no significant association between trust in generic medicines and the respondent's top-ranked priority while purchasing medicines.

First a Contingency Table was created showing counts for each combination of responses (e.g., how many people who chose "Affordability" as a priority said "Yes" to trusting generics, and so on). Then expected frequencies were computed for each cell.The CHISQ.TEST function was used to compute the p-value in Microsoft Excel. Observed and expected ranges were computed manually using formulas and cross-tabulation.

Significance Level: A 5% significance level ($\alpha = 0.05$) was chosen to determine whether to reject the null hypothesis.

Interpretation and Result

The calculated p-value = 0.526
Since $p > 0.05$, we fail to reject the null hypothesis.

Conclusion: There is no statistically significant association. This implies that the decision to trust generics does not appear to be systematically influenced by whether a person values affordability, quality, or any other specific factor the most.

To examine whether perceived affordability of private pharmacy medicines influences trust in generic medicines, we applied the Chi-Square Test of Independence. This statistical test is suitable when analysing the relationship between two categorical variables.

Null Hypothesis (H_0): There is no association between perceived affordability of medicines and trust in generics. That is, the distribution of trust is independent of affordability levels.

Alternative Hypothesis (H_0): There is a significant association between perceived affordability of medicines and trust in generics.

Variables:

Independent Variable (Grouping Factor): Perceived affordability (on a 5-point Likert scale, where 1 = Not Affordable and 5 = Most Affordable)

Dependent Variable: Trust in generics (Yes or No)

The dataset was cleaned to remove missing or invalid responses. Respondents were grouped by their affordability rating and whether they indicated trust in generics.

A 5 (affordability levels) × 2 (trust: Yes/No) table was created, showing the frequency of responses in each category. Row totals, column totals, and the grand total were computed. This was the contingency table.

Expected Frequency Calculation: For

each cell, expected frequency under the\

$$E = \frac{(\text{Row Total}) \times (\text{Column Total})}{\text{Grand Total}}$$

Chi-Square Statistic Computation: Using observed (O) and expected (E) frequencies, the Chi-Square statistic was calculated:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Degrees of Freedom and P-Value: Degrees of freedom (df) were determined as:

$$df = (r - 1)(c - 1)$$

$$df = (5 - 1)(2 - 1) = 4$$

The p-value was computed in Excel using the function = CHISQ.DIST.RT(X^2,df).

Interpretation and Result

Since the p-value is less than 0.05, we reject the null hypothesis. This indicates a statistically significant relationship between perceived affordability of medicines and trust in generics. In other words, respondents' trust in generic medicines varies meaningfully depending on how affordable they perceive private pharmacy medicines to be.

To analyse whether there is a significant association between the perceived efficacy of a medicine and the preference for branded, generic, or both types of medicines, we used the Chi-Square Test of Independence. This test helps determine if two categorical variables are independent of each other or if there is a significant association between them.

Variables:

Dependent Variable: Perceived efficacy of the medicine (Yes/No)

Independent Variable: Preference for medicines (Branded, Generic, Both)

The survey asked the respondents about their preference for medicines (Branded, Generic, or Both) and whether they trust the safety and efficacy of the medicine (Yes/No). The data was organised into a contingency table, where one dimension represents the perceived efficacy (Yes/No) and the other represents the preference for branded, generic, or both types of medicines.

Contingency Table Construction: The survey responses were categorised as follows

P. Efficacy	Brand	Gen.	Both	Total
YES	258	85	153	496
NO	34	6	12	52
Total	292	91	165	548

(P. Efficacy: perceived efficacy; Brand: branded medicines; Gen.: generic medicines.)

The same calculation as shown previously were done where,

r = Number of rows (in this case, 2 - YES, NO)

c = Number of columns (in this case, 3 - Branded, Generic, Both)

Degrees of freedom = 2

Using the calculated Chi-Square statistic (X^2= 3.39) and degrees of freedom (df = 2), the p-value was determined using the Chi-Square Distribution. The significance level (α) was set at 0.05. In this case the p- value was found to be 0.183, which is greater than 0.05 Therefore, we fail to reject the null hypothesis.

We conclude that there is no significant association between the perceived efficacy of a medicine and the preference for branded, generic, or both types of medicines. This suggests that the perceived efficacy does not significantly influence respondents' preference for the type of medicine they choose.

PROJECT JAANKARI

POLICY RECOMMENDATIONS

PROBLEM STATEMENT **Weak Supply Chain and Inventory Management**

Poor inventory management, unclear expiry return policies, and inconsistent supply timelines affect product availability and quality. This undermines operational efficiency and customer trust.

Sub-Problem 1: Diversified and Inefficient Supply Chain Infrastructure

The scheme's supply chain suffers from limited warehousing capacity, insufficient distributors, and inadequate last-mile delivery systems. Medicines often take longer to reach Kendras in hilly, remote, or underserved regions, creating inequities in access. Delays result in stockouts, empty shelves, and patients either traveling long distances or waiting several days for essential treatment. This uneven distribution weakens trust in the reliability of the scheme and undermines its mission of providing affordable medicines across geographies.

Sub-Problem 2: Inadequate Real-Time Inventory Visibility and Risk Management

The absence of an integrated digital inventory platform and robust risk management tools severely limits the ability to track, forecast, and manage supply flows. Without visibility into real-time data, it becomes difficult to identify medicines running low, detect products nearing expiry, or anticipate sudden surges in demand. This gap not only leads to delays in replenishment and wastage from expired stock but also leaves the system vulnerable to disruptions such as transport strikes, natural disasters, or supplier failures, directly putting patients at risk of not receiving critical medicines on time.

Sub-Problem 3: Poor Coordination Among Stakeholders

Communication and data sharing across the supply chain remain fragmented, with suppliers, distributors, Kendras, clinicians, and regulators operating in silos. The lack of integrated platforms and coordinated processes creates bottlenecks in order fulfilment, increases lead times, and reduces the system's agility to respond to supply chain shocks. In the absence of streamlined collaboration, accountability is diffused, delays go unaddressed, and overall service reliability suffers, leaving end-users to bear the brunt of inefficiencies.

SOLUTION AND SUGGESTION

The PMBJP scheme has transformed access to affordable medicines, but its promise is not fully realised because of gaps in how medicines are moved, stored, and delivered. Strengthening the supply chain is not just a technical challenge, it is about ensuring that no patient has to travel long distances, wait unnecessarily, or face a stockout when they need treatment most. This means building a system that is fast, reliable, transparent, and ready to adapt in times of crisis.

1. Integration of Digital Platforms

There is a strong need to create user-friendly e-platforms, such as E-Aushadhi, that allow customers to order medicines online with ease. For such a system to work smoothly, it must be supported by an efficient warehousing network. SAP (Systems, Applications and Data Processing), a widely used enterprise resource planning system, can help by managing inventory effectively, keeping stock levels balanced, connecting different business processes, and meeting demand without unnecessary cost increases.

A real-time inventory system should go beyond tracking stock; it should send automated alerts when medicines are close to expiry and enable reordering before shortages occur. With 78 percent of Jan Aushadhi Kendras already offering home delivery, the digital backbone for this transformation already exists and can be expanded so more people can benefit.

2. Infrastructure Expansion

A reliable, well-connected warehousing network is essential to bring medicines closer to the people who need them most. Increasing the number of distributors will help reach grassroots areas, including hilly and remote regions, and reduce the stress of last-minute deliveries. Smarter route planning can make sure that medicines arrive at Kendras and households faster, aiming for delivery within two days. At present, 21 percent of customers face moderate to significant travel just to access the nearest Kendra. Reducing this burden is not only about convenience, it is about making sure no one's treatment is delayed because the supply could not reach them in time.

3. Performance Metrics

Clear rules should be set for how fast medicines are sent and delivered. For example, warehouses should send out orders within 24 hours, and medicines should reach anywhere in the country within 48 hours. Special attention should be given to areas that need supplies urgently.

4. Supply Chain Risk Management Systems (SCRMs)

We need a system made for healthcare that can spot and handle problems in the supply chain before they cause delays. This means looking at the whole journey of the medicine, knowing which suppliers are most important or risky, and keeping track of them in different ways depending on their importance. The system should have live tracking dashboards, tools to predict demand, and clear agreements for emergency or express deliveries when there is a crisis.

5. IoT, Blockchain, and Data Analytics Integration

Investments should be made in digital infrastructure that uses IoT sensors for real-time asset tracking, blockchain for transparent and traceable supplier contracts, and predictive analytics for demand forecasting. This would support automated stock replenishment, real-time inventory monitoring, vendor-managed inventory models, and smart contracts to ensure compliance.

6. Imperative Multi-Stakeholder Cooperation

Structured, periodic forums should be institutionalised among suppliers, distributors, clinicians, regulatory bodies, and logistics partners to foster coordination. Data-sharing mechanisms should be implemented to synchronise inventory and order data across all tiers, minimising bottlenecks and enabling coordinated responses to demand fluctuations or supply chain disruptions.

FEASIBILITY

The aforementioned suggestions have been implemented in various schemes previously, and while such implementation can face certain roadblocks, a disciplined approach can make them truly transformative. We recommend adopting the suggestions in the following manner to ensure they are executed in the most feasible and effective way.

1. Convergence of Digital Platforms

Since 78 percent of Jan Aushadhi Kendras already have home delivery, integrating them on a single digital platform is within easy reach. Integrating existing systems using modules like SAP can enable one to view stock quantities in real time, get alerts when medicines are about to expire, and order them automatically. A centralised database would put warehouses, distributors, and Kendras all together on the same page, making the shifting of medicines smoother, quicker, and more transparent.

This would translate into fewer delays, fewer shortages, and an infinitely better experience for patients. The key costs would be in licensing, integration, and training, but by implementing it first in the most active states, these can be controlled prudently. To ensure rural residents get an equal advantage, the platform must be mobile-phone friendly and in local languages, so anyone, whether they are in the countryside or not, can order medicines confidently.

2. Infrastructure Expansion

With medicines requiring urgent supply, each hour is critical. An improved, better-connected network of warehouses can help get them to the people on schedule. By expanding on the infrastructure we currently possess and investing in additional regional warehouses and distributors, delivery to even the remotest regions can become quicker and more efficient. Through sophisticated route optimisation, drugs could be delivered to Kendras or homes in a matter of days at most. While this will take moderate to high investment to put in place, it will pay for itself by ensuring every rupee used is directly contributing to access for those who need it most.

3. Performance Metrics

Performance measurement needs to be more than just about numbers, it needs to be about ensuring people receive their medicines promptly and reliably. PMBJP already monitors orders and stock, so incorporating transparent targets such as "dispatch within 24 hours" is realistic and effective. Quarterly dashboards can be used to demonstrate where everything is going right and where it needs improving. Regular on-ground

verification can ensure the numbers catch up with reality so that patients experience the improvement in their day-to-day lives.

4. Supply Chain Risk Management Systems (SCRMs)

Healthcare-based SCRMs may make the system more resistant to disruptions. This can be through proper classification of suppliers according to priority or risk, stringent procedures for emergency procurement, and predictive analytics for anticipating any probable surge in seasonal demand. Costs would be moderate, but drills can be conducted very regularly and contingency stock maintained for any reason toward poor integration of data or lack of preparedness during emergencies.

5. Telemedicine Platforms Integration

Connecting teleconsultations to PMBJP outlets can enable physicians to prescribe stocked generics directly, with prescriptions dispatched for delivery. This would be low-to-moderate cost, primarily for digital integration and training. Automated stock updates and regular audits can ensure accurate stock records so patients are never prescribed something not on hand.

6. Cold Chain Infrastructure for Temperature-Sensitive Drugs

For drugs like biologics, vaccines, and specialty drugs, there has to be reliable cold storage. That involves putting in refrigeration units, adhering to stringent handling practices, and getting staff trained for quality maintenance. The investment is capital-intensive and requires planning to prevent risks through equipment malfunction or power supply disruptions. Having backup systems in place, collaborating with logistics companies, and phased roll out in high-priority cities can help ensure these life-saving drugs do not get compromised until they touch the patient's hands.

PROBLEM STATEMENT

Lack of Price Transparency and Billing Issues

Lack of proper billing allows room for price manipulation and reduces transparency. It also diminishes consumer trust and undermines scheme credibility.

Sub-Problem 1: Non-Standardised and Variable Pricing Information

Price, discount, and volume details are captured inconsistently across providers, with little uniformity in reporting. This variation makes it difficult for consumers to compare options or know the true cost of medicines, often leaving them dependent on verbal assurances rather than transparent data. The lack of standardisation also weakens oversight, allowing room for misinterpretation and reduced trust in the scheme's affordability promise.

Sub-Problem 2: Lack of Centralised, Accessible Billing Data

Billing and pricing records remain scattered across multiple points in the system, with no centralised, user-friendly repository. This fragmentation complicates verification, creates confusion for both patients and providers, and increases the risk of over-billing or duplicate charges. Without accessible billing data, monitoring compliance becomes difficult, and patients are left vulnerable to errors that compromise transparency.

Sub-Problem 3: Inadequate Enforcement and Digital Infrastructure

Pricing guidelines are weakly enforced, with violations often going unchecked or under-penalised. Many Kendras continue to rely on manual billing due to the absence of digital systems, leading to frequent errors, manipulation of records, and a lack of traceability in transactions. The combination of poor enforcement and limited digital infrastructure erodes accountability, making it difficult to detect irregularities or ensure consistent consumer protection.

SOLUTION AND SUGGESTION

Transparent billing and correct invoices are important to build trust and keep medicine delivery fair under the PMBJP scheme. If people cannot clearly see the costs, discounts, and transactions, they may get confused or even be overcharged. This goes against the scheme's goal of giving affordable access to medicines. To improve transparency, there should be standard reporting, easy access to data in one place, digital invoices, and strict enforcement to protect customers and honest sellers.

1. Transparency and Standardised Reporting

Mandate all the public and private institutions covered under the PMBJP scheme to employ a standard, machine-readable format for price, volume, and discount rate reporting. Standardised data schemes will facilitate the ease of comparison across providers and payers. Quarterly updates must be compulsory to ensure the data is updated. Moreover, releasing price as well as volume data allows consumers to evaluate value in relation to quality.

2. Centralised Price Transparency Portal and Data Validation

Create a publically available, centralised portal managed by an autonomous regulator. This portal will bring together all price and billing information, provide sophisticated comparison and filtering facilities for consumers, and should have data checking facilities to ensure that what is being presented is accurate, eliminate unused or confusing billing codes, and guard against manipulation. The Ayushman Bharat Digital Mission (ABDM) technology already exists for such an initiative and can be broadened to cover generics through the PMBJP.

3. Penalties and Compliance Eligibility

Use a step-by-step penalty system for breaking the rules. The more times a Kendra repeats the offense, the higher the fine and the stronger the action which could even include suspension or removal from the scheme. An open appeals process and publicly available records of violations will encourage Kendras to follow price rules.

4. Digitalised Billing Systems

Require all Kendras to use Point-of-Sale (POS) machines connected to the central ERP system. Every sale should be recorded digitally to prevent mistakes, stop overcharging, and make audits faster and more accurate. These devices must interface with the Public Financial Management System (PFMS) and Direct Benefit Transfer (DBT) platforms for transparent, traceable financial flows between Kendras, beneficiaries, and

government entities.

5. Public Price Disclosure

Share full price lists, discount details, and bulk-rate offers in an easy-to-read, computer-friendly format that anyone can access. The National Pharmaceutical Pricing Authority (NPPA), which already manages medicine price control, can work with the PMBJP to make these disclosures standard and keep them regularly updated.

FEASIBILITY

It is highly feasible to improve price transparency and billing practices under the PMBJP scheme. The system already has a strong base with existing regulators and digital tools. The National Pharmaceutical Pricing Authority (NPPA) is the main body that monitors and controls medicine prices in India. If its role is expanded to include standard, machine-readable reporting of prices, quantities, and discounts, the data will become more consistent and easier to compare. Using standard formats and requiring updates every quarter will give both customers and regulators up-to-date information they can rely on.

The Ayushman Bharat Digital Mission (ABDM) already has a strong digital system that can be used to create a central price transparency website. This site can collect billing and price data from all Kendras and suppliers, check the data for mistakes or fraud, and keep it accurate. Using Point-of-Sale (POS) machines linked to the central ERP system will also help. These machines can connect with the Public Financial Management System (PFMS) and Direct Benefit Transfer (DBT) portals so that money going to Kendras and beneficiaries can be clearly seen and tracked. This will reduce mistakes and prevent misuse.

While setting up the system, training staff, and dealing with low computer skills may be a challenge, these can be solved by rolling out the system in stages and using training programmes already funded by the government. Pilot projects in a few areas can help test and improve the system before it is used across the country. With strong government support and clear rules, this plan is realistic and sustainable. Over time, it will increase customer trust, stop overcharging, and make the PMBJP scheme more reliable.

PROBLEM STATEMENT

Lack of Price Transparency and Billing Issues

Lack of proper billing allows room for price manipulation and reduces transparency. It also diminishes consumer trust and undermines scheme credibility.

Sub-Problem 1: Limited Doctor Participation and Weak Policy Enforcement

Private practitioners remain hesitant to prescribe generics or refer patients to Jan Aushadhi Kendras (JAKs), primarily due to entrenched prescribing habits, concerns over drug efficacy, and the absence of financial or professional incentives. In addition, generic prescriptions lack strong endorsement from medical associations, further reinforcing reluctance among practitioners. On the public side, while government doctors are expected to promote generics, compliance is inconsistent because the mandate is advisory rather than binding, with minimal accountability or monitoring mechanisms. This weak enforcement framework leads to poor alignment between the policy intent and actual practice, undermining efforts to increase generic medicine penetration.

Sub-Problem 2: Lack of Integration with Clinics, Technology, and Health Programmes

The PMBJP network operates in isolation, with little to no integration with private clinics or nursing homes, which are major points of patient interaction. Consequently, opportunities to influence prescribing behavior and patient choices remain underutilised. The digital infrastructure, such as the Sugam app, is also underdeveloped it lacks prescriber-oriented tools like electronic prescription support, drug comparison features, and real-time availability tracking, which could encourage adoption among doctors. Moreover, PMBJP promotion has not been systematically embedded into flagship public health initiatives like Ayushman Bharat, Urban Primary Health Centres (UPHCs), or state-run health campaigns, resulting in missed opportunities to build trust and awareness at key healthcare touchpoints. This siloed approach limits the programme's reach and fails to leverage existing healthcare infrastructure for scale.

SOLUTION AND SUGGESTION

Private Doctors refrain from referring patients to JAKs, and do not promote generic medicines. The latter problem could exist due to trust issues or a lack of incentives. This, combined with low awareness about generics among older patients, breaks the supply-demand linkage in the healthcare ecosystem.

Factor analysis reveals a weak integration with the healthcare ecosystem, since people and patients are more likely to use JAKs and perceive them as significant only if referred to by a doctor. Correlation analysis and the Chi-Square test help us understand the existence of a correlation between the type of doctor (private or government), and an understanding of branded and generic medicines. Patients consulting a private doctor often tend to understand branded and generic medicines better, but doctors are often gatekeepers and do not feel the need to make their patients aware of such differences and only stick to treatment.

As predicted, cluster analyses reveal that clusters of the elderly or lower-literate persons often have poor trust or no awareness due to their lack of ecosystem endorsement or personal guidance. Lack of trust also poses a challenge, since high trust in generics is greatly linked to recommending JAKs. Qualitative insights hint at the fact that understanding need not always come with awareness, since a good number of persons surveyed who value quality in a medicine may not be aware of what generics are.

Doctor-Centric Vertical

The PMBJP scheme currently focuses on Kendras and stock, and not the prescribers of the same. There is a need to develop a mechanism or a vertical for doctor engagement under the scheme. We could look at an integration of a digital prescribing platform to show generic equivalents available at JAKs when doctors prescribe branded drugs to patients. A recognition system could be adopted with the help of NABH, a constituent board of the Quality Council of India, responsible for establishing and operating accreditation programmes for healthcare organisations in India. By institutionalising credibility and visibility, doctors feel safer and more rewarded for shifting.

Mandatory Generic Prescription in Govt Hospitals

The government could leverage its healthcare ecosystem as a role model for best practices by enforcing the prescription of generic medicines only in all public health institutions and government hospitals. E-prescription audits could be maintained to track compliance. Fresh practitioners of

medicine could be role models as youth, by making it mandatory for them to undergo a prescription training under the PMBJP scheme before being assigned to public duty. The aforementioned changes would help build a consistent culture of generic-first prescriptions and create a publicly visible norm.

Private Clinics as PMBJP Prescribers

The reach of the PMBJP scheme and JAKs under the same could be further expanded by formally onboarding private clinics as affiliated providers. A Partner Clinic Programme could be adopted under the scheme, wherein partner clinics, particularly private ones, would receive Information, Education, and Communication (IEC) kits, prescription pads with generic names, and optional digital stock checking tools. It shall be mandatory to publicly inform about the partnership via display boards stating "We Support PMBJP Affordable Medicines.". State authorities could be reached out to for a better and smoother implementation of the partnership.

Doctor-Focused Digital Toolkit

Digital toolkits could be provided to doctors for easy lookup of available generics and easier prescription of the same, accessing supply chains, and educating patients. The Jan Aushadhi Sugam app could be updated with a "Doctor Mode", which all doctors could enable to look at the real-time availability of generics at nearby JAKs and allow the generation of e-prescriptions in generic names of drugs. This helps streamline prescriptions along with better awareness and education in one interface, making generic-first prescribing practical and quick. The implementation of the same via the mobile app could be done following a pilot run for a better analysis.

Integration with other Government Schemes and Projects

As highlighted in the previous section's AWARE framework, awareness on generic medicines and Jan Aushadhi Kendras (JAKs) can be built into ASHA worker training and patient counselling by government doctors under Ayushman Bharat HWCs, UPHCs, and NPCDCS. Given that over 60% of JAK footfall involves chronic medicines like Metformin, Telmisartan, Amlodipine, Atorvastatin, and Glimepiride which are available at much lower prices at JAK linking PMBJP promotion with these existing programmes can boost adherence, expand outreach without major additional costs, and maximise the public health impact of affordable generics.

FEASIBILITY

The Jan Aushadhi Sugam app provides essential features to its users. These include the option to search for generic medicines by name or composition, compare prices with branded alternatives, and locate nearby JAKs via GPS. Additionally, you can also check the real-time availability of medicines at JAKs, while options like marking favourites, sharing medicine information, and basic FAQs are also available.

However, there is no dedicated "Doctor Mode" that caters to the side of the prescribers of the medicines. E-prescription generation, integrated stock and prescribing interface, and digital linkage to private clinics are also unavailable. The PMBJP scheme has largely focused on opening new kendras, ensuring the supply chain of generic medicines, spreading awareness, and maintaining price parity. The scheme also does not mandate any technology usage for prescriptions, which poses one of the major challenges for it.

Feasibility for the Doctor-Centric Vertical

The PMBJP scheme currently focuses on the distribution of medicines at affordable rates to the masses, emphasising stock, logistics and expansion of the Jan Aushadhi Kendras. However, it does not focus on the prescribers of the medicines, since no incentive-driven framework exists under the scheme to integrate medical practitioners in the promotion of brands of generic medicine.

There exists a need to develop a formal vertical under the scheme, engaging doctors, especially those practising in the private sector. This can be done through both education and linkage to supply chains, prescribing tools, and recognition mechanisms. Integration with digital prescribing platforms could be done, while hospital EMRs could auto-suggest generics stocked at nearby Kendras. A recognition framework could also be developed, through NABH or the QCI, that rewards doctors or institutions who meet high generic prescription rates. The policy could be updated to align with NABH standards to promote "Generic-Friendly Hospitals" and encourage institutional recognition programmes under MoHFW, tied to prescription audits.

Feasibility of Mandatory Generic Prescription

While the Medical Council of India mandates doctors to prescribe generic medicines as far as possible, the same is not enforceable in government hospitals. There is also no e-prescription tracking or audit mechanism that exists to measure compliance. There is a need to develop mandatory generic-only prescriptions

in all public health institutions, unless in critical cases. Digital e-prescription audits can be maintained through a hospital Management Information System (MIS) or even via integration with the app backend. This would build upon existing norms and shift from advisory to enforceable, while aligning with the goals of the National Digital Health Mission (NDHM) of e-health records and prescription digitisation. Model zones could be developed with select district hospitals, and a pilot run could be initiated.

Feasibility for the Private Clinics as PMBJP Prescribers

Currently, the PMBJP scheme remains absent from private clinics, where a pivotal volume of outpatient treatment and prescriptions occurs. There is also no formal mechanism to onboard these private prescribers that align with the scheme. It is essential that we launch a "Partner Clinic Programme" under the scheme. The affiliated private clinics could receive Information, Education and Communication (IEC) kit, prescription pads pre-filled with generic formats, and access an optional digital dashboard so as to check or access reference material.

The same could work effectively in Tier 2 and 3 cities, in coordination with the state health department, where these clinics serve as the primary access point for care. We could also position it as a voluntary public-private collaboration.

Feasibility for the Doctor-Focused Digital Toolkit

The Jan Aushadhi Sugam app is currently consumer-oriented and lacks prescriber functionality, which serves as an essential component to build trust among the masses. Doctors do not have the option to know the real-time availability of generics at JAKs, prescribe directly in generic names of drugs, and educate patients about the same to create awareness. A "Doctor Mode" could be introduced in the Jan Aushadhi Sugam app, which shall include names of drugs and an option to search for availability of the same, generic substitution suggestions for branded drugs, a one-tap e-prescription generation, and the ability to send digital prescriptions via WhatsApp/ SMS to patients. This could be done by building a simple User Interface (UI).

Feasibility for Integration with other government projects

Integration is highly feasible as it builds on existing government health delivery channels without requiring new infrastructure. ASHA workers already conduct community outreach, and doctors under Ayushman Bharat HWCs, UPHCs, and NPCDCS routinely counsel patients with chronic conditions. Adding PMBJP and JAK awareness to these interactions requires minimal training updates and communication materials, while leveraging the high trust and reach of these personnel ensures cost-effective, scalable implementation.

PROBLEM STATEMENT **Low Public Awareness and Outreach Gaps - Public awareness is limited**

Particularly among the elderly, rural populations, and digitally excluded. Outreach campaigns are not effectively targeted, leading to uneven zonal engagement and physical accessibility issues. Proximity is not the only issue but informational reach is also equally lacking.

Sub-Problem 1: Demographic and Geographic Disparities in Awareness

The most intuitive attribution to low public awareness is often lack of physical proximity. However, rank correlation shows no significant relationship between distance from Kendras and awareness (sig. > 0.05), proving that gaps persist regardless of location. This points to a structural outreach failure rather than geographical access. Awareness is uneven across groups: older adults, youth, informal workers, and residents in areas like South Delhi show the lowest awareness and trust. Only 24% of unemployed respondents and 28% of those above 60 reported full awareness of JAK. Factor analysis further reveals age and occupation as key determinants, with Factor 6 showing negative occupation loading (-0.786) and positive age loading (0.647), indicating systematically lower engagement among older groups and less-connected occupations.

At the root of the problem lies a mismatch between target audiences and information dissemination. PMBI's outreach remains broad and generalised, overlooking the stakeholder-specific communication needed to engage fragmented groups. Without tailored strategies, awareness gaps are unlikely to close, and the scheme risks remaining inaccessible to those who need it most.

Sub-Problem 2: The Digital Divide and Low Penetration Rate

The Jan Aushadhi Sugam app was launched to support digital access and price transparency. This was in addition to the traditional and community-based awareness mechanisms, like posters, clinics and health workers, but it fails to compensate for the limitations of the latter. The app faces a low penetration rate,
owing to both technical limitations and the prevailing digital divide from the consumer side. On parallel supply-side analyses, it also shows that operational inefficiencies in restocking and expired product handling further erode public trust and outreach gains.

SOLUTION AND SUGGESTION

Despite the widely appreciated and recognised policy design and government investment, the PMBJP scheme suffers from serious limitations in the aspect of public awareness and outreach. The scheme is considered transformational in achieving affordable medicine and the broader landscape of the healthcare industry; yet, systematic analysis reveals a critical bottleneck limiting scheme uptake and effectiveness.

On analysing the responses, it was observed that only about 36% of the general population is fully aware of JAKs, with a further 26% only partially aware, and a substantial 38% remaining completely unaware, even among groups most likely to benefit, such as older adults.

This can be attributed to multiple factors and affects diverse groups of beneficiaries. From the age group divide to the rural-urban divide, the gaps vary, pointing to an asymmetrical dissemination of information between various beneficiary groups. This represents a fundamental policy implementation challenge of a disconnect between physical proximity and functional awareness.

There is a need to implement a multi-layered outreach programme that not only leverages existing community infrastructure but also develops new channels for customer targeting. This will initiate the required shift from generalised information campaigns to more demographically calibrated communication strategies. The designed **AWARE framework** is an acronym that outlines strategic levers for impactful dissemination of information and equitable services. The model is a blueprint for policymakers and other stakeholders to fill the gaps identified in the primary research, particularly the lack of awareness among older adults, unemployed individuals, and rural residents, independent of their physical proximity to JAKs.

A - Amplify Localised Communications

It is found that the functional awareness of respondents does not correlate meaningfully with geographic proximity to JAKs. This suggests that despite physical accessibility and proximity, communication efforts have failed to penetrate local communities. Therefore, a systematic shift towards locally contextualised messaging is critical.

In order to accommodate the cultural sensitivities and information channels of the target rural, urban, peri-urban, or tribal communities, communications should be in vernacular languages. This can be put into practice by working

with Accredited Social Health Activists (ASHA), local NGOs, and Panchayati Raj Institutions to develop street-level campaigns that highlight the practical advantages and success stories of generic medications. In addition, community radio programmes, street theatre, and visual displays in public areas will all contribute to increasing awareness among young people and older folks.

Although print campaigns on bus stops, railway stations, and panchayat buildings are already in place, our analysis finds that some clusters require such campaigns more than others. This will help in achieving equitable delivery of information. Messaging should avoid medical jargon and instead focus on what appeals to the stakeholders, i.e., points like affordability, accessibility, and safety. This will not only increase awareness but counter myths about generic medicines.

W - Workforce-Driven Interface Expansion

A recurring thread across the data is that those most likely to benefit from the scheme, older adults and the unemployed, remain the least aware of its existence. This is despite frequent interaction with public service channels, suggesting a failure not of infrastructure, but of interface. Interpersonal trust-building and targeted social mobilisation have been underleveraged as policy tools.

This calls for a new cadre of JAK Fellows: trained community-facing liaisons embedded within local ecosystems. These fellows would operate at the intersection of healthcare outreach and behavioural advocacy, tasked with creating awareness through high-contact, low-tech formats like door-to-door visits, public kiosks at PHCs, or workshops in spaces like old-age homes and rural employment offices. Their mandate would not be generic health promotion but sharply targeted communication around PMBJP, adapted for specific demographics and delivered in proximity to daily life.

The integration of this workforce does not necessitate the creation of parallel systems. Public health outreach under the National Health Mission already runs through decentralised health infrastructure; a light-touch curriculum on Jan Aushadhi can be incorporated into existing ASHA and ANM training. Simultaneously, Ayushman Bharat Health and Wellness Centres can institutionalise regular outreach slots dedicated to awareness on low-cost generic drugs. For unemployed populations, information modules can be appended to ongoing employment interventions such as MGNREGA job cards, urban livelihood missions, or vocational skilling centres. What this unlocks is a shift from static IEC to a socially embedded interface that creates not just informational uptake, but institutional proximity.

A - Anchor JAKs within Institutional Ecosystems

The scheme's current visibility architecture relies too heavily on the citizens' independent initiative to locate and engage with Jan Aushadhi Kendras. This presumes both access and motivation, neither of which holds consistently in lower-income or semi-literate populations. To shift the burden of discovery away from the beneficiary, JAKs must be embedded, physically where possible, functionally where not, into institutions that already enjoy routine footfall.

This starts with health infrastructure. Government prescriptions must default to listing Jan Aushadhi equivalents alongside branded names, accompanied by verbal explanations from doctors or pharmacists. In facilities where physical colocation of a JAK is not viable, referral mechanisms and informational signage should make its presence self-evident. Public dispensaries, CHCs, and PHCs must be treated as allied touchpoints of the scheme, not separate domains.
Beyond health, there is a clear opportunity to embed awareness across educational institutions, state-run enterprises, and public distribution outlets.

Kendriya Vidyalayas and ITIs can incorporate Jan Aushadhi orientation weeks; NSS and NCC camps can conduct generic medicine literacy drives. Ministries such as Labour and Education should be mobilised to treat PMBJP as a multi-sectoral public good rather than a siloed health initiative.The implication is simple: a citizen should not need to seek the scheme, but should emerge organically within their everyday state interactions.

R - Reinforce Scheme Identity and Public Trust

One of the quieter but more telling findings from the field was the sheer number of respondents who reported never having heard of Jan Aushadhi, despite living near a Kendra. This signals not just low visibility, but a deeper issue of fragmented scheme identity. Unlike flagship programmes like Ayushman Bharat or Ujjwala Yojana, PMBJP has yet to achieve any coherent visual, linguistic, or associative imprint in the public mind. This must be corrected through a consistent, recognisable branding architecture. JAK storefronts should carry uniform design language, signage, and certified quality seals that reinforce legitimacy. Medicine packaging must embed PMBJP logos and a state-verified seal of affordability and safety. These artefacts create cognitive cues that build public recall over time.

But identity is not constructed through signage alone. Endorsements from local doctors, recovered patients, or respected community figures can infuse the scheme with narrative credibility. Public testimonies that normalise the use of generic drugs, especially when disseminated through trusted community channels, have the potential to counter deep-seated perceptions around quality. To institutionalise transparency and

public trust, the scheme should also release a quarterly or semi - annual "public report card" with granular data on savings, medicine uptake, and stock availability. This report must not stay buried on bureaucratic websites; it should be actively disseminated at the point of contact, through WhatsApp forwards, posters, and visual dashboards at Kendras.

E - Enable Digital Access and Integration

For all its affordability, PMBJP is not digitally visible. In an ecosystem where most urban and semi-urban consumers now turn to mobile searches for even basic health information, the absence of a digital interface severely constrains outreach potential. Especially among younger, digitally literate populations, awareness is unlikely to be unlocked via traditional means.

The scheme requires a dedicated, low-bandwidth mobile application which is vernacular-enabled, GPS-integrated, and equipped to search for nearby Kendras, check medicine availability, compare prices, and answer FAQs through a conversational interface. This is not a technological luxury but an access imperative, particularly for low-income patients navigating multiple prescriptions with limited budgets.

However, digital cannot be treated as a silver bullet. Many older adults, caregivers, or low-literacy users will still require assisted access. Therefore, every Kendra must be equipped with a "digital helpdesk," with a staff member or trained fellow who assists walk-ins in using the app or checking stocks online. These employees may not be employed additionally, but existing employees could be trained and be nudged to promote the app. To incentivise the store could have monthly targets for the number of people that log in to the app via these helpdesks. These hybrid models of digital inclusion can ensure that digital expansion does not unintentionally replicate existing access inequalities.

Parallelly, digital campaigns must be run on high-penetration platforms like YouTube, WhatsApp, Instagram, in formats already native to the user. Explainer videos, audio testimonials, and short reels about drug equivalency or cost savings can serve to convert passive viewers into informed beneficiaries.

FEASIBILITY

The transition from a fragmented to a systematic outreach model is not a question of possibility, but of political and administrative will. On nearly all fronts, be it financial, institutional, or operational, the recommendations outlined fall within the realm of executable design. Institutionally, the model leans heavily on existing platforms: ASHAs, Ayushman Bharat centres, PHCs, NSS camps, and skilling institutions. No new bureaucracy is proposed, only a repurposing of existing capacities with a lean and sharply-focused mandate. This makes roll-out less a matter of structural overhaul and more about inter-ministerial alignment.

Financially, the costs are front-loaded but far from prohibitive. Pilot-based models can begin in low-awareness districts using pooled CSR funds, state innovation funds, or development grants already tagged to health systems strengthening. Over time, the savings generated for households via lower out-of-pocket expenditure can far exceed the programme's administrative cost. From a political economy standpoint, the recommendations are aligned with India's policy posture on Universal Health Coverage and digital public goods. They also present no direct threat to entrenched interests, pharmaceutical or otherwise, as the focus is on visibility and uptake, not regulation of private suppliers.

Risks remain. The most serious include overburdening frontline workers, resistance from prescribers habituated to branded medicines, and the possibility of a fractured digital roll-out. These are not trivial challenges, but nor are they unfamiliar. Each has been confronted and partially solved in analogous programmes like Ujjwala, PMMVY, or Ayushman Bharat.

What is required, then, is not to reinvent the wheel but to consolidate it into a coherent, adaptive, and citizen-facing outreach system. The AWARE framework offers exactly that: a multi-channel blueprint to ensure that awareness is not treated as a passive by-product of scheme existence, but as an outcome engineered through deliberate, intelligent design.

PROBLEM STATEMENT

Uneven Implementation and Monitoring Across Zones

Implementation success is zone-dependent, with some areas under performing significantly due to poor local governance, monitoring, or accountability mechanisms. This contributes to inconsistent customer experiences and footfall.

Sub-Problem 1: Weak Monitoring

The scheme's implementation varies widely across zones and states, creating disparities in service quality and beneficiary experience. Fragmented and outdated data systems prevent real-time tracking of stock, sales, and access, limiting visibility into operations. Without a centralised monitoring mechanism, policymakers cannot identify bottlenecks, enforce accountability, or standardise processes, leading to uneven roll out and missed opportunities for corrective action.

Sub-Problem 2: Supply Chain Inefficiencies and Low Awareness Among Key Groups

Frequent stockouts, delayed replenishment, and poor expired-product handling erode trust in the scheme and discourage usage. Outreach strategies remain broad and generic, failing to engage critical groups such as older adults, low-literacy populations, and economically weaker households. The absence of tailored communication, local engagement, and culturally sensitive messaging deepens the awareness gap and limits uptake among those who need it most.

Sub-Problem 3: Limited Partnerships and Feedback Mechanisms

The scheme remains inward-facing and underutilises NGOs, private hospitals, community health workers, and CSR initiatives that could expand outreach and credibility. Weak external engagement reduces innovation and visibility at the grassroots level. In addition, the lack of robust feedback and grievance systems prevents beneficiaries from voicing concerns or shaping improvements, leaving issues like staff behaviour or accessibility unresolved and lowering efficiency and trust.

SOLUTION AND SUGGESTION

The uneven implementation of the PMBJP scheme across Delhi's administrative zones is not only the result of low awareness or logistical problems. It points to deeper issues in zonal governance, a lack of local accountability, and little direct engagement with the people who depend on public health services. Each zone operates almost like its own small health system. Without targeted reforms, some zones will continue to underperform year after year, while others may improve on their own. The way forward is to create a reform framework that is rooted in data, centred on people's needs, and aligned across all levels of government.

Establish Dedicated Zonal Governance and Performance Oversight

The first step should be to appoint Zonal Implementation Regulation Officers and set up a data-based Zonal Performance Management Framework. Survey results show that in some zones there is no effective field-level system to monitor the daily work of Kendras. In South Delhi and Central Delhi, more than 30% of respondents said they either found the Jan Aushadhi Kendra closed during official hours or were told certain medicines had been out of stock for over a week. In the same areas, 27% reported the pharmacist was absent during peak hours, compared to only 7% in North West Delhi.

These Officers would be the dedicated governance representatives for each zone under PMBI, with clear responsibility to oversee all Kendras in their area. This model is similar to District Programme Managers under the National Health Mission, who act as a link between field operations and state planning. Like them, the Officers would carry out monthly compliance checks, verify stock availability, monitor pharmacist presence with biometric attendance, and record service quality measures such as average waiting time and delays in billing.

They would also prepare a Zone Performance Scorecard that includes:

- Daily footfall
- Stock availability
- Repeat visitor rate
- Staff presence and conduct

Average time taken to resolve complaints Thresholds should be set for each measure. If a zone stays below the threshold for two or three checks in a row, it would be placed in a special monitoring category. This would mean more frequent audits, holding back incentive increases, and providing extra technical help from central PMBI teams. The Aspirational Districts Programme by NITI Aayog provides a useful example.

It ranks districts on multiple health, education, and infrastructure measures, with the highest performers getting extra support and recognition. Applied to city zones, this approach can encourage healthy competition and targeted assistance.

This change would make Kendras more consistent in their service, reduce stock shortages, and improve staff attendance. With stronger oversight and clear accountability, trust in the Kendras would grow, leading to more repeat visits and steadier income. PMBI could also reward high-performing zones with faster support, making them models for others to follow.

Design and Deploy Hyperlocal Awareness and Trust Campaigns

Zones that perform poorly often have low awareness and trust among the public. Survey findings show a clear link between awareness and usage. In North West Delhi, where 78% of people knew about PMBJP, Kendras saw over 160 visitors per day on average, with repeat visits above 70%. In New Delhi, awareness was just 33.1% and repeat visits below 50%, even though the Kendras are not far from each other. Among older people aged 60 and above, awareness was only 37.2%, with even lower figures in Central and South Delhi. For women in these zones, awareness was below 40%, even though they often make the main healthcare decisions in households.

To change this, Zonal IEC (Information, Education, Communication) Cells should be created under the Zonal Officers. These teams would work with ASHA workers, mohalla clinics, NGOs, and Residents' Welfare Associations to run highly localised campaigns. Doctors should also be part of this effort. Right now, 82% of survey respondents said they had never been referred to a Kendra by their doctor. As mentioned in previous sections, for government doctors in Ayushman Bharat centres, UPHCs, and NPCDCS, referring patients to PMBJP should be made a key performance measure. This matters because over 60% of visits to Kendras are for long-term medicines like Metformin, Telmisartan, Amlodipine, Atorvastatin, and Glimepiride.

Public involvement can be built through regular gatherings where pharmacists, zonal officers, health workers, and residents come together for free check-ups, resolving medical concerns, and spreading information about Kendras and generic medicines. These events could be organised along with local health camps run by private hospitals, helping them meet their CSR obligations. Many hospitals already hold free camps in underserved areas. Working with Kendras would let them offer patients affordable long-term treatment, keeping them from dropping out due to high medicine costs. This would also help hospitals build a positive public image and show they are committed to community health. For PMBJP, it means more visibility, more credibility, and stronger connections to

the wider healthcare system.

This approach would bring in people who currently do not visit Kendras, especially the elderly and women, increase prescription referrals, and build lasting trust. Partnerships with private hospitals would further boost the visibility of Kendras and help move the system towards affordable care for everyone.

Restructure Incentive System with Performance-Linked Metrics

Right now, Jan Aushadhi Kendras get a flat monthly incentive of ₹20,000 if they meet basic stocking requirements. This does not take into account service quality, trust, or responsiveness. As a result, Kendras that do poorly get the same payment as those that work well.

Our analysis shows that satisfaction and repeat visits are most strongly linked to factors like trust in the medicines, affordability, and willingness to recommend the Kendra. These are not currently rewarded. A better approach would be to keep a base of ₹15,000 per month and add performance bonuses of up to ₹10,000 for:

- Pharmacist attendance
- Range of stock available
- Rate of repeat visits

This kind of results-based model has worked in other programmes, such as Kayakalp, which rewards public facilities for cleanliness, friendliness, and community feedback. Zonal Performance Leaderboards could be published every quarter, with the top zones getting extra pooled funds for staff training and outreach, similar to how "Paani Samitis" work under the Jal Jeevan Mission.

This change would encourage Kendras to focus on better service, customer loyalty, and patient satisfaction. It would create fair competition and transparency, allowing PMBI to identify and expand successful models without increasing the total budget.

FEASIBILITY

Feasibility of Dedicated Zonal Governance

Creating Zonal Implementation Regulation Officers is both realistic and practical. The idea is based on working models like the District Programme Managers under NHM and the Aspirational Districts Programme, which have shown that decentralised monitoring improves services. The system would usew measurable indicators such as footfall, stock availability, and staff presence, which can already be tracked using PMBJP software. While hiring and training officers would take some effort and funding, these would be outweighed by gains in accountability and service quality. The "special monitoring category" adds a fair and non-punitive way to address under performance. This makes the proposal well-grounded and in line with proven public health practices.

Feasibility of Hyperlocal Awareness Campaigns

The plan for hyperlocal IEC campaigns is very achievable because it uses networks and infrastructure that already exist. By working with ASHA workers, local clinics, RWAs, and NGOs, the programme avoids the weakness of one-size-fits-all messaging and instead uses trusted local figures to connect with the public. The data supports this approach: awareness is as low as 33.1% in some zones, especially among older people and women. Including PMBJP referrals in doctor performance measures is easy to do and would make generic prescriptions a standard part of care. Working with private hospitals might take some coordination, but CSR benefits such as publicity and patient retention make it an attractive partnership. The use of health camps and community gatherings strengthens local engagement. Since it needs little new infrastructure, this is a low-cost and low-risk reform with strong potential returns.

Feasibility of a Restructured Incentive System

The proposed incentive structure, combining a fixed base with performance-linked bonuses, is practical and motivating. It addresses gaps in the current system where service quality and customer trust are not rewarded. Initiatives such as Kayakalp and Paani Samitis show that incentives tied to qualitative performance can be effective. Since Kendra systems already track sales, stock, and attendance, no additional reporting is required. Although transparency and manipulation risks remain, public leaderboards, peer comparisons, and shared rewards can help addressv them. As the model reallocates existing funds rather than increasing expenditure, it is financially sustainable and suitable for national rollout.

PROBLEM STATEMENT Quality and Packaging Concerns

Though satisfaction is generally high, there are recurring concerns around packaging quality, especially from elderly users. Poor packaging can reduce usage compliance, especially for medicines that require precision handling.

Sub-Problem 1: Packaging Accessibility and Usability

Current packaging designs are often difficult to open, particularly for elderly users, differently abled individuals, and those with limited dexterity. This creates barriers to safe and timely medicine consumption, lowering adherence to prescribed dosages and treatment plans. Poor usability also generates frustration, increases dependency on others for assistance, and can discourage consistent use of generic medicines under the scheme.

Sub-Problem 2: Inconsistent Packaging Quality and Durability

Variations in packaging material, print quality, and overall durability result in damage during shipping, handling, or storage. Torn strips, faded labels, or broken seals not only compromise the integrity and safety of the medicines but also erode consumer confidence in the reliability of the scheme. Such inconsistencies also raise risks of misidentification or misuse, especially for patients who rely on packaging clarity to distinguish between multiple prescriptions.

Sub-Problem 3: Insufficiency of Organised Feedback and Quick Response Mechanisms

At present, there is no structured process to systematically gather, analyse, and act upon packaging-related issues reported by Kendras or end-users. As a result, common faults such as label smudging, poor sealing, or difficult-to-open packs often persist across batches without timely rectification. The absence of rapid response channels delays problem resolution, diminishes trust in service quality, and prevents the scheme from adapting packaging standards in line with user needs.

SOLUTION AND SUGGESTION

The PMBJP scheme makes sure medicines are safe and of good quality, but customers and Kendras have shared concerns about the packaging. They feel it could be easier to use, stronger, and more consistent. People said packaging is the least important reason they choose a pharmacy, but it can still be improved. To fix this, there should be stricter quality checks, better rules, and packaging that is simple, clear, and user-friendly.

1. Adherence to International Standards and Compliance Procedures

Everyone involved in the packaging process must comply with ISO 13485 or similar international quality management standards. This must be supported through third-party certification, periodic audits, and continuous improvement processes. Procurement is restricted to WHO-GMP certified vendors, and each batch must be tested by NABL-accredited laboratories prior to dispatch. PMBI must periodically inspect warehouses and Kendras to keep end-to-end compliance in check.

2. Material Innovation and Compatibility Testing

Collaborations between public-private R&D can bring in innovative, patient-oriented packaging solutions like smart blister packs with monitoring of adherence, anti-tamper properties, and sustainable materials. Rigorous compatibility testing has to be conducted on all the packaging in order to maintain pharmaceutical integrity and usability, taking elderly and differently-abled users into consideration. Testing should encompass barrier and functional properties, extractables and leachables analysis, and mechanical strength.

3. Pharmacopeial and Regulatory Harmonisation

Packaging materials and processes should be compliant not just with national standards but also with international pharmacopeial standards like USP and EP levels. It guarantees homogeneity, safety, and compatibility across markets. Compliance needs to be evidenced through transparent testing reports, with clear traceability for every batch.

4. Feedback Loops

Packaging must be simpler to open, tamper-proof, and well-labelled for enhanced user experience. An organised feedback system should be put in place to record repetitive packaging or quality complaints made by Kendras and end-users to facilitate swift remedial action.

FEASIBILITY

The planned improvements in quality and packaging are possible with the systems PMBJP already has. The Pradhan Mantri Bhartiya Janaushadhi Pariyojana Implementation (PMBI) already checks and certifies medicine quality. This strong base can be used to also check packaging, with help from third-party audits and regular inspections.

Regulatory bodies like the National Pharmaceutical Pricing Authority (NPPA) and the Central Drugs Standard Control Organisation (CDSCO) can make sure packaging rules match international standards such as ISO 13485 and medicine quality guidelines like USP and EP. This will help keep medicines safe and consistent.The Ayushman Bharat Digital Mission (ABDM) makes this easier by providing a ready digital platform that can be adapted to collect organised feedback from Kendras and users. This will help find and fix packaging problems more quickly.

Additionally, the government's focus on 'Atmanirbhar Bharat' also favors public-private partnerships that can spur innovation and uptake of sophisticated, patient-centric packaging materials, including smart blister packs and green ones, without exacting huge financial costs on the scheme. At first, there may be some challenges like training needs and slightly higher costs. But doing it step by step, along with training linked to ABDM's digital health plans and other health programmes, will make it easier to start. Pilot projects in select Kendras can test the changes, refine the process, and show the benefits. Once successful, these can be expanded nationwide, making sure that improvements in medicine quality and packaging do not affect how easily or affordably people can get them.

CONCLUSION

The findings of this study highlight that Jan Aushadhi Kendras (JAKs) have emerged as an important initiative in improving access to affordable medicines for the population of Delhi. Most customers who use JAKs express high satisfaction with the affordability and quality of medicines, which demonstrates that the scheme has successfully addressed one of the key barriers to healthcare, which is cost. Many respondents indicated significant savings compared to branded alternatives, confirming that PMBJP can play a critical role in reducing out-of-pocket medical expenses for households.

However, the analysis also reveals several areas that need urgent attention for the scheme to achieve its full potential. Awareness about JAKs remains limited, particularly among older individuals and vulnerable communities, who are the primary beneficiaries of low-cost medicines. Nearly four out of ten respondents were unaware of the existence of JAKs, and among those aware, many lacked complete information about product availability or benefits. Additionally, the absence of strong referral support from doctors, both public and private, is a major bottleneck. The overwhelming majority of doctors surveyed do not refer patients to JAKs, which reduces the credibility and adoption of generics.

On the operational side, the supply chain shows gaps such as irregular stock replenishment, delays in delivery, and lack of clarity on policies like expiry settlements. These issues directly affect service efficiency and customer trust. While most Kendras operate with basic infrastructure, many lack digital tools for inventory management, e-prescriptions, and billing integration, which are essential for a modern healthcare delivery system.

Despite these shortcomings, the demand for expansion is strong. A large share of respondents expressed the need for more Kendras in their localities, indicating the programme's acceptance and potential to scale further. To build on this momentum, several strategic steps are required. Awareness campaigns must be strengthened through targeted approaches that make use of local health workers, community groups, and senior citizen networks.

Doctors must be engaged through proper incentives and awareness drives so that they prescribe generic medicines and refer patients to JAKs. The supply chain must be improved with real-time

inventory monitoring and faster stock replenishment systems to avoid delays. Digital integration should be expanded by enhancing tools like the Sugam app with features for e-prescriptions, price comparison, and availability tracking. In addition, the number of Kendras and home delivery options should be increased, especially in underserved zones, so that elderly and disabled patients can easily access affordable medicines.

If these recommendations are implemented effectively, PMBJP can become a cornerstone of affordable healthcare in India. It has the capacity not only to reduce medical expenses but also to build a stronger culture of trust in generic medicines. By focusing on awareness, integration, and operational improvements, the programme can significantly strengthen its impact and move closer to achieving the goal of universal access to affordable, quality medicines.

· Project Jaankari ·

· PMBJP Scheme ·

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