

# **DISSERTATION TRAINING**

## **A REPORT ON**

**To assess the level of awareness, accessibility, and utilization of health and nutrition services related to child malnutrition among caregivers of children under five years of age in selected low-income urban areas of Delhi.**

By

**JAI SINGH**

**PG/23/040**

Under the guidance of

**Dr. Sumant Swain**

Post Graduate Diploma in Hospital and Health Management  
2023-2025



**International Institute of Health Management Research**  
**New Delhi**

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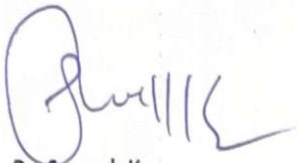


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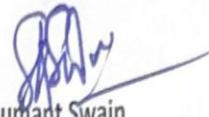
TO WHOMSOEVER IT MAY CONCERN

This certificate is awarded to **Mr. Jai Singh** student of **PGDM (Hospital and Health Management)** from International Institute of Health Management Research, New Delhi has undergone internship training at IIHMR Delhi from 15/03/2025 to 13/06/2025. The candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfilment of the course requirements. I wish him all success in all his future endeavors.



Dr. Sumesh Kumar  
Associate Dean, Academic and Student Affairs  
IIHMR, New Delhi



Dr. Sumant Swain  
Mentor  
IIHMR, New Delhi

### Certificate of Approval

The following dissertation titled **A Study on the Impact of Health and Nutrition Initiatives in Addressing Child Malnutrition in Delhi** at **IIHMR Delhi** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

Dr. Shiv Kumar

Vinay

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Signature

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**Certificate from Dissertation Advisory Committee**

This is to certify that **Mr. Jai Singh**, a graduate student of the PGDM (Hospital & Health Management) has worked under our guidance and supervision. He is submitting this dissertation titled "**To assess the level of awareness, accessibility, and utilization of health and nutrition services related to child malnutrition among caregivers of children under five years of age in selected low-income urban areas of Delhi at IIHMR Delhi**" in partial fulfillment of the requirements for the award of the PGDM (Hospital & Health Management).

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.



**Mentor- Dr. Sumant Swain**

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CERTIFICATE BY SCHOLAR

This to certify that the dissertation titled **“To assess the level of awareness, accessibility, and utilization of health and nutrition services related to child malnutrition among caregivers of children under five years of age in selected low-income urban areas of Delhi ”** and submitted by **Jai Singh** enrolment no. PG/23/040 under the supervision of **Dr. Sumant Swain** for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from 2023-2025 embodies my original work and has not formed the basis for award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

  
Jai Singh

## FEEDBACK FORM

Name of the Student: Jai Singh

Name of the Organisation in Which Dissertation Has Been Completed: IITM, Delhi

Area of Dissertation: Public health with special focus on child malnutrition in urban Delhi.

Attendance: Perfect adherence to internship norms.

Objectives achieved: Learnt literature review, evidence table generation, reference management, tool development, data management, qualitative data & Primary research.

Deliverables: Conducted field survey from the prepared research tool, data management & analysis was done through excel & completed the ~~qualitative~~ primary research work.

Strengths:

- Management of data & project.
- Community engagement.

Suggestions for Improvement: Programmatic knowledge, Stakeholder management & communication.

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

Date: 18 July 2025

Place: Delhi

Dissertation Writing

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)





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CERTIFICATE ON PLAGIARISM CHECK

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Jai Singh  
PG/23/040

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### Acronyms/ Abbreviations

| Acronyms      | Full Form                                                                      |
|---------------|--------------------------------------------------------------------------------|
| <b>ANC</b>    | Antenatal Care                                                                 |
| <b>ANM</b>    | Auxiliary Nurse Midwife                                                        |
| <b>ASHA</b>   | Accredited Social Health Activist                                              |
| <b>AWW</b>    | Anganwadi Worker                                                               |
| <b>BCC</b>    | Behavior Change Communication                                                  |
| <b>BMI</b>    | Body Mass Index                                                                |
| <b>CAS</b>    | Common Application Software (used in ICDS-CAS)                                 |
| <b>CHC</b>    | Community Health Centre                                                        |
| <b>DALY</b>   | Disability Adjusted Life Years                                                 |
| <b>ECCE</b>   | Early Childhood Care and Education                                             |
| <b>FGD</b>    | Focus Group Discussion                                                         |
| <b>GMP</b>    | Growth Monitoring and Promotion                                                |
| <b>UHND</b>   | Urban Health and Nutrition Day                                                 |
| <b>HB</b>     | Hemoglobin                                                                     |
| <b>IFA</b>    | Iron and Folic Acid                                                            |
| <b>ICDS</b>   | Integrated Child Development Services                                          |
| <b>IDCF</b>   | Intensified Diarrhea Control Fortnight                                         |
| <b>IYCF</b>   | Infant and Young Child Feeding                                                 |
| <b>MTP</b>    | Medical Termination of Pregnancy                                               |
| <b>NFHS</b>   | National Family Health Survey                                                  |
| <b>NGO</b>    | Non-Governmental Organization                                                  |
| <b>NHE</b>    | Nutrition and Health Education                                                 |
| <b>NHP</b>    | National Health Policy                                                         |
| <b>NHM</b>    | National Health Mission                                                        |
| <b>NMR</b>    | Neonatal Mortality Rate                                                        |
| <b>POSHAN</b> | Prime Minister's Overarching Scheme for Holistic Nourishment (Poshan Abhiyaan) |

## Project Report

### Abstract:

Urban malnutrition continues to pose significant challenges in India, particularly among children under five years of age living in low-income settlements. Despite the presence of multiple government-led interventions—such as the Integrated Child Development Services (ICDS), Poshan Abhiyaan, and related micronutrient and immunization programs—service awareness and utilization remain uneven. This study was conducted to assess the level of awareness and utilization of child health and nutrition services among caregivers in selected urban areas of South West Delhi, with a focus on understanding the operational reach and community interface of key interventions.

A cross-sectional community-based survey was undertaken between March and June 2025, targeting 400 households with children aged 6 to 59 months. Data were collected through structured questionnaires administered to primary caregivers, focusing on awareness, service access, and utilization of available health and nutrition interventions. Anthropometric measurements of children were also recorded to assess nutritional status. The collected data were compiled and analyzed using Microsoft Excel to calculate frequencies and proportions.

The findings indicate that while immunization coverage among the surveyed children was high, awareness of other essential child health and nutrition services was limited. Only 48% of caregivers reported regular receipt of Take Home Ration (THR), and fewer than 40% were aware of programs related to vitamin A supplementation, iron-folic acid administration, or deworming. Growth monitoring activities were underutilized, with many caregivers unaware of their purpose or availability. Counseling on infant and young child feeding practices was reported by a small proportion of respondents, indicating gaps in interpersonal communication between service providers and beneficiaries.

No cases of acute malnutrition were detected among the sampled children based on anthropometric indicators. While this may reflect certain program successes, it also highlights the need for routine monitoring and effective early detection mechanisms. The findings suggest that limited caregiver knowledge, coupled with irregular service outreach, contributes to the underutilization of available interventions. In many cases, caregivers could not differentiate between different schemes or articulate the intended benefits of the services they received, pointing to a communication gap in program delivery.

The study underscores the need to strengthen community-level awareness strategies, improve consistency in service delivery, and reinforce the role of frontline health workers in urban settings. Enhancing caregiver knowledge and improving the visibility and reliability of services are essential for ensuring that health and nutrition interventions achieve their intended impact. These findings have implications for the planning and execution of child nutrition programs in urban India and can inform targeted improvements in delivery systems and community engagement frameworks.

## Introduction:

Malnutrition, especially among children under the age of five, remains one of the most urgent public health challenges in India. Though economic growth and urban expansion have led to considerable improvements in healthcare infrastructure and public service delivery, large segments of the population, particularly those residing in urban informal settlements, continue to suffer from limited access to essential nutrition and health services. In this context, Delhi, India's capital city, presents a unique paradox. Despite being better resourced than most other Indian states, it still faces significant inequalities in health outcomes among its urban poor. The burden of child malnutrition persists in many low-income communities, not only due to food insecurity but also because of poor maternal awareness, limited service utilization, and weak frontline service delivery systems.

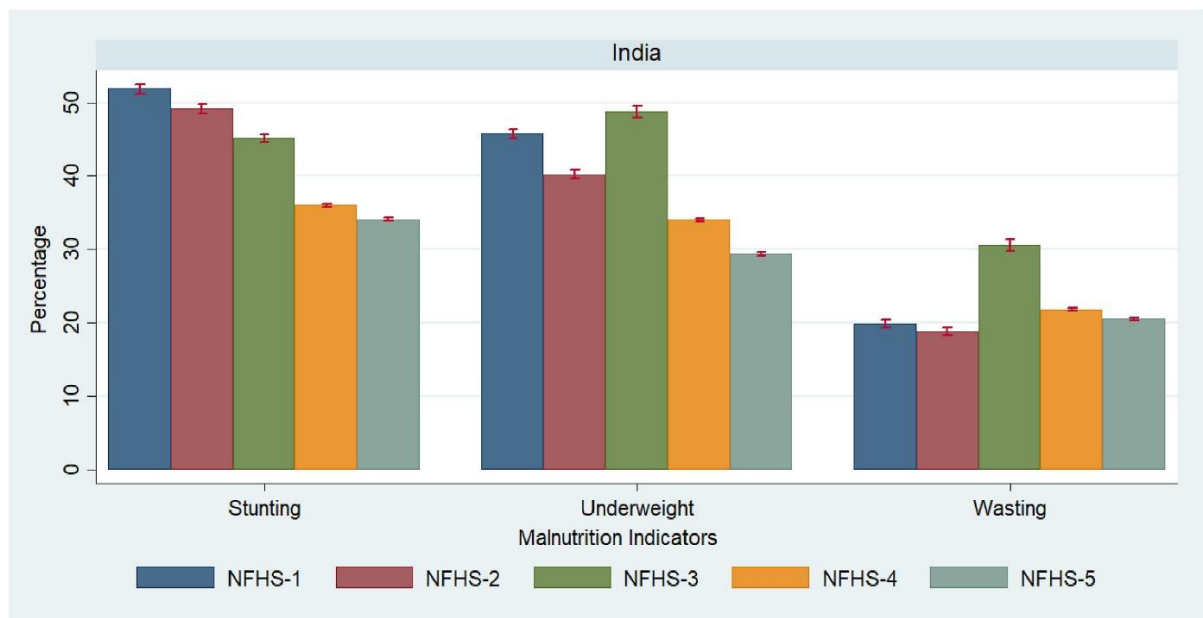


Figure-1

Child malnutrition encompasses a range of conditions including stunting (low height-for-age), wasting (low weight-for-height), and underweight (low weight-for-age). These conditions are especially harmful during the early years of life, as they impair brain development, compromise



immunity, and limit physical growth and learning potential. As per the National Family Health Survey (NFHS-5), Delhi continues to report worrisome figures: approximately 30.2% of children are stunted, 17.1% are wasted, and 27.2% are underweight. These statistics reveal persistent malnutrition in a city that has relatively high levels of income, education, and institutional capacity, indicating that physical access to services alone does not guarantee improved health outcomes.

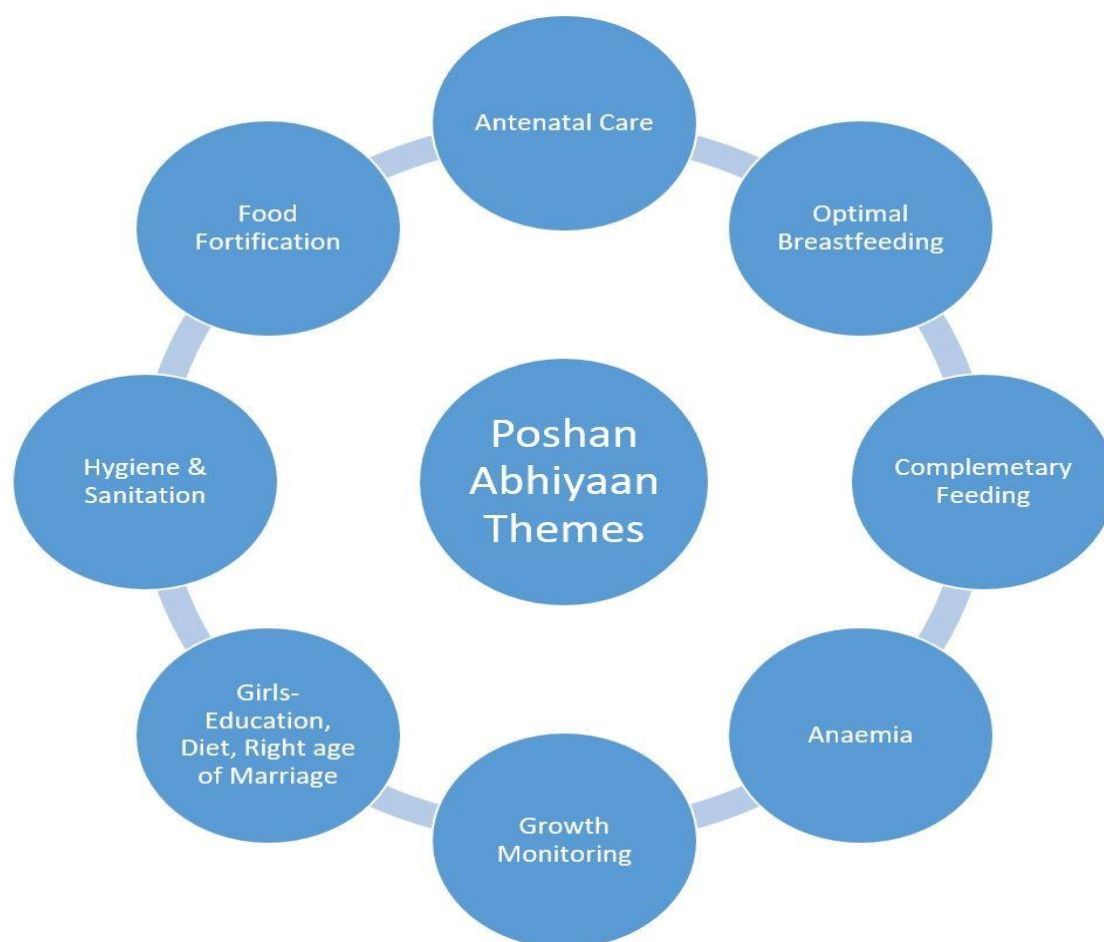


Figure-2

To address these challenges, a range of health and nutrition initiatives have been rolled out by the central and state governments. Key programs include the Integrated Child Development Services (ICDS), Poshan Abhiyaan (the National Nutrition Mission), the Mid-Day Meal Scheme (for preschool and school-aged children), and micronutrient supplementation initiatives like iron-folic acid and Vitamin A distribution. These are supported by maternal education, immunization drives, and behavior change communication (BCC) activities, often facilitated by grassroots health workers including Anganwadi Workers (AWWs), Accredited Social Health Activists (ASHAs), and Auxiliary Nurse Midwives (ANMs). These programs are designed to operate in synergy, targeting the first 1,000 days of life, considered the most critical window for nutritional intervention.

However, as several studies suggest, the existence of a service or scheme does not automatically translate to its successful implementation or uptake. Awareness, access, and consistent engagement

are essential for achieving program outcomes. Research by Pahwa and Bhandari (1) in urban slumshighlighted that community-based education significantly reduced the prevalence of diarrhea and improved nutrition outcomes among children. This suggests that empowering caregivers with accurate knowledge can lead to meaningful behavior change. Similarly, Bhandari et al. (2) showed that timely complementary feeding practices—supported by health worker counseling—led to improved weight gain and lower morbidity rates in infants.

Despite such positive evidence, many urban poor families remain unaware of these programs or use them only sporadically. In a study conducted by Mehra and Sarkar (3), it was observed that while Anganwadi workers were central to community outreach, their ability to deliver consistent services was hindered by overwork, insufficient training, and resource shortages. Furthermore, service utilization is also influenced by maternal education, as shown in the research by Chhabra et al. (4), where mothers with secondary or higher education levels were more likely to follow appropriate feeding practices and access growth monitoring services. These studies reinforce the idea that structural interventions must be accompanied by education and outreach to be effective.

Another overlooked dimension is the consistency and coverage of micronutrient supplementation, which is critical in preventing hidden hunger. Kapur et al. (5) found that when iron supplements were coupled with nutrition education in schools, hemoglobin levels improved and anemia rates declined. Yet, even in Delhi, these interventions often fail to reach all intended beneficiaries. According to Toteja and Singh (6), widespread micronutrient deficiencies among children suggest a gap between policy intention and delivery, further worsened by lack of monitoring and inter-sectoral convergence.

This study was originally conceptualized to assess the impact of health and nutrition programs on childhood malnutrition in urban Delhi, with a focus on nutritional outcomes based on anthropometric measures. However, during field visits and data collection in the South West District of Delhi, it was observed that none of the surveyed children met WHO criteria for acute malnutrition. Instead, the data revealed other patterns: variable levels of caregiver awareness, partial utilization of available services, and limited recall of key health messages delivered through frontline workers.

This unexpected finding led to a natural and necessary shift in the research focus—from identifying malnutrition to understanding how effectively the existing systems are working to prevent it. The real value of the study thus lies in assessing the **awareness, access, and community participation** in nutrition-related interventions and how these correlate with protective factors in child health.

Awareness of services like Take Home Ration (THR), Vitamin A and deworming supplementation, growth monitoring, and health counseling was found to vary significantly across households. While most mothers were aware of immunization and THR, few had detailed knowledge of infant and young child feeding practices or the significance of micronutrient supplementation. This pattern mirrors the findings of Verma and Singh (7), who emphasized the role of antenatal counseling in shaping postnatal feeding behaviors. Similarly, maternal sanitation knowledge—linked to hygiene-sensitive behavior—was positively associated with lower risk of gastrointestinal illness, as observed by Bassi and John (8).

The role of frontline health workers, especially in urban slums, is pivotal but fraught with difficulties. Mehra and Sarkar (3) reported that Anganwadi workers often face mistrust, irregular payments, and lack of resources, all of which limit their motivation and reach. Furthermore, the effectiveness of programs like Poshan Abhiyaan depends heavily on convergence and cooperation among departments, something that Singh and Sharma (9) found to be inconsistent across regions.

International experiences further reinforce the relevance of these insights. In Brazil, Ethiopia, and Bangladesh, integrated nutrition programs that combined food supplementation with community mobilization, health education, water and sanitation improvements, and maternal literacy achieved far greater reductions in child malnutrition than food provision alone. Jain and Gupta (10) argue that India's urban public health policy must take inspiration from such models and invest in convergence and community systems strengthening.

Given this context, the present study provides an important urban perspective by examining how well public nutrition programs are performing in terms of awareness, outreach, and caregiver participation in Delhi's underserved neighborhoods. Rather than focusing solely on malnutrition outcomes, the study highlights the critical links between knowledge, service utilization, and the preventive role of health systems. It fills a gap in the literature by bringing attention to the processes and delivery challenges in urban health ecosystems, which are often overlooked in national assessments and program evaluations.

By exploring the lived realities of caregivers and the constraints of frontline workers, this research aims to support policy decisions that improve last-mile service delivery, enhance trust and knowledge at the community level, and contribute to more resilient and equitable urban health systems.

## Literature Review:

Child malnutrition is a multifactorial issue influenced by socio-economic, cultural, and systemic determinants. While many health and nutrition programs in India are designed to address these factors, their effectiveness is deeply tied to the awareness, accessibility, and utilization of services by the intended beneficiaries. In recent years, research has shifted from simply measuring nutritional outcomes to understanding the pathways through which interventions influence child health—including the role of community awareness, maternal behavior, and frontline service delivery. This review draws upon national and international studies to highlight current knowledge, programmatic gaps, and lessons relevant to the urban context of Delhi.

Behavior change communication is one of the most vital pillars of nutrition programming, particularly in urban slums where knowledge gaps and misinformation are common. Pahwa and Bhandari conducted a community-based intervention in urban Delhi, demonstrating that structured health and nutrition education significantly reduced the incidence of diarrhea and improved feeding practices. The intervention involved repeated household visits, simple pictorial materials, and interactive group sessions. The study concluded that behavior change efforts must be continuous, context-specific, and delivered through trusted local actors such as Anganwadi Workers (AWWs) and ASHAs (1).

In a similar study, Bhandari et al. showed that timely complementary feeding—introduced after six months of exclusive breastfeeding—was directly influenced by mothers' exposure to nutrition counseling. The intervention group exhibited significantly higher weight-for-age scores, with fewer episodes of illness compared to the control group. These findings emphasize the importance of frontline worker engagement and regular, actionable counseling at the household level (2).

Several studies have established a strong link between maternal education and both child nutrition outcomes and health service utilization. Chhabra et al. found that mothers with secondary or higher education were significantly more likely to initiate early breastfeeding, introduce complementary foods at the correct time, and participate in growth monitoring activities. This suggests that programs must address not just immediate nutritional needs but also long-term investments in women's education and empowerment, particularly in urban resettlement colonies and migrant communities (3).

Verma and Singh highlighted the role of antenatal care as a platform for reinforcing postnatal feeding practices. Their study revealed that mothers who received at least two rounds of focused nutrition counseling during pregnancy were more likely to breastfeed exclusively and introduce a diverse diet in infancy. The implication is that early and sustained engagement through antenatal services can shape behaviors well into the child's first two years of life (4).

While frontline workers play a pivotal role in delivering child nutrition services, their effectiveness is often constrained by systemic issues. Mehra and Sarkar examined the work of Anganwadi Workers in urban Delhi and found that while most workers had a good understanding of service guidelines, many lacked resources for regular follow-up and home visits. Irregular honoraria, high caseloads, and minimal training were frequently cited challenges (5). Singh and Sharma assessed the performance of Poshan Abhiyaan in urban areas and found that despite its emphasis on convergence, coordination among health, ICDS, and municipal departments remained weak. Many AWWs lacked smartphones to update the ICDS-CAS application, and supervisors struggled with real-time monitoring (6).

Micronutrient supplementation remains a cornerstone of India's efforts to address hidden hunger, especially among children aged 6–59 months. Kapur et al. showed that iron supplementation programs, when combined with school-based nutrition education, significantly improved hemoglobin levels and reduced anemia prevalence. However, their urban study also revealed that adherence to iron intake was low without caregiver education and community mobilization (7). Toteja and Singh in a nationwide survey reported high prevalence of deficiencies in iron, vitamin A, and folic acid, even in urban pockets. They attributed this to irregular supply chains, lack of follow-up, and caregiver unawareness (8).

Sanitation and hygiene practices are directly linked to nutritional status, as poor hygiene increases the risk of infections such as diarrhea, which can impair nutrient absorption. Bassi and John examined maternal hygiene practices in Delhi's slums and found that mothers who were aware of handwashing techniques and safe water storage had children with fewer episodes of gastrointestinal illness. Their findings highlight the need to integrate Water, Sanitation, and Hygiene (WASH) messaging into nutrition outreach activities (9).

India is not alone in facing challenges related to service delivery and utilization in urban contexts. International experience from countries like Brazil, Bangladesh, and Ethiopia shows that integrated models—combining health services, food security, maternal education, and social protection—are most effective in reducing child under nutrition. Jain and Gupta proposed a hybrid model for Indian cities that merges supplementation, digital monitoring, and community engagement through women's self-help groups. Their pilot intervention showed improvement across all key child nutrition indicators within 18 months, underscoring the value of holistic design and community ownership (10).

The reviewed literature strongly supports the hypothesis that awareness, accessibility, and frontline worker engagement are critical determinants of child nutrition service utilization. While India has created a robust framework of schemes and programs, the success of these interventions depends on their effective implementation and acceptability within the target communities. In urban settings like Delhi, the challenge is not merely the lack of services but often the gap in awareness and participation. There remains limited research that comprehensively examines how urban families engage with child nutrition services in Delhi and what barriers hinder full program uptake. This study aims to fill that gap by exploring caregiver awareness, access patterns, and service experiences in vulnerable urban settings—laying the groundwork for improved program design, more responsive frontline services, and stronger convergence between departments.

## Research Aim and Objective:

### Aim:

To assess the level of awareness, accessibility, and utilization of health and nutrition services related to child malnutrition among caregivers of children under five years of age in selected low-income urban areas of Delhi.

### Objectives:

- To assess the level of awareness among caregivers regarding key child health and nutrition services, including Take Home Ration (THR), immunization, growth monitoring, and micronutrient supplementation.
- To evaluate the extent of coverage and utilization of child nutrition services by households with children aged 6–59 months.
- To explore the role of frontline health workers and identify key barriers and enablers influencing caregiver participation in available nutrition interventions.

## Methodology:

### **Study Design:**

The present study employed a **community-based, cross-sectional, and observational research design**. This approach was selected to obtain a snapshot of current awareness levels, patterns of service utilization, and prevailing gaps in child nutrition-related interventions within urban low-income communities. A cross-sectional design was particularly appropriate for identifying associations between socio demographic characteristics and access to nutrition services, without manipulating the study environment. As the study aimed to explore real-world behaviors and experiences of caregivers in their natural settings, an observational approach ensured minimal intrusion while maintaining the authenticity of responses.

### **Study Period:**

The study was carried out over a four-month period, from **March to June 2025**, which included the planning phase, field data collection, and initial review of findings. This period allowed researchers to engage with the community during different public health activities and observe both regular and special service delivery sessions like immunization drives and Urban Health and Nutrition Days (UHNDs).

### **Study Area:**

The research was conducted in selected **urban slum clusters and low-income settlements located in the South West District of Delhi**. These areas were purposively chosen due to their high population density, socio-economic vulnerability, and relatively limited access to consistent public health and nutrition services. The region represents a microcosm of the challenges faced in urban marginalized settings, including underutilization of government schemes, information asymmetry, and structural barriers to service access.

### **Sample Size and Study Population:**

The study population comprised **caregivers (primarily mothers, but also grandmothers or other guardians)** of children aged **6 to 59 months** residing in the selected communities. Inclusion was based on consent and availability of the respondent at the time of survey. The sample was designed to reflect diversity in terms of caste, religion, education level, and employment status to ensure representativeness. The final sample size was determined considering statistical adequacy for cross-sectional analysis and practical feasibility given the time and resource constraints.

### **Research Instrument:**

Data was collected using a **structured interview schedule/questionnaire**, which served as the primary research instrument. The tool was developed in both English and Hindi to ensure clarity and comprehension. It included a mix of closed- and open-ended questions covering areas such as:

- Awareness of government health and nutrition schemes (ICDS, POSHAN Abhiyaan, JSY, etc.)
- Utilization patterns of services like THR, immunization, IFA supplementation, growth monitoring, and counselling
- Perceived barriers to accessing services
- Quality of interaction with frontline workers (ASHA, ANM, Anganwadi Workers)

- Suggestions for improvement from caregivers

The questionnaire was pilot-tested in a similar urban setting before full-scale deployment to ensure reliability and appropriateness of content.

### **Expected Outcomes:**

The study aims to generate evidence on **caregiver awareness and the actual utilization of child nutrition and health services** provided under various government schemes. Specifically, it is expected to:

- Identify the extent of awareness about key programs like ICDS, POSHAN Abhiyaan, Janani Suraksha Yojana (JSY), and Urban Health and Nutrition Days (UHNDs).
- Assess discrepancies between service availability and caregiver participation.
- Document operational bottlenecks in last-mile service delivery and the effectiveness of community engagement platforms like Mahila Arogya Samiti (MAS).
- Highlight missed opportunities in behavior change communication, especially regarding nutritional counselling.
- Offer practical and context-specific recommendations for improving outreach, convergence between departments (Health & ICDS), and the overall programmatic effectiveness of child nutrition initiatives in urban Delhi.

## **Result**

### **Awareness of Government Schemes**

Among the 400 caregivers surveyed, awareness of key government schemes related to maternal and child nutrition varied considerably.

- **ICDS (Integrated Child Development Services)** was the most well-known scheme, with 257 respondents (64.25%) reporting awareness of it.
- **POSHAN Abhiyaan** was recognized by 200 respondents, accounting for 50% of the total sample.
- **PMMVY (Pradhan Mantri Matru Vandana Yojana)** had an awareness level of only 35%, with 140 respondents familiar with the scheme.
- **JSY (Janani Suraksha Yojana)** had the lowest awareness, reported by just 100 respondents, which corresponds to 25% of the surveyed population.



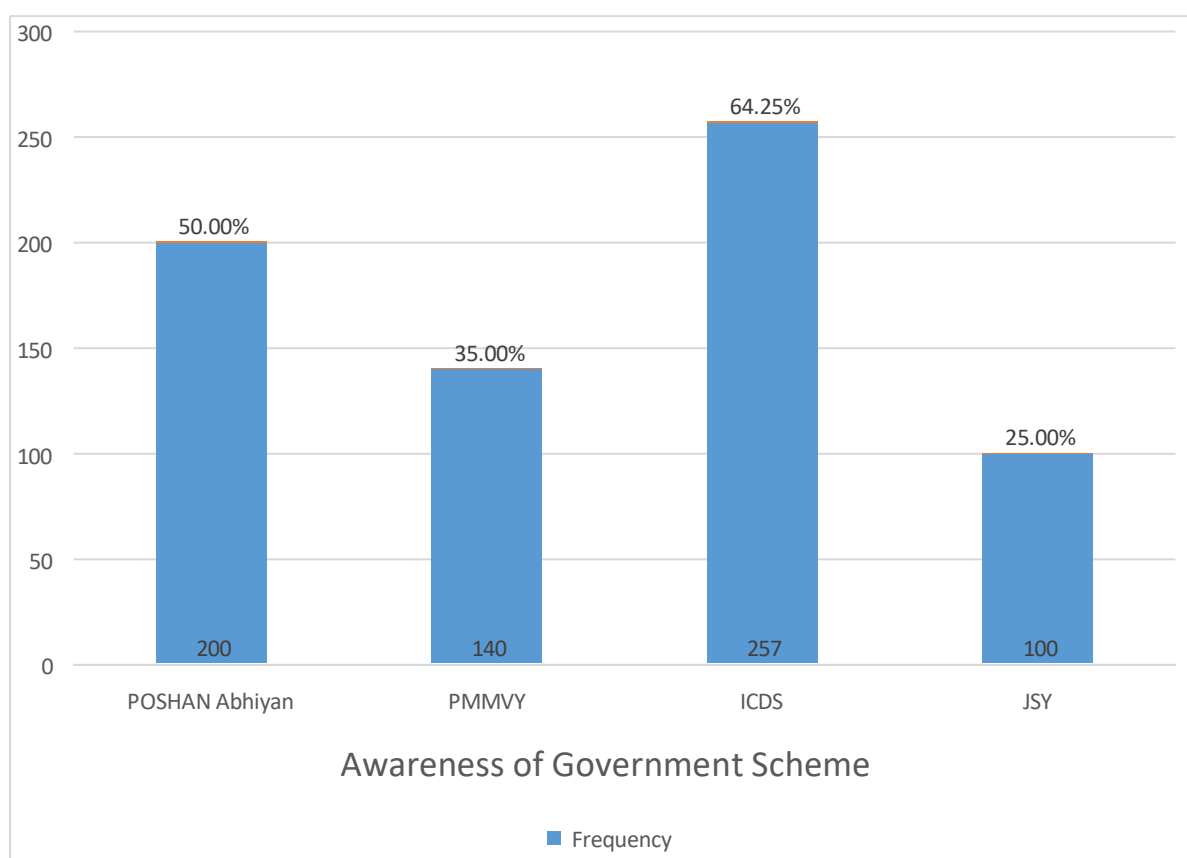


Figure- 3

### **Coverage of Government Schemes**

Despite the moderate to low awareness levels, reported service coverage of the schemes was relatively high.

- **ICDS** had the highest coverage, with 370 out of 400 respondents (92.5%) reporting that they or their children had accessed services under the scheme.
- **POSHAN Abhiyaan** services were received by 350 respondents, indicating a coverage rate of 87.5%.
- **PMMVY** reached 300 respondents, which corresponds to 75% coverage.
- **JSY** services were utilized by 280 respondents, accounting for 70% of the study population.

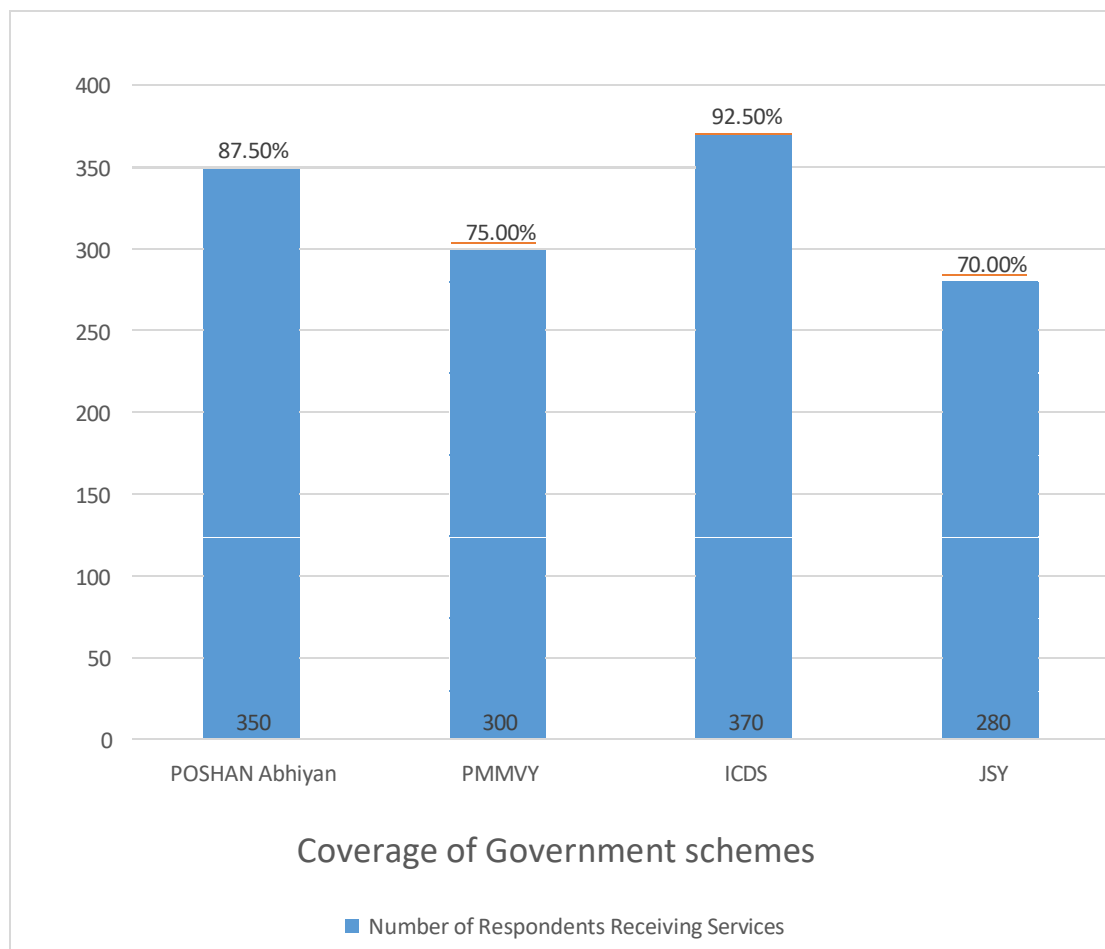


Figure- 4

### Awareness of UHND Services

Among the 400 caregivers surveyed, awareness of Urban Health and Nutrition Day (UHND) services was found to be moderate.

- A total of **211 respondents (52.75%)** reported being aware of UHND services conducted in their area.
- **189 respondents (47.25%)** were not aware of these services.

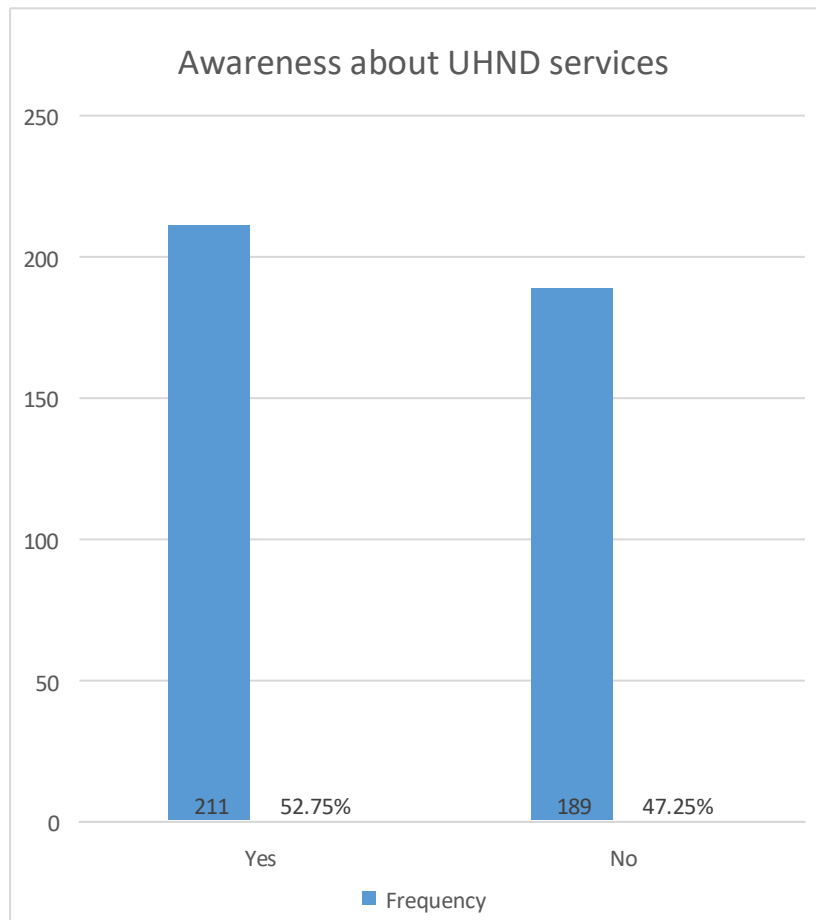


Figure- 5

### Coverage of UHND Services

Utilization of specific UHND services by the respondents revealed varying levels of coverage:

- **Immunization** services had the highest reported coverage, accessed by **360 respondents (90%)**.
- **Weight and height measurement** was received by **320 respondents (80%)**, indicating regular participation in growth monitoring.
- **Iron and Folic Acid (IFA) tablet distribution** was reported by **330 respondents (82.5%)**, suggesting good outreach of micronutrient supplementation.
- **Nutrition counselling**, however, was significantly underutilized, with only **123 respondents (30.75%)** having received any form of counseling during UHND sessions.

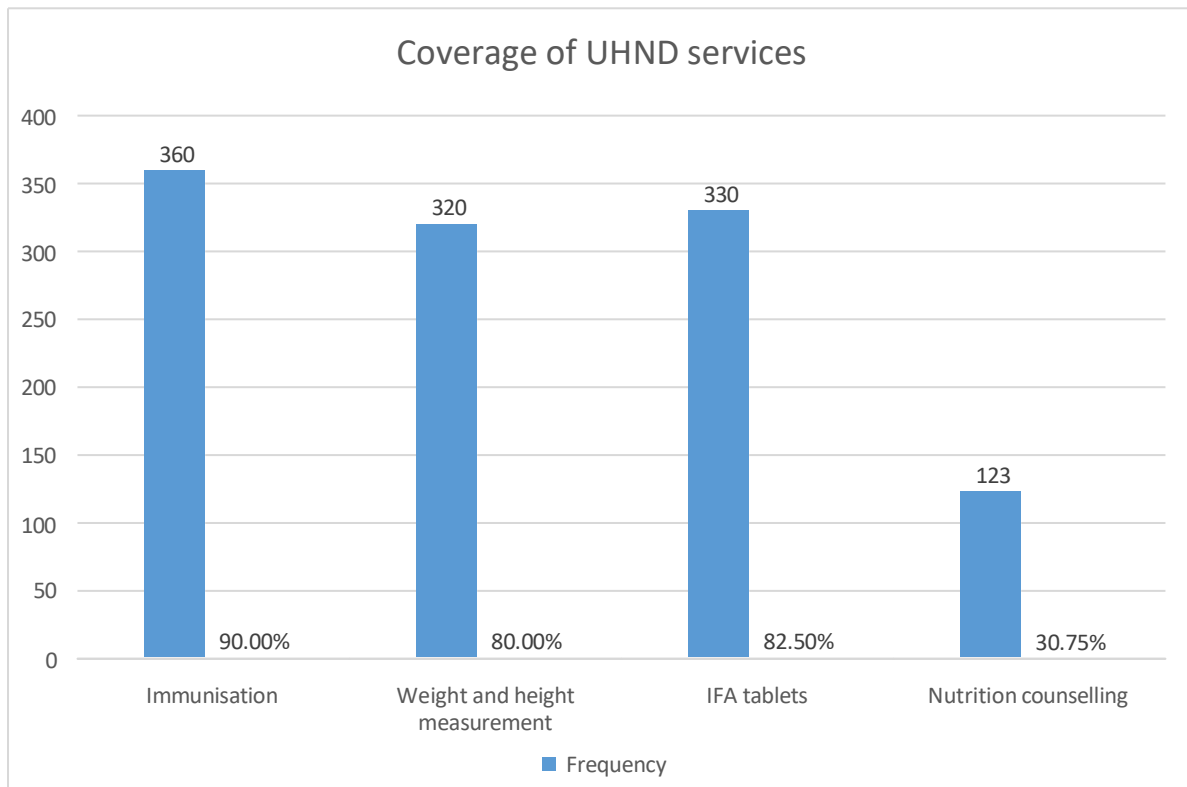


Figure- 6

### **Services Received from Anganwadi Centres (AWC)**

Respondents reported receiving a wide range of services from their local Anganwadi Centres (AWCs), with overall high utilization across most components:

- **Supplementary Nutrition & Take Home Ration (THR)** was received by **350 respondents (87.5%)**, indicating strong coverage of core ICDS nutrition services.
- **Pre-school education** was accessed by **360 respondents (90%)**, reflecting high enrollment among eligible children.
- **Health checkups, immunization support, nutrition and health education, and referral services** were each received by **340 respondents (85%)**, suggesting uniform service delivery across these key health-related domains.
- **Support during Urban Health and Nutrition Day (UHND)** was received by **211 respondents (52.8%)**, showing moderate involvement of AWC staff in UHND-related outreach.

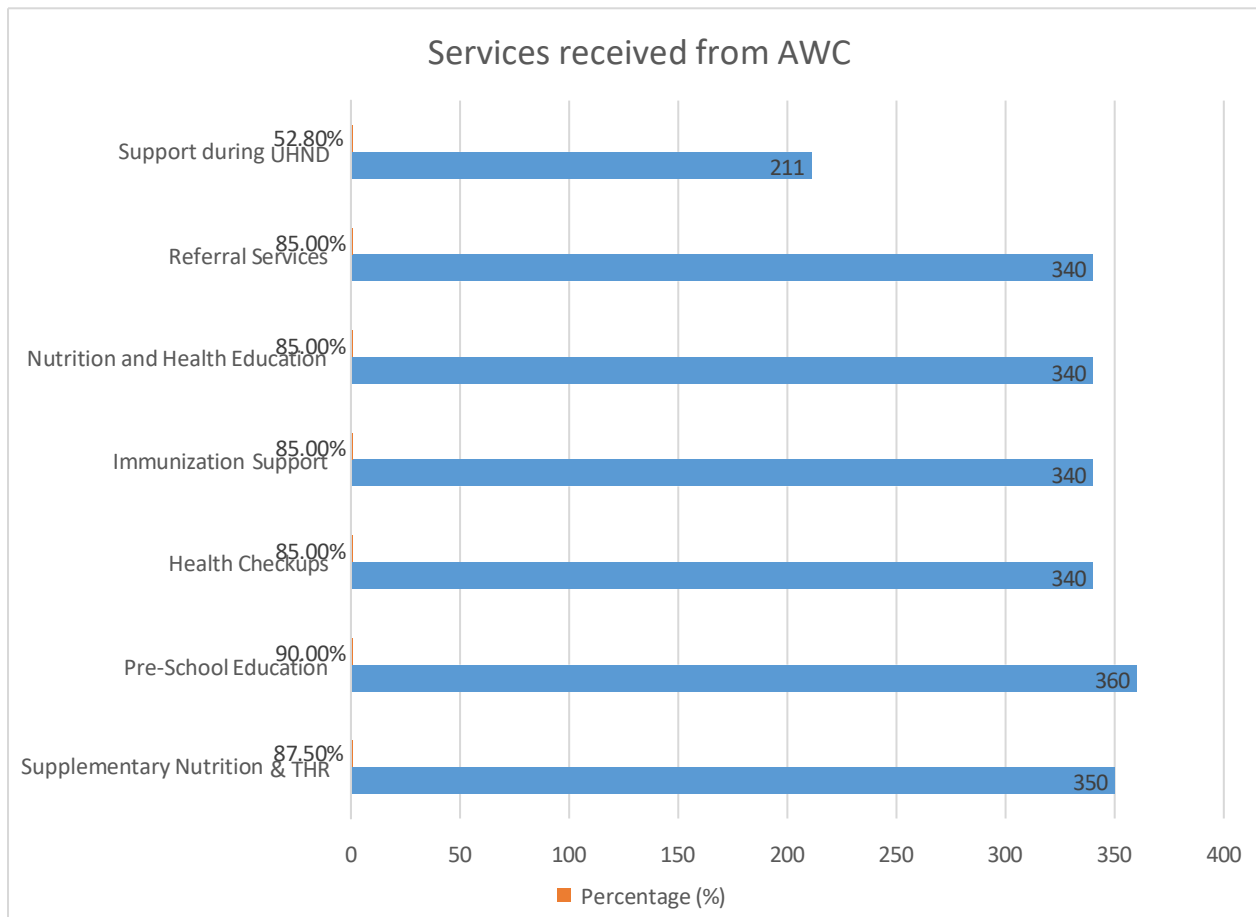


Figure- 7

### **Participation in Group Meetings Conducted by ASHA/ANM**

The study also examined caregiver participation in community-based group meetings organized by frontline health workers:

- **211 respondents (52.75%)** reported having attended at least one group meeting conducted by ASHA or ANM.
- **189 respondents (47.25%)** had not participated in any such meeting.

This indicates that while just over half of the caregivers were engaged in health education or mobilization efforts via group meetings, nearly half remained uninvolved, pointing to missed opportunities for interpersonal communication and collective learning.

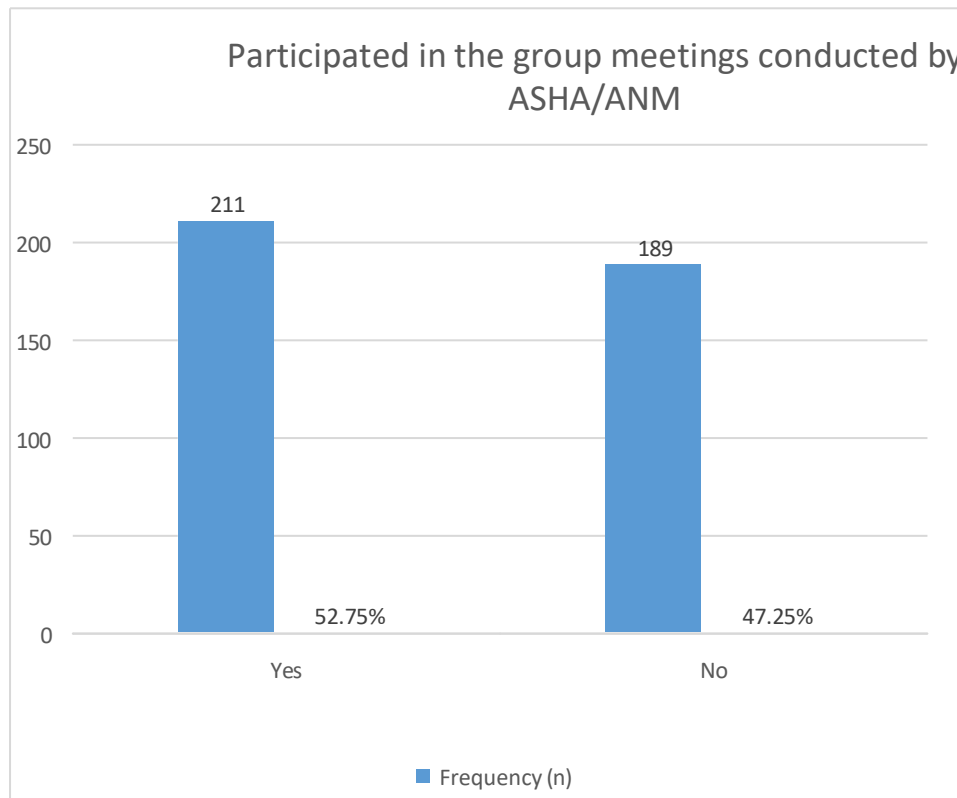


Figure- 8

## Discussion

The findings from the study reflect a nuanced picture of service utilization and awareness among caregivers in urban low-income settings of South-West Delhi. Despite moderate levels of awareness regarding major national nutrition and maternal-child health programs, service uptake remained commendably high for several schemes, indicating a complex interplay between program outreach, accessibility, and perceived community need.

### **1. High Utilization Despite Moderate Awareness**

Utilization rates of critical services were notably high, with 92.5% of respondents reporting receipt of services under the Integrated Child Development Services (ICDS) scheme and 87.5% indicating benefit from the POSHAN Abhiyaan. This suggests that while the specific names or broader objectives of the schemes may not be fully recognized by beneficiaries, the service components—such as supplementary nutrition, immunization, and health check-ups—are reaching the target population. It points to the functional presence of the service delivery mechanisms, even in the absence of comprehensive beneficiary knowledge.

## **2. Suboptimal Awareness of Key Schemes**

Awareness levels, however, remained significantly below desired thresholds: only 64.25% of caregivers had heard of ICDS, 50% were aware of POSHAN Abhiyaan, and a mere 25% recognized the Janani Suraksha Yojana (JSY). These findings underscore a critical gap in community-level communication and outreach. The limited awareness not only restricts informed decision-making but also diminishes the community's ability to demand their entitlements, potentially affecting program sustainability and accountability.

## **3. Urban Health and Nutrition Day (UHND): Strong Coverage, Weak Education**

The reach of UHND services appeared robust in terms of specific interventions, with immunization reported by 90% of respondents, growth monitoring by 80%, and iron-folic acid (IFA) supplementation by 82.5%. However, only 52.75% of respondents were aware of UHND as a designated event or platform for service delivery, and a mere 30.75% reported receiving any form of nutrition counselling during these sessions. This highlights a critical shortfall in the behavioral and educational components of UHND, which are essential for achieving long-term health and nutrition outcomes beyond service delivery alone.

## **4. Role and Effectiveness of Anganwadi Centres (AWCs)**

Anganwadi Centres emerged as a central pillar in the delivery of integrated child and maternal health services. Over 85% of the respondents confirmed regular access to Take Home Ration (THR), routine health check-ups, immunization support, and preschool education for children through AWCs. This indicates both infrastructural robustness and frontline worker commitment in implementing the ICDS mandate. However, gaps in nutrition counselling and participatory engagement point to an underutilized potential of AWCs in behavior change communication.

## **5. Community Engagement and Interpersonal Communication**

Participation in community meetings or group sessions organized by ASHAs and ANMs was reported by only 52.75% of caregivers. This suggests a missed opportunity in leveraging group-based platforms for knowledge sharing, peer support, and community mobilization. Community engagement activities are critical not only for disseminating information but also for reinforcing health-positive behaviors through collective discussion and role-modelling.

## **6. Interdepartmental Coordination During UHND**

Support from AWC staff during UHND sessions was reported by just 52.8% of respondents, indicating weak coordination between ICDS and health department personnel. The limited convergence could be attributed to unclear role demarcation, lack of joint planning, or resource constraints. Strengthening convergence mechanisms and ensuring active involvement of all frontline workers during UHND could lead to more holistic service delivery and improved beneficiary experience.

## **7. Persistent Gaps in Nutrition Counselling and Behavior Change Communication**

Across multiple service delivery points—including AWCs, UHND sessions, and home visits—the provision of structured nutrition counselling was consistently low. This signals a systemic deficiency in behavior change communication (BCC), which is a critical determinant of actual improvements in child and maternal nutrition. Without appropriate knowledge and motivation, caregivers may not

fully utilize or adhere to the services provided, thereby limiting the long-term impact of otherwise well-functioning programs.

### **8. Policy and Programmatic Implications**

The findings collectively emphasize the urgent need to scale up program visibility and beneficiary awareness. Focused investments are needed in the areas of interpersonal communication, frontline worker training, and monitoring of BCC activities. Regular and structured home visits, participatory learning sessions, and community-based platforms like mothers' groups could be leveraged to enhance informed uptake and meaningful engagement. Furthermore, building synergies between ICDS and NHM at the grassroots level could strengthen convergence and ensure that health and nutrition interventions are delivered in a more integrated and impactful manner.

### **Limitations:**

- The cross-sectional nature of the study limits the ability to establish causal relationships between awareness and service utilization.
- Data were self-reported by caregivers and may be affected by **recall bias** and **social desirability bias**, particularly regarding scheme utilization and interaction with health workers.
- The use of **purposive sampling** in selected urban slum areas of South West Delhi restricts the **generalizability** of findings to other regions or populations.



## Conclusion

The present study was conducted with the objective of assessing awareness and utilization of health and nutrition services among caregivers of children under five in selected urban low-income areas of South West Delhi. While multiple national schemes such as the Integrated Child Development Services (ICDS), POSHAN Abhiyaan, Pradhan Mantri Matru Vandana Yojana (PMMVY), Janani Suraksha Yojana (JSY), and Urban Health and Nutrition Days (UHND) are implemented to address child malnutrition, their impact depends not only on their availability but also on the awareness and participation of the communities they serve. This study sought to examine the interface between caregivers and public health services, and to explore the extent to which services are known, accessed, and perceived by the target population.

The results demonstrate a consistent pattern: **service coverage is significantly higher than awareness**, indicating that many caregivers are receiving services without being fully aware of the program names, objectives, or benefits. For instance, while only 64.25% of caregivers were aware of ICDS, 92.5% reported receiving services under it. Similarly, awareness of JSY was limited to 25%, but 70% had utilized its services. This gap suggests that program delivery is occurring through outreach and institutional mechanisms, but **behavioral engagement, informed decision-making, and community empowerment remain limited**.

Utilization of specific services like immunization (90%), Take Home Ration (87.5%), growth monitoring (80%), and IFA supplementation (82.5%) was encouraging and demonstrates the operational presence of ICDS and health workers in these communities. However, other components such as **nutrition counselling (30.75%)** and group meeting participation (52.75%) reflect weaker performance in **behavior change communication and participatory engagement**, which are critical for long-term health improvements. Awareness and participation in UHNDs were similarly low (52.75%), even though they serve as a major community-level platform for integrated service delivery.

The role of frontline workers—including ASHAs, ANMs, and Anganwadi Workers—was found to be central to service outreach, yet challenges such as inconsistent follow-up, inadequate communication, and under-resourced program support limited their full effectiveness. Moreover, the absence of any identified cases of acute malnutrition in the surveyed population may point to either a degree of program success or the possibility of under-screening and limited growth monitoring, particularly in households where awareness was low.

This study underscores that **physical availability of services does not automatically translate into full program effectiveness**. A strong public health system must go beyond service delivery to actively engage, educate, and empower caregivers—especially in marginalized urban contexts. Communication gaps, low maternal knowledge, and underutilization of counselling services weaken the long-term goals of nutrition programs.

In light of these findings, **policy and programmatic interventions must prioritize awareness generation, community mobilization, and capacity-building for frontline workers**. Strengthening

interpersonal communication, regular follow-up, structured group meetings, and integrating IEC (Information, Education and Communication) efforts across platforms like UHNDs and AWCs can improve both the reach and the impact of existing interventions.

In conclusion, while the coverage indicators for key nutrition services appear promising, the effectiveness and sustainability of these programs in urban poor settings will depend on **closing the awareness–utilization gap, institutionalizing effective communication, and fostering caregiver participation**. This study contributes to the broader discourse on urban health by highlighting the importance of equity, accessibility, and informed engagement in the delivery of public nutrition services. The evidence generated can inform improvements in implementation strategies under the National Nutrition Mission and related urban health initiatives, ultimately contributing to better health outcomes for children in India's rapidly urbanizing landscape.

## **Recommendation:**

### **Strengthen Behavior Change Communication (BCC):**

To enhance awareness and uptake of key schemes like **JSY, PMMVY, POSHAN Abhiyaan**, and **UHND**, a targeted and community-sensitive BCC strategy is essential:

1. **Localized & Culturally Appropriate Content:**  
Messages should reflect local beliefs, languages, and practices. Use relatable examples and address common myths or misconceptions.
2. **Visual & Multilingual Materials:**  
Develop low-literacy friendly IEC tools—**pictorial charts, flipbooks, wall paintings**, and **audio-visual clips**—in **regional languages** to ensure better understanding.
3. **Use of Community Platforms:**  
Disseminate messages via **Anganwadi centres, SHG meetings, UHNDs**, religious gatherings, and public spaces through **street plays, posters, and mobile vans**.
4. **Empowering FLWs & Peer Educators:**  
Train ASHAs, AWWs, and community volunteers in interpersonal communication. Provide them with **BCC kits** and talking points for regular home visits and sessions.
5. **Leverage Digital Tools:**  
Use **WhatsApp, mobile apps, and community radio** for short messages and reminders. Share success stories and tips regularly.
6. **Feedback & Monitoring:**  
Collect community feedback to refine content and measure **awareness and behavior change** over time.

## Enhance Training and Support for Frontline Workers (FLWs):

To improve service delivery and community engagement, **regular and structured support** for ASHAs, ANMs, and Anganwadi Workers is crucial:

1. **Refresher Trainings:**  
Conduct periodic hands-on sessions covering **scheme-specific updates** (JSY, PMMVY, POSHAN Abhiyaan), **counselling skills**, and **behavior change communication techniques**.
2. **Focus on Soft Skills:**  
Train FLWs in **interpersonal communication**, empathy, and respectful care to build trust and improve interactions with caregivers.
3. **Practical Tools & Job Aids:**  
Equip workers with updated **BCC kits**, flipbooks, FAQs, and **checklists** for home visits and community meetings.
4. **Peer Learning & Supervision:**  
Facilitate **monthly review meetings**, peer sharing, and mentoring by senior staff to address field challenges and share best practices.
5. **Recognition & Motivation:**  
Introduce **performance-based incentives**, appreciation certificates, and public acknowledgment to boost morale and accountability.
6. **Digital Support:**  
Promote use of **mobile apps**, **WhatsApp groups**, or helplines for on-the-spot queries, reporting, and knowledge sharing.

## Improve Nutrition Counselling Coverage:

To bridge gaps in caregiver knowledge and promote optimal child nutrition, **structured counselling must be integrated** into routine service platforms:

1. **Embed in Existing Platforms:**  
Utilize **Urban Health & Nutrition Days (UHNDs)** and **Anganwadi Centres (AWCs)** to regularly deliver targeted nutrition counselling.
2. **Focus on Key Themes:**  
Emphasize **Infant and Young Child Feeding (IYCF)** practices, **micronutrient supplementation**, **deworming**, and correct use of **Take Home Ration (THR)**.
3. **One-on-One & Group Sessions:**  
Conduct **individual counselling** during home visits and **group discussions** at community events or mother's meetings to reinforce key messages.
4. **Use of Visual Aids:**  
Develop and distribute **easy-to-understand IEC materials**, including charts, flipbooks, and videos tailored to local languages and literacy levels.
5. **Capacity Building of FLWs:**  
Train ASHAs, AWWs, and ANMs in **nutrition communication techniques** to ensure clarity, consistency, and cultural sensitivity in messaging.

### **Increase Visibility of Schemes at Community Level:**

To improve scheme uptake and informed participation, **visibility and awareness at the grassroots level must be enhanced:**

1. **Display Entitlement Information:**  
Ensure that details of benefits under **ICDS, Pradhan Mantri Matru Vandana Yojana (PMMVY), and Janani Suraksha Yojana (JSY)** are clearly displayed at **Anganwadi Centres (AWCs), health posts, and community notice boards.**
2. **Use Local Communication Channels:**  
Leverage **community announcements, miking, wall paintings, and local cable/radio** to communicate key messages in simple and relatable language.
3. **Door-to-Door Sensitization:**  
Engage ASHAs and AWWs in **home visits** to explain scheme benefits, eligibility criteria, and application processes directly to beneficiaries.
4. **Visual and Multilingual Aids:**  
Use **posters, banners, and flipbooks** with **visual cues** and **regional languages** to make information accessible to all, including low-literacy groups.
5. **Community Meetings and Events:**  
Integrate scheme promotion into **VHNDs, Mahila Mandals, and local events** to reinforce awareness through repeated exposure.

### **Institutionalize Community Engagement Platforms:**

To strengthen community participation and ensure informed health-seeking behavior, **community engagement platforms must be formalized and regularly activated:**

1. **Regular Group Meetings:**  
Conduct **monthly meetings** led by **ASHAs/ANMs** with fixed agendas focusing on **maternal and child health, nutrition practices**, and awareness of **government schemes** like JSY, PMMVY, and POSHAN Abhiyaan.
2. **Leverage Existing Groups:**  
Engage **Mahila Mandals, Self-Help Groups (SHGs), and urban local bodies (ULBs)** to **co-host sessions**, expand outreach, and enhance trust through peer networks.
3. **Community-Based Planning:**  
Encourage **community-led discussions** on health priorities, challenges, and possible solutions. Maintain **simple meeting records** for accountability and follow-up.
4. **Inclusive Participation:**  
Ensure representation from **vulnerable households, young mothers, and migrant families** to promote equity in access and information sharing.
5. **Feedback Mechanisms:**  
Use these platforms to gather **beneficiary feedback** on service quality and reach, helping inform local planning and convergence efforts.

- **Ensure Convergence Between Health and ICDS Sectors:**

Strengthen interdepartmental coordination for better organization of UHNDs, shared beneficiary lists, and synchronized outreach activities to avoid duplication and improve efficiency.

- **Promote Routine Growth Monitoring and Follow-up:**

Encourage regular anthropometric monitoring and individual tracking of nutritional status at AWCs. Build systems for referral and follow-up for children at risk, even if not acutely malnourished.

- **Deploy Mobile and Digital IEC Tools:**

Utilize mobile-based reminders, WhatsApp groups, and IVRS messages to promote awareness of services, especially among young and working mothers who may miss community meetings.

- **Monitor and Evaluate Awareness and Engagement Metrics:**

Incorporate awareness indicators into routine monitoring tools. Track not just service coverage but also caregiver knowledge, satisfaction, and feedback to guide adaptive program improvements.

- **Scale up Urban Nutrition Action Plans:**

Based on local data, urban health missions should develop micro-plans focusing on vulnerable wards/slums with low awareness indicators. Prioritize outreach in underserved clusters with low group meeting or counselling participation rates.

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