Summer Internship Report

At

Piramal Swasthya Foundation

(May 1st – June 30th, 2025)

A Report

By

N.LAVANYA

PGDM (Hospital and Health Management)

2024-2026

International Institute of Health Management Research, New Delhi

(Completion of Summer Internship from Piramal Swasthya)

The certificate is awarded to

Name: N. Lavanya

In recognition of having successfully completed her Internship in the department of

Research, Monitoring, Learning and Evaluation

and having successfully completed her Project on Title of:

Distribution and determinants of IYCF practices in rural Bihar among mothers of children aged 12-23 months

Date: 30/06/2025

Organization: Piramal Swasthya Management and Research Institute

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning, an eye for detail, very good interpersonal skills, communication and teamwork

We wish her all the best for future endeavors

Organization Supervisor

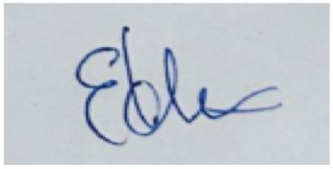
Director Data & Learning
Core Team Member
Research and MLE

Head-HR/Department Head

Manager-Human Resource

Certificate of Approval

The Summer Internship Project titled "**Distribution and determinant's of IYCF practices in rural Bihar among mothers of 12-23 months of children"** at **"Piramal Swasthya"** is hereby approved as a certified study in management carried out and present in a manner satisfactorily to warrant its acceptance as perquisite for the award of Post Graduate Diploma in Health and Hospital 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 report only for the purpose it is submitted.



Dr. Ekta Saroha

Associate Professor

IIHMR, DELHI

FEEDBACK FORM

(Organization Supervisor)

Name of the Student: N. Lavanya

Summer Internship Institution: Piramal Swasthya Management and Research Institute

Area of Summer Internship: Distribution and determinants of IYCF practices in rural Bihar among mothers of children aged 12-23 months

Attendance: Perfect adherence to Internship norms.

Objectives met: Learnt Literature Review, Evidence Table Generation, Epidemiological Concepts, Reference Management Data cleaning and Management, Variables, Descriptive Analysis, Determining the Themes and Sub-themes and Thematic extraction of Information from Qualitative Data.

Deliverables:

- Desk Review on Effectiveness of Compassionate Leadership Intervention in Public Healthcare for Improving Health Outcomes in Bihar.
- Generate Evidence Table
- Literature Review
- Field Visit
- Health and Wellness center visit
- Acquire a basic knowledge in S.A.S.
- Worked on project titled “SOGI”

Strengths:

During this period, she displayed very good adherence to protocols, ready wit, learning spree, punctuality, clarity of understanding, proactiveness, team-work, commitment, sincerity and diligence with analytical progress. Based on her learning abilities and efforts, it appears that, given the level of effort and aptitude she has, if given chance she can become a very strong performer in the public health research and implementation sector of India.

Suggestions for Improvement:

Scientific writing, programmatic knowledge, advance analytics.



Signature of the Officer-in-Charge (Internship)

Date: 30/06/2025

Place: Patna

FEEDBACK FORM

(IIHMR MENTOR)

Name of the Student: N. Lavanya

Summer Internship Institution: Piramal Swasthya Foundation

Area of Summer Internship: Distribution & Determinants of IYCF practices in rural Bihar among mothers of children aged 12-23 months

Attendance: Perfect adherence to Internship norms.

Objectives met: Learnt literature review, evidence table generation, Epidemiological concept, reference management, variables, qualitative analysis

Deliverables: Desk review, Generating evidence table, feild visit, HWC visit, SAS basic knowledge, woorke on project 'SOGI'.

Strengths: Good adherece to protocols, learning spree, team-work, sincerity & commitment

Suggestions for Improvement:

Signature of the Officer-in-Charge (Internship)

Date:
Place:

N. Lavanya ST

ORIGINALITY REPORT

15%	13%	6%	9%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	apps.who.int Internet Source	3%
2	www.piramalswasthya.org Internet Source	2%
3	internshala.com Internet Source	2%
4	Submitted to IIHMR Delhi Student Paper	1%
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ACKNOWLEDGEMENT

My internship with Piramal Swasthya Foundation in Bihar was an incredibly rewarding experience. It provided a wealth of opportunities for learning and professional growth. I'm incredibly grateful to have been a part of it. I had the privilege of working with some amazing people throughout the internship. I'd like to express my sincere gratitude to **Dr. Tanmay Mahapatra, Mr. Nayakanti Srinivas Reddy,** and **Mrs. Suchi Sree Akhouri** for their invaluable guidance, support, and for providing the resources I needed to succeed with my project. Their insightful decisions and willingness to help made a real difference. Thanks, are also due to **Md. Irshad Ali** for his supervision, and to **Mr. Saurabh Kumar, Mr. Kunal Roy and Mr. Ashish Kashyap** for their assistance and data analysis guidance. I'd also like to extend my deepest gratitude to **Dr. Sutapa B. Neogi, Dr. Sumesh Kumar, and Dr. Ekta Saroha** at IIHMR Delhi. Their careful and insightful guidance throughout my studies has been incredibly valuable to my development in theory and practice. This internship has been a major stepping stone in my career. I'm committed to using the skills and knowledge I gained to their fullest potential, and I'll keep working to improve them as I pursue my career goals. I hope to have the opportunity to collaborate with all of you again in the future.

Sincerely,
N. Lavanya

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ACRONYMS/ABBREVIATIONS

CBF	Continued Breastfeeding
IYC	Infant and Young Child
IYCF	Infant and Young Child Feeding
LMIC	Low and middle income countries
MAD	Minimum acceptable diet 6-23 months
MIDD	Minimum dietary diversity 6-23 months
MMF	Minimum meal frequency 6-23 months
MMFF	Minimum milk feeding frequency for non-
VHND	Village Health Sanitation and Nutrition Days
WHO	World Health Organization
UNICEF	United Nations International Children's Emergency Fund
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centres
AWW	Anganwadi Workers

ORGANIZATION PROFILE

Piramal foundation is the philanthropic arm of the Piramal group. It develops innovative solutions to resolve issues that are critical roadblocks towards unlocking India's economic potential. India has embarked on the journey towards ensuring Universal Health Coverage and Piramal Swasthya is contributing with its experience & expertise of building innovative solutions that impact at scale. Piramal Swasthya is focused on bridging public healthcare gaps by supplementing and complementing Government of India's vision to meet Universal Health Coverage.

Piramal Swasthya is one of the largest not-for-profit organizations in India – in the primary public healthcare space with a focus on Maternal Health, Child and Adolescent Health, Non-communicable Diseases. Piramal Swasthya has over a decade-long experience in operating several healthcare innovations at scale, which are addressing the primary healthcare needs of most underserved and marginalized populations across India. Piramal Swasthya is operational in 21 States in India through 35 innovative public healthcare delivery programs and has served more than 112 million beneficiaries so far. Piramal Swasthya employs 2500+ employees (including over 250 medical doctors) who work with Seva Bhav. The Group's core values of Knowledge, Action, Care and Impact guide the organisation in carrying out its responsibilities towards society.

The Foundation believes in collaborating with like-minded partners to bring positive changes in the society. It nurtures projects that are scalable and ensure delivering sustainable impact. The Foundation currently works across 21 states, mostly in partnership with state governments. It has developed innovative approaches and programs in every vertical and has built strong partnerships with governments, technology partners and international organizations (including with Michael & Susan Dell Foundation, Harvard Graduate School of Education and World Diabetes Foundation). The projects are implemented through Piramal Swasthya, Piramal Sarvajal and Piramal Foundation of Education Leadership.

CORE WORK:

INNOVATION AT SCALE:

- Remote health advisory and intervention platform
- Community outreach platform.

• CSR partnerships.

ENDING PREVENTABLE DEATHS

• Tribal health program: unique model aiming at ending preventable deaths.

• D.E.S.H (Detect early and save him/her)- focused on screening and early detection of cancers.

BUILDING SUSTAINABILITY FRAMEWORK

• Aspirational districts transformation program

• SATH (Sustainable Action for transforming human capital) program.

• A.M.R.I.T (Accessible Medical records via integrated technologies) – A public good: Health and Wellness technology platform

OBSERVATIONAL LEARNING

My two-month internship at the Piramal Foundation gave me a firsthand experience of the interesting but challenging area of public health. Known for its work towards improved community health through outreach, research, and education initiatives, the Piramal Foundation gave me a challenging platform to build myself on both professional and personal fronts. Through a period of two months at the Piramal Foundation, I was exposed to a rich combination of theoretical concepts and practical experiences. This experience was truly enriching.

SAS software, data management, literature review, research methods, and Excel weekly sessions significantly enhanced my skill set. The weekly sessions were highly informative and exposed me to new concepts and techniques required for effective public health research and data management. The SAS software classes provided me with effective skills for handling large datasets, including data cleaning, statistical analysis, and manipulation. The research methodology workshops provided me with a good foundation for conducting ethical research by studying study design, data collection methods, and moral principles. Apart from classroom learning, I undertook field visits to health and wellness centre and participated in Maternal Women of Reproductive age (MWRA) survey on Family planning, early marriage and women's reproductive health.

These site visits provided me with a connection between theoretical knowledge and practical practices. I personally saw how these facilities operate and whether they adhere to set guidelines or not. Extensive review of literature was one of the main activities during my internship at the Piramal Foundation. My topic was the "Effectiveness of an intervention to improve compassionate leadership in public healthcare in Bihar in terms of improving citizen experience and health outcome" at "Piramal Swasthya". This topic of study is especially relevant and significant because Bihar, like all other states, suffers from critical issues in its public healthcare system, including workforce stress, patient dissatisfaction, and leadership quality deficits. After conducting an extensive review of literature, I found this study especially interesting because it connects human values like compassion and empathy to concrete outcomes like health outcome enhancement and citizens' trust.

Moreover, I worked on the Qualitative study on the "SOGI" project, a pioneering initiative that sought to empower girls and offer them basic survival skills. We carried out transcriptions, labelling, thematic analysis, and colour coding of field data and interviews. In the process, we came to identify key themes such as women's livelihood, providers lack of awareness, social stigma and the need for inclusive policies and training. This study was highly reflective and thought disturbing. I was highly inspired by this study because SHGs not only financially empower women but also enhance their social status, decision-making skills and confidence. Through this experience I learned that economic independence is a powerful tool for bringing social change. I learned the importance of inclusive, non-judgmental and compassionate care and the importance of health-care providers in creating safe spaces for everyone regardless of gender orientation. This comprehensive report explores each aspect of my internship experience. It emphasises the jobs and projects I worked on, the useful skills I picked up, and the significant impact this experience had on me. In addition to expanding my knowledge, this internship gave me valuable experience that will help me in all my future public health related endeavours.

LEARNINGS FROM SESSIONS CONDUCTED

It started with an orientation session in which I was introduced to the mission, values, and most important projects which are presently being undertaken by the organization. The interns were provided with an opportunity to introduce themselves which made the session very friendly.

Then, the director, Dr. Tanmay Sir delivered a thoughtful speech that outlined the objectives of the Piramal Foundation and quoting its effort towards the improvement of community health. He provided us with a clear explanation of the things that we would be doing for the next two months, highlighting the balance between theoretical training and practical implementation that awaited us. Then, we were told about our responsibilities and commitments, highlighting the secondary research projects which we would be carrying out.

Each of the interns was assigned specific public health-related topics to deal with. Each of us was assigned a mentor so that we were provided with sufficient support and guidance. The mentor's professional in their respective fields, they provide us with constant feedback and guidance while we work through any issue. I was assigned a mentor, Dr. Shuchi, who supported and guided me throughout my internship. The field visit schedule was also introduced to us, which would enable us to apply what we learned in class to real-life settings. The reason behind these trips was to provide us with firsthand experience of community health initiatives. We felt excited and well equipped for the journey ahead of us after our doubts and fears were removed during the Q&A session that concluded the orientation day. This first day not only introduced us to the organizational aspect of the internship but also encouraged us with the work of the foundation and our role in assisting it..

Sessions on Research Methodology

There were regular classes on research methodology which were conducted by Dr Tanmay Mahapatra Sir and his gentle teaching style made all the material easy to understand. The research methodology classes were instrumental in developing a thorough understanding of study designs and key concepts crucial for conducting robust research. The sessions meticulously explored various study designs, emphasizing their differences and implications. We started with observational studies, where we learned to observe phenomena in their natural settings without intervention. In contrast, experimental studies involve manipulating variables

to establish cause-and-effect relationships through randomized controlled trials (RCTs) or quasi-experiments. Interactive discussions highlighted the importance of randomization in experimental design to minimize biases and ensure that all participants have an equal chance of being assigned to different groups. This process helps control for confounding variables and strengthens the validity of research findings. A critical aspect covered in these sessions was understanding biases that can affect study outcomes. We examined selection bias, measurement bias, and recall bias, among others, and discussed strategies to mitigate these biases to enhance the reliability of research results. Furthermore, advanced concepts such as temporal ambiguity, biological plausibility, and the ecological fallacy were explored. We studied the formulas for determining incidence rates and prevalence rates, which are measures of occurrence. The knowledge of disease burden and the development of public health strategies depend on these computations. Complete explanations of the data collection procedures were given, along with comprehensive explanations of all significant methodology topics and frequent discussion sessions were also held.

All things considered, the internship gave me a thorough grounding in study design and important research ideas. My exposure to various study designs, comprehension of biases, and calculations related to measures of occurrence have furnished me with the knowledge and expertise required to carry out detailed research in the field of public health.

Sessions on Data Cleaning & Management

We were given classes on data cleaning and management in also and as we know that any research project's integrity and effectiveness depend heavily on effective data management, and the thorough instruction I received really improved my Excel skills, which are critical for working with research data. I gained knowledge of complex techniques to reduce mistakes made when entering data, like making use of Excel's data validation standards to ensure accuracy. Furthermore, I received training on how to spot and fix discrepancies in datasets by using conditional formatting, VLOOKUP, and IFERROR in Excel to resolve missing values, clean up data, and standardise formats. The use of Excel for effective data storage and retrieval was another topic covered in the course. I gained knowledge on how to create and structure spreadsheets that arrange data logically and facilitate analysis and navigation. Additionally, I learned how to use Excel to secure data by establishing cell-level permissions to preserve confidentiality and password protecting spreadsheets and workbooks. I also learned how to use

Excel's basic formulas and functions for data manipulation, as well as how to create pivot tables for summarising and analysing huge datasets.
These thorough Excel abilities have given me the ability to successfully organise and handle research data, ensuring high-quality data for analysis and strengthening the validity and dependability of research findings.

Sessions on SAS Software

The theoretical foundations and practical uses of SAS data analysis were discussed in these classes. We gained knowledge about how to use the SAS interface, carry out fundamental commands, and use coding strategies that are necessary for importing, manipulating, and cleaning data. During the training, we learned how to compute important descriptive and stratified statistics including frequency, N, mean, median, mode, standard deviation, minimum, maximum and cross tabulation values using programmes like PROC MEANS and PROC FREQ. We also looked into using conditional operators like and, or, where, if, then, else, class etc. The PROC PRINT procedure, which is necessary for displaying data in a comprehensible and organised style, was thoroughly explored in SAS lectures. Especially after data cleaning and processing procedures, PROC PRINT gives users an easy way to see and validate data by listing the contents of an SAS dataset. We also learned about using DATA step in which we get to know about how to APPEND, MERGE, DELETE, DROP and creating new data set how to add a NEW VARAIBLE. We were given hands-on assignments that required us to independently build SAS code and produce thorough data summaries and visualisations to solidify our understanding. Our ability to use SAS for descriptive statistics was much improved by these practical exercises and the ongoing feedback from our mentors, ensuring that we could analyse and interpret difficult data sets accurately.

Sessions on Literature Review

The literature review classes were crucial in providing us with the deep understanding and abilities we needed to perform comprehensive and systematic assessments of previous research during our internship. Every step of the literature review process was thoroughly explained to us, from creating specific research questions to choosing the right databases and search techniques. A significant focus was placed on PubMed, a widely used database where we learned its interface. It highlighted how important it is to use Medical Subject Headings

(MeSH) phrases appropriately. This allowed us to create specific search queries that minimised noise and found relevant research. In order to focus our searches on study types, publication dates, and other factors, we also explored the use of filters and sophisticated search strategies inside PubMed. Understanding these filters was crucial in ensuring that our literature reviews were both thorough and targeted to our specific research needs. With all of these insights, I was able create an evidence table of papers that were related to my topic, and my mentors were always available to assist me when I needed it. Through regular practice and feedback from instructors, we honed our ability to extract meaningful insights from the literature and present them in a clear and structured manner. All things considered, the literature review classes provide an organised structure and useful tools that are necessary for carrying out evidence based research. They gave us the skills to successfully synthesise findings, navigate complex databases, and assess research articles critically. These abilities are essential for any researcher hoping to advance their subject by enhancing current understanding and influencing evidence-based practice.

Session on RMNCH+A

In the session, we learned about important topics related to the health of mothers and children, IPHS guidelines, IYCF guidelines. First, we understood what high-risk pregnancy means it is when a woman has more chances of problems during pregnancy or delivery, due to reasons like being too young or old, having low blood levels (anaemia), high blood pressure, or past complications. These women need special care and regular check-ups. We also learned about BEmONC and CEmONC services. BEmONC means Basic Emergency obstetric newborn care like giving medicine, helping with delivery, and saving newborns. CEmONC means Comprehensive Emergency obstetric newborn care, which includes all BEmONC services plus operations like C-section and blood transfusions, usually done at big hospitals.

Then, we talked about IPHS guidelines these are rules made by the government to make sure that all health centres (like PHCs and CHCs) have the right buildings, staff, and equipment to give good quality health services. We also learned about IYCF guidelines, which tell us how to feed babies and young children. These include early initiation of breastfeeding within one hour of birth, exclusive breastfeeding for six months, complementary food, food groups and giving healthy food along with milk after six months. Lastly, we studied the RMNCH+A 5x5

matrix, which covers care for five groups reproductive age women, pregnant mothers, newborns, children, and teenagers. It also focuses on improving five areas staff, medicines and supplies, service delivery, community help, and data management. This session helped us understand how all these parts work together to improve the health of mothers and children in our country.

Field Visit Report: Health and Wellness Centre, Parsa, Bihar

General Information

Date of Visit- 7th May 2025

Location- Lala Bhadsara Aanganwadi Centre (code- 10230070516)

Block- Dulhin Bazaar

District- Patna, Bihar

Participants observed- ASHA, ANM, AWW. Beneficiaries (pregnant women, lactating mothers, children)

Objective

- To observe the conduct and components of VHSND.
- To assess the roles and performance of FLWs

Methodology

Sampling technique used Stratified Random Sampling. The state is divided into **9 Divisions** which was used as primary strata. From these 9 Divisions, **13 districts** were randomly selected. From these 13 districts, 45 Blocks were identified randomly. Each block has **25 Anganwadi Centre** (AWC).

Total Sample Size= 45*25= 1125 AWCs

Observations

1. Personnels observed in AWW-
   i. Anganwadi Sevika
   ii. Auxiliary nurse midwife
   iii. ASHA worker

2. FLW's functioning-

   - ANM administered routine immunization.
   - Post immunization instructions were given.
   - Improper counselling to the pregnant women and lactating women regarding the diet, breast-feeding.
   - Antenatal check-up was incomplete (weight wasn't being measured)
   - Weight machines and height measuring scale were broken and facility like water, and food of children was not there.

3. Routine Immunization conducted smoothly but post immunization instructions were not adequately given.

4. Got to learn about the 6 functions of AWW
   i. Health check up
   ii. Nutrition service
   iii. THR distribution
   iv. Immunisation
   v. Pre-schooling
   vi. Referral services
5. Digital tools being used in the field and their brief use and description.
   i. Ashwin
   ii. Anmol
   iii. U-Win
   iv. Bhavya lite
   v. m-ASHA

6. Documents and tools observed that were being used-
   i. MCP Card
   ii. Register




मातृ एवं बाल सुरक्षा कार्ड





MWRA (Married Women of Reproductive Age) Training Report: 3-Day Program Summary

Program Objective

The training aimed to enhance the capacity of field-level workers and data collectors in understanding, disseminating and collecting comprehensive information related to family planning, contraceptive choices, sterilization methods, gender issues and social challenges faced by MWRA(Married Women of Reproductive Age) age group 15-49 years.

Methodology :

- Sample size: (N~2900) in 10 district of Bihar, and in each district 5 block were selected.
- Sampling method: Simple stratified sampling technique were used in individual level.
- Study population: 15-49 years of married women who is residing in Bihar for minimum 3 months.





Key Themes Covered:

1. Orientation and give a brief overview about the study MWRA (Married Women of Reproductive Age).

2. Then an intellectual session to introduce each member of field level worker to make this training session an interactive, learning and to clearly understand the objective of the study.

3. Right hand rule: To select the house right hand rule was used from the index house.

4. Detailed session on the questionnaire to understand the meaning of each question, to understand the logic and how to prompt if respondent don't understand the question.

5. Mock Test: Every day a mock test was taken to understand their learning from the session.

6. Mock Interview: After this sessions a mock interview was conducted to briefly understand the key challenges and hurdles can arrive in the field.

Conclusion

This 3-day training on the MWRA study was crucial in building an inclusive, informed and gender-sensitive approach to reproductive health and family planning. The sessions empowered workers with tools to engage communities in informed decision-making and ethical data collection.

Field Visit Report: Survey on Maternal Women of Reproductive Age

Name: N. Lavanya

Designation: Intern

Date of Visit: 09 June 2025

Location Visited: Nawada, Bihar

Organization: Piramal Foundation

Facilitator: Mr. Rantosh kumar sir (Sr. Analyst MLE), Mr. Mithilesh sir (Sr. Analyst MLE) and Mrs. Archana ji (interviewer)

Purpose of Visit:

To observe and conduct spot checks of the ongoing maternal and reproductive health survey among women of reproductive age using the Survey CTO Collect App.

Key Observations:

1. **Interview Process:**
   Observed two interviews. Initially, respondents were hesitant to share information, especially on sensitive topics. However, as rapport was built, they became more open and cooperative.

2. **Awareness of Contraception:**
   Women were generally aware of contraception methods such as Copper-T, injections, pills, and condoms, primarily provided by the local ANMs.

3. **Family Planning Challenges:**
   While most women expressed a desire to limit childbirth to two children, many reported being pressured by their husbands to have more children.

4. **Early Marriage:**
   All three respondents were married between the ages of 15-16, reflecting the persistence of early marriage in the region.

5. **Lack of Awareness:**
   Despite knowing of contraceptive tools, none of the respondents were fully informed about family planning services or their rights.

Constraints Faced and Actions Taken:

Constraints	Actions Taken
Sexual and reproductive health remains a taboo, making open discussion difficult	Ensured ethical clearance was in place
Difficulty accessing female respondents due to cultural norms	Interviewers received training and built rapport with families

Recommendations:

1. Launch targeted health education campaigns through community centres, women's groups, and digital platforms to increase awareness.
2. Involve men and community leaders in conversations on reproductive health to foster supportive environments.
3. Train healthcare workers in sensitive and non-judgmental communication skills.

SOGI Project – Qualitative Study Report

Districts: Bihar and Rajasthan

Date: 12-05-25 to 4-06-25

Organization: Piramal foundation

1. Introduction

This qualitative study was conducted under the SOGI (Sexual Orientation and Gender Identity) initiative to explore the livelihood experiences, challenges, and perspectives of individuals from sexual and women disparities in livelihood in the states of **Bihar** and **Rajasthan**.

The objective was to gain a deep understanding of regional sociocultural contexts, discrimination, healthcare access, safety, and policy implications affecting SOGI populations.

These barriers are deeply rooted in factors such as gender, caste, geography, and socio-economic status. They are further compounded by the widening digital divide, which restricts women's access to digital services, skilling programs, and livelihood platforms that are increasingly central to economic participation.

1.1 Objectives of the Study

- To map the **current status of livelihood** opportunities available to rural women and girls.
- To identify the **unmet needs and challenges** they face in accessing services, entitlements, and digital skilling opportunities.
- To assess how government programs, especially SRLM, are **addressing these barriers** and where systemic **gaps remain**.

2. Methodology

2.1 Study Design

The study adopted a qualitative, immersive methodology aimed at gaining a deep, contextual understanding of community experiences, perceptions, and interactions with local governance and development processes. Rather than relying on quantitative data, the approach focused on capturing narratives, insights, and lived realities through direct engagement.

2.2 Data Collection

- **Participants:** SHG leaders, community men and women and govt. officials
- **Tools Used:** in-depth interview and FGDs for local context.
- **Languages:** Hindi and local dialects (Maithili, Bhojpuri, Rajasthani)

2.3 Transcription & Translation

All interviews and discussions were transcribed verbatim in the original language and then translated into Hinglish.

I:जो बेशक अपनी मर्जी से शादी करते हैं या करना चाहते हैं, उनके बारे में आपके क्या विचार है? चाहे वह जाति, धर्म या आर्थिक स्थिति से जुड़ा?

R; जाति देखकर ही करना चाहिए, नहीं तो नहीं करना चाहिए, अन्य जाती नहीं।

I:स्वतंत्रता पुरुष और महिलाओं के लिए समान होनी चाहिए या पुरुषों के लिए अलग महिलाओं के लिए अलग।

R:पुरुष महिला दोनों के लिए बराबर बात एक है।

I:आपका समुदाय में कम उम्र में यह जबरदस्ती की गई शादी को कैसे देखा जाता?

R:अब के समय में ऐसा नहीं होता है। ना कम उम्र में शादी होता है ना जबरदस्ती शादी।

2.4 Labelling and Coding

- Each transcript was labelled with unique participant IDs and location tags.
- A manual coding approach was used, supported by qualitative data analysis software.

Q501 Do you think that women's safety, and fear of violence against women's affect their participation in livelihood opportunities? If so, how? Probe: workplace safety issues, safe roads, transportation facilities, etc	Safety concerns limit participation; group travel, safe transport, and local venues help, no
Q502 Do you think sanitation and hygiene related issues affect women's participation in livelihood opportunities? Probe: poor hygiene facilities, lack of awareness on sanitation and hygiene practices, etc.	No, Yes, attention paid specifcially to the availability of proper sanitation facilities at training centers.
Q503 Do you think menstruation has an impact on a women's participation in educational and livelihood opportunities? Why or Why not? If yes, are there any steps taken to address the problem?/ Probe: What additional support do you think can be provided to overcome such barriers?	Yes, has an impact. No, does not have an impact, Awareness campaigns, Distribution of hygiene products and kits, special leaves
Q504 How does access to safe and reliable transportation affect women's participation in livelihood opportunities under NRLM/SRLM?oProbe: Are there specific challenges related to mobility in your intervention area?/oProbe: What measures, if any, have been taken to improve women's access to safe transport?/	**Yes,** *No*, Should provide transport, organize training locally, provide safe accomodation, link helplines in Pink buses, redressal mechanisms
Q506 What facilities (e.g., toilets, water) are available to support women's participation in NRLM/SRLM activities?/	Toilet, Drinking water, help desk. Trying to pilot creches, Some things not available
507 Has NRLM/SRLM taken steps to ensure the safety and security of women participating in these programs? If yes, what are they	One stop centers, Didi Adhikaar Kendra, Mahila helpline, Mahila Police thana, Trainining during daytime, Close to women's home
Q508 What support systems are available for women who face any form of violence in your area?/	One stop centers, Didi Adhikaar Kendra, Mahila helpline, Mahila Police thana, Emergency funds for survivors, government support,internal cell,

2.5 Thematic Extraction & Color Coding

Themes were extracted inductively based on the frequency, emotion, and depth of recurring patterns.

Color coding was applied for clarity:

309 Has participating in NRLM/SRLM programs influenced women's role in household decision-making? If so, how.Probe: children's education, or household purchases etc. Can you share any example, or some success story based on your experience	310 Do you see any gaps in NRLM/SRLM programs in supporting women's livelihood opportunities? If yes, can you tell us about those gaps?/ oProbe: challenges in program design, implementation, or outreach etc	311 In what ways can NRLM/SRLM programs be improved to better support women's livelihood opportunities.oProbe: scope of convergence, specific training, access to capital, or networking opportunities etc	312 How and in what ways, is digital literacy and technology important for women's livelihood?/	312_A: Are any tech-based trainings or capacity building sessions organised for the women?	313: What role does climate ch livelihoods, and what adaptati
yes, change is seen in decision making	Haan to mujhe lagta hai ki I think kuchh area hai vahi advanced training area hain we should focused more I mean obviously jo food processing hain agriculture hain commercial sector hain apperal hain jo advanced focused hain in chijon me vo achha kar hi rahi hain but jo hai kafi focus hua hai uspe but going forward I think at might be more recruitment agar vo advanced course me industries 4.2 me mahitayon ka hai jo contribution badhe aur hamare infact ye hua ki educational system aur vocational ecosystem vala courses hai to meet to come together we meet to participate of woman in ITI in technical institute	hum, they are doing lot this its not only SRLM or NRLM needs to work in tendum with industries department aur phir bihar contact BSDM jo bhi state ke liye mission hoga so that you know the kind of training kind of capacity building so ek hi framework ke hisab se maptl customize ho hai jaisa jaisa jo hai work ho rahi hai jo opportunities nikal ke aa rahi hai uske hisab se any infact that is true not only woman beneficiary true for all skilling factory jo supply crate ho rahi hai vo demand ke hisab se creat ho jo	Without Digital literacy think about it is also important on the personal growth abhi 21 century jo hai abhi aap jo online karten hain ya karna chah rahi hai untill unless digital literacy with you jo government ke scheme ko access karna hai aapko aadhar card update karan hai whatever any case vo sari suvidha online hi hai. I was certain amount of literacy & you will actually accept insect manage time varne aap unhi lino me unhi usme fasen rahenge so that any ways yur reduce of productivity . Absoulettly, aap dekhenge ki wall ki painting hoti hai jo convental hamne dekhe the chote me vo painting vo le ke baithen hain do din 3 din kar rahen hain leke baithe hain she my fertiliser		So,there are sector jahan par posibly kam hoga agriculture climate change hota hi hai I guess kabhi fluid hai kabhi training hoti hai kaise aap harvesting ke process ko happening agriculture kendra hai jo unke through happening so usme to I fill ki banki renawble energy ki bhi kafi sara bhi attraction hai. hamara kafi sara investment on bihar vo renewble energy

For ex-

- **Red** – Discrimination & Violence
- **Green** – Healthcare Access

- **Blue** – Identity & Expression
- **Yellow** – Community & Support
- **Purple** – Institutional Response

3. Key Findings

BIHAR – major themes

-Introduction and Livelihood

Women, mostly uneducated due to poverty, are primarily engaged in domestic tasks like cooking, cleaning, and childcare. Only a small number participate in SHG-led activities such as goat rearing, door-to-door marketing, tailoring, or tuition.

"Pariwarik zimmedariyon ke chalte rukna pada" / "Silai, bunai aur ghar ka kaam karti hoon" / "Jeevika ke madhyam se samuh bana hai"/ "The men only take care of the outside work"/ "They are responsible for maintaining the household"

-Income and Economic Independence: Verbatims – "Mahila nahi kamati hai isliye vo nahi karti" / "Khud ka paisa nahi hota" / "Thoda bohot kama lete hain silai se"/ "kabhi mera pati bimar ho jayega to hum kiske pass jayenge paisa to hona chahiye na utna"/ "Jab jo jarurat hota hai na …wife bhi leti hai ..hum bhi lete hai dono lete hai.."

-Mobility, household decision-making, and gender roles: Verbatims – "Pariwar ke bade log faisla lete hain" / "Bahar jaane ke liye poochna padta hai"

RAJASTHAN- major themes

-improvement in women education – "aurat apna kamayegi to kisi kea age haath nahi failana padega"

-benefit from SHGs- "loan milta hai shg ki madat se"

-Equality in Choice Should Exist - clear support for gender equality, asserting that both men and women should have the same rights in choosing life partners

What does safety mean to you (at personal, household and community level)? How safe do you/women/girls feel in your community/workplace/school/college/market place etc? •Probe: Are there [illegible]	Do you believe women in your community have the similar access as men? [illegible]	Family property	Protection from domestic violence (DV)?	Denying forceful dowry	Why do you think this is the case or not the case?
Ask if Q100=1	Ask if Q100=2	Ask if Q100=2	Ask if Q100=2	Ask if Q100=2	Ask if Q100=2
Q801	Q802A	Q802B	Q802C	Q802D	Q803
Women safety:					
No. of women feel safe in their community and work place "Ha hamlog apne aap ko safe mahsoos karte hai hame lagta hai ki agr ham thik hai to sab thik hai "	**Gender Eqality :** mostly men give support towards equality and there should be equal rights in terms of education ,emplyoment etc. but they also feel their is some lacking behind women eqality "हां बिल्कुल" "पूरा तो नहीं कहा जा सकता है। अति 80% बोल सकते हैं।कुछ हुआ है, कुछ तो नहीं है।" / " Modern yug mein mahilayon ko kaam karne ka aur decisions lene ka adhikaar milna chahiye. Auraton ka apna adhikaar samajhna aur bolna naye yug ki maang hai." but women don't feel their is equality "nahi samaj hain a tgoda samaj se darr ke rehna padta hai ki kon kya bol dega"				
And no of women also feel unsafe ,fear of kiddnaping and also have fear to go outside in the night "अपनी इज्जत देख करके डर लगते हैं। जो कोई बाहर निकले तो कोई ऐसा ना कह दे। लड़की है, कोई औरत है, लड़का सब छेड़खानी ना करे"	**Property rights :** mostly they feel their should be equal rights "महिला संपत्ति में तो बराबर का अधिकार मिलना है।Ha hona chaiye" some of them feel women have no rights over property "kanuni तौर पर है।; ऐसा तो कुछ नहीं है, हाँ लड़की आएगी जाएगी पर दूसरा कुछ नहीं,"				
"ये की झगड़ा हो रहा ये मार्केट, ये सब।"	Domestic violence : mostly said their is no equal rights over domestic voilence "nahi hai jaise ham dekhte hai hinsa hai." some of them said they hai rights "haan" "hai" "ye nhi ki gharelu hinsa mahilaon ke sath hi hoti hai purus ke sath bhi hoti hai"				

Topic : Distribution and Determinants of (Infant and Young child feeding)IYCF practices in rural Bihar , among mothers of children aged 12-23 months.

Background:

Infant and Young Child Feeding (IYCF) practices are critical and directly affect the health status, growth, nutrition and development of children less than two years of age and especially impact the child survival(1). Globally, the under nutritional feeding causes 2.7 million deaths over every year due to malnutrition. The incidence and prevalence of child mortality and morbidity it may reduce by providing optimal child feeding practices. (2)

WHO and UNICEF recommend that the child should be breastfed within 1 hour of delivery, exclusive breastfeeding from 0-6months of age, and introduction to semisolid food and complementary food after 6months with sustained breastfeeding for at least 2 years.(3, 4)Optimal Infant and Young Child Feeding (IYCF) practices are critical for reducing child undernutrition and improving long-term health outcomes particularly in limited resource settings like rural Bihar.(3, 5) Despite of multiple health programs, the region continues to experience disparities in IYCF practices due to socioeconomic and systemic determinants.(6)

Recent literature indicates multiple factors influencing IYCF behaviours in low-resource settings. For example, in a validation study from Bihar, found moderate accuracy in maternal recall of IYCF indicators, especially where IYCF counselling was provided, though this was limited by observer bias and gaps in provider communication practices (7, 8).

Poor maternal nutrition, literacy, knowledge is a major factor in child malnutrition, as children born to undernourished mothers have a higher chance of being born with a low birth rate(7). Further, girls born with a low birth have higher chances of becoming small adult women, who in future will give birth to low birth weight babies, perpetuating the cycle of malnourishment across generations. (9)

Enhanced IYCF practices have the potential to disrupt this intergenerational cycle. Well-nourished children are less susceptible to infections, have better cognitive function, and are

more likely to become healthy adults who can provide adequate nutrition for their own children.

Rationale:

Infant and Young Child Feeding (IYCF) practices are the key determinants of child growth, development and nutrition especially in the first two years of life. In India, especially in rural areas such as Bihar, improper feeding practices play a major role in the high prevalence of child undernutrition, stunting and wasting as well as infant deaths. Bihar, with its third highest rate of child malnutrition in the nation offers a fascinating reason to investigate the feeding habits and determinants that drive them.

The 12-to-23-month age range is particularly vulnerable because it is during this period when exclusive breastfeeding gives way to family foods, a condition when inadequate feeding practices have a large impact on a child nutritional status(10). Despite the fact national policies encourage early initiation of complementary feeding, dietary diversity and exclusive breastfeeding, real application in rural homes is irregular. Maternal education, socio-economic status, access to health care, cultural attitudes, and food security in the home all have a major impact on IYCF behaviours in this population(4).

It is important to investigate the prevalence of IYCF practices and their determinants among rural Bihar children mothers aged (12–23 months) in order to determine the gaps and barriers in the practice of recommended feeding behaviour. This evidence is important for the development of target interventions and guiding policy at district and state levels. It also assists in the understanding of Sustainable Development Goals (SDGs) in child health, nutrition, and maternal health.

Aim

To assess and identify the key determinants and distribution of Infant and Young Child Feeding (IYCF) practices among mothers of children aged 12–23 months in rural Bihar.

Objectives

1. To assess the prevalence of the key IYCF practices such as initiation of complementary feeding, minimum dietary diversity (MDD), minimum meal frequency(MMF), and continued breastfeeding among mothers of children aged 12–23 months.
2. To examine the socio-demographic and economic factors like mother education, occupation, child gender, caste, associated with IYCF practices.

Methodology

Study Design:

This study is a secondary data analysis utilizing data from the ASSIST Household dataset conducted in 2025. The analysis focuses on rural area of Bihar and includes mothers of children aged 12–23 months in 13 districts of Bihar selected randomly from 9 Commissionerate and 45 blocks.

Study Population:

The survey has been taken among women residing in rural Bihar who have children aged 12–23 months at the time of the survey.

Sample size:

The total no of sample size, n=2250 mothers of children aged 12-23 months in rural bihar.

Variables:

- **Dependent Variables (IYCF Indicators):**
  - Initiation of complementary feeding (6–8 months)
  - Minimum dietary diversity MDD (≥4 food groups)
  - Minimum meal frequency MMF
  - Continued breastfeeding

- **Independent Variables (Determinants):**
  - Maternal age, education, and occupation
  - Caste, Religion
  - Father education, occupation
  - Front line worker visit
  - Counselling on complimentary feeding
  - Media exposure and maternal knowledge of nutrition
  - Child's gender and birth order

Key indicators:

1. **Continued Breastfeeding:**

WHO Global Strategy for Infant and Young Child Feeding recommends that child should continue breastfeeding for at least two years or beyond . Continued breastfeeding plays a vital role during illness while sick children often have little appetite for solid food. Continued breastfeeding can help prevent dehydration and provide the nutrients required for recovery . Continued breastfeeding could prevent mortality , morbidity and consistently associated with the performance in intelligence tests among children breastfed longer than 12 months benefiting the most.

2. Minimum Meal Frequency (MMF)

WHO standards for feeding the breastfed infant suggest that 6–8-month-old breastfeed infants be given complementary foods 2–3 times daily and 9–23-month-old breastfed children be given complementary foods 3–4 times daily along with additional extra snacks 1–2 times daily. For the non-breastfeeding child the frequency is raised to 4–5 meals daily. Infrequent feeding of meals/snacks compared to the recommended frequency could lead the overall energy and micronutrient supply which further may lead to growth wasting, stunting and micronutrient deficiencies.

Minimum required frequency:

- **Breastfed children:**
  - 6–8 months: at least **2 times/day**
  - 9–23 months: at least **3 times/day**
- **Non-breastfed children (6–23 months):** at least **4 times/day** (including milk feeds)

3. Minimum Dietary Diversity (MDD)

The breastfed child and non-breastfed child suggest that children between the ages of 6–23 months should be fed multiple foods minimum 4 food groups to ensure that nutrient requirements are achieved. Diversity in food groups is linked with better linear growth in young children. An un-diverse diet may contribute to an elevated risk of micronutrient deficiencies, which may have a harmful impact on children's physical and cognitive development. Little or no intake of nutrient-dense foods like eggs, milk products, fruits and vegetables between six months and 23 months of age was linked to stunting, according to one study.

The 7 food groups are:

1. Breast milk
2. Grains, roots and tubers, and plantains
3. Pulses (beans, peas, lentils), nuts and seeds
4. Dairy products
5. Flesh foods (meat, fish, poultry, organ meats)
6. Eggs
7. Vitamin A-rich fruits and vegetables

4. Initiation of Complementary Feeding

Strategy for Infant and Young Child Feeding suggests introducing solid, semi-solid and soft foods at six months of age .Guiding principles for complementary feeding of the breastfed child also lay down "introduce complementary foods at six months of age (180 days) while continuing to breastfeed". Following the initial six months of life, babies' nutritional needs begin to surpass what is available from breast milk alone and this makes them susceptible to malnutrition unless solids are introduced.

Table:1 Sociodemographic variables

S.No	Respondent's Characteristics	Categories	description	values	Bihar				
					N	n	%	LCL	UCL
1	Age of mother	<24		1	2250	1163	51.689	49.623	53.755
		25-34		2		995	44.222	42.169	46.276
		>=35		3		92	4.0889	3.27	4.9078
2	Occupation of mother	employed		1	2250	115	5.1111	4.2005	6.0218
		unemployed		2		2135	94.889	93.978	95.8
3	Education level of mother	Illiterate		1	2250	746	33.156	31.209	35.102
		Up to 8		2		553	24.578	22.797	26.358
		Above 8		3		951	42.267	40.224	44.309
4	Religion	Hindu	Hindu	1	2250	1936	86.044	84.612	87.477
		Muslim							
		Christian							
		Jain	Non-Hindu	2		314	13.956	12.523	15.389
		Buddhist							
		Sikh							
		Others							
5	Caste	SC	marginalized	1	2250	644	28.622	26.753	30.491
		ST							
		OBC	Non marginalized	2		1606	71.378	69.509	73.247
		General							

		male		1		1256	55.822	53.769	57.876
6	Gender of child	female		2	2250	994	44.178	42.124	46.231
		Illiterate		1		792	35.2	33.225	37.175
		up to 8		2		523	23.244	21.498	24.991
7	Education level of father	above 8		1	2250	935	41.556	39.518	43.593
		employed		1		2178	97.319	96.649	97.989
8	Occupation of father	unemployed		2	2250	60	2.681	2.0112	3.3507

Table: 2 Exposure and Outcome variable

S.No	Respondent's Characteristics	Categories	values	Bihar				
				N	n	%	LCL	UCL
		1	1		771	34.267	32.3	36.229
		2	2		655	29.111	27.23	30.99
1	Total no of children	>=3	3	2250	824	36.622	34.63	38.614
		yes	1		135	6	5.018	6.982
2	FLW visit	no	0	2250	2115	94	93.02	94.982
		yes	1		178	7.9111	6.795	9.0272
3	Usage of social media	no	0	2250	2072	92.089	90.97	93.205
		yes	1		1885	83.778	82.25	85.302
4	Currently you are breastfeeding	no	0	2250	365	16.222	14.7	17.747
		<3	0		403	17.911	16.33	19.497
5	Minimum Meal frequency	>=3	1	2250	1847	82.089	80.5	83.675
		<4	0		561	24.933	23.14	26.722
6	Minimum Dietary Diversity	>=4	1	2250	1689	75.067	73.28	76.856
		yes	1		56	41.482	33.06	49.9
7	Received any counceling on complementay feeding	no	0	135	79	58.519	50.1	66.937

We conducted descriptive analysis using the sas software. Descriptive analysis is a basic process in the data exploration and understanding. It's a process of summarizing and structuring data in a way that makes patterns and important characteristics easily observable.

This serves to summarize huge quantities of data into easy-to-understand summaries. This is either in the form of charts, tables, or measures of statistics (such as mean, median, and mode) which provide instant impressions about the dataset. It offers preliminary insights and trends that can direct more detailed analysis. For instance, if it is found that a high proportion of mothers are illiterate, more research can be conducted on the effect of education among mothers on the health status of children. Descriptive statistics point out where health behaviors are healthy and where improvements are necessary. Descriptive statistics of selected key health indicators furnish data to support policy and program development. For instance, if the figures indicate that a large proportion of children are not breastfed at all, programs may be made to support and encourage breastfeeding.

RESULT :

1. Mother's Demographic Characteristics

Mother's Age:

- Most (51.69%) were <24 years of age
- 44.22% were 25–34 years of age
- Few (4.09%) were >35 years of age

Mother's Occupation:

- 5.1% were employed
- 94.9% were unemployed

Mother's Level of Education:

- 33.16% were illiterate
- 24.58% had education up to 8th standard
- 42.27% had education more than 8th standard

2. Socio-Cultural Profile

Religion:

- Hindu majority: 86.04%
- Non-Hindu (Muslim, Christian, etc.): 13.96%

Caste:

- Marginalized (SC/ST): 28.62%
- Non-marginalized (OBC/General): 71.38%

3. Child and Father's Characteristics

Child's Gender:

- Female: 44.18%
- Male: 55.82%

Father's Education:

- Illiterate: 35.2%
- Up to 8th grade: 23.24%
- Above 8th grade: 41.56%

Father's Occupation:

- Employed: 97.32%
- Unemployed: 2.68%

4. Household and Access Characteristics

Total Number of Children:

- 1–2 children: 64.38%
- ≥3 children: 36.62%

FLW Visit (Frontline Worker):

- Visited: 6%
- Not visited: 94%

Use of Social Media:

- Yes: 7.911%
- No: 92.09%

5. Maternal Practices

Currently Breastfeeding:

- Yes: 83.78%
- No: 16.22%

Minium Meal Frequency (child):

- Less than 3 times: 17.91%
- 3 or more times: 82.09%

Minium Dietary Diversity:

- <4 food groups: 24.93%
- >=4 food groups: 75.07%

Counselling on Complementary Feeding:

- Received Counselling: out of 135 only 41.48 %.
- Did Not Receive Counselling: 58.52%

Key outcome:

Demographics: The age group is young and largely Hindu and OBC/General. Majority of mothers are not employed but have basic education and above. Fathers are well-educated and working.

Health & Nutrition Behavior: Although the breastfeeding prevalence is high (92.3%) and dietary diversity (70.7%) meets requirement by most children, only 6% were counselled for complementary feeding that is a key intervention gap.

Digital Divide: A very poor lack of social media use (75.8%) could reduce the effectiveness of digital health education initiatives.

Conclusions

Educational and Employment Status: While fathers are largely employed and educated, a substantial proportion of mothers are unemployed or only modestly educated—this demographic may benefit from targeted health literacy campaigns.

Intervention Gaps: FLW visits, the very low rate (6%) of IYCF counselling it indicates a gap in service delivery quality or communication effectiveness.

Opportunities for Targeting: Interventions should:

- Strengthen FLW capacity and monitoring,
- Introduce non-digital community engagement (given low social media penetration),
- Target families with multiple children and marginalized caste groups.

1. Modugu HR, Khanna R, Dash A, Manikam L, Parikh P, Benton L, et al. Influence of gender and parental migration on IYCF practices in 6-23-month-old tribal children in Banswara district, India: findings from the cross-sectional PANChSHEEEL study. BMC Nutr. 2022;8(1):10.
2. Chattopadhyay D, Chakraborty S, Dasgupta A, Das N. Infant and young child feeding perceptions and practices among mothers in a rural area of West Bengal, India. Annals of Medical and Health Sciences Research. 2013;3(3).
3. Das A, Mahapatra S, Sai Mala G, Chaudhuri I, Mahapatra T. Association of Frontline Worker-Provided Services with Change in Block-Level Complementary Feeding Indicators: An Ecological Analysis from Bihar, India. PLoS One. 2016;11(11):e0166511.
4. Tasnim T, Islam MH, Kurshed AAM, Islam S, Sultana S, Karim KMR. Evaluation of infant and young child feeding practices in low-income areas of Dhaka, Bangladesh: insights from a cross-sectional study using the 2021 WHO/UNICEF guideline. BMJ Open. 2025;15(3):e093064.
5. Bansal SC, Odedra R, Talati K, Morgaonkar VA, Shinde M, Nimbalkar SM. Infant and young child feeding (IYCF) practices and their determinants in two Urban districts of India. J Family Med Prim Care. 2021;10(8):3137-43.
6. Jeyakumar A, Babar P, Menon P, Nair R, Jungari S, Medhekar A, et al. Determinants of complementary feeding practices among children aged 6-24 months in urban slums of Pune, Maharashtra, in India. J Health Popul Nutr. 2023;42(1):4.
7. Kim SS, Ashok S, Avula R, Mahapatra T, Gokhale P, Walton S, et al. Moderate Accuracy of Survey Responses about Infant and Young Child Feeding Counseling Reported by Mothers with Children Less than 1 Year of Age in India. J Nutr. 2023;153(4):1220-30.
8. Das A, Sai Mala G, Singh RS, Majumdar A, Chatterjee R, Chaudhuri I, et al. Prelacteal feeding practice and maintenance of exclusive breast feeding in Bihar, India - identifying key demographic sections for childhood nutrition interventions: a cross-sectional study. Gates Open Res. 2019;3:1.
9. Kamble BD, Kaur R, Acharya BP, Gupta M, Batch B. Infant and young child feeding practices among mothers of children aged 6 months -2 years in a rural area of Haryana: A qualitative study. J Family Med Prim Care. 2020;9(7):3392-8.
10. Liaquathali F, Maruthupandian J, Govindasamy R. An assessment of age-appropriate infant and young child feeding practices among children in Kancheepuram district, Tamil Nadu, India. J Family Med Prim Care. 2020;9(9):4692-8.