

Rapid Assessment of Knowledge and Practice of ‘Infant and
Young Child Feeding’ and ‘Water and Sanitation Hygiene
Practices’ in Araria, Bihar

By

Debasish Ghosh

*Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management*

Academic year, 2016-2018



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TO WHOM SO EVER MAY CONCERN

This is to certify that **Debasish Ghosh** student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at **Care India, Bihar** from **05 Feb, 2018 to 10 May, 2018.**

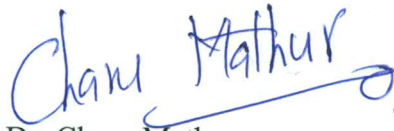
The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.



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The certificate is awarded to

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

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and has successfully completed his Project on

**Rapid Assessment of Knowledge and Practice of 'Infant & Young Child Feeding' and
'Water and Sanitation Hygiene practices' in Araria, Bihar.**

Date: 08.05.2018

Care India

He comes across as a committed, sincere & diligent person who has a strong
drive and zeal for learning

We wish him all the best for future endeavors


Deputy Director HR & OD

THE IIHMR UNIVERSITY, JAIPUR**CERTIFICATE BY SCHOLAR**

This is to certify that the dissertation titled **Rapid Assessment of Knowledge and Practice of Infant and Young Child Feeding and Water and Sanitation Hygiene Practices in Araria, Bihar** and submitted by **Debasish Ghosh** Enrollment No. **0408** under the supervision of **Dr. Charu Mathur** for award of MBA in Hospital and Health Management of the University carried out during the period from **05/02/2018** to **10/05/2018** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Debasish Ghosh
Signature

Acknowledgement

At this juncture of completion of my dissertation, first, I would like to thank the almighty for showering his blessings on me. I would like to sincerely thank The IIHMR University for giving me this platform of learning and making me a part of this renowned institution.

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1. Abbreviations:

1. EIBF- Early Initiation of Breastfeeding
2. EBF- Exclusive Breast Feeding
3. CF- Complementary Feeding
4. CBF- Continuous Breast Feeding
5. WHO- World Health Organization
6. NFHS- National Family Health Survey
7. DLHS- District Level Household Survey
8. BPNI- Breastfeeding Promotion Network of India
9. AWW- Anganwadi Worker
10. ASHA- Accredited Social Health Activist
11. ANM- Auxiliary Nurse Midwife
12. ANC- Ante Natal Check
13. PNC- Post Natal Check
14. IYCF- Infant and Young Child Feeding
15. WASH- Water and Sanitation Hygiene
16. BFHI- Baby Friendly Hospital Initiative
17. KMC- Kangaroo Mother Care
18. LS- Lady Supervisor
19. CDPO- Child Development Project Officer
20. MUAC- Mid Upper Arm Circumference
21. MAM- Moderately Acute Malnourished
22. SAM- Severely Acute Malnourished
23. NHM- National Health Mission
24. PMSMA- Pradhan Mantri Surakshit Matritwa Abhiyan
25. MAA- Mothers Absolute Affection
26. CF DAY- Complementary Feeding Day
27. CMAM- Community based Management of Acute Malnutrition
28. BPNI- Breastfeeding Promotion Network of India

2. Introduction

Inappropriate infant and young child feeding practices (IYCF) in India are responsible for high prevalence of underweight, stunting and wasting, and ultimately there is increase in malnutrition, morbidity and mortality of infants in the country. Malnutrition is more common in India and other low middle-income countries. About 50 per cent of all childhood deaths are attributed to malnutrition (UNICEF 2014). Malnutrition in children is not affected by food intake alone, it is also influenced by micro-nutrients, health services, quality of care for the child and pregnant mother as well as good hygiene practices (Talapalliwar, M. R, et al 2012).

Malnutrition in early childhood has serious, long term effects such as severe anaemia, vitamin- A deficiency, rickets, goitre etc. Nearly 30 per cent of all new-borns have a low birth weight, making them vulnerable to further malnutrition and susceptible to host of diseases. Vitamin and mineral deficiencies also affect a child's survival and development.

Therefore considering a life course perspective, to a child is a very important and effective link which will influence malnutrition, mortality and morbidity, which may have debilitating effect on not only on the individual but also on the society.

To address the under nutrition across India, in 2013 the National Health Mission (NHM) under the Ministry of Health and Family Welfare (MoHFW) developed guidelines for enhancing optimal infant young child feeding practices. Subsequently, an action plan was developed that requires provision of IYCF counselling at all government health facilities where deliveries take place. The guidelines also mention that facilities with high caseloads of deliveries should have a dedicated IYCF counsellor.

Breastfeeding is the practice through which adequate nutrition and other nutritional supplements, requirements of the new-born are taken care of. Adequate nutrition is essential for infant health and their overall development. Breastfeeding provides all essential micronutrients that are required for physical and cognitive development of an infant up to six months of age. The “1000 days” period that encompasses pregnancy and the child's first two years after birth is considered the key window of opportunity for preventing under nutrition and its long-term consequences. Feeding practices constitutes

major components of child caring apart from socio cultural, economic and demographic factors. Breastfeeding practices in rural areas are governed by their beliefs which are influenced by their social, cultural and economic condition. But since many vital processes in the growth and development of humans occur during this short period, infant feeding affects many aspects of life.

Breast feeding impacts growth in several ways, such as through reduction of morbidity due to infections, stronger immunological response to disease due to transfer of maternal antibodies and provides optimum balance of nutrients, growth factors, enzymes, hormones, and other bioactive factors.

Breast milk alone is enough to meet the all thenutritional need of an infant for the first six month of life. After six month of age, to meet a child`s nutritional requirements, breast milk should be supplemented by other foods.

The time from birth to about 36 months is critical in early childhood development for stimulating positive cognitive development, particularly in settings where poor health, and under nutrition are common. In addition, breastfeeding and responsive feeding, provide constant positive interaction between mother and child which can contribute to emotional and physiological development of an infant.

3. Literature Review

4.1.Undernutrition “including fetal growth restrictions suboptimum breastfeeding, stunting, wasting and deficiencies of vitamin A and zinc, cause 45% of child deaths worldwide, resulting in 3.1 million deaths annually (Lancet 2013).

4.2.According to Food and Agriculture Organization the greatest decline in nutritional status of children occurs between six months to two years of age during which complementary feeding should start. But this is not frequently followed properly due to variety of reasons such as poor utilization of locally available nutrient-dense foods, time constraints related to meal preparation, poor and inadequate water and food storage options and lack of knowledge and time for age-appropriate feeding by caregivers. This result in complementary foods with inadequate energy and micronutrient with added risk of contamination introduced during preparation and/or storage.

4.3.According to a report by Republic of the Union of Myanmar on Knowledge, Attitude and Practice survey on Infant and Young child Feeding of children aged 0

to 23 months living in IDP camps in Nam H.kam and May Ja Yang in North Shan state and Kachin State (2014) it was concluded that the main decision maker on when to initiate breastfeeding was the mother in 58% of the cases although medical staff/nurses also significantly influenced the practice by facilitating the initiation of breastfeeding within an hour(56%).

- 4.4. In a study on Knowledge, Attitude and practices of Mothers about Breast feeding in Bihar by Yadav R.J, Singh P (2004-07-2004-09) it was revealed that only 29% of the mothers started breast feeding within 24 hours and about one third mothers discarded the colostrum on advice on their elders who were of opinion that it was not good for health of the newborn.
- 4.5. In a study on Breast feeding knowledge, attitudes and practices among post-natal mothers of Patna district by Kumari.V, Sharma.A (2018) it was concluded that even though majority of the mothers had knowledge about the importance of colostrum feeding but they were not practicing the same. Undesirable cultural practices were being followed such as giving pre-lacteal feeds, early/late initiation of breastfeeding after birth, discarding the colostrum, delay in introduction of weaning foods and avoiding exclusive breastfeeding.
- 4.6. In another study on knowledge, attitude and practices of nourishing mothers about breast feeding, attending urban health center: A cross-sectional study from Kishanganj, Bihar by Kumar L, Shahnawaz K (2014) concluded that there was suboptimal knowledge and practices of early breastfeeding among mothers although a positive changing trend were seen in aspects of colostrum feeding.
- 4.7. At & T Bihar formative research suggests that more than half of the mothers in Gaya, Gopalganj and Saharsa reported early initiation of breastfeeding after delivery. The findings of LQAS 2016 says that only 15. (Care India, Bihar). Research also suggests that there is a difference in practice of breastfeeding by ethnic groups and by geography.
- 4.8. According to the national family health survey 2015-16 (NFHS-4), in Araria only 1.8% mothers had gone through full antenatal care. It is also evident from the study that only 7.9 % of mothers consumed 100 or more IFA tablets when they were pregnant. Literacy rate among females in Bihar is lowest in India with 51.5 percent.
- 4.9. According to HMIS data only 65 per cent of new born breastfed within one hour of birth. The post-natal hospital stay is a vital time for the beneficiaries to get some knowledge regarding care taking and getting services. According to HMIS forty

eight percent of women in India discharged in less than 48 hours of delivery to total reported deliveries at public institution. In Bihar 88.8 percent of women leaves the facility within 48 hours after delivery. The number is highest in India.

- 4.10. According to Rapid Survey on Children 2013-14, 38.5 percent children received ORS within 2 weeks of onset of diarrhea, whereas only 5.4 percent received zinc at the same time.
- 4.11. The intergenerational cycle of malnourishment continues in Bihar as 39.1 percent of women were married before the age of 18 at the time of NFHS-4 survey. They reported that only 30.9 percent children aged 6-8 months receiving solid and semi solid food with breastmilk.
- 4.12. Study suggests that, in many countries the rate of exclusive breastfeeding had increased as the educational status of mothers improved. As a flood prone area people uses drinking water source mainly from tube well or borehole, dug well; As per the survey report only 12.5% household uses improved source of sanitation facility which directly affects the water and sanitation hygiene of the population. Apart from WASH and drinking water, only 5.2 % of people uses clean fuel for cooking.
- 4.13. The nutritional status of the children is very poor where 48.4% children are stunted, 22.8% children are wasted and 45.4% children under 5 are underweight. These might be the effect of feeding practice and knowledge level regarding feeding where only.
- 4.14. Breast milk cannot be duplicated by any artificial means and studies consistently demonstrate that public health interventions for improved breastfeeding are essential for child survival. Optimal IYCF practices – especially early initiation and exclusive breastfeeding for the first six months of life- help ensure young children the best possible start to life. Breastfeeding is nature`s way of nurturing the child, creating a strong bond between mother and child. Breastfeeding fosters the emotional security and affection with lifelong cognitive development. A breastfeed baby is likely to have an IQ of around 8 points higher than a non-breastfed baby.

4. Research question

1. What is the level of knowledge of Infant Young Child Feeding and water and sanitation hygiene practices among rural lactating mothers having a child aged between 6 months to 24 months?
2. What is the level of practice of Infant Young Child Feeding and water and sanitation hygiene practices among rural lactating mothers having a child aged between 6 months to 24 months.?

5. Research objective

1. To measure the level of **knowledge** regarding IYCF and WASH among rural lactating mothers having a child aged between 6 months to 24 months.
2. To measure the level of **practice** followed by the rural lactating mothers.
3. To assess the level of malnutrition based on Mid Upper Arm Circumference tape.
4. To make out further plans for proper implementation on Mothers Absolute Affection program.

6. Rationale

Bihar is amongst the most populous state of the country and contributes a large share to the infant mortality, under-5 mortality and neonatal mortality. According to sample registration system (SRS)-2016, 34 Infants per 1000 live births die in India. Of the major diseases which kill lakhs of Infants and young children in India the three most important are neonatal sepsis, diarrhoea and pneumonia. One of the primary reasons responsible for such diseases that make the child vulnerable, is inappropriate and inadequate breast-feeding practices and the low level of breast feeding. It has been further stated in District Level Household Survey-3, 77% child deaths attributable to the sub-optimal breastfeeding practices and further due to non-exclusive breast feeding during first 0-6 months of life (DLHS-3).

In Bihar, according to the National Family Health Survey 2015-16 (NFHS-4), only 34.9 percent mothers initiate breastfeeding her child within one hour of birth whereas the rate in case of Araria is 29.6 percent. Late initiation of breastfeeding, ranging from a delay of three hours up to three days is obvious in the actual scenario in case of Araria.

Further the survey suggests, 51.2 percent children were breastfed exclusively for the first six months and 10.7 percent of the total children aged between 6-23 months receiving an adequate diet at the time of survey

As a flood prone area people uses drinking water source mainly from tube well or borehole, dug well; as per the survey report only 12.5 percent household uses improved source of sanitation facility which directly affects the water and sanitation hygiene of the population. Apart from WASH and drinking water, only 5.2 % of people use clean fuel for cooking.

Many myths and misconceptions about breastfeeding are abruptly visible in the rural areas of Araria District. Where the tendency of giving pre-lacteal, substance is a practice after delivery, mothers used to be confused regarding the time to start the breastfeeding and the duration of exclusive breastfeeding. It is very common to feed the child on demand (baby's crying) and to start the complementary feeding when the child will start to crawl and walk.

Thus, the current assessment aimed at understanding the knowledge level of the mothers or care taker in Araria District of Bihar regarding breastfeeding and WASH, and to know the actual practice followed by the knowledge.

Moreover, there are very few studies conducted in Araria District on this topic.

7. Methodology

7.1 Study setting

The study was conducted in Araria District of Bihar. Bihar is situated at the north-east part of India and bordered by many states like; West Bengal, Jharkhand, Orissa, Uttar Pradesh and Internationally by Nepal. Situated at the Northern part of Bihar, Araria District occupies an area of 2830 square kilometre, which is spread over nine community development Blocks. According to census 2011, with a population of 28, 11,569, Araria ranks 19th largest district in terms of population and 15th in terms of area.

During the British period, the area where Mr Forbes's bungalow was located was called 'Residential Area', which people abbreviated to R. Area. Over time, R. area acquired the pronunciation Araria. Approx. 94 per cent population live in rural area.

The administrative headquarters of the district is situated in Araria.

Araria is divided into 9 community development blocks namely:

1. Araria
2. Bhargama
3. Forbesganj
4. Jokihat
5. Kursakanta
6. Palasi
7. Narpatganj
8. Raniganj
9. Sikti

7.2 Study area

The study area for the current study was all the blocks in the district of Araria.

7.3 Study design

Cross-sectional study design has been used for this assessment. Cross sectional study design used in investigating etiology of a disease exposure and outcome simultaneously in a defined population. This is also known as pre

In the current study, socio-demographic profile of the study population was assessed. Furthermore, data on the number of children and the place (i.e. home vs. institution) of delivery was collected. Information about the knowledge of mother about infant and young child feeding and water and sanitation hygiene practices were collected followed by data on the actual practices was collected during the interview. Multistage sampling method was used for the data collection.

At present, nine integrated child development projects are operating in Araria. All nine projects were selected for the study. Additionally, nine sectors from each project were

selected randomly. Thereafter line listing was created for Anganwadi centres under the selected sectors; five Anganwadi centres were selected randomly from each sector.

Respondents were mothers of children aged between six months to 24 months. Data was collected from the month of March 2018 to April 2018. Sample size (180) was estimated after doing the literature review as the sample size of 180 is considered as fair enough sample size (Comrey and Lee, 1992; Tabacnik and Fidell, 1996; Vanvoorhis and Morgan, 2007)

7.4 Sampling frame

The universe consists of all the married women regardless of their age who have delivered in the past six months and age of their last-born child was not less than six months and not more than 24 months at the time of interview.

7.5 Sample size

A sample of 180 mothers of children aged between 'six months to twenty-four months' were selected for the study.

7.6 Inclusion criteria

1. All lactating mothers with a child aged between 06-24 months and are consenting.

7.7 Exclusion criteria

1. Women who do not have child aged between 06-24 months, and women who are otherwise eligible, but refuse to consent to the study

7.8 Interview method

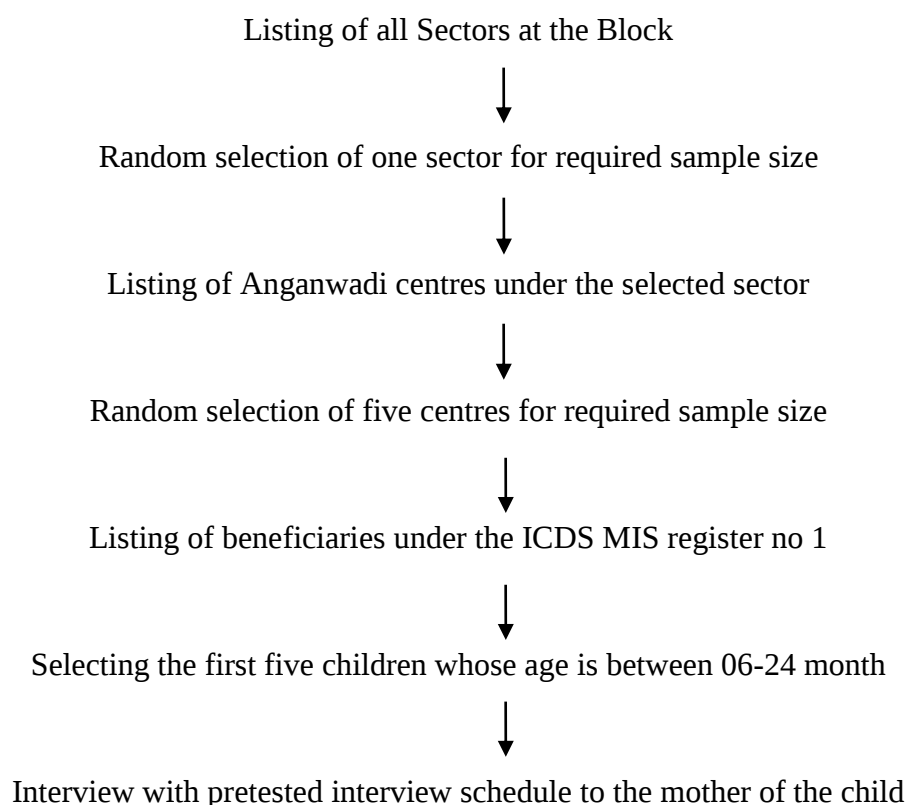
Data were collected from mothers of child aged between 'six months to twenty-four months' with the help of interview schedule. List of children below twenty-four months of age were collected from Anganwadi Centre's register. Interviewer visited the villages and invited respondents to participate in the study. For eligibility child's was considered as main criteria. Eligible participant's face to face interview conducted. Interview was conducted in Hindi language. Information was collected regarding knowledge and

practice of early initiation of breastfeeding (EIBF), exclusive breast feeding (EBF), complementary feeding (CF), water and hygiene practices etc.

Information like education of mothers, parity, gravidity, religion, caste etc. was also collected. During data collection the consent form was filled by each respondent.

Further to assess the level of malnutrition among the study population, Mid Upper Arm Circumference (MUAC) of the children was measured by MUAC Tape.

7.8.1 Sampling methodology at a glance



7.9 Methods of data collection

Data was collected by interviewer and researcher with a scheduled interview. For the collection of data home visits were done with the help of Anganwadi Worker. The data collected was from primary source.

7.10 Data analysis

Data analysis were done using SPSS 21 package. The procedure of analysing statistics was followed when data was compiled into the package software. Frequencies of different variables were calculated. Knowledge and practice were measured with nominal scale.

7.11 Ethical considerations

The study objective being on a sensitive subject, all stakeholders were informed of the ethical considerations which could be faced by the data collectors. Before administering of the schedule, researcher explained to the respondents about the objective of the assessment and the importance of participation in the study. Informed consent was taken before filling up the questionnaire.

8. Data Analysis and Results

8.1 Socio-demographic profile of the respective respondents

This section presents the assessment findings which have been arranged in various parts according to the objective of the study. In the first section, the descriptive profile of the study respondents has been described in terms of the socio-demographic profile of the participants under the assessment. A total of 180 participants were selected in the rural area of Araria district of Bihar. Twenty respondents from each community development block were taken as sample for the assessment.

Table 1: Age of respondents

Age group (Years)	Total (%)
<15	2.2
16-20	23.3
21-24	42.8
25-29	20.6
>=30	11.1

From the study it was observed that the participants age was ranging between 12 to 39 yrs. Around 2.2 percent of the total 180 respondents were less than 15 years of age at the time of study. Majority of the respondents i.e. 42.8 percent of the total respondents were in the age group of 21 to 24 years of age. Further the respondents who were aged between 16 to 20 years were constituted around 23.3 percent of the total sample.

Table 2: Occupation status of mother

Occupation	Total (%)
Housewife	90.6
Skilled labour	1.1
Unskilled Labour	2.2
Agriculture worker	6.1
Job	0

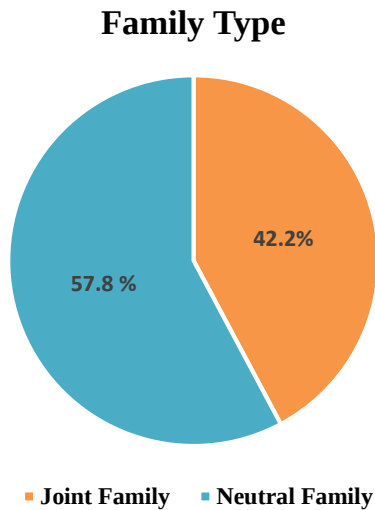
Considering the occupation of the mothers, of the total constitution 90.6 percent were housewife. Further the second major category was for the agricultural labourers which constituted 6.1 percent of the total sample. Skilled labours constituted 1.1 percent and 2.2 percent of the total sample were unskilled labour.

Table 3: Literacy rate

Educational status	Total (%)
Illiterate	21.7
Primary	49.4
Middle	19.4
Secondary	5.6
Higher secondary	3.9
Graduate and above	Nil

As can be seen from the above table that majority of the respondent i.e. 78.3 percent were literate with a varying educational status. Only 21.7 percent of the total respondents were illiterate. Further it can be seen from the above table that 49.4 percent respondents of the total respondents had a primary education, another 19.4 percent of the total having middle school education, 5.6 percent of the total had studied till secondary and 3.9 percent of them had studied till higher secondary and finally no respondents were having graduation and above of education. It can be seen from the above table that the participants having primary level education constituted the largest portion of the given categories.

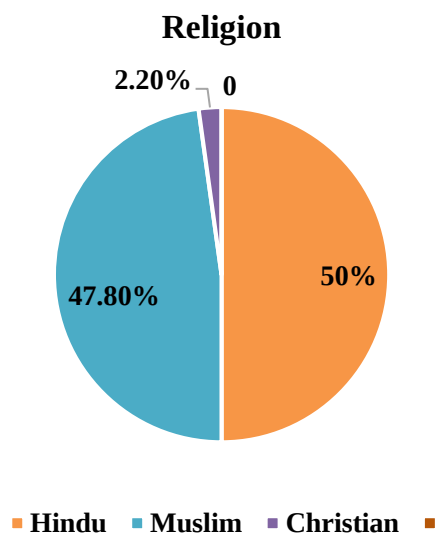
Figure 1: Family type of respondents



This section gives a description about the type of the family of the respondents living in i.e. nuclear family or a joint family. Most of the respondents i.e. 57.8 percent were living in a nuclear family and the rest 42.2 percent of the total were living in a joint settlement.

The above analysis gives a small hint about the fast disintegration of the family structures in the modern times and a rapid shift and a greater inclination of the present generation for nuclear families.

Figure 2: Religion of the respondents:



While looking at the distribution of the respondents based on their religion, it was seen that majority of the respondents i.e. 50 percent of the total 180 belonged to Hindu religion. The second biggest chunk of the respondents belonged to Muslim category which were 47.8 percent, and Christians constituted 2.2 percent of the whole and the rest.

It was observed from the study that, the Muslim population count were in higher proportion in Jokihat, Araria and Palasi Block, while Christians were abruptly present in Sikti Block.

Table 6: Caste of the respondents

Caste	Total (%)
General	59.4
SC	10
ST	9.4
OBC	21.1

Describing the caste of the study population, it was being seen that General caste constituted majority of the respondents which were 59.4 percent of the total. 21.1 percent of the total study participants constituted were Other Backward Class population, 10 percent were Schedule Caste and 9.4 percent belonged to Schedule Tribe category.

Table 7: Place of birth of Child

Place birth of your youngest child	Total (%)
Public Facility	77.2 %
Private Facility	17.2 %
Home Delivery	5.6 %
Others	0.0 %

From the above table it is visible that, most of the respondents i.e. 94.4 percent had given birth at the institution., 77.2 percent at the public facility level while 17.2 percent at the private facility. Few of the respondents, 5.6 percent had given birth at their home.

Table 8: Time of Pregnancy registration

Pregnancy registration	Total (%)
1 st Trimester	62.2 %
2 nd Trimester	23.2 %
3 rd Trimester	2.2 %
NA	12.2 %

The above table showed that 62.2 percent of the respondents registered their pregnancy at the first trimester, 23.2 percent at the second trimester, 2.2 at the third trimester and importantly 12.2 percent were not having any knowledge of registering their birth.

Table 9: Availability of MCP card

Do you have MCP card	Total (%)
Yes	82.2 %
No	13.9 %
NA	3.9 %

After registering one's pregnancy ANM / Health facility centre provides them one Mother and Child Protection Card. While most of the respondents i.e. 82.2 percent were having MCP Card, 13.9 percent were not having card with them and after verification 3.9 percent of the respondents could not show their card to interviewer or it has been lost or damaged.

8.2 Analysis of knowledge and practice of infant & young child feeding and water and sanitation hygiene practices

In this section of report, knowledge and practice of infant & young child feeding and water and sanitation hygiene practice among mothers have been studied.

Table 10: Knowledge about feeding colostrum

Knowledge about feeding colostrum	Total (%)
Yes	104 (57.8%)
No	76 (42.2%)

When the respondents were asked whether they had any prior knowledge about the importance of colostrum feeding for the growth and development of their infant, 57.8 percent of them said that they were aware that colostrum was important for the growth and development of their baby while 42.2 percent respondents were unaware of it.

Table 11: Practice of feeding colostrum

Practice of colostrum feeding	Total (%)
Yes	99 (55%)
No	81 (45%)

It is clear from the above table that 55 percent of the respondents fed colostrum to their child after birth. Comparing the above two table about colostrum feeding, it is evident that, few of the respondents did not practice the same without having knowledge. While 45 per cent of the respondents did not feed colostrum to their child.

Table 12: Knowledge of early initiation of breastfeeding (Within 1 hr of birth)

Knowledge of EIBF	Total (%)
Yes	105 (58.3%)
No	75 (41.7%)

About the knowledge of early initiation of breast feeding for the growth and development of the infant, 58.3 percent said that they were aware that early initiation of breast feeding, while the rest i.e. 41 percent said that they were unaware about it.

Table 13: Practice of early initiation of breastfeeding (Within 1 hr of birth)

Practice of EIBF	Total (%)
Yes	80 (44.4%)
No	100 (55.6%)

From the above table it is evident that majority of the participants i.e. 55.5 percent of the participants did not initiate breast feeding to their babies within an hour after delivery and only 44.4 percent of them initiated breastfeeding within an hour.

Table 14: Knowledge of not giving pre-lacteal food (Just after birth and before EIBF):

Knowledge of not giving pre-lacteal food	Total (%)
Yes	59 (32.8%)
No	121 (67.2%)

When the respondents were told that, they should not start pre-lacteal feeding for the baby, 32.8 percent of the respondents said that they are aware about it, considering its cultural and ritual believes, whereas said that pre-lacteal feeds were not important for the baby.

Table 15: Practice of giving pre-lacteal food

Practice of pre-lacteal food	Total (%)
Yes	61 (33.9%)
No	119 (66.1%)

While it comes to the matter of practice, 33.9 percent of the babies were fed pre-lacteal substances, rest 66.1 percent told they didn't give pre-lacteals. Moreover, it's a matter

of changing culture as most of the non-givers said that they previously had given pre-lacteals but now they don't.

Table 16: Knowledge of exclusive breastfeeding (EBF)

Knowledge of exclusive breastfeeding	Total (%)
Yes	128 (71.1%)
No	52 (28.9%)

About the knowledge of exclusive breast feeding for the infant, 71.1 percent said that they were aware that Exclusive Breast Feeding for continuously six months of age, while the rest i.e. 28.9 percent were unaware about it.

Table 17: Practice of exclusive breastfeeding

Practice of EBF	Total (%)
Yes	75 (41.7%)
No	105 (58.3%)

Without having a good knowledge level, most of the respondents i.e. 58.3 percent, could not practice the exclusive breastfeeding. In most of the area giving 'Tea' and 'Biscuit' is a robust practice. Some where the respondents had given hot water in winter season and cold water at summer. While 41.7 percent of the respondents practiced exclusive breastfeeding to their child.

Table 18: Knowledge of complementary feeding (CF) from six months onwards

Knowledge of CF	Total (%)
Yes	112 (62.2%)
No	68 (37.8%)

About the vital event of complementary feeding, most of the respondents i.e. 62.2 percent, were having knowledge that their child need to give complementary feed from six months onwards and rest 37.8 percent were unaware about it.

Table 19: Practice of complementary feeding (CF)

Practice of CF	Total (%)
Yes	87 (48.3%)
No	93 (51.7%)

Though the respondents were having knowledge about complementary feeding, approximately half of the respondents i.e. 48.3 percent started complementary feeding from six months onwards. While rest of them i.e. 51.7 percent didn't feed their child complementarily. The fact was like, they believe to give complementary feeding from 8/9 months or when the child will start to crawl or walk.

Table 20: Knowledge of continuous breastfeeding (CBF) up to 2 years

Knowledge of CBF	Total (%)
Yes	114 (63.3%)
No	66 (36.7%)

While asking about continuous breastfeeding up to 2 years of the child, most of the respondents i.e. 63.3 percent answered they will breastfeed their child up to 2/3 years of age, while 36.7 percent were unaware about it.

Table 21: Practice of continuous breastfeeding (CBF)

Practice of CBF	Total (%)
Yes	108 (60%)
No	72 (40%)

In case of practice of the breastfeeding up to 2 years 60 percent of the respondents answered that, they will breastfeed their child up to 2 years of age. But due to some reason i.e. continuous pregnancy or milk production, 40 percent of the respondents won't be able to breastfeed their child continuously up to 2 years of age.

Table 22: Knowledge about giving iron supplementation

Knowledge of giving iron supplement	Total (%)
Yes	15%
No	85%

About giving iron supplementation to the child weekly, 15 percent of the respondents were aware about it. The awareness was an effect of consuming iron folic acid tablet during pregnancy. But 85 percent of the respondents were unaware about giving weekly iron syrup supplementation to their child.

Table 23: Practice of giving iron supplement

Practice of giving iron supplement (IFA)	Total (%)
Yes	10%
No	90%

The practice was very less by the respondents as, only 10 percent of them had given iron syrup to their child. The reason was, Iron syrup is not available at the Anganwadi centres and most of them had given iron syrup supplementation at the time of child weakness /disease. While 90 percent of them didn't give iron syrup supplementation to their child at all. This enhance the number of childhood anaemia.

Table 24: Knowledge of biannual deworming

Knowledge of giving albendazole syrup	Total (%)
Yes	56.1%
No	43.9%

Biannual deworming used to be done for the protection of the child from worm infestation and further to prevent them from anaemia. 56.1 percent of the respondents were about biannual deworming while 43.9 percent of them were unaware about it.

Table 25: Practice of giving biannual deworming

Practice of giving albendazole syrup	Total (%)
Yes	41.1%
No	58.9%

The practice level was bit low as only 41.1 percent of the respondent had given biannual albendazole syrup/tablet to their child. It was verified by checking MCP card. While 58.9 percent of the respondent didn't give biannual albendazole supplementation to their child.

Table 26: Knowledge of giving zinc with ORS during diarrhoea

Knowledge of giving zinc with ORS	Total (%)
Yes	27.8%
No	72.2%

Diarrhoea is one of the important cause of death for infants specially in state like Bihar. The study reveals that only 27.8 percent of the respondents were having knowledge of giving zinc with ORS during diarrhoea of their children. The rest 72.2 percent were unaware of this.

Table 27: Practice of giving zinc with ORS during diarrhoea

Knowledge of EIBF	Total (%)
Yes	22.8%
No	72.2%

Zinc is given with ORS to prevent micronutrients not to get excreted from the body during diarrhoea. It enhances the absorption capacity of the micronutrients. That's why zinc tablet is given by the ANM or health facility to the beneficiaries. Of all the respondents, only 22.8 percent of them have practiced giving zinc with ORS to their child during diarrhoea, while 72.2 percent didn't practice the same or their child haven't suffered from diarrhoea.

Table 28: Knowledge of biannual Vitamin-A supplementation

Knowledge of giving bi-annual Vit-A	Total (%)
Yes	48.3 %
No	51.7 %

Almost half of the respondents i.e. 48.3 percent were aware of giving bi-annual Vitamin-A supplementation to their child for better growth and development, while 51.7 percent were unaware of the Vitamin-A supplementation.

Table 29: Practice of giving bi-annual Vitamin-A supplementation

Knowledge of Vit-A	Total (%)
Yes	46.7 %
No	53.3 %

Except few, who were having knowledge of Vitamin-A supplementation, 46.7 percent of the respondents have given their child Vitamin-A supplementation. Rest 53.3 percent didn't practice the same for their child.

8.3 Water and sanitation hygiene

In this section of analysis water and sanitation hygiene related knowledge and practice among mothers are discussed. Some behavioural and infrastructure related information have also been discussed.

Table 30: Knowledge of Washing hand before feeding child

Do you know you need wash hand before feeding your child?	Total (%)
Yes	86.7%
No	13.3%

86.7 percent of the respondents were aware about washing their hands before feeding their child, while 13.3 percent were unaware about it.

Table 31: Knowledge of washing hand before feeding child

Do you wash hand before feeding your child?	Total (%)
Yes	58.3%
No	41.7%

Although knowing about handwashing before feeding child, only 58.3 percent have practiced it thoroughly. Rest 41.7 percent of the respondents were reluctant, and they didn't practice the same.

Table 32: Knowledge of Steps of hand washing

Do you know you the seven steps of hand washing?	Total (%)
Yes	2.2%
No	97.8%

It's a tough fact that, only 2.2 percent of the respondents were aware that there are 7 steps of washing hands; while 97.8 percent were unaware about these steps.

Table 33: Availability of toilet at household

Is there any toilet in your household?	Total (%)
Yes	60.56 %
No	39.44 %

It is clear from the table that only 60.56 percent of the respondents were having toilet in their household; while 39.44 percent were not having any toilet.

Table 34: Use of toilet

Do you use that toilet?	Total (%)
Yes	60.56%
No	39.44%

With availability of toilet every respondent was using that toilet. Who is not having; need to go to outside land for urinal. It was even shocking that in some where different lands are used for male and female.

Table 35: Knowledge of handwashing with soap

Do you know that after urinal you need to wash your hand with soap?	Total (%)
Yes	76.67%
No	23.33%

About washing hands after urinal with soap; 76.67 percent of respondents were aware while 23.33 percent were unaware about it.

Table 36: Practice of handwashing with soap

Do you wash your hand after urinal with soap?	Total (%)
Yes	68.9%
No	31.1%

Related to practice of washing hands with soap after urinal; 68.9 percent practice it but rest don't practice the same as, they are habituated using ash, sand and dust always and these doesn't require money to buy.

Table 37: Malnourishment Level

MUAC	Total (%)
12.5-26.5	53.9 %
11.5-12.5	30.6 %
0-11.5	15.6%

After looking into the malnourishment level, more than half of the child were normal according to the anthropometric measurement. 30.6 percent of the child were moderately acute malnourished where 15.6 percent are severely acute malnourished.

Table 38: Gravida * Number of child Crosstabulation

	Number of child						Total
	1	2	3	4	5	6	
1	44	0	0	0	0	0	44
2	9	20	0	0	0	0	29
3	7	12	31	0	0	0	50
4	2	7	10	13	0	0	32
5	0	0	2	10	4	0	16
6	0	0	0	1	2	0	3
7	0	0	0	0	2	1	3
10	0	0	0	0	2	0	2
11	0	0	0	0	1	0	1
Total	62	39	43	24	11	1	180

The above table gives a cross tabulated analysis of gravida and number of live children at the time of assessment. It is clear from the above table that, first time mothers were higher in number i.e. 24.44 percent. Above the gravida of five, no respondents were having the same birth order.

6. Recommendations

As per the assessment, though there are some improvement, we should focus more on behavioral part. The behavioral change communications should be designed to advocate and address the issues in the study population.

- Promotion of early initiation of breastfeeding within one-hour birth irrespective of place of birth.
- Complementary feeding should be started at the onset of 7th month for every child, so we need to focus on Complementary Feeding Day (Annaprasan Diwas).
- Focus on giving iron and Vitamin supplementation to the child at timely interval.
- Promotion of Hand Washing at times (before feeding, at the time of cooking food, before eating, before and after urinal). Proper training by building toilet and water supply facilities at the Anganwadi Level.
- All these will be achieved by through promotion of IYCF and WASH at the Anganwadi level and ASHA level. This can be achieved by giving training to them.
- Orientation programs or refresher trainings should be conducted to enhance the knowledge of AWW to promote correct practices.
- Supervisory visits should be planned as per VHSND Monitoring check list.
- Incorporation of role play workshop to make them better understand the importance of breastfeeding for infants as well as mothers.
- The key component of intervention includes Village health sanitation and nutrition day, Growth Monitoring, CMAM, Supportive supervision, community participation at the session site.
- ICDS system weekly and monthly review meeting about Health Subcentre meeting and Sector meeting. Through these meetings a FLW can easily get the baseline knowledge about working responsibilities.

7. Conclusion

There are various factors which play an important part in the practice of breastfeeding. Predictors of early initiation of breastfeeding and exclusive breastfeeding vary widely between and within countries. Optimal IYCF are an effective public health intervention to enhance the child survival, nutrition and development. Cultural belief was seen to one of most dominant factor for the practice of IYCF and WASH. Breastmilk and breastfeeding has been the best nutrition for the new born till the first six months of age .

Although after universalization of breastfeeding promotion the rate of EIBF and EBF are dismally low. Several factors are attributed to the practice. Improving the breastfeeding practices can serve as a major determinant in reducing the burden of undernutrition and foundation of a healthy future for a new born .

Effective promotion of Mothers Absolute Affection and Baby Friendly Hospital Initiative can reduce the non-compliances. Along with it will help to further increase the knowledge and practice level of beneficiaries.

Instrumentation:

Questionnaire

Rapid Assessment of 'Knowledge and Practice' of IYCF and WASH practice.

Questionnaire for Mother of child aged between 6 - 24 month

Name of

Mother:.....

Head of the family:

.....

Family Type: Joint Family ☐ Neutral Family ☐

Religion: Hindu ☐ Muslim ☐ Christian ☐ Other ☐

Caste: SC ST ☐ OBC ☐ General ☐ ☐

Are you Mahadalit? Yes ☐ No ☐

Age of Mother: < 15 ☐ 15-19 ☐ 20-24 ☐ 25-29 ☐ >30 ☐

Educational Level of Mother:

Illiterate – ☐ Class 2 – ☐ Class 4 – ☐ Class 7 – ☐

Secondary – ☐ Higher secondary – ☐ Graduate – ☐

Profession of Mother:

House wife – ☐ Skilled Labour – ☐ Unskilled Labour – ☐

Agricultural Labour – ☐ Job – ☐ Other – ☐

Mobile No:

Are you currently pregnant? YES ☐ NO ☐

Number of times you became pregnant: ☐☐☐

Number of Children: ☐☐☐

Name of Youngest Child:
.....

Age (in Months) of youngest child: ☐☐ Sex: Male ☐ Female ☐

Place of Birth of youngest child:

Public Facility – ☐ Private Facility – ☐

Home – ☐ Other – ☐

Name of facility:
.....

About Birth Registration:

- When did you register your pregnancy?

First trimester – ☐ Second trimester – ☐

Third trimester – ☐ Don't Know – ☐

- Do you have MCP card? YES ☐ NO ☐
(Check)

Section A: - Infant and young child feeding practice.

1) Do you know colostrum should be given to the child after delivery?

YES ☐ NO ☐

2) Did you give colostrum to your child after delivery?

YES ☐ NO ☐

3) Do you know that, breastfeeding should be initiated within one hour of birth?

YES ☐ NO ☐

4) Did you breastfeed your child within one hour of birth?

YES ☐ NO ☐

5) Do you know pre-lacteal substance (Honey, Sweetened water, Jaggery, Animal milk, tea, Gutti etc.) should not be given to the child before breast-milk for the first time?

YES ☐ NO ☐

6) Did you give pre-lacteal substance to the child before breast-milk?

YES ☐ NO ☐

7) Do you know that the child need to be breastfeed exclusively for six months?

YES ☐ NO ☐

8) Did you breastfeed your child exclusively for six months?

YES ☐ NO ☐

9) Do you know that you need to start complementary feeding from six months onwards?

YES ☐ NO ☐

10) Did you start complementary feeding from six months onwards?

YES ☐ NO ☐

11) Do you know your child should breastfeed continuously up to 2 years?

YES ☐ NO ☐

12) Did you breastfeed your child continuously up to 2 years?

YES ☐ NO ☐

13) Do you know, during illness the child should breastfeed continuously?

YES ☐ NO ☐

14) Do you know your child need to give Iron supplementation?

YES ☐ NO ☐

15) Did you give IFA syrup to your child?

YES ☐ NO ☐

16) Do you know your child need biannual albendazole supplementation for deworming?

YES ☐ NO ☐

17) Did you give biannual albendazole supplementation to your child?

YES ☐ NO ☐

18) Do you know during diarrhoea your child need to give zinc with ORS?YES

☐ NO ☐

19) Did you give zinc with ORS during diarrhoea?

YES ☐ ☐

20) Do you know your child need to give bi-annual Vitamin-A supplementation?

YES ☐ NO ☐

21) Did you give bi-annual Vitamin- A supplementation?

YES ☐ NO ☐

Section B: - Water and Sanitation Hygiene

1) Do you know, you need to wash your hand before feeding your child?

YES ☐ NO ☐

2) Do you wash your hand before feeding your child?

YES ☐ NO ☐

3) Do you know the seven steps of hand washing?

YES ☐ NO ☐

4) Do you practice the seven steps of hand washing?

YES ☐ NO ☐

5) Is there any toilet in your household?

YES ☐ NO ☐

6) Do you use that toilet?YES ☐ ☐

7) Do you know that after urinal you need to wash your hand with soap?

YES ☐ NO ☐

8) Do you wash your hand after urinal with soap?

YES ☐ NO ☐

9) Form where did you get the knowledge about all the above-mentioned practices?

ANM ☐ ASHA ☐ AWW ☐ Mother in Law ☐ Relative ☐

Other ☐