

Study to Assess Knowledge and Practice Among Care Seekers
and Caregivers on Childhood Pneumonia Under-5 in Urban
Area of Tonk City, Rajasthan

By

Deeksha Kumari

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2018-2020



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ABSTRACT

Introduction: Pneumonia has a significant health threat to the children under 5 years of age. India has the largest number of pneumonia deaths contributing 23 percent of world's total and 15% is the highest mortality rate of Pneumonia among all infectious disease death of children under five in our country alone i.e. more than 14 children under-5 die every hour in India. World Health Organization (WHO) estimates 43 million childhood pneumonia cases in India every year. ARI/Pneumonia is a preventable disease and can be protected if the early diagnosis and timely treatment is provided to the children.

GAPPD & IAPPD target for Pneumonia under-5 deaths is < 3/1000 live births for India. The Pneumonia death rate in 2018 it is 5/1000 live births in India.

Objective: To assess the Knowledge and Practice of care seekers (households) and caregivers (FLWs) and to analyse the skill of Frontline workers to manage the Pneumonia cases of Under five children.

Methods: A cross-sectional study was conducted among 391 respondents (includes FLWs) of Under five children. Multistage sampling technique used in this study and data was collected with a scheduled interview by CAPI and CATI tools.

Results: The study reveals that to prevent and protect children from pneumonia disease, a topmost priority to be given to establish a good health practices which were found inadequate at both levels (households & FLWs). Children becoming ill from Pneumonia is strongly linked to their level of education and livelihood conditions. 26% of respondents had not attended any school and 65% had attended primary & secondary level of schooling. It is evident from the education data that higher percentage of respondents were unable to understand about the symptoms of pneumonia & phenomenal risk factors such as undernutrition, indoor air pollution, in adequate breast feeding, hand washing practices at critical times, in-complete dose of immunization and vitamin A supplements etc.

Conclusion: Overall study showed that the mortality rate of Pneumonia under five children is more because care seekers (Guardian of children) and caregivers (FLWs) were not having sufficient knowledge and awareness about the symptoms & risk factors of pneumonia. Frontline workers were lacking skills for early identification and management of pneumonia cases.

Keywords: Pneumonia, Acute Respiratory Infection, Under-five children

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(Deeksha Kumari)

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1. ABBREVIATION

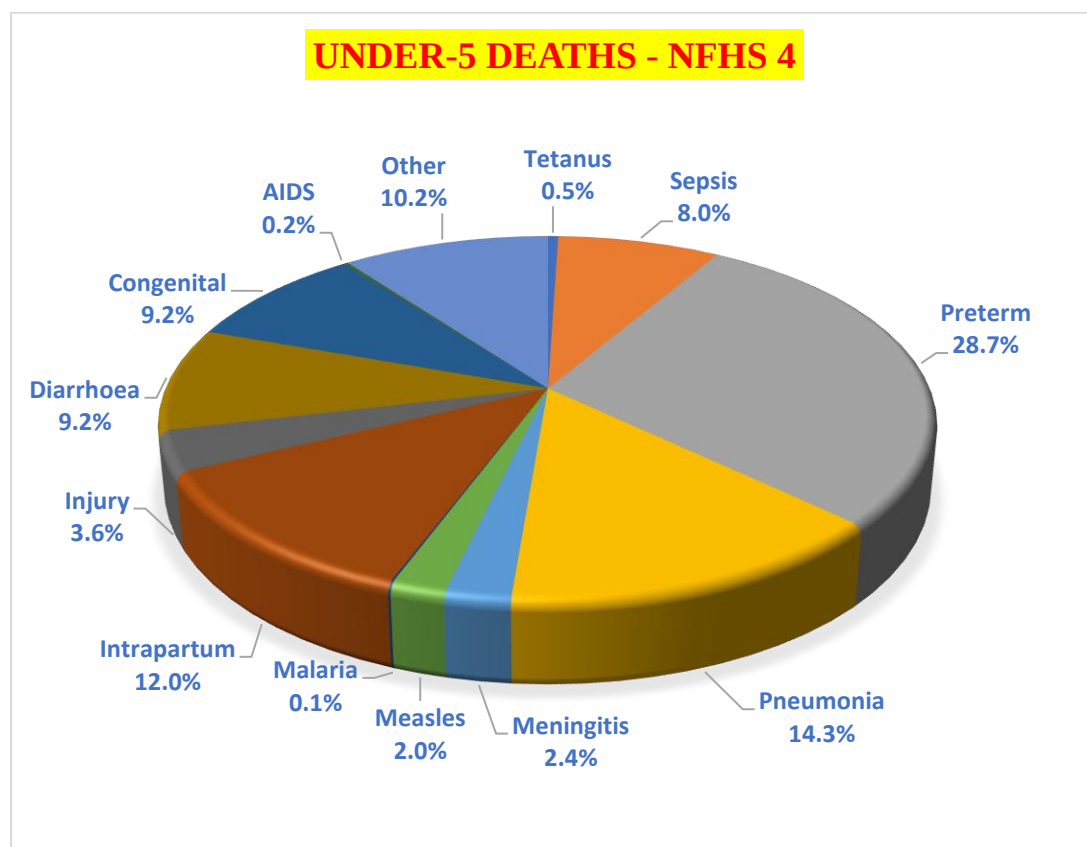
ALRI	Acute Lower Respiratory Infection
ANC	Ante-natal Care
ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infection
ASHA	Accredited Social Health Activist
CAPI	Computer Assisted Personal Interview
CATI	Computer Assisted Telephonic Interview
CF	Complementary Feeding
DH	District Hospital
EBF	Exclusive Breast Feeding
EIBF	Early Initiation of Breast Feeding
F2F	Face to Face
FLWs	Frontline Health Workers
GAPPD	Global Action Plan for Pneumonia & Diarrhoea
HH	Household
HW	Hand Washing
IAP	Indoor Air Pollution
IAPPD	Integrated Action Plan for Pneumonia & Diarrhoea
ICDS	Integrated Child Development Service
IDI	In-Depth Interview
IYCF	Infant and Young Child Feeding
M&E	Monitoring & Evaluation
MCHN	Maternal & Child Health and Nutrition
MCP Card	Mother Child Protection Card
MIS	Management Information System
NFHS	National Family Health Survey
NHP	National Health Policy
NSO	National Support Office
OBC	Other Backward Class
PNC	Post-natal Care
RSPO	Rajasthan State Programme Office
SC	Schedule Caste
ST	Schedule Tribe
UPHC	Urban Primary Health Centre
VHSND	Village Health Sanitation Nutrition Day
WASH	Water and Sanitation Hygiene
WHO	World Health Organization

2. INTRODUCTION

Pneumonia/Acute Respiratory Infection (ARI) that specifically affects the lungs either in one or the both filled with pus and fluid, do not allow to absorb oxygen, making breathing difficult. If timely interventions are not reached the affected person may die.

Globally, India is among the nations with highest disease burden and has the largest number of pneumonia deaths, constituting 23 percent of the world's total. World Health Organization (WHO) estimates 43 million childhood pneumonia cases in India every year. Children die due to pneumonia/ARI contributes 15% is the highest among all infectious death of children under-five in our country itself.

Chart 1: Causes of Under-5 Deaths



This is a public health emergency in every respect, an unacceptable fact in today's highly developed world and society. Moreover, the low priority is given to the infection makes pneumonia the single largest killer of children worldwide.

Deaths due to pneumonia are preventable if we strengthen our systems to detect Pneumonia cases early in childhood to provide effective coverage of protective, preventive and treat interventions (PPT Interventions) according to the National Health Policy 2017.

3. LITERATURE REVIEW

Table 1: Review of literature

S.No.	Title	Author (year)	Study Location	Sample Size	Study Design	Findings
3.1	Fighting for Breath in India- A call to Action to stop children dying from Pneumonia	Save the Children, UNICEF, Every Breath counts (2019)	India			Pneumonia killed more than 1,40,000 under-five children in 2018, which is 15% as compared to the world's total pneumonia death of 8,00,000
3.2	A study of knowledge about immunization amongst mothers of children below 5 years of age	Dr Pramila Ramawat & Dr V. P. Goswami (2018)	Medical college of Indore	200 Mothers of children age below 5 year attending paediatrics OPD	Cross-sectional study	The knowledge of mothers about vaccination was found inadequate with positive attitude towards vaccination. Reasons behind this lack of knowledge are low socioeconomic status, lack of education and lack of awareness in rural population regarding benefits of immunization. If awareness among rural mothers about vaccine's benefits improve then immunization coverage will improve drastically.
3.3	Disparity in knowledge, attitude, and practice among mothers of children under three years of age about early initiation of breastfeeding, exclusive breastfeeding, and continued breastfeeding.	Harish Chand, Mansi Chopra, Jyoti Sharma (March 2020)	Rajgarh block, Alwar district, Rajasthan, India	400 Mothers of children age below 3 years.	Cross-sectional community-based study	The data indicates that about 100% mothers reported feeding animal milk, biscuits, water, food, and other pre-lacteals besides breastmilk to the child before the child had completed 6 months of age. These findings indicate that despite of having knowledge and right attitude towards breastfeeding, there were certain barriers while practising breastfeeding behaviours. Such barriers will have to be identified at the time of counselling to the mothers and address them through behaviour change strategies which will lead to good practice of breastfeeding behaviours.

3.4	Hand hygiene behavior among urban slum children and their care takers.	S. PATI, S.S. KADAM, A.S. CHAUHAN (Aug. 2014)	Shikhar handi slum located in the Bhubaneswar city of Orissa	150 women and 80 children were interviewed.	Cross-sectional study	44% children told about at least two critical timings and 56% were unaware about this. This shows the inadequate knowledge. Systematic integration of health and hygiene education in schools through curricular modifications could be an appropriate strategy.
3.5	Knowledge and perception regarding childhood pneumonia among mothers of under-five children in rural areas.	Susan Mary Pradhan, Arathi P Rao, Sanjay M Pattanshetty, AR Nilima (2016)	Udupi Taluk, Karnataka	460 mothers of under-five children	Cross-sectional study	It was found that overall mothers had fair knowledge and fair perception of childhood pneumonia. Significant association was found between maternal age and levels of knowledge and perception and between level of education and levels of knowledge and perception of childhood pneumonia. No significant association was found between religion and levels of knowledge and perception. The study shows the relation of social factors to knowledge and perception of childhood pneumonia among mothers of under-five children which can contribute toward prevention of morbidity and mortality due to pneumonia among these children. More efforts can be made to bring awareness among these mothers regarding the importance of clinical care in case of pneumonia among these children.
3.6	Knowledge, Attitude and Practice of mothers on acute respiratory infection in children under five years.	Shireen Qassim Bham, Farhan Saeed, Manzar Alam Shah (Nov. 2016)	Department of Pediatrics, Darul Sehat hospital, Karachi.	335 mothers	Cross-sectional study	The study reveals good knowledge of mothers on ARI symptoms, worsening environmental conditions, aggravating factors, and complications. Their attitude towards ARI was appropriate with early consultation with qualified medical practitioner. Better literacy rate, has a positive influence on the Knowledge, Attitude and Practices of mothers.

3.7	Risk Factors of Pneumonia Among Children Under 5 Years at a Pediatric Hospital in Sudan	Siham M.O. Gritly, Mohamed Osman Elamin (2017)	Mohamed Al-Amin Hamid Pediatric Hospital at Khartoum state, Omdurman city	40 children under five years of age	Descriptive cross-sectional hospital-based study	The study concluded that the pneumonia is more prevalent in children less than one year. Factors found to have association with pneumonia include low socioeconomic status and low educational level of mothers. It was recommended to have an early diagnosis and treatment of pneumonia. Community health education and completion of the immunization program are recommended to decrease the infection.
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4. RESEARCH QUESTION

- ✓ What are the levels of knowledge and practices among care seekers and caregivers about symptoms and risk factors in childhood pneumonia?
- ✓ What are the level of knowledge & services provided by FLWs (Front line workers)?

5. RESEARCH OBJECTIVE

- ✓ To assess the Current level of knowledge among care seekers (households) and caregivers (ASHA/ANM) on the symptoms and risk factors of childhood Pneumonia.
- ✓ To assess the practices adopted by care seekers and caregivers to protect & prevent from Pneumonia.
- ✓ To assess and analyse the skill to manage the Pneumonia cases by FLWs.

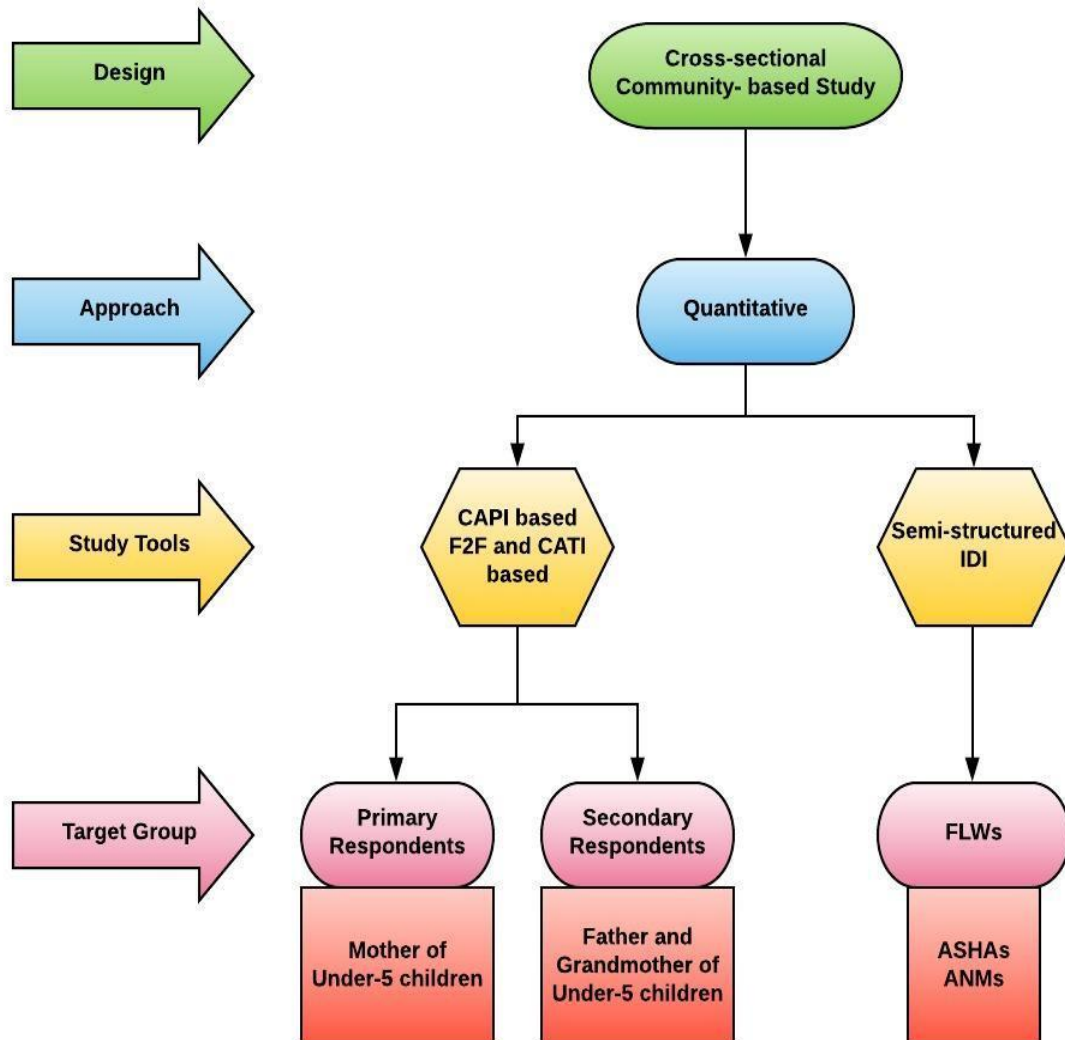
6. RATIONALE

It is known that pneumonia is a preventable disease. A proven treatment is also available at health facility and community level across the country even then the mortality rate of pneumonia in children under-5 is highest among all infectious disease according to NFHS-4. Now questions arise that why the death is so high among children although the treatment is available?

The study shows that most of the children at high risk of ARI do not reach health facility Centre for early diagnosis and timely treatment. The effective interventions to care seekers (households) are too low because of less knowledge, poor awareness, and wrong practices at the level of family members especially mother and caregivers (ASHA/ANM).

7. MATERIAL AND METHODS

Chart 2: Methodology of the study



7.1. STUDY DESIGN

It is a **Cross-sectional community-based study design** was used for this assessment.

7.2. STUDY LOCATION/ SETTING

The study was conducted in **Tonk City (Urban area) of Rajasthan**.

As the location was set by the Organization only because of ongoing Project 'Vishwaas'. I was allotted as Intern in this project, so I got Tonk city for my study.

7.3. STUDY POPULATION

Table 2: Target respondents for the study

Primary Respondents	Secondary Respondents	Frontline Workers
Mothers of Under-5 children	Fathers of Under-5 children	ANMs
	Grandmothers of Under-5 children	ASHAs

7.3.1. INCLUSION CRITERIA

- Respondents of Under-5 children.
- Population of Urban area.

7.3.2. EXCLUSION CRITERIA

- Population of Rural area.
- Mothers below 18 years of age.
- Mothers unable to perceive questions.

7.3.3. STUDY TOOLS

- Computer Assisted Personal Interview (**CAPI**) based Face to Face (**F2F**) interview with Primary and Secondary respondents.
- Computer Assisted Telephonic Interview (**CATI**) with Primary and Secondary respondents
- Semi-structured In-Depth Interview (**IDI**) with service providers at FLW level.

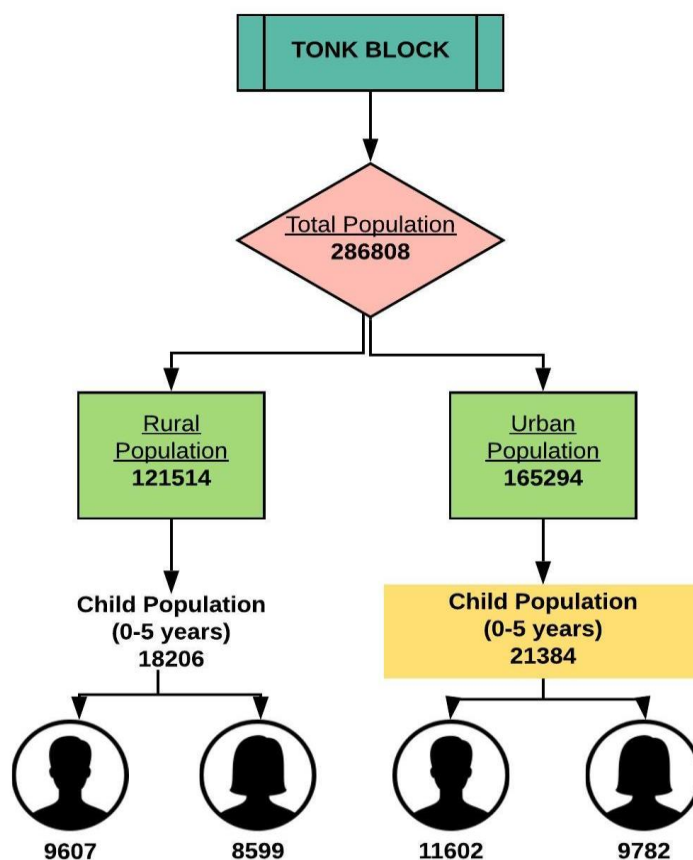
7.4. DURATION OF STUDY

3 months (12th March 2020 – 12th June 2020)

7.5. SAMPLE SIZE

A sample of **391 respondents** of under-5 children were selected for the study.

Chart 3: Population of Tonk Block



The sample size was calculated using the following formula for Cross- sectional study.

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N} \right)}$$

- **N** = Population size (21384)
- **z** = z-score corresponding to 95% significance level (1.96)
- **e** = margin of error (5%) corresponding value (0.05)
- **p** = standard of deviation (50%) corresponding value (0.50)

With this formula we had calculated the required sample size: **n= 378**

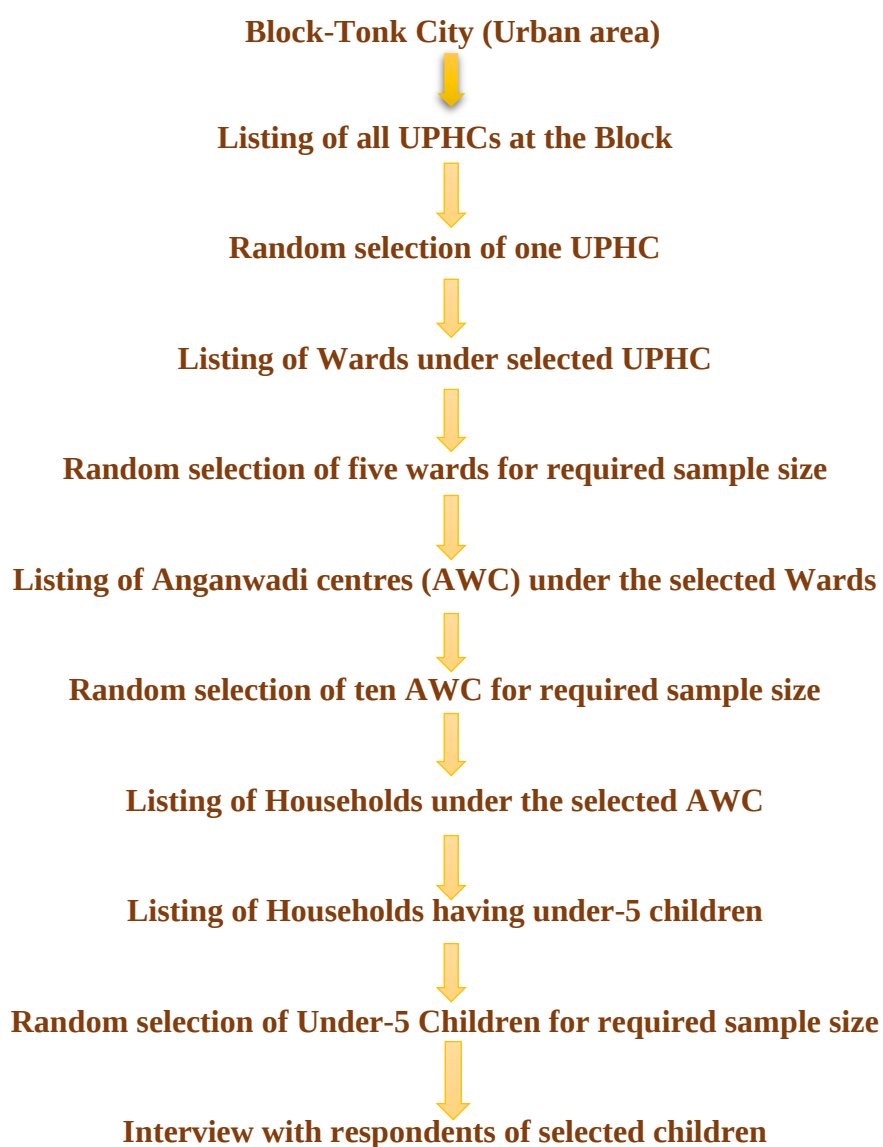
Table 3: Sample size distribution

Respondent Group	Sample size	
Mothers of Under-5 children	250	378
Fathers of Under-5 children	64	
Grandmothers of Under-5 children	64	
ASHAs	10	13
ANMs	3	
	391	391

7.6. SAMPLING TECHNIQUE

Multi-stage Random Sampling technique used for this study.

Chart 4: Sampling Methodology at a glance



7.7. METHODS OF DATA COLLECTION

Home visits were started initially to collect the data with the help of Cluster coordinators (Project Vishwaas of Save The Children) and Anganwadi workers.

The synthesis of evidence is evaluated through face to face interview from primary source in two phases:

- ✓ **First phase-** Before lockdown (from 14th March to 20th March 2020) by CAPI method.
- ✓ **Second phase-** During lockdown period (from 15th April to 30th May 2020) by CATI method.

Interview was done with **Semi-Structured Questionnaire** in English language, which was translated into Hindi for better understanding with respondents.

7.8. DATA ANALYSIS

Data analysis were done using **Microsoft-Excel**.

8. ETHICAL CONSIDERATION

An informed consent was taken from respondents prior to start the interview for data collection and the objective of the study was explained to them. Confidentiality of the participants was given utmost importance. At any stage, the participants were free to withdraw from the study or not willing to answer some questions.

9. FINDINGS

9.1. FINDINGS FROM SURVEY WITH HOUSEHOLDS

❖ Religion of Respondents

The study of the population distribution of the block based on the religion showed that majority of the respondents belonged to Muslim- 250 respondents, 140 respondents belonged to Hindu and only 1 belonged to Sikh out of the total sample size 391 as shown in table No.4.

Table 4:

Religion of Respondents (N=391)		
Hindu	35.8%	140
Muslim	63.9%	250
Sikh	0.3%	1
Jainism	0.0%	0
Others	0.0%	0
Total	100.0%	391

❖ Caste of Respondents

While looking at the population of caste of respondents , it was seen that General caste were in majority i.e. 72.4 percent of the total. Schedule Caste- 24.6 percent of the total, Schedule Tribe -2.8 percent and only 0.3 percent belonged to Other Backward Class.

Table 5:

Caste of the Respondents (N=391)		
General	72.4%	283
OBC	0.3%	1
SC	24.6%	96
ST	2.8%	11
	100.0%	391

❖ Prevalence of ARI with Age and Gender of children

Acute Respiratory Infections (ARIs) are the most common causes of illness and mortality in children under 5 who average three to six episodes of ARIs annually.

ARIs in children take a heavy toll on their life especially where medical care is not available or not sought after. The World Health Organization (WHO) estimates that 2 million children under five die of pneumonia each year.

In the present study, *ARI prevalence is computed from index child selected during the time of interview i.e. in case of multiple ARI children, the child with most recent episode of ARI/pneumonia was selected.* The study revealed that 28.6 percent under-5 children had ARI in last two weeks.

It is evident that the prevalence of ARI increases slightly as the age increases.

This study looked at the prevalence of ARI among male and female children. The prevalence of ARI was high among male children (54%) compared to female children (45%).

Table 6:

	Prevalence of ARI N=391		Child suffering from ARI N=112 (28.6% of 391)	
	%	Respondents	%	Respondents
Distribution of Age-group				
24-60 months	44.8	175	47.3	53
13-23 months	25.6	100	27.7	31
3-12 months	26.1	102	22.3	25
0-2 months	3.6	14	2.7	3
Gender-wise Distribution				
Female	45.8	179	43	48
Male	54.2	212	57	64

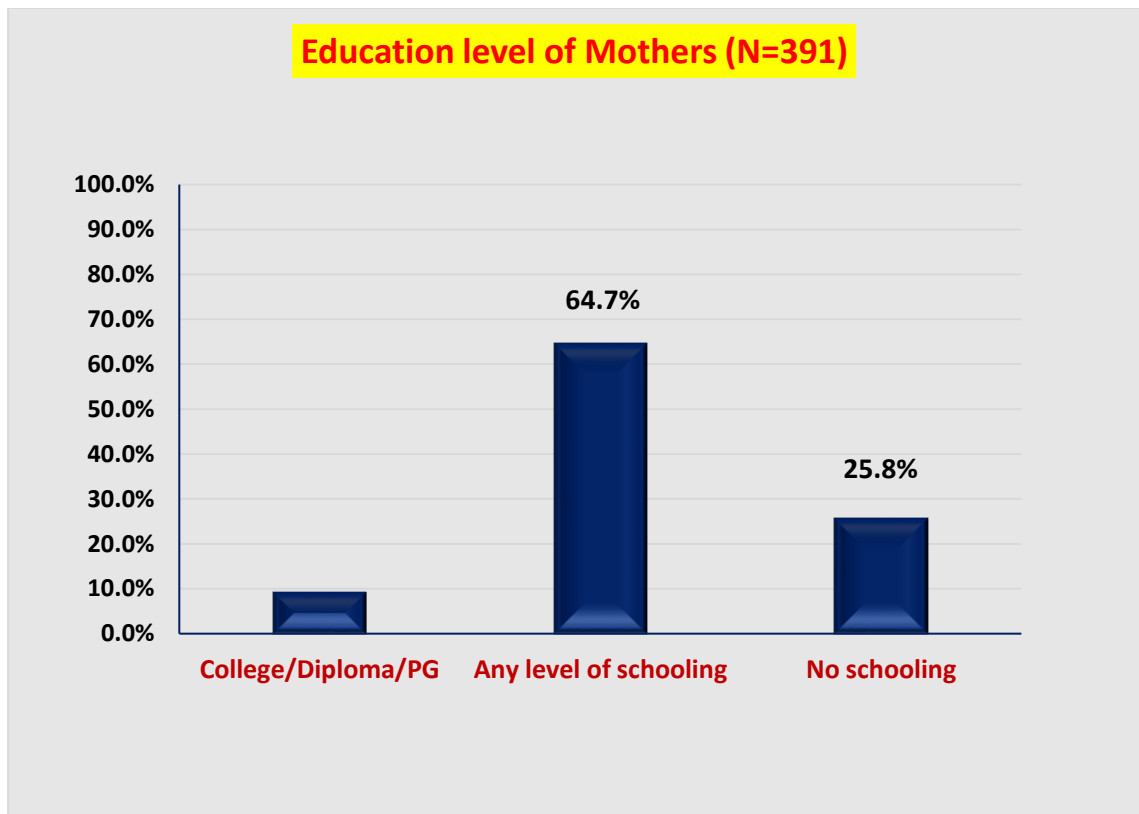
❖ Education level of Mothers

For the study, we have categorized educational qualification into **three groups**:

- ✓ **Any level of schooling** i.e. attended or completed school.
- ✓ **College/diploma/PG** i.e. completion of higher secondary education, attending college or vocational training after school or university education.
- ✓ **No schooling** i.e. illiterate or having done non-formal schooling.

It is found that around 65% (253 mothers) had attended school and completed either primary, secondary, or higher secondary education, while about 26% (101 mothers) did not attend school at all. Rest of the mothers, about 9% (37 mothers) had attended or graduated from college. **(Chart-5)**

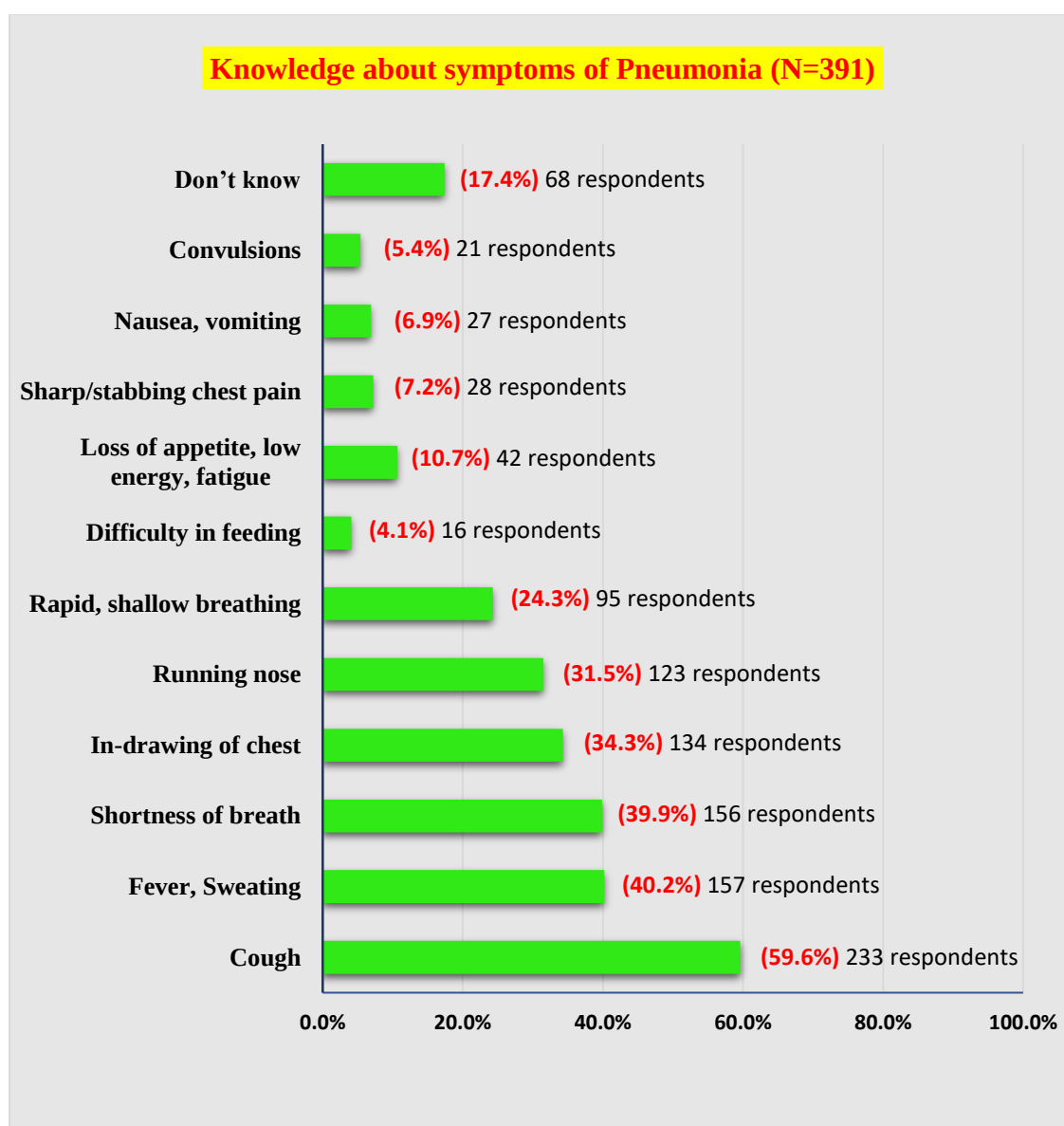
Chart 5:



❖ **Knowledge about Symptoms of Pneumonia**

Respondents were asked about the various sign and symptoms elaborately one by one to understand the level of their knowledge about Pneumonia cases. The study shows that most of the respondents were not fully aware about the main symptoms for severe Pneumonia. **(Chart 6)**

Chart 6:

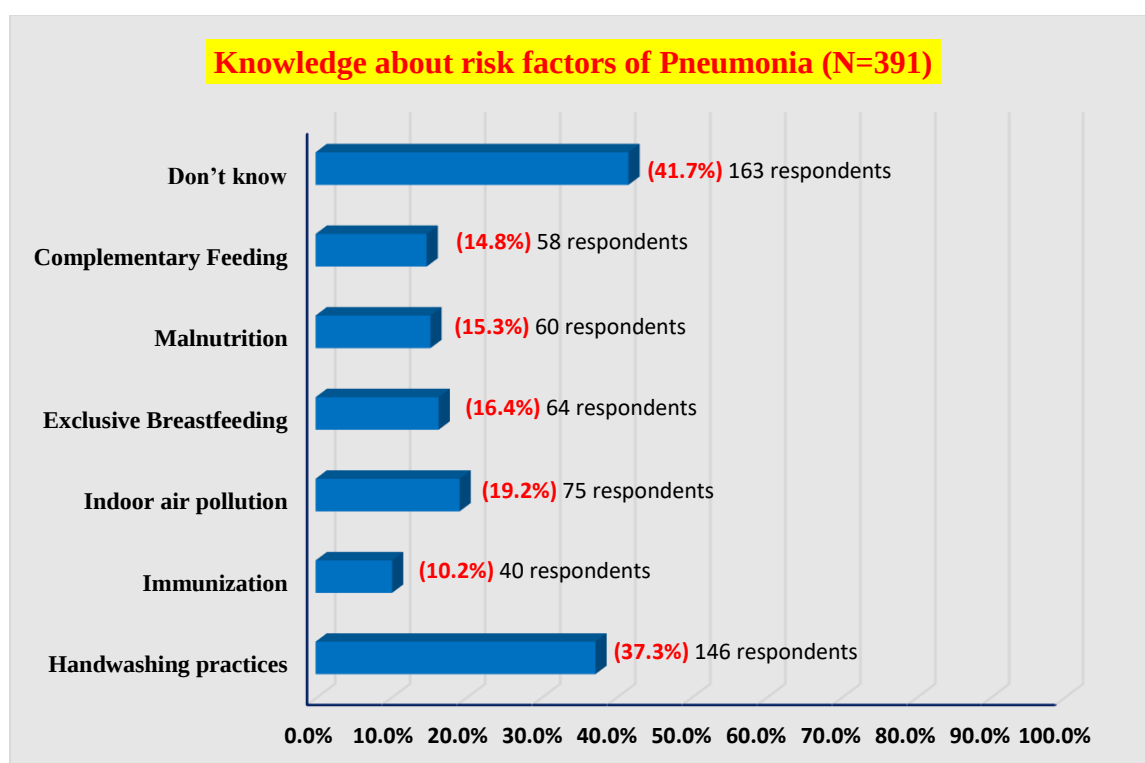


❖ **Knowledge about risk factors of Pneumonia**

The respondents were asked about various risk factors involved in having pneumonia to probe the level of knowledge in them. The major risk factors for which the respondents were probed namely are indoor air pollution, handwashing, exclusive breastfeeding, complimentary feeding, malnutrition, and immunization.

An overall analysis revealed that most of the respondents were not aware about risk factors of pneumonia. Highest percentage of respondents (37.3%) were considering handwash as a main risk factor of pneumonia. Over 41.7% of respondents had no awareness/knowledge about risk factor of pneumonia, while 14.8%, 15.3%, 16.4%, 19.2%, and 10.2% respondents identified complementary feeding, malnutrition, Exclusive breastfeeding, Indoor air pollution (IAP) and Immunization respectively as a risk factor for Pneumonia.

Chart 7:



❖ Nutritional Practices in children aged 6-23 months

According to the World Health Organization (WHO), infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development, and health. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods, while continuing to breastfeed for up to two years or beyond.

In the study survey, total Children between 6 to 23 months of age were 164.

The Practices of Breastfeeding divided into 3 levels for the study under the category of nutritional practice behavior of the respondents (Caregivers).

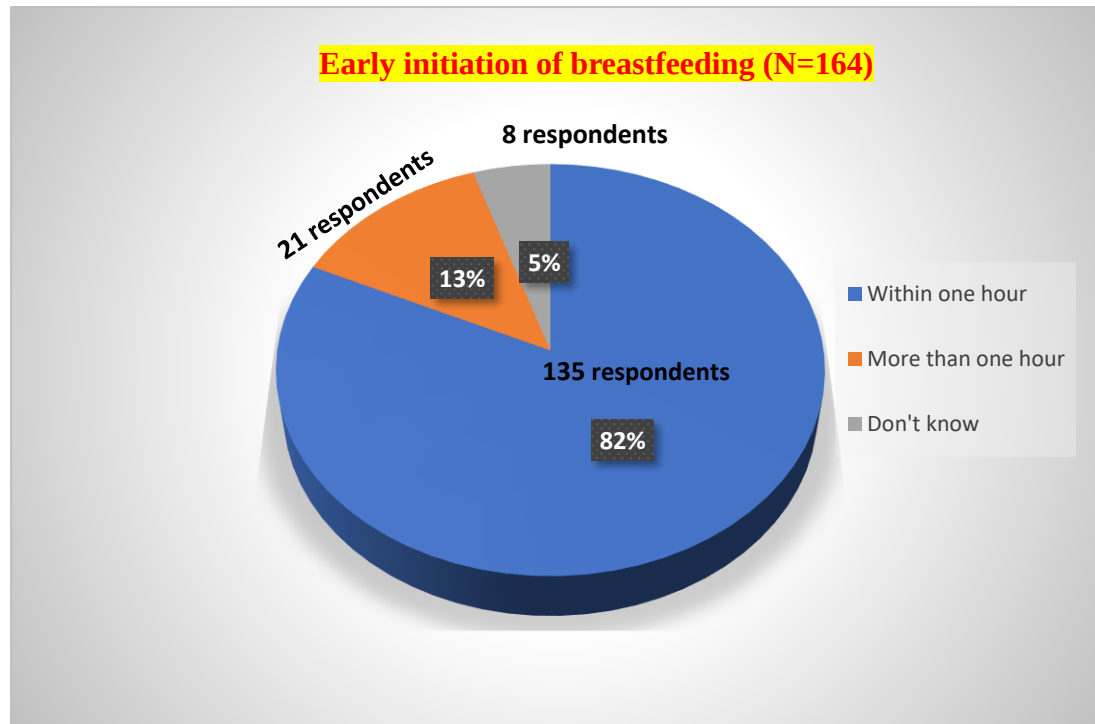
1. Breastfeeding at the time of Birth- **Initiation of Breastfeeding**
2. Breastfeeding at 0 to 6 months of age- **Exclusive Breastfeeding**
3. At 6 to 23 months of age- **Complementary Breastfeeding**

• Early Initiation of Breastfeeding

The World Health Organization (WHO) recommends that early and uninterrupted skin-to-skin contact between infants and mothers should be facilitated and encouraged within the first hour after childbirth with the intake of colostrum. Therefore, this study enquired about the practice of initiation of breastfeeding after the birth of child. Such initiation influences for protecting children from pneumonia and many other infectious diseases.

My study area showed that 82% mothers-initiated breastfeeding within one hour of birth of their children. A small portion of mothers (5%) *did not know* or remember when their children-initiated breastfeeding.

Chart 8:



- **Exclusive Breastfeeding**

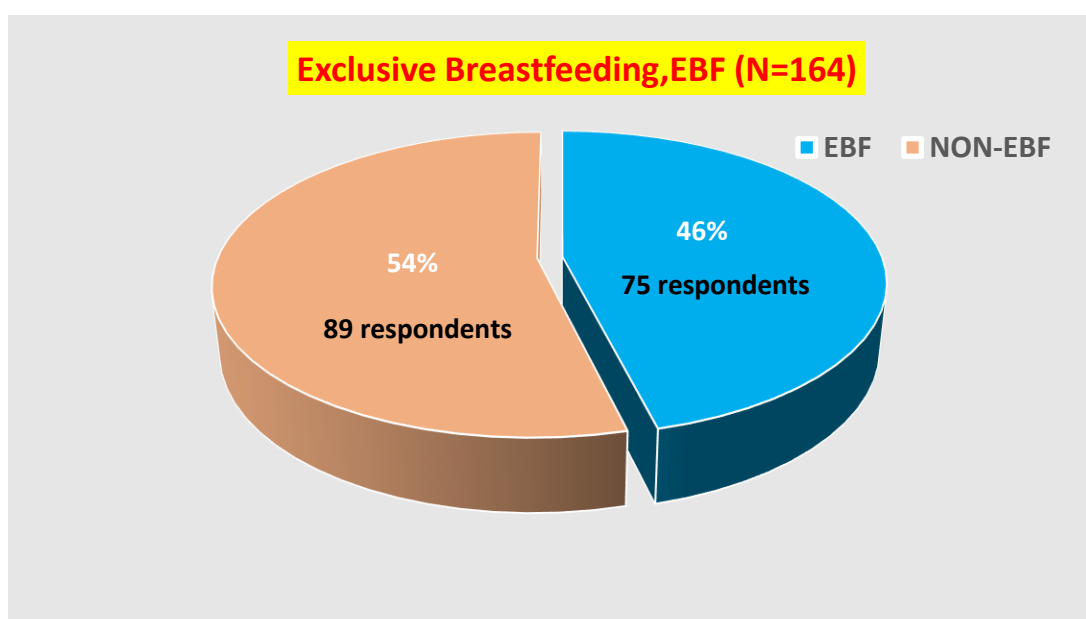
In this study, we enquired for the exclusive breast feeding was in practice amongst children in the age group 0-6 months from the respondents of children age group 6-23 months.

Two levels of inquiry were conducted to confirm that a child received exclusive breastfeeding:

- ✓ **First**, a child is only fed with breastmilk for the first 6 months of his/her life;
- ✓ **Second**, whether a child is given any oral feed other than breastmilk for first 6 months of life.

According to the present study at Tonk city, 46% children of first 6 months were exclusively breastfed and 54% children were given breastfeeding along with other oral feed. In other oral feed, some respondents were giving tea and biscuit, as well as hot water in winter and cold water in summer to the children.

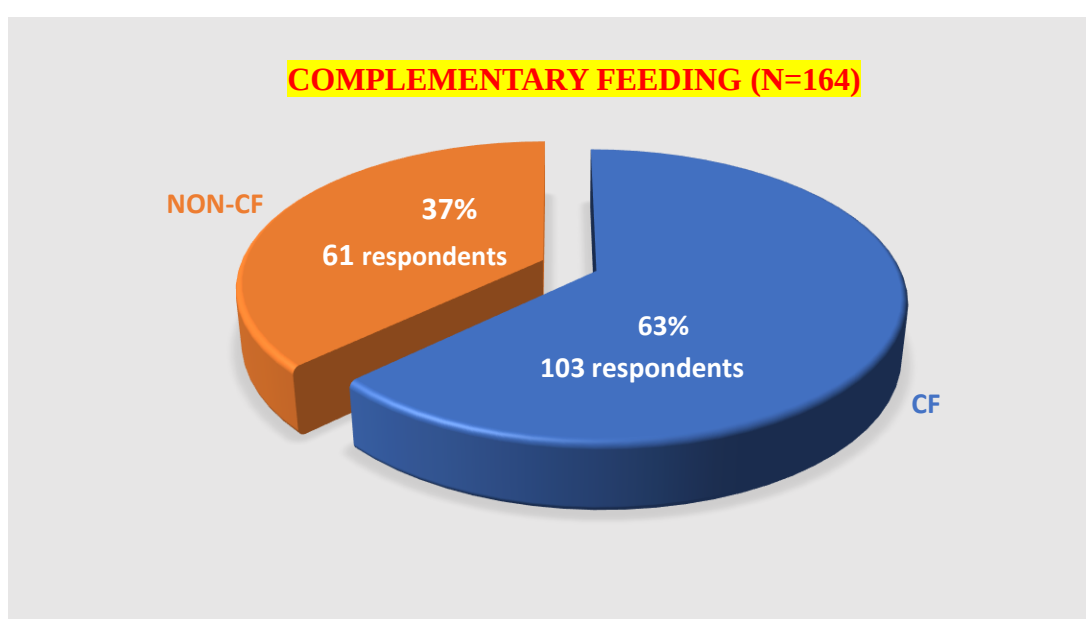
Chart 9:



- **Complementary Feeding**

On enquiry from caregivers of children 6 to 23 months, who had initiated complimentary breastfeeding between 6-8 months of child's age, the present study shows that 63 percent respondents (caregivers) had initiated complementary feeding at the age of 6-8 months. While rest of them i.e. 37 percent did not feed their child complementarily. The reality resembled, they believe to give complementary feeding from 8/9 months or when the child will start to walk.

Chart 10:



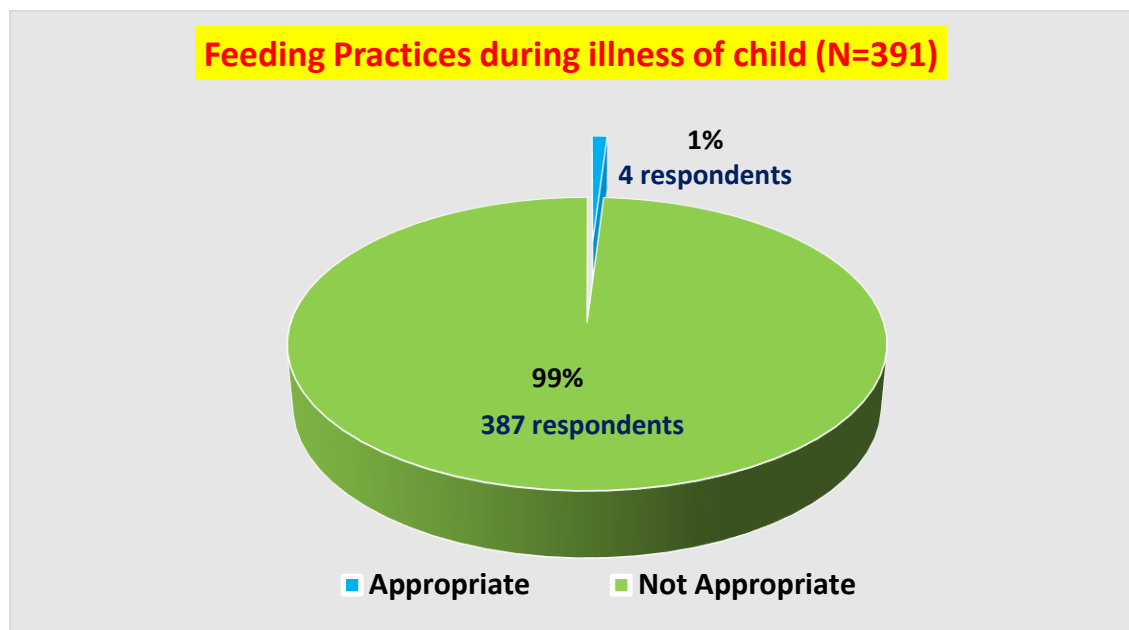
❖ Appropriate Feeding Practices during Illness

In the study questions were asked to caregivers about feeding practices followed for their children during illnesses, are broadly categorized into two types of practices.

- a. **Appropriate feeding practices** i.e. when caregivers continue either the same diet or increased quantity of diet during child's illness
- b. **Not appropriate feeding practices** i.e. whether caregivers decrease the diet of child during illnesses.

Study shows that only 1% children were subjected to appropriate feeding practices during illness.

Chart 11:

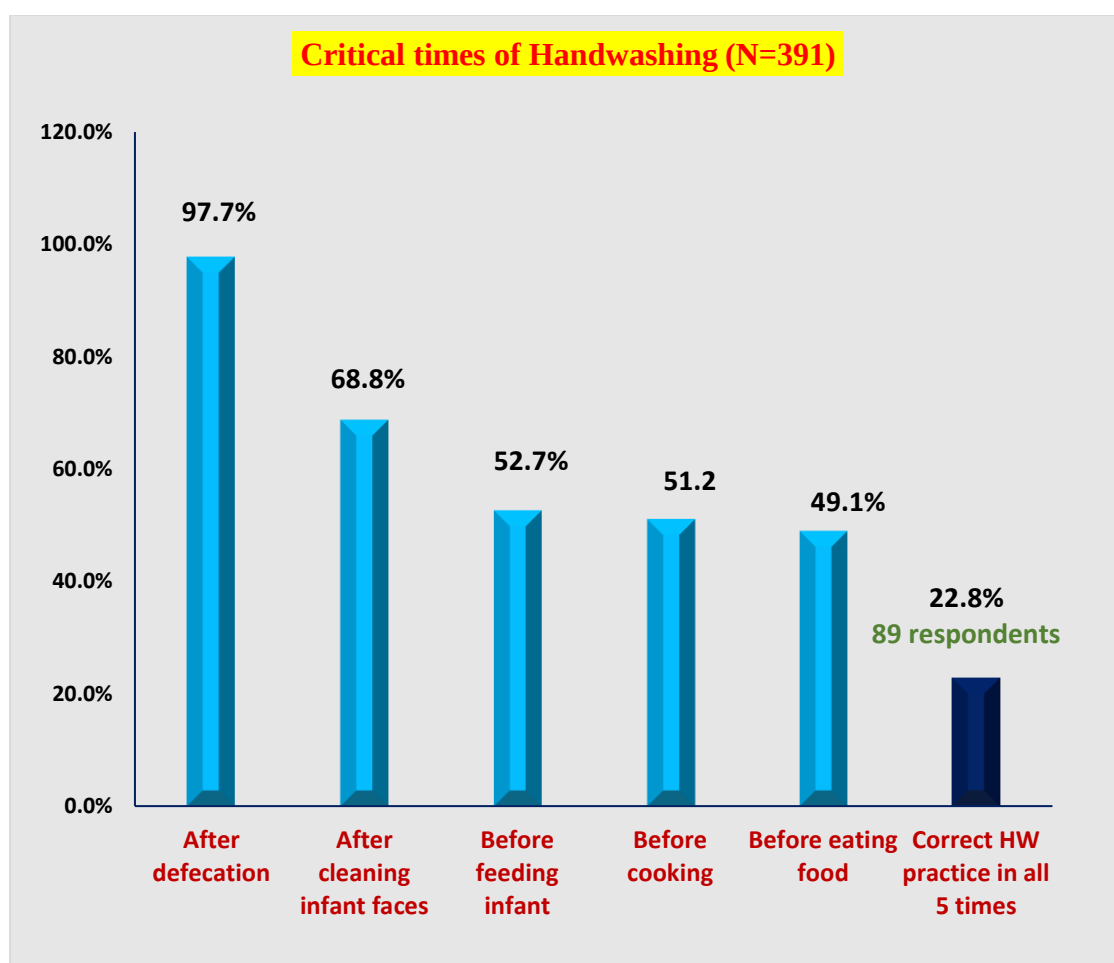


❖ Handwashing Practice at critical times

According to WHO proper Handwashing Practices should be adopted at five critical times to prevent Pneumonia in the children. Under this study caregivers (respondents) were asked questions how they are adherence to handwashing practices at 5 critical times.

The study shows that the highest adherence to handwashing practices was after defecation. Overall analysis of the study suggested that the only 22.8% of caregivers were adherence to correct handwashing practices at all 5 critical times. The detail study report is given below in the **chart-12**.

Chart 12:

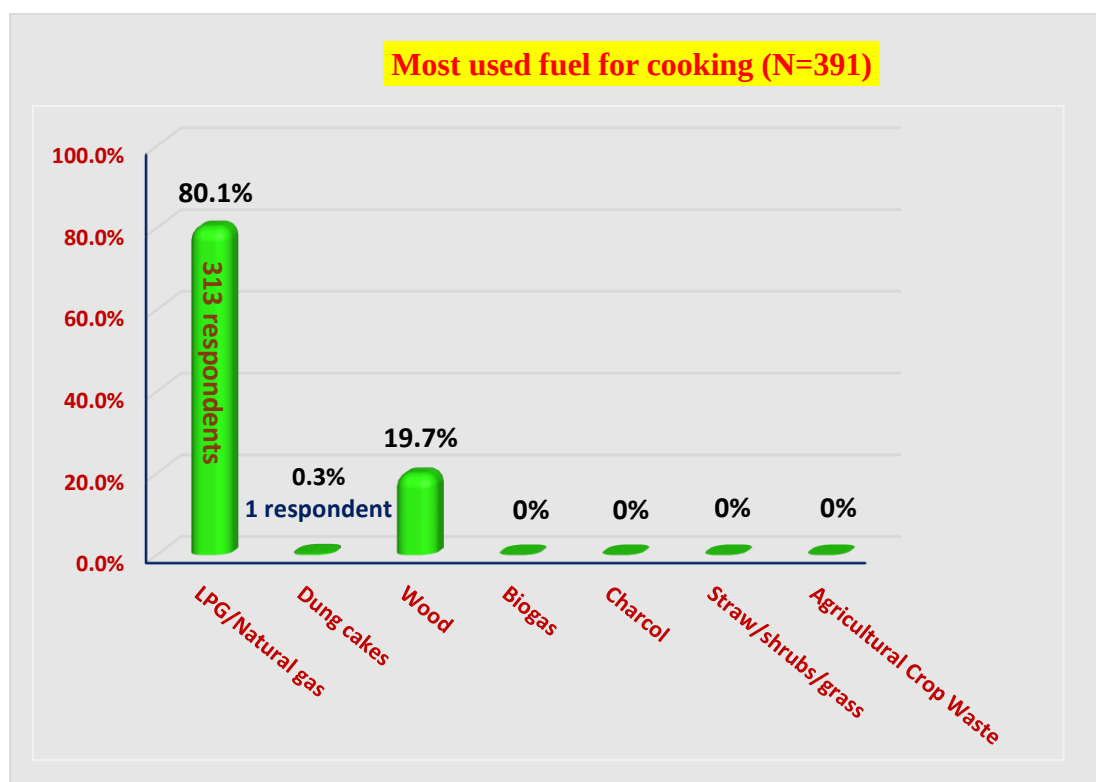


❖ **Fuel usage in households**

The fuel used for cooking in the house is a key contributor to the indoor air pollution which is a major risk factor for ARI. The respondents were probed about the type of fuel used in the household for cooking.

About 80% households primarily use clean fuel or LPG/ Natural Gas for cooking food while remaining households primarily burn wood or use dung cakes to grow fire for the purpose of cooking food.

Chart 13:



❖ **Immunization status**

Immunization of a child is one of the most effective approach to prevent ARI among children under five years of age. The Current findings captured the vaccination status of the under-5 children.

• **Availability of MCP/Immunization card**

Prior to capturing the vaccination status of the child, the respondents were asked about the prevalence of Immunization card/MCP (Mother Child Protection). The MCP card is a tool for educating and instructing the mother and family on various aspects of maternal and childcare. This card additionally captures key services delivered to the mother and infant during antenatal (ANC), neonatal, and post-natal (PNC) care including immunization.

The below **(table 7)** shows the status of Immunization/MCP card in the Households (HH) covered. 78% HH reported that they are having Immunization card and 22% HH are not having.

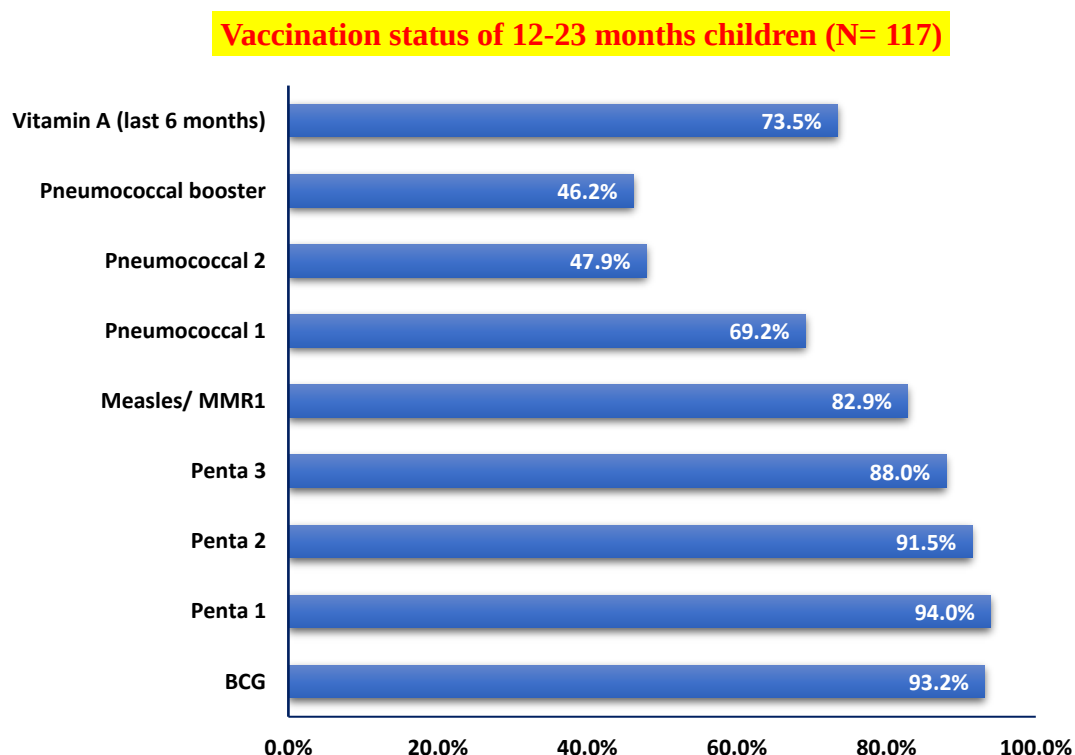
Table 7:

Availability of MCP/Immunization Card (N=391)		
Available	78%	305
Unavailable	22%	86
	100%	391

- **Status of full Immunization in children aged 12-23 months**

As per NFHS guidelines, Immunization status was analyzed among children between the ages of 12-23 months. However, within this subset, those who were administered with 4 vaccines i.e. BCG, Penta 1, Penta 2, and MMR1 were considered as Fully Immunized.

Chart 14:

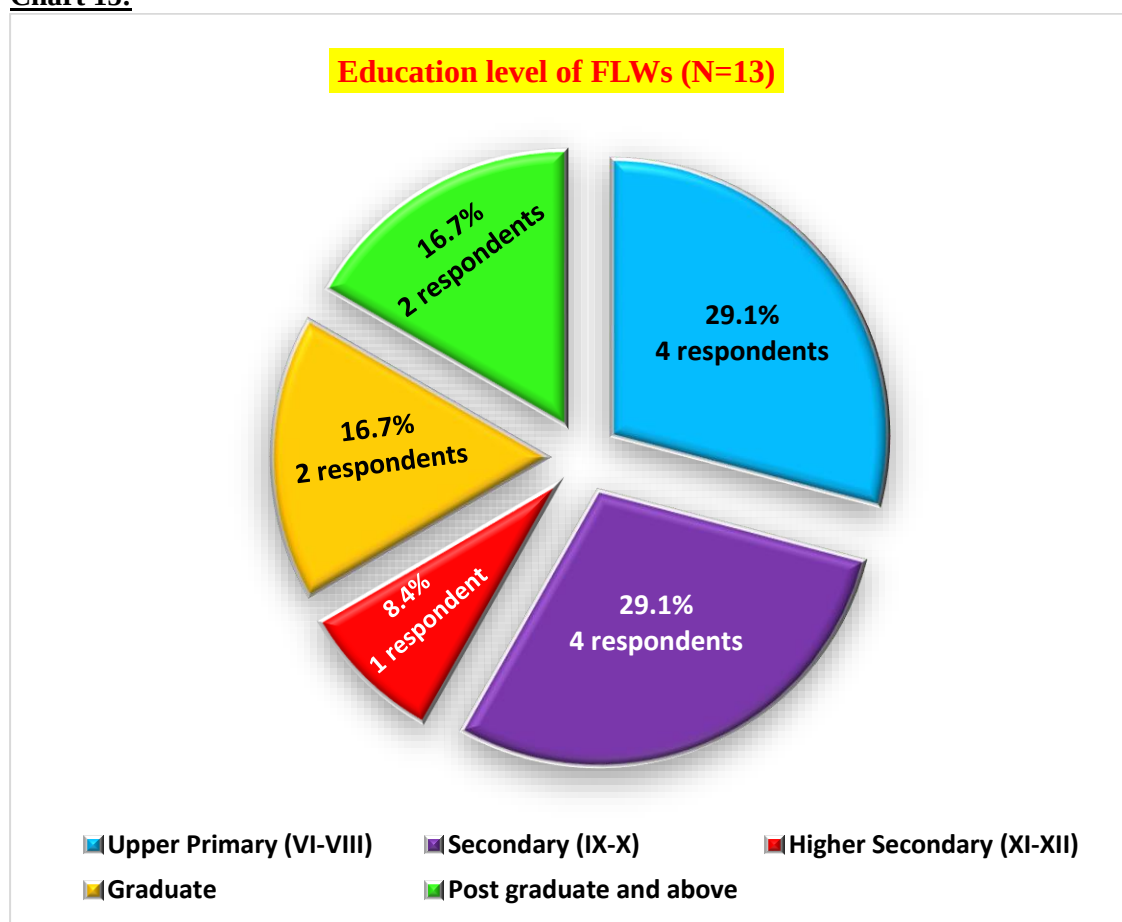


9.2. FINDINGS FROM SURVEY WITH FRONTLINE WORKERS

❖ Education level of FLWs

Since both ASHAs and ANMs are required to attain a certain education level before being posted as a frontline worker who is responsible for the first-level healthcare provision to the community, it is imperative to know their qualifications.

Chart 15:



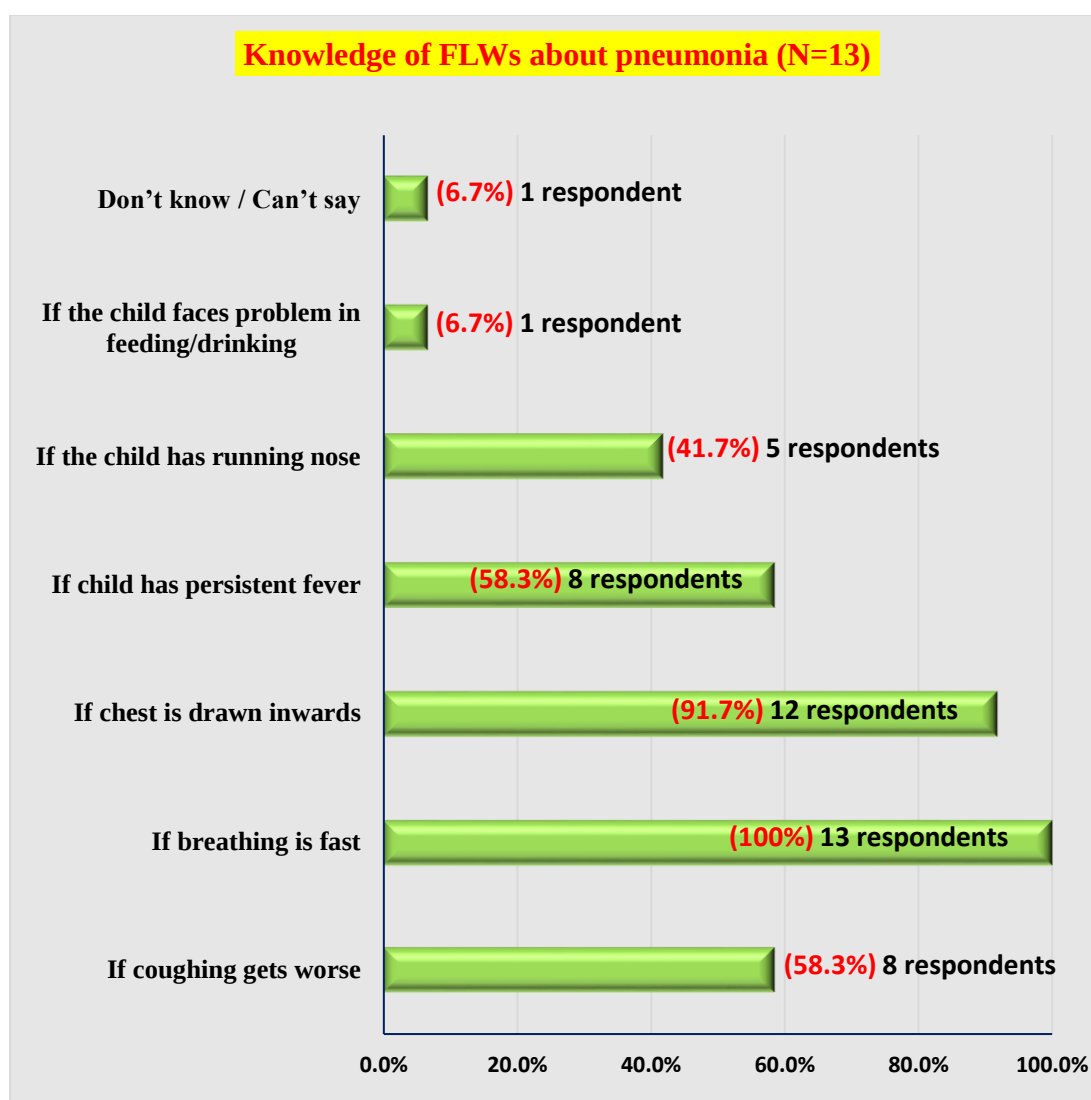
❖ Knowledge of FLWs about Pneumonia

Assessment of knowledge levels about pneumonia is a crucial indicator for the kind of services provided by FLWs to the community at-large.

100 percent of FLWs had knowledge about fast breathing; a significantly higher proportion of FLWs were aware about chest indrawing cough and running nose.

6.7% percent were unaware about any of the symptoms that may help them diagnose pneumonia in an under-5 child.

Chart 16:

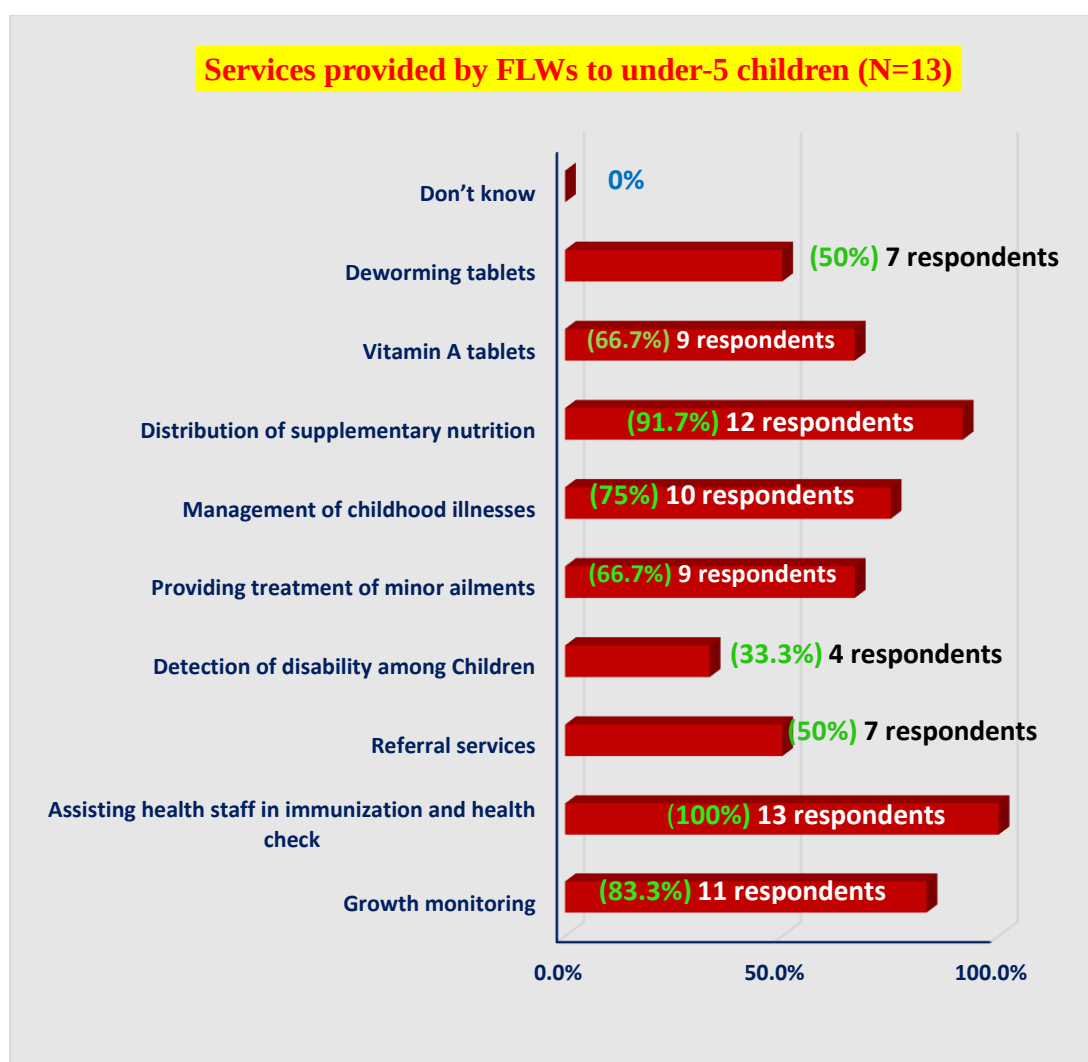


❖ **Service provided by FLWs to Under-5 children**

All frontline workers are typically provided with job course trainings and in-service trainings, based on which they provide quality services within their catchment areas. Most of the FLWs received trainings for antenatal, neonatal, and postnatal care, possibly because majority of FLWs are ASHAs.

On a positive note, all FLWs reported involvement in *immunization and health check-ups* for under-5 children, which is a crucial factor in pneumonia and ARI prevention.

Chart 17:



❖ **Referral cases of Pneumonia**

A total of 27 new cases were identified at Tonk Urban area in last 1 month (7 cases by ANMs and 20 cases by ASHAs).

All 7 cases of ANM were referred to higher health facilities implying zero management at her level, while 90% were referred to higher health facilities by ASHAs. Clearly, referral frequency for ANMs is higher than ASHAs. (**Table 8**)

Table 8:

Referral cases of Pneumonia	ANM	ASHA
New cases in last 1 month (N)	7	20
Management at FLW level	0	2
Referral cases (n)	7	18
Referral cases (%)	100%	90%

10. LIMITATIONS

- Time constraints for various types of activities. (due to lockdown)
- Lack of willingness and hesitation were shown by the participants in the interview.
- The study has been conducted in only 1 block, so it cannot be generalized for the whole District.
- Attending the telephonic interview calls were regretted many times by the respondents.
- The reply of the questions of the respondents (Common mothers & FLWs mothers) may be biased.

11. SUGGESTION:

To reduce Pneumonia specific under five mortality the following actions must be taken at the ground level. Hence it is essential, that accurate information and proper education should be given to them.

- Promotion of integrated programming and implementation in the system.
- Improve access to childhood immunization.
- Demonstration of complementary feeding practices during each home visit by ASHA/ANM and even the similar platforms like VHSND, MCHN, Immunization Day.
- Complementary feeding ought to begin at the starting of seventh month for every child, so we need to focus on Complementary Feeding Day (Annaprasan Diwas).
- Orientation programs or trainings should be conducted to upgrade the knowledge of ASHA and ANMs to promote skill.
- Incorporation of role play workshop to make them better understand about the importance of breastfeeding for infants and for mothers too.
- Public health education campaigns through advertisements, role plays aimed at empowering family members especially mothers & grandmothers to promote exclusive breastfeeding and age appropriate complementary feeding.
- A day devoted to increase awareness and understanding about the importance of handwashing with soap, i.e. Global Handwashing Day on October 15.

12. CONCLUSION

Overall study showed that to prevent and protect children from pneumonia disease, a topmost priority to be given to establish a good health practices which were found inadequate at both levels (households & FLWs). The study reveals that the mortality rate of Pneumonia under five children is likely more because care seekers (Guardian of children) and caregivers (FLWs) were not having sufficient knowledge about the symptoms & risk factors of pneumonia. For this Health education programs or campaigns at the community level will be one of the most effective ways to disseminate knowledge. Recommended practices of breastfeeding (initial, exclusive & complementary) are not adopted by seekers for maintaining the nutritional balance. 99% mothers are not practicing appropriate feeding during the illness of their child. Demonstration of feeding practices during each home visit by ASHA/ANM and even on the similar platforms like VHSND, MCHN, Immunization Day. Study shows that Children are not getting 100% Immunized and even 22% care takers do not have their Immunization card. Handwashing practices at all critical times are maintained by only 23% care seekers. Frontline workers were lacking skills for early identification and management of pneumonia cases. There is need to create awareness regarding feeding practices, hand hygiene, immunization and awareness about symptoms and risk factors of pneumonia amongst mothers through ASHA or Anganwadi workers. An Orientation programs or trainings should be conducted to upgrade the knowledge of FLWs to promote skill. Integrated programming and implementation in the system should be promoted.

Pneumonia is treatable, a child does not have to die by seconds.

13. REFERENCES

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14. INSTRUMENTATION

QUESTIONNAIRE

**A study to assess Knowledge and Practice among Care seekers and Caregivers on
Childhood Pneumonia Under-5 in Urban area of Tonk City, Rajasthan**

SURVEY WITH HOUSEHOLDS

- 1 **Name of Respondent:**
- 2 **Relationship with child:**
- 3 **Religion:**
- | | | | |
|--------|----------------------|---------|----------------------|
| Hindu | <input type="text"/> | Jainism | <input type="text"/> |
| Muslim | <input type="text"/> | Others | <input type="text"/> |
| Sikh | <input type="text"/> | | |
- 4 **Caste:**
- | | | | |
|---------|----------------------|----|----------------------|
| General | <input type="text"/> | SC | <input type="text"/> |
| OBC | <input type="text"/> | ST | <input type="text"/> |
- 5 **Education level of Respondents:**
- | | | | |
|------------------|----------------------|-------------------------|----------------------|
| Illiterate | <input type="text"/> | Higher secondary school | <input type="text"/> |
| Primary school | <input type="text"/> | Graduate | <input type="text"/> |
| Secondary school | <input type="text"/> | | |
- 6 **Age of Children:**
- | | | | |
|-------------|----------------------|--------------|----------------------|
| 0-2 months | <input type="text"/> | 13-23 months | <input type="text"/> |
| 3-12 months | <input type="text"/> | 24-60 months | <input type="text"/> |
- 7 **Gender of Children:**
- | | |
|--------|----------------------|
| Male | <input type="text"/> |
| Female | <input type="text"/> |

Knowledge about Symptoms of Pneumonia (Ques. 8-18)

8 Do you know Convulsion is a symptom of Pneumonia?

Yes No

9 Do you know Nausea; Vomiting is a symptom of Pneumonia?

Yes No

10 Do you know Chest pain is a symptom of Pneumonia?

Yes No

11 Do you know Loss of appetite; low energy is a symptom of Pneumonia?

Yes No

12 Do you know difficulty in feeding is a symptom of Pneumonia?

Yes No

13 Do you know shallow breathing is a symptom of Pneumonia?

Yes No

14 Do you know running nose is a symptom of Pneumonia?

Yes No

15 Do you know In-drawing of chest is a symptom of Pneumonia?

Yes No

16 Do you know Shortness of breath is a symptom of Pneumonia?

Yes No

17 Do you know Fever; sweating is a symptom of Pneumonia?

Yes No

18 Do you know Cough is a symptom of Pneumonia?

Yes No

Knowledge about Risk factors of Pneumonia (Ques. 19-24)

19 Do you know Inappropriate complementary feeding is a risk factor of Pneumonia?

Yes No

- 20 Do you know under nourishment or over nourishment of child can cause Pneumonia?
Yes No
- 21 Do you know at the age of 0-6 months if you fed your child with anything other than breast milk it can cause Pneumonia?
Yes No
- 22 Do you know Indoor air pollution is a risk factor of Pneumonia?
Yes No
- 23 Do you know Incomplete dose of immunization is a risk factor of Pneumonia?
Yes No
- 24 Do you know not having good practice of handwashing at critical times can cause Pneumonia?
Yes No

(Ques. 25- 30) Only to the Age group of 6-23 months of child (Nutritional Practices)

- 25 When was breastfeeding initiated after birth?
Within one hour After 2nd day
Same day Don't remember
- 26 Was the child given Colostrum?
Yes No
- 27 Did you gave pre-lacteal substance to the child before breast-milk?
Yes No
- 28 Did you fed your child only with breast-milk for first six months of life?
Yes No
- 29 Did you fed your child with any oral feed other than breast-milk for first six months of life?
Yes No
- 30 When the complementary feeding was started? (age in months)
- 31 Do you continue with same diet during child illness?
Yes No

Feeding Practices during Illness

32 Do you increase quantity of diet during child illness?

Yes No

33 Do you decrease quantity of diet during child illness?

Yes No

Hand-washing Practices

35 Do you wash your hand after defecation?

Yes No

36 Do you wash your hand after cleaning Infant faces?

Yes No

37 Do you wash your hand before feeding Infant?

Yes No

38 Do you wash your hand before eating food?

Yes No

39 Do you wash your hand before cooking?

Yes No

Fuel used for cooking

40 What type of fuel used in the household for cooking?

LPG/Natural Gas		Biogas	
Dung cakes		Charcoal	
Wood		Straw/shrubs/grass	

41 Does the child has Immunization card?

Yes No

(Ques. 42 & 43) Only to the Age group of 12-23 months of child (Immunization Status)

42 Did the child receive any Vitamin A in last six months?

Yes No

43 Vaccine received status:

		Yes	No
a	BCG		
b	Penta 1		
c	Penta 2		
d	Penta 3		
e	Measles/MMR1		
f	Pneumococcal 1		
g	Pneumococcal 2		
h	Pneumococcal booster		

SURVEY WITH FRONTLINE WORKERS

1 Name of FLW:

2 ASHA or ANM:

3 Education level of FLWs:

Upper primary (vi-viii)		Graduate	
Secondary (ix-x)		Postgraduate	
Higher secondary (xi-xii)		Above PG	

4 What are the symptoms of Pneumonia?

		Yes	No
a	If child faces problem in feeding/ drinking		
b	If the child has running nose		
c	If child has persistent fever		
d	If chest is drawn inwards		
e	If breathing is fast		
f	If coughing gets worse		

5 What are the services provided by you to Under-five children?

		Yes	No
a	Growth monitoring		
b	Assisting health staff in Immunization		
c	Health check up		
d	Referral services		
e	Detection of disability among children		
f	Providing treatment of minor ailments		
g	Management of childhood illness		
h	Distribution of supplementary nutrition		
i	Vitamin A tablets		
j	Deworming tablets		

6 Have you identified new cases of Pneumonia in last one month?

Yes No

6.1 If Yes, then how many new cases?

6.2 How many cases you managed at your level?

6.3 How many cases you referred at higher health facilities?