

Chapter VI

Knowledge and Practice of Newborn and Infant Health

6.1. Introduction

Chapter six describes young women's knowledge and practices about newborn and infant health, specifically with respect to breast feeding, immunization, complementary feeding and treatment seeking behaviour for health problems faced during infancy. Subsequently, bi-variate and logistic regression analysis was carried out to understand the infant health care behaviour by socio-demographic characteristics of women and also the factors influencing such behaviour.

6.2. Knowledge and practice about newborn and infant care

Newborn and infant care at the community level is critical to reduce infant death. Thus, providing necessary support at community as well as health facility level is one of the priorities of the Government of India to achieve the national goal to "reduce infant mortality to 29 per 1000 live birth by 2015". If a woman delivers at home, some of the mandatory cares should be cutting the umbilical cord with a new blade and tying with new thread, wiping and wrapping the baby with clean cloth start at the time of delivery, followed by early breast feeding, no bathing for one week, timely immunization, etc. Young women in the current study were asked about their awareness and practices for each of the essential newborn and infant cares.

Table 6.2.1: Awareness and practices about essential new born and infant care

Essential new born and infant care	Aware about the precautions (N=300)	Number of women	Precautions taken (N=291)	Number of women
Cut the cord with new blade	30.3	91	24.7	72
Tie the cord with new thread	19.0	57	17.2	50
Wipe and wrap baby with clean cloth	81.3	244	81.8	238
Not bathing the baby for a week	51.0	153	45.4	132
Early breast feeding	82.0	246	81.4	237
Minimal handling of baby	1.7	5	2.1	6
Any precaution (N=324)	92.6	300	89.8	291

It was found that 93 per cent women were aware of at least one essential precaution for a newborn baby and about 90 per cent women practised it for their last born baby. It was good to find that more than 80 per cent women were aware and practised early breast feeding to the baby. Minimal handling of the new born is important to prevent infection among babies, but awareness and practices of it is found to be poor which account for only

2 per cent. Similarly, 30 and 19 per cent women had awareness about cutting the cord with a new blade and tying it with a new thread respectively. The same is practised by 25 per cent women for cutting the cord with a new blade and 17 per cent women for tying the cord with a new thread.

Table 6.2.2: Level of knowledge about new born and infant care

Knowledge level	Knowledge about new born and infant care	Number of women
Incomplete knowledge	99.7	323
Having all knowledge	0.3	1
Total	100.0	324

Note: All newborn care includes cutting the cord with new blade, tying it with new thread, wiping and wrapping with clean cloth, no bathing for one week, early breast feeding and minimal handling of the baby.

Further analysis regarding level of knowledge depicts that only one woman (0.3 per cent) was aware of all the cares to be taken to an infant and the remaining young women were not aware of all the essential cares. This kind of unawareness seems to be critical to prevent infections among new born babies and infants and save lives.

Table 6.2.3: Awareness and practices about early and exclusive breastfeeding

Time of breast feeding	Awareness of breastfeeding	Number of women	Practice of breastfeeding	Number of women ¹
Breast feeding within one hour of birth	76.5	248	58.4	167
Exclusive breast feeding for 6 months	81.2	263	54.9 ²	157
Total (N)	--	324	--	286

Note: Independent responses, percentages cannot be added

¹ Includes women who had still births, abortions and whose last child died

² Includes children below six months who were exclusively breast fed.

Immediate and exclusive breastfeeding is also an important component of infant care. It was found that, 77 per cent young women were aware that breastfeeding has to be initiated within one hour of delivery and 81 per cent know that it has to be continued exclusively for six months. In practice, only 58 per cent women breastfed their child within one hour of birth which is almost 19 per cent points less than the per cent of women aware of it. Similarly, 55 per cent women exclusively breastfed for six months, which is 26 per cent points less than the per cent of women aware of the same.

Qualitative findings highlighted that after delivery a woman is generally not in a position to breastfeed the child. Similarly, people have practices of giving pre-lacteals to the newborn, they even feed items like plain warm water, sweet water, honey, gripe water, Janmaghutti, etc., from day one.

During FGD women made the following statements:

“A woman becomes very weak after delivery and so it is very difficult to breastfeed the baby immediately”.

“She cannot hold the baby properly, how can she breastfeed the baby”.

“After birth the newborn’s mouth get dried up and thus we give warm water”.

“Breastmilk is not always sufficient for the child and so we have to give other light liquids”

“All women in our village give gripe water and Janmaghutti. If we give them the baby sleeps properly, eats without any trouble, no stomach problems occur and baby becomes healthy”.

These statements show that assisted breastfeeding after birth is not immediately done and the health service providers might not be focusing on it much. Similarly, people continue to do some of the traditional feeding practices which go against exclusive breastfeeding. These reasons seem to be the major contributors for low level of newborn and infant health care practices.

6.3. Knowledge and practice about complementary feeding

Timely initiation of complementary feeding is important to support a baby’s growth. According to nutrition experts, every baby should start complementary feeding as soon as he completes six months. Results show that though 77 per cent of the young women were aware of correct age of initiating breastfeeding, only 27 per cent initiated it.

Table 6.3.1: Awareness and practices about initiation of complementary feeding

Time of complementary feeding	Awareness about complementary feeding	Number of women	Initiation of complementary feeding	Number of women*
Before 6 th month	12.0	39	68.9	133
On 7 th month	76.9	249	26.9	52
On or after 8 th month	4.3	14	4.2	8
Don’t know	6.8	22	NA	NA
Total	100.0	324	100.0	193

Note: * Includes women who have started complementary feeding to their last child.

Most of the women (69 per cent) have initiated complementary feeding before completing six months to the baby. This finding clearly complements the obtained result of low rate of exclusive breastfeeding till six months.

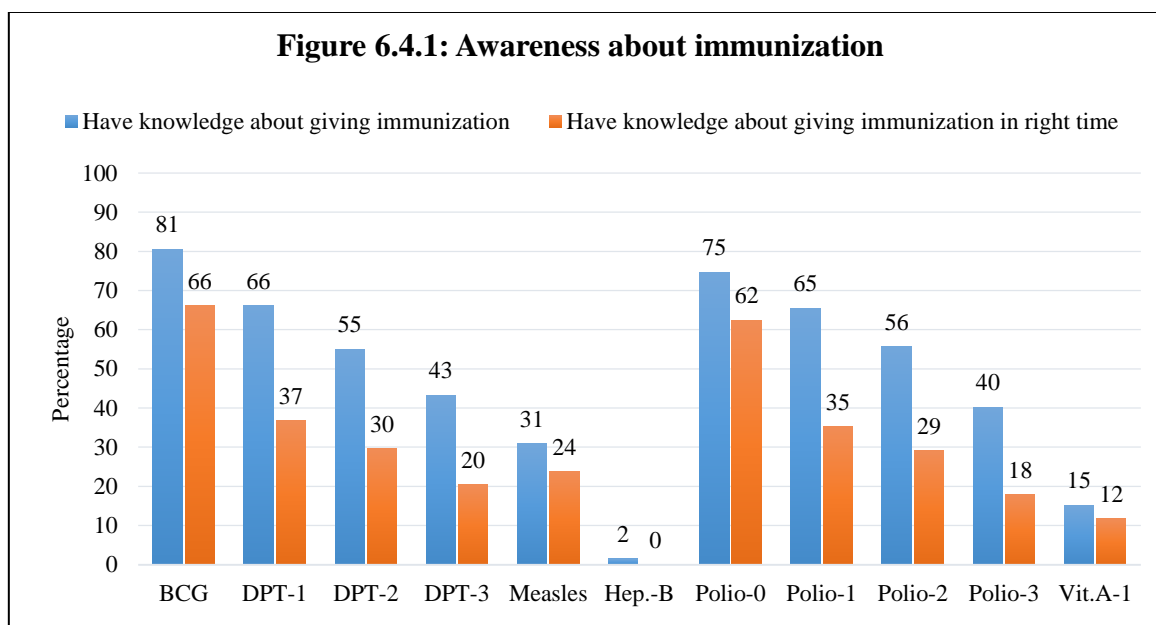
6.4. Knowledge and practice about immunization

Immunization of an infant at an appropriate time is a major requirement of child survival. It is widely known that vaccines prevent children from many common diseases. Thus, they are provided under the universal immunization programme at the community's doorstep. However timely immunization is essential.

In the current study, it was found that 83 per cent of the young women were aware of some or other immunization given to a child within one year. On the contrary, 92 per cent women said that receiving at least one immunization for their last born child was more than they were aware of. This seems possible due to the universal immunization programme which is a flagship programme of the Government of India. This was also evident from the focus group discussions.

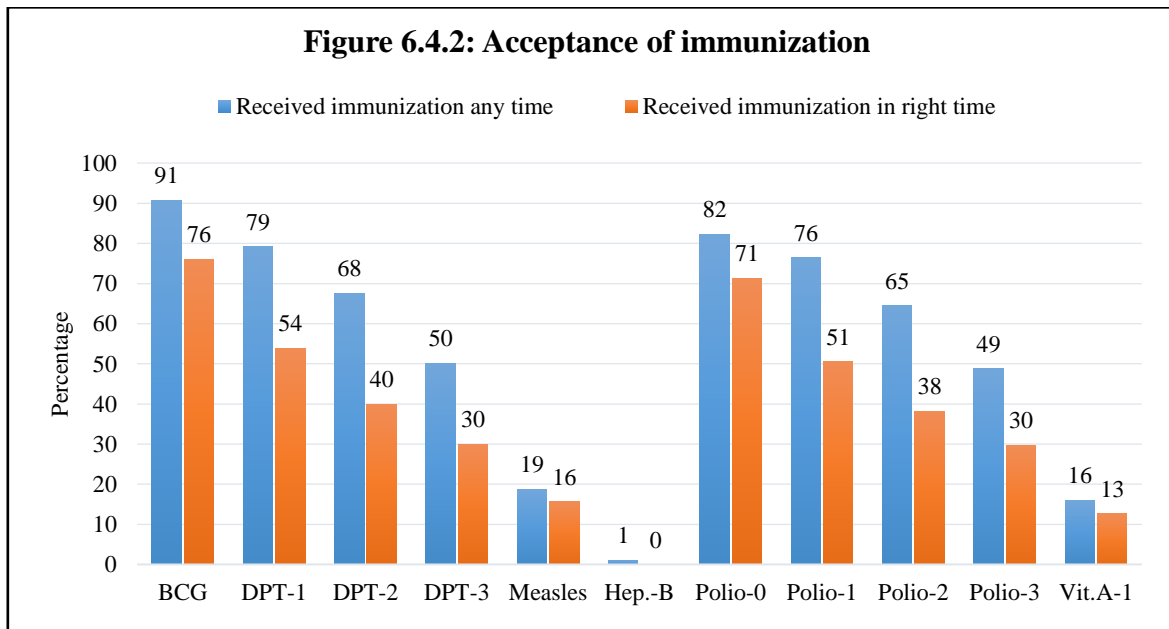
One woman having a nine months old child said,

“Immunization is given every month in our village at the anganwadi centre, ASHA didi and the aaya ask us to come when the nurse madam arrives”.



Subsequently analysis was carried out to understand the knowledge regarding each vaccine by its time of administration. It showed that though 81 women were aware that BCG has to be given to a child, only 66 per cent knew the appropriate month of administering it. Similarly, 66 per cent women were aware of DPT-1, 55 per cent of DPT-2, 43 per cent of

DPT-3 vaccine but the appropriate timing of giving this vaccine was known only to 37 per cent, 30 per cent and 20 per cent women respectively. Same is the case for measles, where 31 per cent women were aware of it, but 24 per cent knew when it had to be given. This was common across all types of immunization including Polio, where a considerably lower proportion of women knew about the time of administering the vaccine. Knowledge about Hepatitis-B was found very poor among the young women. It was also found that there is a decreasing trend of knowledge for the different doses of DPT and Polio.



Though 91 per cent of the infants received BCG, only 76 per cent received it in time. Similarly, 79 per cent received DPT-1, 68 per cent received DPT-2 and about half of the infants received DPT-3 vaccine but receiving these vaccines in appropriate time was much lower. It was 54 per cent for DPT-1, 40 per cent for DPT-2 and 30 per cent for DPT-3. Same is the case for measles, where 19 per cent children received the vaccine but 13 per cent received it in time. Almost similar trend is found for doses of Polio and vitamin-A.

6.5. Knowledge about infant health problems and treatment seeking behaviour

Generally infants are prone to infections and diseases. Thus, it is important to take care of them at least in the first year and administer all vaccines at appropriate times. Even after proper care, many infants get infection and suffer from diseases. In this case it is very crucial for the parents to understand the symptoms and get them treated seriously.

Table 6.5.1: Awareness of health problems faced by infants among women

Infant health problems	Awareness of health problems	Number of women (N=253)
Do not cry soon after birth	7.9	20
Turn blue/pale/white	5.1	13
Drowsy / Unconscious	1.6	4
Convulsions	0.0	0
Stiff and arched	1.2	3
Breathing problem	3.6	9
Fever	90.9	230
Watery stool	57.7	146
Stop breast feeding	6.7	17
Vomiting	40.3	102
Jaundice	4.0	10
Cold and cough	8.7	22
Aware of health problems (N=324)	78.1	253

In the current study young women were asked if they knew about different health problems an infant can suffer. It was found that about 78 per cent knew about them. The subsequent probing related to the type of health problems depicted that 91 women know about fever followed by watery stool (58 per cent), and vomiting (40 per cent). These were mainly known by women. The other health problems highlighted by 7 to 8 per cent women included cold and cough, not crying immediately after birth and stopping breast feeding.

Table 6.5.2: Experience of health problems of infants by women

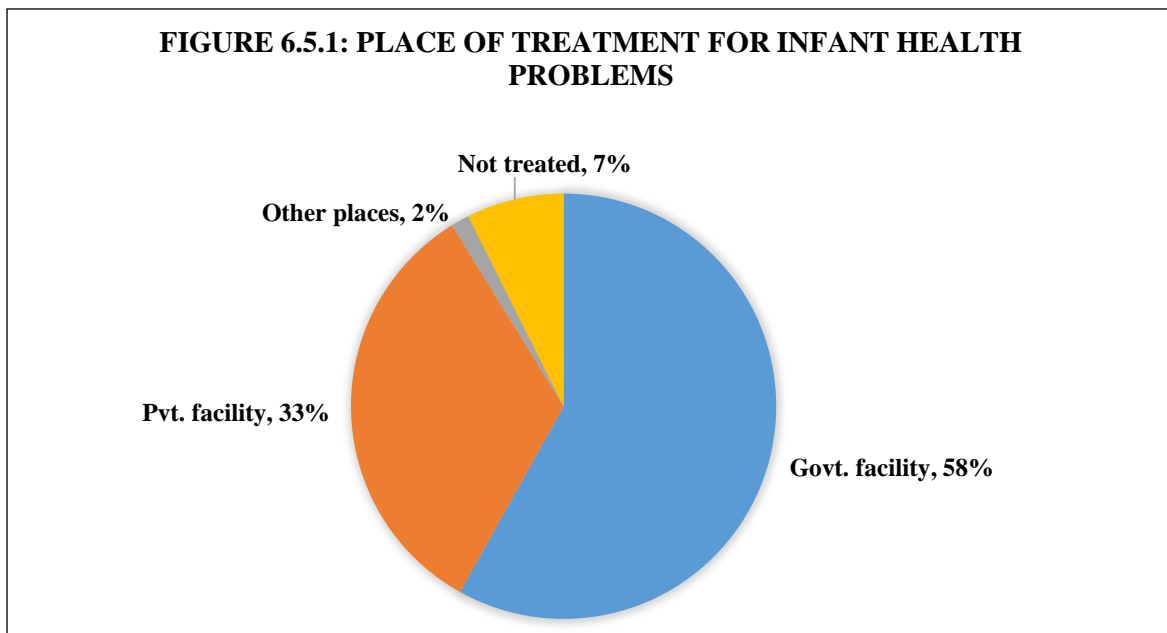
Infant health problems	Experience of health problems	Number of women (N=148)
Do not cry soon after birth	4.7	7
Turn blue/pale/white	0.0	0
Drowsy / Unconscious	0.7	1
Convulsions	0.0	0
Stiff and arched	0.0	0
Breathing problem	2.0	3
Fever	77.0	114
Watery stool	47.3	70
Stop breast feeding	6.1	9
Vomiting	27.0	40
Jaundice	1.4	2
Cold and cough	25.0	37
Experienced any health problem (N=291)*	50.9	148

Note: Includes women whose last birth was alive at the time of interview

Similarly, women were asked about the health problems experienced by their infants. About 51 per cent of them said that their infants had a health problem. Among the infants who experienced any problem, 77 per cent had fever, 47 per cent watery stool, 27 per cent

vomiting and 25 per cent cold and cough. In addition to these major health problems, few infants suffered from breathing problems, stopped breast feeding and jaundice.

Of the 148 (51 per cent) infants who experienced some or other health problem, almost 93 per cent sought treatment. It was found that 58 per cent women preferred treating the health problems in a government facility, followed by private facility (33 per cent).



There were about 2 per cent women who treated their infants at home (self-medication), quacks, ASHA and ANM. The remaining (7 per cent) women, who did not seek any treatment, provided mixed reasons for not treating the health problem which included not feeling the need, high treatment cost, no advise from any one and poor quality of services at health facility.

Bi-variate analysis was carried out for young women's awareness and treatment seeking behaviour of infant health problems by selected socio-demographic characteristics. As treatment seeking behaviour of infant health problem was very high (93 per cent), little variation was found within the socio-demographic characteristics of women. Results revealed that women of 20-24 years were slightly better aware of infant health problems and need for seeking treatment compared with women of 15-19 years. However, education level of women and their husbands does not seem to be influencing much the awareness and treatment of infant health problems. More specifically, many women with low and no education were also aware of infant health problems and sought treatment for them.

Table 6.5.3: Awareness and treatment seeking behaviour of infant health problems by socio-demographic characteristics

Socio-demographic characteristics	Aware of infant health problems	Number of women	Sought treatment for the problems	Number of women
Education level of women				
No education	69.3	114	89.9	69
Class 1-5	82.8	58	100.0	26
Class 6-8	77.3	75	95.7	23
Class 9 and above	88.3	77	90.0	30
Education level of husbands				
No education	71.4	70	92.3	39
Class 1-5	94.4	36	78.9	19
Class 6-8	75.3	73	96.6	29
Class 9 and above	78.6	145	95.1	61
Age of women				
15-19 years	74.0	96	91.5	47
20-24 years	79.8	228	93.1	101
Caste				
General	76.1	46	100.0	10
SC	78.0	127	95.0	60
ST	78.4	51	84.6	39
OBC	79.0	100	94.9	39
Duration of marital life				
0-1 year	81.2	80	88.6	35
2-4 years	71.1	121	100.0	40
5 years and above	82.9	123	90.4	73
Number of living children				
No or 1 child	79.0	157	94.4	72
2 children	75.4	118	98.3	60
3 or more children	81.6	49	62.5	16
Ever experienced infant mortality				
Yes	57.4	61	94.1	34
No	82.9	263	92.1	114
Had discussion about infant care*				
Yes	84.4	257	93.9	131
No	22.2	36	82.4	17
Women's autonomy				
High autonomy	76.5	34	96.4	28
Moderate autonomy	92.0	75	88.5	52
Low autonomy	73.5	215	94.1	68
Gender attitude of women				
High equitable attitude	66.0	53	100.0	15
Moderate equitable attitude	77.6	223	92.8	97
Low equitable attitude	93.8	48	88.9	36
Exposure to mass media				
High exposure	77.5	40	100.0	14
Medium exposure	79.7	202	94.9	78
Low exposure	74.4	82	87.5	56
Standard of living				
High standard of living	92.6	27	100.0	12
Medium standard of living	76.0	196	95.5	89
Low standard of living	78.2	101	85.1	47
Total	78.1	324	92.6	148

Note: * Excludes women who had still births and abortions.

About 82 per cent of the women who had three or more children were aware of infant health problems, but only 63 per cent of them sought treatment. However 98 per cent women who had two children and 94 per cent women who had one or no child sought treatment for the health problems faced by their child. Awareness of infant health problem was found low among women who had faced infant mortality (57 per cent) compared with those who did not (83 per cent). Nevertheless, more than 90 per cent of both categories women sought treatment. Eighty-four per cent of the women who had discussion with front line health service providers like ASHA, ANM, anganwadi worker or any elder member of the family about infant care were aware of the infant health problems, while this figure was only 22 per cent for women who did not do so. Similarly, 94 per cent women who had discussion about infant care and 82 per cent women who did not have discussion sought treatment for infant health problems. Like education, women's autonomy also did not have significant influence on awareness and treatment of infant health problems. Though it was better (94 per cent) among women having low equitable gender attitude, treatment seeking for infant health problem was universal (100 per cent) for women with high equitable gender attitude as compared with other groups.

Magnitude of media exposure did not have impact on knowledge of infant health problems. However, all the women who had high media exposure, 95 per cent women who had medium exposure and 88 per cent women who had low exposure sought treatment for infant health problems. Ninety-three per cent women of high standard of living and 78 per cent of low standard of living were aware of infant health problem, whereas all the women having a high standard of living and 85 per cent of them with low standard of living sought treatment for their infants.

Table 6.5.4: Logistic regression results for women’s treatment seeking behaviour of infant health problems

Independent or predictor variables	Odds of seeking treatment for infant health problems			N (148)
	Model-1	Model-2	Model-3	
Age of women				
15-19 years®	1.00	1.00	1.00	47
20-24 years	7.92*	9.39*	8.13	101
Education level of women				
No education®	1.00	1.00	1.00	69
Any education	0.39	0.41	0.94	79
Caste				
SC and ST®	1.00	1.00	1.00	99
General and OBC	3.99**	4.63**	4.42*	49
Type of family				
Nuclear®	1.00	1.00	1.00	65
Non-nuclear	0.85**	0.66**	0.78	83
Number of living children				
One child®	1.00	1.00	1.00	72
Two or more children	0.19	0.23	0.88	76
Exposure of women to mass media				
Low exposure®	1.00	1.00	1.00	56
High to medium exposure	2.32	1.16	1.39	92
Standard of living				
Low SLI®	1.00	1.00	1.00	47
High to medium SLI	9.95*	9.75*	1.76	101
Distance to nearest health facility				
More than 5km®	1.00	1.00	1.00	39
Within 5km	0.90	0.88	0.75	109
Had discussion about infant care				
No®	1.00	1.00	1.00	17
Yes	8.82**	8.72**	4.60*	131
Women’s autonomy				
Low autonomy®	1.00	1.00	1.00	68
High to moderate autonomy	0.86	1.19**	6.44*	80
Decision-making power				
Low DMP®	--	1.00	1.00	75
High to moderate DMP	--	0.29*	1.50*	73
Gender attitude of women				
Low equitable attitude®	--	--	1.00	36
High to moderate equitable attitude	--	--	1.35	112

Note: ® Reference category; Level of significance: * p≤0.100; ** p≤0.050; *** p≤0.001

Different models of logistic regression analysis for young women’s treatment seeking behaviour for their infant health problems illustrated that women in 20-24 years of age were 8 to 9 times (Model-1 OR 7.9, Model-2 OR 9.4, Model-3 OR 8.1) more likely to seek treatment for their infant health problems compared with women of 15-19 years. Higher levels of education, living in non-nuclear families and having two or more children did not found to have any significant impact on treatment seeking of infant health problems by women. The likelihood of treatment seeking behaviour for infant health problems among

general and other backward class women was more than four times higher compared with SC and ST women. After controlling all the socio-demographic variables including women's autonomy and decision-making power in Models 1 and 2, it was found that women with high to medium standard of living were about ten times more likely to seek treatment for their infant health problems compared with women having low standard of living. The models also highlighted that the odds of treatment seeking of infant health problem were 8.7 to 8.8 times significantly higher for women who had discussion with health service providers or household members about infant care. As per the full regression model (Model-3), where all the socio-demographic variables including decision-making power and gender attitude were controlled, women with high to moderate autonomy were 6.4 times more likely to seek treatment for their infant health problems compared with women with low autonomy. The model depicted that the likelihood of treatment seeking of infant health problem was 1.5 times more for women having high to moderate decision-making power compared with other women. Though women with high to moderate gender equitable attitude were more prone to seeking treatment of infant health problems compared with women with low equitable gender attitude, the relationship is not significant.

6.6. Summary

Ninety-three per cent women were aware of at least one essential care (*cut cord with new blade, tie cord with new thread, wipe and wrap with clean cloth, no bath for a week, breast feeding within one hour and minimal handling of the baby*) to be taken to prevent infection to a newborn baby, there was only one woman (0.3 per cent) who was aware of all of them. However, 77 per cent young women were aware that breastfeeding has to be initiated within one hour of delivery and 81 per cent knew that exclusive breast feeding has to be continued till six months. In actual practice, only 58 per cent women breastfed their children within one hour of birth which is almost 19 per cent points less than the per cent of women aware of it. Similarly, 55 per cent women exclusively breastfed for six months, which is 26 per cent points less than the percentage of women aware of it.

Initiating complementary feeding is very important to support baby's growth and it should happen as soon as the infant completes six month. Though 77 per cent of the young women were aware of correct age of initiating breastfeeding, only 27 per cent initiated it

on that age. Most of the women (69 per cent) initiated complementary feeding before the baby completing six months. This finding clearly compliments the obtained result of low rate of exclusive breastfeeding till six months.

It was found that 83 per cent of the young women were aware of some or the other immunization given to a child within one year. On the contrary, 92 per cent women said that receiving at least one immunization for their last born child was more than they were aware. This seems possible due to the universal immunization flagship programme of the Government, which was evident from focus group discussions. Subsequent analysis was carried out to understand the knowledge regarding each vaccine/immunization. Results illustrated that though 81 women were aware that BCG had to be given to a child, while 66 per cent knew the appropriate month of administering it. Similarly, 66 per cent women were aware of DPT-1, 55 per cent of DPT-2, 43 per cent of DPT-3 vaccine. But the appropriate time of giving this vaccine was known only to 37 per cent, 30 per cent and 20 per cent women respectively. Same is the case for measles, where 31 per cent women were aware of it, but 24 per cent knew when it had to be given. On the other hand, though 91 per cent of the infants received BCG, only 76 per cent have received it in time. Similarly, 79 per cent infants received DPT-1, 68 per cent DPT-2 and about half of them DPT-3 vaccine. But the percentage of infants receiving these vaccines in appropriate time was much lower. This accounts for 54 per cent for DPT-1, 40 per cent for DPT-2 and 30 per cent for DPT-3. Same is the case for measles, where 19 per cent children received the vaccine at any time, but 13 per cent children received it in time.

About 78 per cent of young women were aware of the health problem of an infant. The most common problem known to women was fever (91 per cent), followed by watery stool/diarrhoea (58 per cent) and vomiting (40 per cent). Nearly 51 per cent infants had a health problem and of those almost 93 per cent sought treatment. The common problems reported are fever, watery stool (diarrhoea), vomiting, cold and cough. Women preferred treatment in a government facility (58 per cent) for their infant health problems. About one third of them were found to be treated in a private facility. Subsequent analysis revealed that, women of 20-24 years were slightly better aware of infant health problems and also seeking treatment, compared with women of 15-19 years. More specifically, a considerable proportion of women with no and low education were aware of infant health problems and sought treatment for them. About 82 per cent of women who had three or

more children were aware of some or the other infant health problems, but only 63 per cent of them sought treatment for them. However, 98 per cent women who had two children and 94 per cent women who had no or one child sought treatment for the health problems faced by their children. Eighty-four per cent women who had discussion with front line health service providers like ASHA, ANM, anganwadi worker or an elder member of the family about infant care were aware of the infant health problems, while this figure was only 22 per cent for women who did not do so.. Similarly, 94 per cent women who had discussion about infant care and 82 per cent women who did not have it sought treatment for their infant health problems. Though awareness about an infant health problem was found to be better (94 per cent) among women having low equitable gender attitude, treatment seeking for infant health problem was universal (100 per cent) for women with high equitable gender attitude as compared with other women. Ninety-three per cent women of high standard of living and 78 per cent women of low standard of living were aware of infant health problems, whereas cent per cent women having high standard of living and 85 per cent of women having low standard of living sought treatment for the problems experienced by their infants. Logistic regression analysis illustrates that women in 20-24 years of age were eight to nine times more likely to seek treatment for their infant health problems compared with women in 15-19 years. The likelihood of treatment seeking behaviour for infant health problems among general and other backward class women was more than four times higher compared with SC and ST women. After controlling all the socio-demographic variables including women's autonomy and decision-making power, it was found that women with high to medium standard of living were about ten times more likely to seek treatment for their infant health problems compared with women with low standard of living. Again the odds of treatment seeking of infant health problem were 8.7 to 8.8 times significantly higher for women who had discussion with health service providers or household members about infant care. Women in the high to moderate autonomy and decision- making power were 6.4 and 1.5 times more likely to seek treatment respectively for their infant health problems compared with other women.