Training Need Assessment of Service Providers in Managing Childhood Illnesses (IMNCI) in Porbandar District of Gujarat

Internship Training
at
NRHM Gujarat

By
Niteen Gujarathi

Under the guidance of
Dr. J.P. Singh

Post Graduate Diploma in Hospital & Health Management
2012–14

IIHMR UNIVERSITY
Institute of Health Management Research
Jaipur
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INSTITUTE OF HEALTH MANAGEMENT RESEARCH
1, Prabhu Dayal Marg
Sanganer Airport, JAIPUR - 302 029, INDIA
Tel. : 3924700, 2791431-32
Fax : 91-141-3924738
E-mail : iihmr@iihmr.org
URL : http://www.iihmr.org
Gram : HEALTHINST

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Niteen Maneelal Gujarathi** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from institute of Health Management Research, Jaipur has undergone internship training at **NRHM Gujarat** from 10th February 2014 to 25th May 2014.

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.

Dr. Ashok Kaushik
Dean, Academics and student Affairs
IIHMR, Jaipur

Prof. J. P .Singh
Guide
IIHMR Jaipur

The Certificate is awarded to

Dr.Niteen Gujarathi

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

District Program Management Unit

and has successfully completed his Project on

"Training Need Assessment of service providers in managing childhood illnesses (IMNCI) in Porbandar District of Gujarat"

Date: 15th May 2014

Organisation: NRHM Gujarat

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

We wish him all the best for future endeavors.

Reproductive & child Health Officer

Porbandar

District RCH Officer
Health Branch-Porbandar

Chief District Health Officer

Porbandar.

CHIEF DISTRICT HEALTH OFFICER
PORBANDAR

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INSTITUTE OF HEALTH MANAGEMENT RESEARCH, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that dissertation titled ***"Training Need Assessment of service providers in managing childhood illnesses (IMNCI) in Porbandar District of Gujarat"*** and submitted by **Dr. Niteen Maneelal Gujarathi**, Enrollment No. 1353, under the supervision of Professor J.P. Singh for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 10th February 2014 to 25th May 2014 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.

Signature

Acknowledgements

*At the onset of the report I would like to acknowledge our sincere thanks to **'Institute of Health Management Research, Jaipur'** for providing me the platform to gain enough knowledge and skills in different aspects of Health Management.*

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Dr.Niteen Gujarathi

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ANM	AUXILLARY NURSE MIDWIFERY
ARI	ACUTE RESPIRATORY INFECTION
ASHA	ACCREDITED SOCIAL HEALTH ACTIVIST
AWC	ANGANWADI CENTER
AWW	ANGANWADI WORKER
BCG	BACILUS CALMETTI GUERIN
BF	BREAST FEEDING
BMW	BIOMEDICAL WASTE
CDHO	CHIEF DISTRICT HEALTH OFFICER
CHC	COMMUNITY HEALTH CENTER
CRS	CHILD REGISTRATION SYSTEM
DDO	DISTRICT DEVELOPMENT OFFICER
DPO	DISTRICT PROGRAM OFFICER
DPT	DIPTHERIA PERTUSSIS TETANUS
FHS	FEMALE HEALTH SUPERVISOR
FHW	FEMALE HEALTH WORKER
FRU	FIRST REFERRA L UNIT
GOI	GOVERNMENT OF INDIA
ICDS	INTEGRATED CHILD DEVELOPMENT SCHEME
IMNCI	INTEGRATED MANAGEMENT OF NEONATAL AND

	CHILDHOOD ILLNESSES
IMR	INFANT MORTALITY RATE
MMR	MATERNAL MORTALITY RATE
MO	MEDICAL OFFICER
MoHFW	MINISTRY OF HEALTH AND FAMILY WELFARE
MUAC	MID UPPER ARM CIRCUMFERENCE
NGO	NON GOVERNMENT ORGANIZATION
NFHS	NATIONAL FAMILY HEALTH SURVEY
NRHM	NATIONAL RURAL HEALTH MISSION
OPV	ORAL POLLIO VACCINE
PF	PLASMODIUM FALCIPARUM
PHC	PRIMARY HEALTH CENTRE
PPP	PUBLIC PRIVATE PARTNERSHIP
RCH	REPRODUCTIVE AND CHILD HEALTH
RCHO	REPRODUCTIVE AND CHILD HEALTH OFFICER
SC	SUB CENTER
SPP	STATE POPULATION POLICY
SPSS	STATISTICAL PACKAGES FOR SOCIAL SCIENCES
SRS	SAMPLE REGISTRATION SURVEY
TFR	TOTAL FERTILITY RATE
TOT	TRAINING OF TRAINER
U5MR	UNDER 5 MORTALITY RATE

UNICEF	UNITED NATIONS OF INTEGRATED CHILD EMMERGENCY FUND
US	UNITED STATE
VCNC	VILLAGE CHILD NUTRITION CENTER
VHND	VILLAGE HEALTH NUTRITION DAY
VPD	VACCINE PREVENTABLE DISEASES
WHO	WORLD HEALTH ORGANIZATION

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DISSERTATION REPORT

Executive Summary

Training Need Assessment of service providers in managing childhood illnesses (IMNCI)

Background: During the mid-1990s, the World Health Organization (WHO), in collaboration with UNICEF, developed a strategy known as the Integrated Management of Childhood Illness (IMCI). This strategy was expanded in India to include all neonates and was renamed as 'Integrated Management of Neonatal and Childhood Illness (IMNCI)'. (Ref: IMNCI paper_IJP , June 2012, author-Hemant D. Shewade & et.al.)

The IMNCI strategy was developed to reduce the incidence of the major preventable causes of death of under-5 children in the developing world—pneumonia, diarrhoea, malaria, measles, and malnutrition—by creating a classification system for the treatment of multiple diseases. (Ref: 08 ASHA IMNCI Rajasthan KCCI 2009- Background, author- Martin Abel & et.al.)

IMNCI training is designed primarily for skill improvement pertaining to neonatal and child health issues as well as appropriate and prompt management. IMNCI training included service providers called Medical Officer, health workers called Auxiliary Nurse Midwives (ANMs) and Integrated Child Development Scheme (ICDS) workers called Anganwadi Workers (AWWs). One of the major

components of this programme is to give training to the health service provider which includes clinical skill training and training in supervisory skills as the backbone of these programmes are these health service providers.

The clinical skill training is based on a participatory approach combining classroom sessions with hands-on clinical sessions in both facility and community settings. Broadly, two categories of training are included, one for medical officers and a second for front-line functionaries including ANM's and Anganwadi Workers (AWW's). For ASHA and link volunteers if any, a separate package consistent with IMNCI focusing on the home care of newborn and children is in preparation keeping in mind their educational status. (Ref: IMNCI operational guidelines for implementation - section A -components)

According to March 2012 report of MoHFW, IMNCI is implemented in 453 districts of India and total number of people trained up to 2012 under IMNCI are 5,37,454.

Statement of Problem:

A study to evaluate knowledge regarding integrated management of neonatal and childhood illness (IMNCI) among service providers.

Research Questions:

What are the training needs through assessing the knowledge and skills of service providers in IMNCI?

Objectives:

To assess the present level of knowledge and skills of service providers in different components of IMNCI.

Methodology:

A descriptive cross-sectional study was conducted in Porbandar district of Gujarat state. Medical Officers, ANMs from CHC, PHC, SC and AWWs from AWC under Integrated Management of Neonatal and childhood Illness (IMNCI) were assessed in this study. Investigators did note their observations using a skill assessment checklist. Medical Officer, ANM and AWW will be the sample unit of study.

Sampling:

1. **Sampling Technique:**

   Non probability sampling under which Purposive sampling was used for the selection of study area and study unit.

   Thirty percent of total sample was selected from Government Health centres at each level of that particular district. District contains 4 CHC then I have taken 3 CHC for study area. Same process was repeated for selection of PHCs, SCs and AWCs.

2. **Sample Size:**

Service providers: 18 Medical Officers, 32 ANMs, 20 AWWs.

3. **Selection Process:**

a) CHCs, PHCs, SCs and AWC was selected on the basis of distance from higher centre i.e., one centre from nearest place and others from farthest place.

b) Two Medical officers, one ANM and One AWW would be selected from each selected CHC, PHC, SC and AWC.

Tools and Technique for data collection:

Research Plan

The research consists of a research plan and a predefined schedule. The research plan consists of following steps.

1. Data Sources

2. Research Approaches

1. **Data Sources**

Primary Research: A separate semi structured Questionnaire was designed for the medical officer, ANM, AWW at CHC, PHC, SC and AWC.

2. **Research Approaches**

Survey Methods: The Quantitative type of survey was done by visiting Community health centre, Primary health centre, Sub centre and Anganwadi centre.

A separate semi structured questionnaire (Quantitative) was prepared for interview of Medical officers ANMs and AWWs. Face to face type of interview was taken to assess the training needs of service providers in IMNCI.

Ethical Consideration:

An Informed consent was taken from service providers before start of an interview. Investigator was also informed that whatever information they would be given during interview would be taken as confidential.

Analysis and Results:

This health survey had conducted in Porbandar district of Gujarat state where 18 Medical officers, 32 ANM, and 20 AWW had been interviewed by investigators. Out of these service providers maximum number had work experience below 10 years and sixty seven percent of service providers had taken 8 days IMNCI training. Among the interviewed service providers of Porbandar district, eighty percent service providers had enough knowledge about the universal immunization schedule and breast feeding and complementary feeding practices in under five children. Albeit of functioning of VCNC and IMNCI training given to the service providers, they didn't have complete knowledge about methods used to check the nourishment level of under five children especially AWW. Only six percent of medical officers had complete knowledge about the treatment of childhood illnesses.

Conclusion:

IMNCI trained workers especially Medical Officer and ANM performed well in all aspects of Immunization, Nutritional Supplements, and Breast feeding Practices. Medical officer's performance regarding diagnosis of childhood illnesses is good but poor performance in the treatment of these childhood illnesses. Almost all service providers including MO, ANM and AWW had enough theoretical knowledge about the different components of IMNCI but there is need to transfer this theoretical knowledge in practical way and implement it at the grass route level.

1. Introduction

During the mid-1990s, the World Health Organization (WHO), in collaboration with UNICEF, developed a strategy known as the Integrated Management of Childhood Illness (IMCI). This strategy was expanded in India to include all neonates and was renamed as 'Integrated Management of Neonatal and Childhood Illness (IMNCI)'.

The IMNCI strategy was developed to reduce the incidence of the major preventable causes of death of under-5 children in the developing world—pneumonia, diarrhoea, malaria, measles, and malnutrition—by creating a classification system for the treatment of multiple diseases.

IMNCI training is designed primarily for skill improvement pertaining to neonatal and child health issues as well as appropriate and prompt management. IMNCI training included service providers called Medical Officer, health workers called Auxiliary Nurse Midwives (ANMs) and Integrated Child Development Scheme (ICDS) workers called Anganwadi Workers (AWWs). One of the major components of this programme is to give training to the health service provider which includes clinical skill training and training in supervisory skills as the backbone of these programmes are these health service providers.

The clinical skill training is based on a participatory approach combining classroom sessions with hands-on clinical sessions in both facility and community settings. Broadly, two categories of training are included, one for medical officers

and a second for front-line functionaries including ANM's and Anganwadi Workers (AWW's). For ASHA and link volunteers if any, a separate package consistent with IMNCI focusing on the home care of newborn and children is in preparation keeping in mind their educational status. After neonatal period, IMNCI package is accessed by the family for their newborns/children from the health workers in the community (ANM, AWW, ASHA or link volunteer) or providers at the facility (PHC/CHC/FRU).

Responsibilities of service Health providers for infants under 2 months includes

- Keeping the child warm
- Initiation of breastfeeding
- Counseling for exclusive breastfeeding
- Cord, skin and eye care
- Recognition of illness in newborn and management and/or referral
- Immunization
- Home visits in the postnatal period

Responsibilities of Service health providers for infants 2 months to 5 years

- Management of diarrhoea, ARI, Malaria, measles, acute ear infection, malnutrition and anemia
- Recognition of illness and risk

- Prevention and management of Iron and Vitamin A deficiency
- Counseling on feeding for all children below 2 years
- Counseling on feeding for malnourished
- Immunization

According to March 2012 report of MoHFW, IMNCI is implemented in 453 districts of India and total number of people trained up to 2012 under IMNCI are 5,37,454.

2. Review of Literature

In India, the common illnesses in children younger than 5 years of age according to the National Family Health Survey III (NFHS-III) data include fever (15% prevalence in the previous 2-week period), acute respiratory infections (6 %), diarrhoea (9%) and malnutrition (46%) - and often a combination of these conditions.

The changes brought were not uniform across all the states, the IMR and child mortality in some States such as MP, Orissa, UP, Rajasthan, Bihar, Gujarat, Assam and Haryana continue to be unacceptably high.

To combat this problem India has made a strong commitment to the reduction of neonatal mortality through the implementation of the joint UNICEF/WHO initiative, IMNCI (Integrated Management of Neonatal and Childhood Illness).

IMNCI has, thus, been adopted in 1997 as the main strategy for improving child health and included in the Health Sector Development Programme of the country. It aims to reduce death, illness and disability, and to promote improved growth and development among children under five years of age. IMNCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities

It has been implemented in 33 districts of Rajasthan and in 495 districts all over India. Total number of people trained on IMNCI are 537454 in India and 32043 in Rajasthan.

3. Statement of Problem:

A study to evaluate knowledge regarding integrated management of neonatal and childhood illness (IMNCI) among service providers.

4. Research Question:

What are the training needs through assessing the knowledge and skills of service providers in IMNCI?

5. Objectives:

To assess the present level of knowledge and skills of service providers in different components of IMNCI.

6. Methodology:

6.1 Study Variables:

Dependant Variable:

Knowledge of Medical Officer, ANM and Anganwadi Workers about

1. Universal Immunization
2. Nutritional supplements
3. Breast feeding Practices.
4. Childhood Illnesses

Independent Variable:

1. Educational status of Medical Officer, ANM, and Anganwadi Workers.
2. Work experience of Medical Officer, ANM, and Anganwadi Workers.

6.2 Type of Study

Descriptive Cross Sectional Study.

6.3 Study Period

10th February to 25th May 2014

6.4 Study Area

Porbandar District of Gujarat

6.5 Study Unit

3 CHC, 5 PHC and 20 Sub centre of Porbandar and Kutiyana Block of Porbandar District.

6.6 Research Plan

The research consists of a research plan and a predefined schedule. The research plan consists of following steps.

1. Data Sources
2. Research Approaches
3. Research Instruments

Data Sources

Primary Research: A separate questionnaire was designed for Medical Officer, ANM, and Anganwadi Worker at CHC/PHC, Sub centre, and Anganwadi center respectively

Research Approaches

Survey Methods: The survey was done by visiting 3 CHC, 5 PHC, 20 Sub Centers and Anganwadi Centers in Porbandar District of Gujarat State.

Research Instruments:

A semi structured questionnaire was used to understand the knowledge and skills of Medical Officers, ANMs, and Anganwadi Workers in managing childhood illnesses.

7. Sampling:

7.1 Sampling Technique:

Non probability sampling is used for the selection of study area and study unit. Under Non-probability sampling, Purposive sampling is used for the selection of the study unit. 30% of the total sample was selected at each level. Porbandar district has total three Talukas and four CHC. Out of which I selected 3 CHC of Kutiyana, Adwana and Ranavav. Porbandar District has 11 PHCs and 8 to 10 Sub Centers under each PHC and 4-5 Anganwadi centers under each Sub Center. Hence I selected 5 PHCs and 3 Sub centers in each PHC and 1 Anganwadi center in each Sub Center.

7.2 Health Centers under the study

1. Community Health Center, Ranavav
2. Community Health Center, Kutiyana
3. Community Health Center, Adwana.
4. Primary Health Center, Devda.
5. Primary Health Center, Bakharla.
6. Primary Health Center, Adityana.

7. Primary Health Center,Ranakandorna.
8. Primary Health Center, Kadacch.
9. Primary Health Center, Mahiyari
10. Primary Health Center, Garej
11. Primary Health Center, Visawada
12. Primary Health Center, Bileshwar
13. Primary Health Center, Simar
14. Sub Center, Hamadpara.
15. Sub Center, Gokaran.
16. Sub Center, Khagesri.
17. Sub Center, Devda
18. Sub Center, Bapodar
19. Sub Center, Ranakandorna 2
20. Sub Center, Ranakandorna 1
21. Sub Center, Rana Vadvala
22. Sub Center, Adityana 1
23. Sub Center, Adityana 2
24. Sub Center Adityana 3
25. Sub Center, Aditpara
26. Sub Center, Vanana
27. Sub Center, Chhaya 1
28. Sub Center, Chhaya 4
29. Sub Center, Bakharla

30. Sub Center, Subhashnagar

31. Sub Center, Kadachh.

32. Sub Center, Mander.

33. Sub Center, Mocha.

8. Analysis and Results:

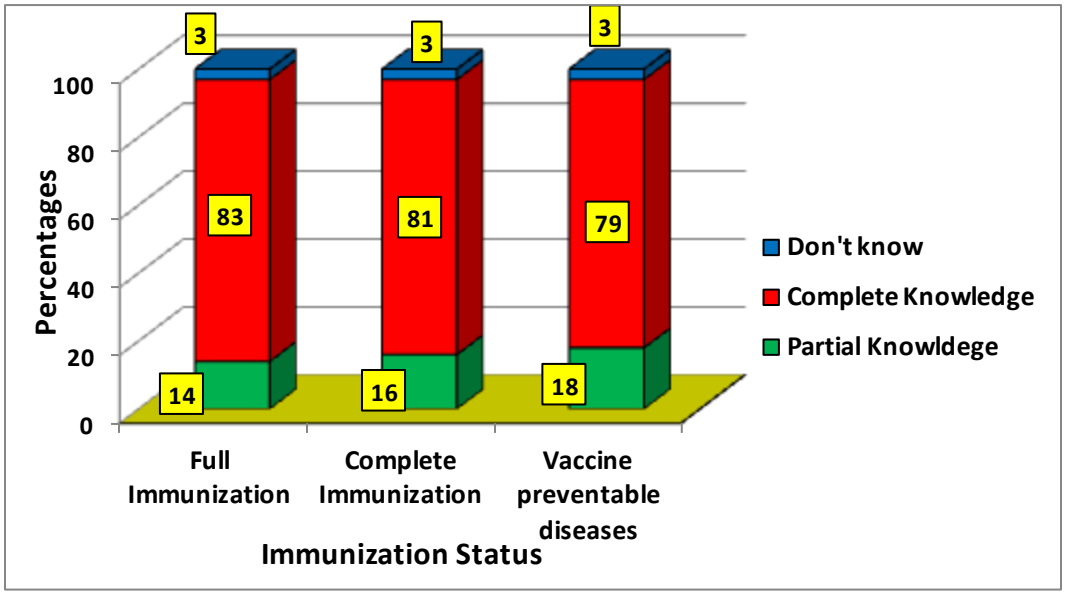
8.1 Social status of respondents:

This health survey had conducted in Porbandar District of Gujarat State where 18 Medical Officer, 32 ANM, and 20 AWW had been interviewed by investigators, out of these 12 MO, 20 ANM and 14 AWW were married and Maximum number i.e., 16 MO, 19 ANM, and 11 AWW had work experience below 10 years. Out of these service providers of Porbandar district, 5 MO, 24 ANM, and 18 AWW had been taken the 8 days IMNCI training (67 percent).

8.2 Knowledge of service providers regarding Components of Immunization and Vaccine Preventable Diseases:

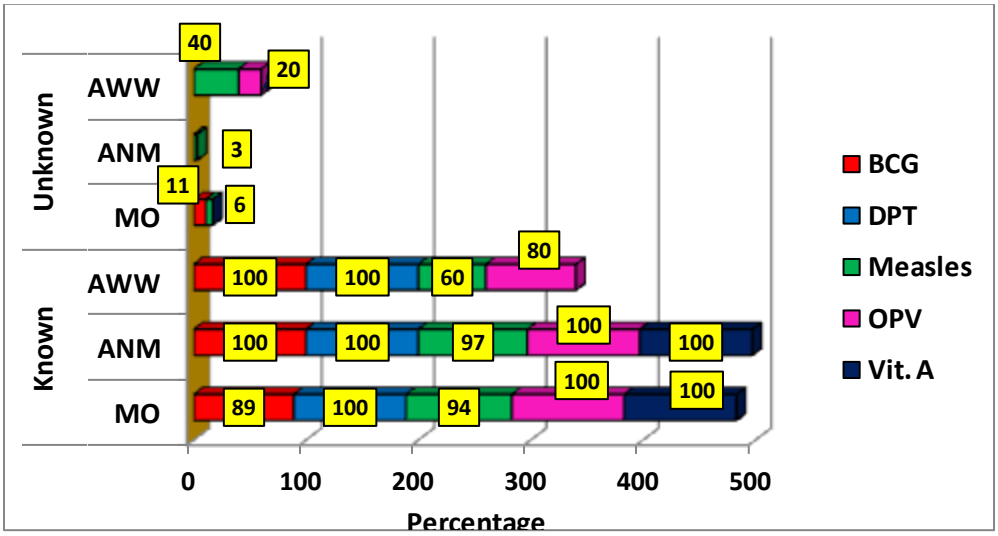
Fig 1 depicts that the percentage of knowledge of service providers of Porbandar district about the components of Immunization and vaccine preventable diseases. Investigators had taken the interview of 70 service providers including MO, ANM, and AWW of Porbandar district, out of these approximately 80 percent of service providers had complete knowledge about the components of immunization and vaccine preventable diseases, whereas only 3 percent of service provider especially AWW had no knowledge about same.

Fig 1: Percentage of distribution of service providers about components of Immunization and VPD.



The below figure 2 shows that percentage of distribution of Service Providers (Bifurcation) about knowledge of components of immunization and Vaccine preventable diseases in Porbandar district of Gujarat state. Maximum number of Medical Officers (89 percent), ANM (100 percent), and on an average 45 percent AWW had complete knowledge about the components of immunization and vaccine preventable diseases whereas 45 percent and 10 percent of AWW had partial and no knowledge about the same respectively.

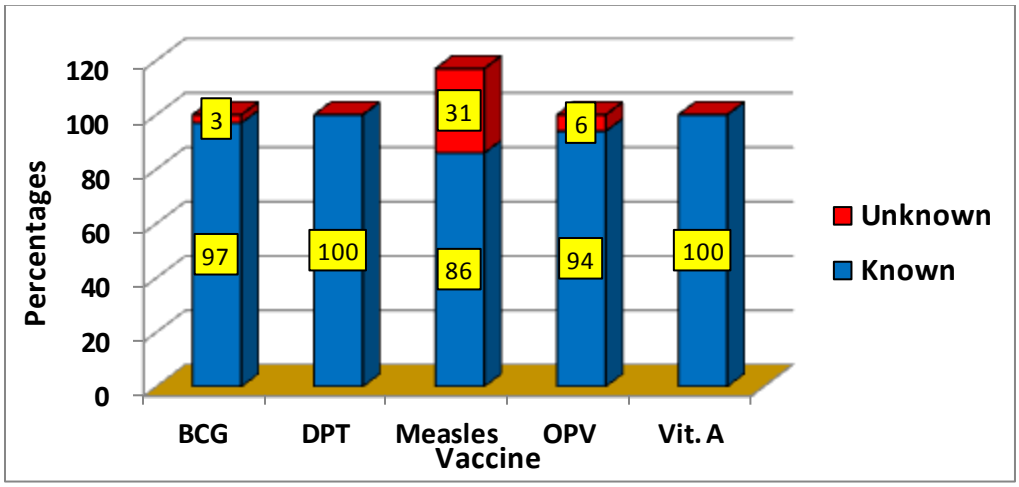
Fig 2: Percentage of distribution of Service providers (Bifurcation) about the components of Immunization and Vaccine Preventable Diseases



8.3 Knowledge of Service providers regarding Universal Immunization Schedule:

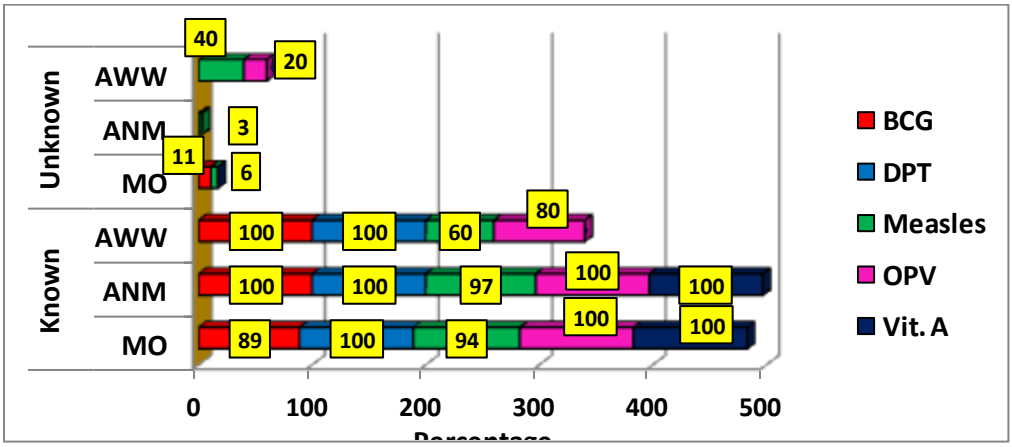
The fig 3 shows that the percentage of distribution of service providers about the knowledge of Universal Immunization Schedule. Among the study group of 70 service providers, almost 97 percent had knowledge about universal immunization schedule. Eighty six percent had known about schedule of Measles vaccine and remaining 31 percent had unknown about the Measles vaccine immunization schedule.

Fig 3: Percentage of distribution of Service providers about Universal Immunization Schedule.



The Fig 4 depicts that percentage of distribution of service providers (bifurcation) about knowledge of Universal immunization schedule. Almost above 90 percent of MO, ANM and AWW have known about the national immunization schedule. Only few of AWW had no knowledge about the immunization schedule of Measles (40 percent) and OPV (20 percent).

Fig 4: Percentage of distribution of service providers (bifurcation) about universal immunization schedule



8.4 Knowledge of Service providers about site of administration of vaccine:

The below table 1 depicts that cross tabulation of service providers about knowledge of the site of administration of vaccine. Out of 50 service providers, all were given the answer Left shoulder is the site of administration of BCG vaccine whereas 88 percent and 92 percent of service providers had given correct answer of site of administration of DPT and Measles vaccine respectively.

Table 1: Cross tabulation of service providers about knowledge of site of administration of vaccine.

Knowledge of Service Providers about site of administration of vaccine							
Sr.No.	Name of Vaccine	Known		Unknown		Total	Percentage of Known
		MO	ANM	MO	ANM		
1	BCG	18	32	0	0	50	100%
2	DPT	12	32	6	0	50	88%
3	Measles	15	31	3	1	50	92%

8.5 Knowledge of Service Providers about Route of administration of Vaccine:

Table 2 shows cross tabulation of service providers about knowledge of route of administration of vaccine in Porbandar district. Among 50 service providers of Porbandar district interviewed by the investigators, 88 percent, 94 percent, and 90

percent had known about the correct route of administration of BCG, DPT, and Measles vaccine respectively whereas remaining service providers had no knowledge about route of administration of vaccine.

Table 2: Cross tabulation of service providers about knowledge of route of administration of vaccine

Knowledge of Service Providers about Route of administration of vaccine							
Sr.No.	Name of Vaccine	Known		Unknown		Total	Percentage of Known
		MO	ANM	MO	ANM		
1	BCG	17	27	1	5	50	88%
2	DPT	18	29	0	3	50	94%
3	Measles	18	27	0	5	50	90%

8.6 Knowledge about relationship between Vaccine and Spirit during Vaccination:

Table 3 depicts cross tabulation of service providers about relationship between vaccine and spirit during vaccination i.e. whether clean injection site with spirit swab before vaccination or not? Out of 50 service providers interviewed only 8 percent given the yes answer for clean injection site with spirit swab before vaccination. Remaining 92 percent given No answer and out of these 92 percent of service providers, 58 percent had partial knowledge, Nine percent had complete knowledge and 33 percent had no knowledge about reasons of not cleaning the injection site with spirit swab before vaccination.

Table 3: Cross tabulation of service providers about relationship between vaccine and spirit during vaccination

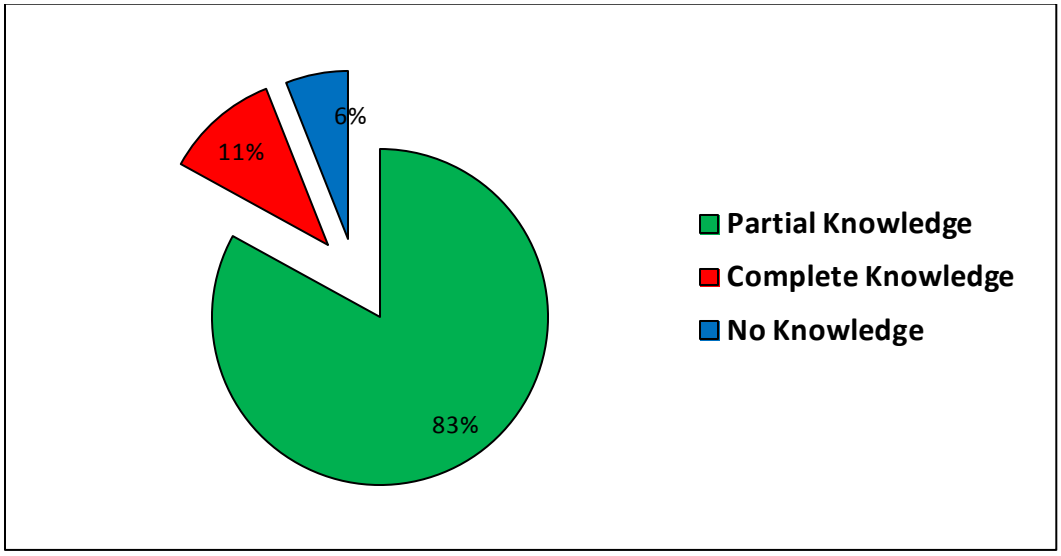
Knowledge of Service Providers regarding relationship between vaccine and spirit during vaccination								
Sr. No.	Whether clean injection site with spirit before vaccination	Numbers		Total Number	Percentage	Reasons why No?		
		MO	ANM			Partial Knowledge	Complete Knowledge	Don't Know
1	Yes	3	1	4	8%			
2	No	15	31	46	92%	58%	9%	33%

8.7 Knowledge of service providers about the methods used to identify the nourishment level in under five children:

The following Fig 5 suggests that percentage of distribution of service providers about knowledge of methods used to identify the nourishment level of under 5 children. In Porbandar district among 70 service providers interviewed only 11 percent had complete knowledge and they knew all methods to identify nourishment level in under five children i.e. Height weight measurement, MUAC

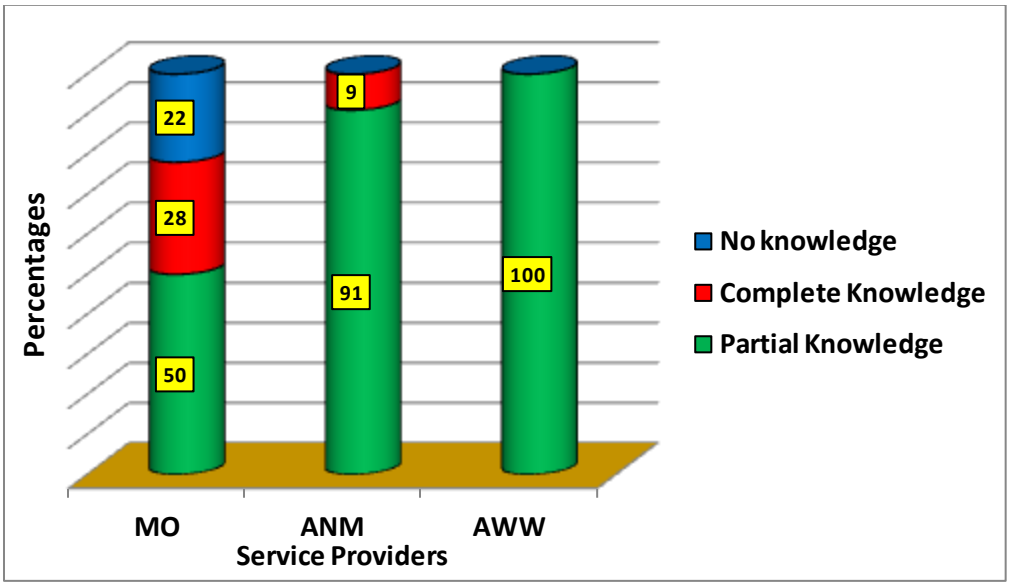
measurement and check pitting type of oedema and remaining 83 percent and six percent had partial knowledge and no knowledge respectively.

Fig 5: Percentage of distribution of Service Providers about knowledge of methods used to identify the nourishment level in under five children.



The below fig 6 suggests that percentage of distribution of service providers (bifurcation) about knowledge of methods to identify the nourishment level in under five children. Only MO and ANM had complete knowledge about the methods whereas instead of presence of VCNC interestingly no AWW has complete knowledge regarding these methods to identify the nourishment level of under five children.

Fig 6: Percentage of distribution of Service Providers (bifurcation) about the methods to identify the nourishment level in under five children.



8.8 Knowledge of Service providers regarding Breast Feeding Practices and Complementary feeding:

Table 4 shows that cross tabulation of service providers about knowledge of breast feeding practices and complementary feeding. Ninety one percent of service providers had known about the ideal age to start exclusive BF, Eighty seven percent had known about exact duration of exclusive BF, Ninety four percent had known about the minimum age to start complementary feeding is above 6 months and Eighty percent of service provider had knowledge about exact duration of BF whereas only 23 percent had known about the benefits of exclusive breast feeding and remaining had partial knowledge.

Table 4: Cross tabulation of service providers regarding knowledge of Breast Feeding Practices and Complementary feeding.

Knowledge of Service providers about Breast Feeding Practices														
Sr. No.	Knowledge About	Total Numbers	Partial Knowledge				Complete Knowledge				No Knowledge			
			Numbers			%	Numbers			%	Numbers			%
			MO	ANM	AWW		MO	ANM	AWW		MO	ANM	AWW	
1	Ideal age to start of Exclusive BF	70	-	-	-	-	17	27	20	91 %	1	5	-	9 %
2	Duration of Exclusive BF	70	-	-	-		13	30	18	87 %	5	2	2	13 %
3	Minimum age to start Comple	70	-	-	-	-	16	30	20	94 %	2	2	-	6 %

	mentary Feeding													
4	**Benefits of Exclusive BF**	**70**	**14**	**22**	**18**	**77%**	**4**	**10**	**2**	**23%**	**-**	**-**	**-**	**-**
5	**Duration of BF**	**70**	**-**	**-**	**-**	**-**	**12**	**26**	**18**	**80%**	**6**	**6**	**2**	**20%**

8.9 Knowledge of Service Providers about Childhood Illnesses:

Table 5 shows that cross tabulation of service providers of Porbandar district about Knowledge of childhood illnesses. Among 70 service providers including MO, ANM, AWW interviewed by investigators, only six percent of service providers had complete knowledge regarding danger sign and symptoms, Forty three percent known about sign and symptoms of diarrhoea with severe dehydration, Forty four percent had known about sign and symptoms of acute ear infection, Thirty percent had knowledge about sign and symptoms of Pneumonia. Interestingly instead of working of VCNC in all Anganwadi, only nine percent of service providers had complete knowledge about sign and symptoms of Severe Malnutrition and remaining 91 percent had partial knowledge about same.

Table 5: Cross tabulation of service providers about knowledge of childhood illnesses

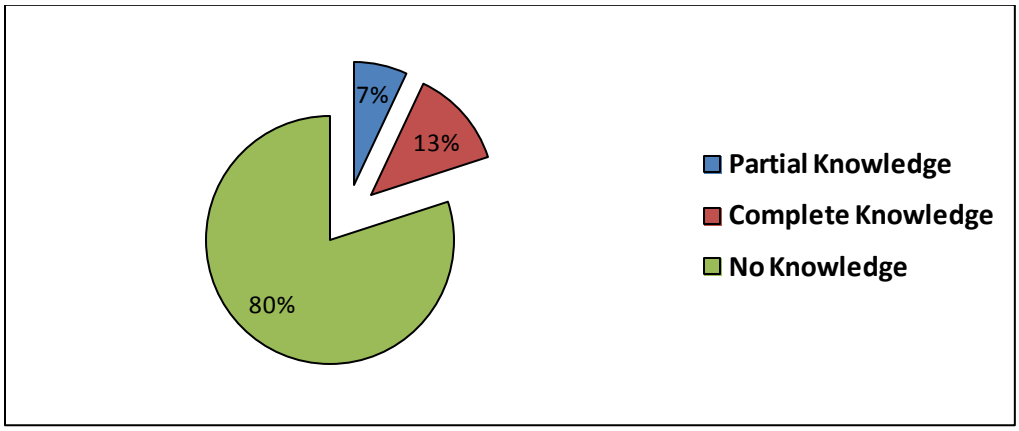
Knowledge of Service providers about Childhood illnesses														
Sr.No.	Knowledge About	Total Numbers	Partial Knowledge				Complete Knowledge				No Knowledge			
			Numbers			%	Numbers			%	Numbers			%
			MO	ANM	AWW		MO	ANM	AWW		MO	ANM	AWW	
1	Danger Sign and Symptoms	70	17	21	11	70 %	1	3	-	6 %	-	8	9	24 %
2	Measles	50	-	-	-	-	15	29	-	88 %	3	3	-	12 %
3	Diarrhoea with Severe Dehydration	70	-	19	16	50 %	17	13	-	43 %	1	-	4	7 %

4	**Acute Ear Infection**	**70**	**8**	**13**	**11**	**46 %**	**10**	**17**	**4**	**44 %**	**-**	**2**	**5**	**10 %**
5	**Pneumonia**	**70**	**9**	**17**	**10**	**51 %**	**9**	**12**	**-**	**30 %**	**-**	**3**	**10**	**19 %**
6	**Severe Malnutrition**	**70**	**14**	**30**	**20**	**91 %**	**4**	**2**	**-**	**9 %**	**-**	**-**	**-**	**-**
7	**Malaria**	**50**	**-**	**-**	**-**	**-**	**16**	**17**	**-**	**66 %**	**2**	**15**	**15**	**34 %**

8.10 Knowledge of Service Providers about Normal breathing rate in 0-5 years of children:

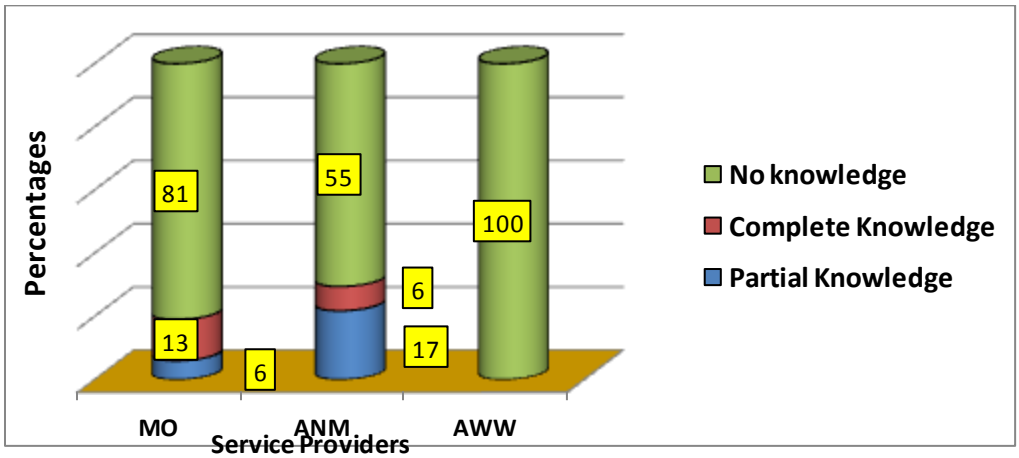
Fig. 7 depicts that percentage of distribution of service providers about knowledge of normal breathing rate in 0-5 years of children. Out of 70 service providers interviewed by investigators, only thirteen percent had known about normal breathing rate in 0-5 years of children whereas maximum number (80 percent) of service providers did not know the answer.

Fig 7: Percentage of distribution of service providers about knowledge of Normal Breathing Rate in 0-5 years of children.



The following fig.8 shows that percentage of distribution of service providers (bifurcation) about the knowledge of normal breathing rate in 0-5 years of children. Only thirteen percent medical officer and six percent of ANM had complete knowledge about normal breathing rate among under-5 children and interestingly no AWW had any knowledge about normal breathing rate.

Fig 8: Percentage of distribution of service providers regarding Knowledge of normal breathing rate among under-5 children.



8.11 Knowledge of Medical officers about treatment of childhood illnesses:

The below table 6 shows cross tabulation of Medical officers about knowledge of treatment of childhood illnesses. Out of 18 medical officers interviewed by investigators maximum number (61 percent) of medical officers had known the complete treatment of anaemia whereas only minimum number (six percent) of medical officers had complete knowledge about the second treatment of Pneumonia and remaining 61 percent and 33 percent had no knowledge and partial knowledge about the same.

Table 6: Cross tabulation of service providers about knowledge of treatment of childhood illnesses

Knowledge of Service providers about treatment of Childhood illnesses								
Sr. No.	Knowledge About treatment	Total Number	Partial Knowledge		Complete Knowledge		No Knowledge	
			Number	%	Number	%	Number	%
1	Anaemia	18	2	11 %	11	61 %	5	28 %
2	Eye Infection	18	11	61 %	6	33 %	1	6%
3	Pneumonia (First line treatment)	18	6	33 %	7	39 %	5	28 %

4	**Pneumonia (second line treatment)**	**18**	**6**	**33 %**	**1**	**6 %**	**11**	**61 %**
5	**Malaria (First line treatment)**	**18**	**2**	**11 %**	**8**	**44 %**	**8**	**45 %**
6	**Malaria (Second line treatment)**	**18**	**9**	**50 %**	**2**	**11 %**	**7**	**39 %**

Discussion:

The data above suggests the knowledge of service providers regarding components of Integrated management of childhood illnesses (IMNCI) which are as follow.

1. Universal Immunization
2. Nutritional supplements
3. Breast feeding practices
4. Childhood illnesses

The data above shows that the maximum number of service providers had complete knowledge about components of universal immunization and vaccine preventable diseases. Out of these only few AWW had no knowledge regarding the same.

It also shows that almost all service providers had knowledge about universal immunization schedule except some AWW. A very few number of AWW didn't know about this universal immunization schedule especially regarding Measles vaccine.

As far as concern regarding Site and Route of administration of vaccine, maximum number of Medical officers and ANM had known about the site and route of administration of vaccine.

Many of the service providers had enough practical knowledge but few of them had only theoretical knowledge about why the injection site is not clean by spirit swab before vaccination.

Instead of working Village Child Nutritional centre and IMNCI training completed of all Anganwadi workers of Porbandar district, only few of service providers including MO, ANM and AWW had complete knowledge about all the methods to identify the nourishment level of under five children. Maximum number of AWW didn't know about these methods.

If we focused on the breast feeding practices among service providers, maximum number of service providers had enough theoretical knowledge about breast feeding practices like when to start the exclusive BF, benefits of exclusive BF, duration of BF etc. but they failed to implement and apply this theoretical knowledge on beneficiaries.

As far as concern about the diagnosis and treatment of childhood illnesses under five children, maximum number of service providers had known and aware about the sign and symptoms of childhood illnesses including Measles, Diarrhoea with severe dehydration, acute ear infection, pneumonia, severe malnutrition etc. but they didn't have complete knowledge about treatment of these childhood illnesses.

Conclusion:

IMNCI trained workers especially Medical Officer and ANM performed well in all aspects of Immunization, Nutritional Supplements, and Breast feeding Practices. Medical officer's performance regarding diagnosis of childhood illnesses is good but poor performance in the treatment of these childhood illnesses.

Almost all service providers including MO, ANM and AWW had enough theoretical knowledge about the different components of IMNCI but there is need to transfer this theoretical knowledge in practical way and implement it at the grass route level

Still there should be require training for ANM and AWW diagnosis of childhood illnesses and also need of implementation of this learned skill regarding components of IMNCI to reduce the Infant and child mortality rate in Porbandar district and also in Gujarat state.

Suggestions:

In every VHND, there is need to give practical demonstration of training to ANM and AWW by Medical officer or FHS or any health officer regarding methods used to check nourishment level and also breast feeding practices in under five children.

In Every monthly sector meeting, there is need to discuss the components of IMNCI with the staff members including ANM and ASHA. It will help in revision of knowledge and skills of service providers towards IMNCI.

Motivate all staff members of district towards the implementation of IMNCI.

Motivate the ANM, ASHA workers and AWW towards full immunization coverage of the village or city.

Training institutes or TOT should be more focus on treatment and diagnosis part of childhood illnesses during training sessions.

Follow-up visits at the health workers' workplace to review practice of skills and reinforce competence gained during training. Ideally, follow-up visits will be conducted by training facilitators within a month from training.

To strengthen monitoring & evaluation, including maintaining a database and mapping training coverage as an integral part of IMNCI planning and implementation.

Limitations of the study:

Non-probability sampling method and smaller sample size may have produced insignificant results.

Some interviewers with some of the respondents that could have given misconstrued results noticed language barrier.

Appendices:

1. Questionnaire for MO:

Assessment of training needs of service providers in managing childhood illnesses

Interview Questionnaire

(For Medical Officer)

Informed Consent: I would like to thank you for taking the time to meet us. I would like to talk to you about your experience regarding the training needs of service provider in managing childhood illnesses. The interview should take about 20 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team and we will ensure that any information that we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Interviewee Signature

Name of PHC/CHC/DH	
Name of Block	
Name of District	
Date of Interview	
Duration of interview (in minutes)	

Fill up the response of service provider in the respective column.

Section 1 – Background Characteristics		
Q. NO.	**QUESTIONS AND FILTERS**	**Response of service provider**
1.1	What is your name?	
1.2	How old are you? (Age in completed years)	

1.3	Education	
1.4	Marital status	
1.5	Work experience (including the current experience)	
1.6	IMNCI training taken or Not?	

Fill up the response of service provider in the blank spaces and encircle the response of service provider wherever options are given.

Section 2:			
Q. NO.	**QUESTIONS On Immunization**	**Response by the service provider**	**Instruction**
2.1	What are the components of full Immunization?		
2.2	What are the components of Complete Immunization?		
2.3	What are the diseases, which can be prevented by vaccination?		
2.4	At which minimum age will you give BCG vaccine to newborn	a) At time of birth- 1	Encircle the answer

	baby?	b) After 1 Month-2 c) After 6 Months-3 d) After 12 Months-4	
2.5	What is the immunization schedule of DPT vaccine in Infants?	a) At 6,8,10 weeks -1 b) At 2,4,6 weeks -2 c) At 4,6,8 weeks -3 d) At 8,10,12 weeks-4	Encircle the answer
2.6	At which Minimum age will you give first Measles Vaccine dose?	a) At 8 Months -1 b) At 9 Months -2 c) At 10 Months -3 d) At 12 Months-4	Encircle the answer
2.7	What is the immunization schedule of OPV vaccine in Infants?	a) At 0,6,8,10 weeks -1	Encircle the answer

		b) At 2,4,6 weeks - 2 c) At 4,6,8 weeks -3 d) At 8,10,12 weeks-4	
2.8	What is the site of administration of BCG Vaccine in Infants?	a) Left Shoulder - 1 b) Right Shoulder - 2 c) Thigh (Right/Left) -3 d) Buttock (Right/Left)-4	Encircle the answer
2.8.1	What is the route of administration of BCG vaccine in Infants?	a) Intradermal b) Inravenous c) Intramuscular d) Subcutaneous	Encircle the answer
2.9	What is the site of administration of DPT Vaccine in Infants?	a) Left Shoulder - 1 b) Right Shoulder - 2	Encircle the answer

		c) Thigh (Right/Left) -3 d) Buttock (Right/Left)-4	
2.9.1	What is the route of administration of DPT vaccine in Infants?	a) Intradermal b) Inravenous c) Intramuscular d) Subcutaneous	Encircle the answer
2.10	What is the site of administration of Measles Vaccine in Infants?	a) Left Shoulder - 1 b) Right Shoulder - 2 c) Thigh (Right/Left) -3 d) Buttock (Right/Left)-4	Encircle the answer
2.10.1	What is route of administration of Measles vaccine in Infants?	a) Intradermal b) Inravenous c) Intramuscular d) Subcutaneous	Encircle the answer
2.11	At which Minimum age will you give second Measles Vaccine dose?	a) 9-12 Months -1 b) 12-15 Months -	Encircle the answer

		2 c) 16-24 Months -3 d) Any other Age-4	
2.12	At which Minimum age will you give first dose of Vitamin A syrup?	a) Under 6 Months -1 b) 6- 11 Months -2 c) 1- 5 Years -3 d) None of the above-4	Encircle the answer
2.13	What is the dose of Vitamin A syrup to child between 6 to 11 Months?	a) 1 Lakh IU (1ml) -1 b) 2 Lakh IU (2ml)-2	Encircle the answer
2.14	What is the dose of Vitamin A syrup to child between 1 to 5 Years?	a) 1 Lakh IU (1ml) -1 b) 2 Lakh IU (2ml)-2	Encircle the answer

2.15	Is it advisable to clean the injection site with a spirit swab before vaccination?	a) Yes -1 b) No-2 c) Don't Know-3	Encircle the answer. If answer is Yes/don't Know then go to next section. If answer is No then go to next question
2.15.1	Why is it advisable to clean the injection site with a spirit swab before vaccination?	a) Nullify the effect of vaccine-1 b) Live components of the vaccine are killed-2 c) Both-3 d)Don't Know-4 e) Others (specify)-5	Don't give the options. Only encircle service provider's response

Fill up the response of service provider in the blank spaces and encircle the correct option which is given by service provider.

Section 3 :			
Q. NO.	**QUESTIONS On Nutritional Supplements**	**Response given by service provider**	**Instruction**
3.1	Which method will you use to check the nourishment level of children?	a) Height- weight measurement -1 b) MUAC measurement -2 c) Check Pitting type of edema -3 d) Others (specify)-4	Don't give the option. Only encircle the option whatever the service provider respond
3.2	Which of the following suggestion would you give to mothers of Infant over 6 months?	a) Stop Breast Feeding-1 b) Continue with Breast Feeding Only -2 c) Breast Feeding with Complementary	

		Feeding -3 d) Only Complementary Feeding-4	
3.3	At which minimum age will you start the complementary feeding to the children?	a) After Birth -1 b) After 6 Months - 2 c) After 9 Months - 3 d) Any other Age-4	
3.4	What will you prefer to give as complementary feeding to children after 6 months?		

Fill up the response of service provider in the blank spaces and encircle the correct option which is given by service provider.

Section 4 :			
Q. NO.	**QUESTIONS On Breast Feeding Practices**	**Response given by service provider**	**Instruction**
4.1	When exclusive breast feeding should be started ideally?	a) Immediately after Birth -1 b) One hour after Birth -2 c) One day after birth-3 d) One week after birth-4	Encircle the answer
4.2	How long exclusive breast feeding should be continued?	a) Less than 6 Months -1 b) Up to 6 Months -2 c) Up to 8 Months-3 d) Up to 12 Months-4	Encircle the answer
4.3	What kind of advice would you	a) Stop Breast	Encircle

	give to mothers on feeding infants when sick (Diarrhoea, Fever, and ARI)?	Feeding-1 b) Don't stop Breast Feeding-2 c)Feed the child on demand-3 d) Decrease the number of meals-4 e) 2nd and 3rd option	the answer
4.4	What are the benefits of exclusive breastfeeding to baby?	a) Weight gain -1 b)Nutritional Food for baby-2 c) Protection from Infections-3 d) Developed bond between mother and child-4	Don't give the options. Only Encircle the options whatever service provider respond
4.5	How long should breast feeding be continued?	a) 6 Months -1 b) 12 Months -2 c) 18 Months-3 d) 24 Months-4	Encircle the answer

Fill up the response of service provider in the blank spaces and encircle the answer which is given by service provider.

Section 5 -			
Q. NO.	**Questions on Childhood Illness**	**Coding categories**	**Instruction**
5.1	Which are the signs and symptoms which show that the child is in danger?	a) Not able to drink/ Breast feed -1 b) Vomits Everything-2 c) Convulsion-3 d) Very Sleepy or Unconscious-4	Don't give the options. Only Encircle the options whatever service provider respond
5.2	What is the fast respiration rate (fast breathing) in baby of age 0 to 5 yrs?		
5.3	What would be the diagnosis if you see following types of patients?		

5.3.1	When 18 months of child is coming with sign and symptoms of Fever with generalized rash, cough running nose or red eyes?	a) Malaria -1 b) Measles-2 c) Pneumonia-3 d) Others-4	Encircle the answer
5.3.2	A one year child's mother is complaining of high grade to extreme fever (108 C) to child after vaccination?	a) Viral Fever-1 b) Sepsis/ Toxic shock syndrome-2 c) Maleria-3 d) Others-4	Encircle the answer
5.3.3	Three years of child came up with symptoms of frequent loose motions with signs of sleepy or unconscious, not able to drink or breast feed, sunken eyes and skin pinch goes back very slowly?	a) Epilepsy -1 b) Dysentry-2 c) Diarrhoea with dehydration-3 d) Others-4	Encircle the answer
5.3.4	If child is coming with ear problem with tender swelling around the ear?	a) Acute ear infection -1 b) Chronic ear infection-2 c) Mastoiditis-3	Encircle the answer

		d) Others-4 (specify)	
5.4	What are the sign and symptoms of Pneumonia?	a) Cough or fast breathing -1 b) Chest Indrawing-2 c) Strange sound in chest-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond
5.5	What are the sign and symptoms of Diarrhea with severe Dehydration?	a) Stools more than usual-1 b) Not able to drink/Breast feed-2 c) Sunken Eyes-3 d) Skin pinch goes back very slowly-4 e) Others (specify)-5	Don't give the options. Only Encircle the options whatever service provider respond
5.6	What are the sign and symptoms of Acute Ear infection?	a) Ear Pain -1 b) Child rub ear	Don't give the options.

		frequently-2 c) Liquid in either ear-3 d) Others (specify)-4	Only Encircle the options whatever service provider respond
5.7	What are the sign and symptoms of Severe Malnutrition?	a) Low weight for age -1 b) Visible severe wasting-2 c) Edema of both feet-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond
5.8	What type of treatment you prefer in the following cases?		
5.8.1	A 3 Year old child (11kg) has hemoglobin level of 6 grams needs?	a) 25 mg iron + 100-400 µg folic acid daily for 4 months -1 b) 60 mg iron + 400	Encircle the answer

		µg folic acid daily for 3 months -2 c) 120 mg iron + 400 µg folic acid daily for 2 months -3 d) Others-4	
5.8.2	First line of treatment for P. Falciparum (PF) cases in high risk areas is recommended as?	a) Chloroquine -1 b) Mefloquine-2 c) Artesunate and Sulpha Pyrimethamine-3 d) Others-4	Encircle the answer
5.8.3	Eye ointment primarily used for eye infections in children should be?	a) Ofloxacin -1 b) Tetracycline-2 c) Ciprofloxacin-3 d) Others-4	Encircle the answer
5.8.4	What treatment could prevent Anaemia?	a) Folic acid -1 b) Milk-2 c) Vitamins-3 d) Supplementation of	Encircle the answer

		iron tablets with mebendazole-4	
5.8.5	First line treatment of Pneumonia or Acute ear Infection with dose for child of age 2 to 12 (4kg-<10kg) months and 12 months to 5 years (10 - 19kg)?	**a) 2-12 Months:** Cotrimoxazole (40 mg trimethoprim and 200mg Sulfamethoxazole) & **12 Months - 5 Years** 80 mg Trimethoprim and 400 mg sulfamethoxazole BD*5days -1 **b) 2-12 Months:** Amoxycillin 125 mg &**12 Months - 5 Years** TDS*5days-2 **c) Others**(specify)-3	Don't give the options. Only Encircle the options whatever service provider respond
5.8.6	Second line treatment for Pneumonia or Acute ear Infection with dose for child of age 2 to 12 (4kg-<10kg) months and 12 months to 5 years (10 - 19kg)?	**a) 2-12 Months:** Cotrimoxazole (40 mg trimethoprim and 200mg Sulfamethoxazole) & **12**	Don't give the options. Only Encircle the options

		Months - 5 Years 80 mg Trimethoprim and 400 mg sulfamethoxazole BD*5days -1 **b) 2-12 Months:** Amoxycillin 125 mg &**12 Months - 5 Years** **250mg** TDS*5days-2 **c) Others**(specify)-3	whatever service provider respond
5.8.7	First line treatment of Malaria with dose for child of age 2 to 12 (4kg-<10kg) months and 12 months to 3 years (10 - <14 kg) and 3 years to 5 years (14-19kg)?	**a) 0-2 Months-** Chloroquine 75 mg, **2- 3 years**- 150 mg, and **3-5 years**-200mg-1 **b) 0-2 Months-** 250mg Sulphodoxim plus 12mg pyremethamine 75 mg, **2- 3 years**- 500 mg+ 24mg, and **3-5 years-** 500mg+24mg-2 **c) Others** (specify)-3	Don't give the options. Only Encircle the options whatever service provider respond

5.8.8	Second line treatment for Malaria with dose for child of age 2 to 12 (4kg-<10kg) months and 12 months to 3 years (10 - <14 kg) and 3 years to 5 years (14-19kg)?	**a) 0-2 Months-** Chloroquine 75 mg, **2- 3 years**- 150 mg, and **3-5 years**-200mg-1 **b) 0-2 Months-** 250mg Sulphodoxim plus 12mg pyremethamine, **2- 3 years**- 500 mg+ 24mg, and **3-5 years-** 500mg+24mg-2 **c) Others** (specify)-3	Don't give the options. Only Encircle the options whatever service provider respond

2. Questionnaire for ANM/FHW:

Assessment of training needs of service providers in managing childhood illnesses

Interview Questionnaire

(For ANM/FHW)

Informed Consent: I would like to thank you for taking the time to meet us. I would like to talk to you about your experience regarding the training needs of service provider in managing childhood illnesses. The interview should take about 20 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team and we will ensure that any information that we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Interviewee Signature

Name of SC/PHC/CHC/DH	
Name of Block	
Name of District	
Date of Interview	
Duration of interview (in minutes)	

Fill up the response of service provider in the respective column.

Section 1 – Background Characteristics		
Q. NO.	**QUESTIONS AND FILTERS**	**Response of service provider**
1.1	What is your name?	
1.2	How old are you? (Age in completed years)	
1.3	Education	

1.4	Marital status	
1.5	Work experience (including the current experience)	
1.6	IMNCI training taken or Not?	

Fill up the response of service provider in the blank spaces and encircle the response of service provider wherever options are given.

Section 2:			
Q. NO.	**QUESTIONS On Immunization**	**Response by the service provider**	**Instruction**
2.1	What are the components of full Immunization?		
2.2	What are the components of Complete Immunization?		
2.3	What are the diseases, which can be prevented by vaccination?		
2.4	At which minimum age will you give BCG vaccine to newborn baby?	a) At time of birth-1 b) After 1 Month-2	Encircle the answer

		c) After 6 Months-3 d) After 12 Months-4	
2.5	What is the immunization schedule of DPT vaccine in Infants?	a) At 6,8,10 weeks -1 b) At 2,4,6 weeks -2 c) At 4,6,8 weeks -3 d) At 8,10,12 weeks-4	Encircle the answer
2.6	At which Minimum age will you give first Measles Vaccine dose?	a) At 8 Months -1 b) At 9 Months -2 c) At 10 Months -3 d) At 12 Months-4	Encircle the answer
2.7	What is the immunization schedule of OPV vaccine in Infants?	a) At 0,6,8,10 weeks -1 b) At 2,4,6 weeks -2 c) At 4,6,8 weeks -3	Encircle the answer

		d) At 8,10,12 weeks-4	
2.8	What is the site of administration of BCG Vaccine in Infants?	a) Left Shoulder - 1 b) Right Shoulder -2 c) Thigh (Right/Left) -3 d) Buttock (Right/Left)-4	Encircle the answer
2.9	What is the site of administration of DPT Vaccine in Infants?	a) Left Shoulder - 1 b) Right Shoulder -2 c) Thigh (Right/Left) -3 d) Buttock (Right/Left)-4	Encircle the answer
2.10	What is the site of administration of Measles Vaccine in Infants?	a) Left Shoulder - 1	Encircle the answer

		b) Right Shoulder -2 c) Thigh (Right/Left) -3 d) Buttock (Right/Left)-4	
2.11	At which Minimum age will you give second Measles Vaccine dose?	a) 9-12 Months -1 b) 12-15 Months -2 c) 16-24 Months -3 d) Any other Age-4	Encircle the answer
2.12	At which Minimum age will you give first dose of Vitamin A syrup?	a) Under 6 Months -1 b) 6- 11 Months -2 c) 1- 5 Years -3 d) None of the above-4	Encircle the answer
2.13	What is the dose of Vitamin A syrup to child between 6 to 11 Months?	a) 1 Lakh IU (1ml) -1 b) 2 Lakh IU	Encircle the answer

		(2ml)-2	
2.14	What is the dose of Vitamin A syrup to child between 1 to 5 Years?	a) 1 Lakh IU (1ml) -1 b) 2 Lakh IU (2ml)-2	Encircle the answer
2.15	Is it advisable to clean the injection site with a spirit swab before vaccination?	a) Yes -1 b) No-2 c) Don't Know-3	Encircle the answer. If answer is Yes/don't Know then go to next section. If answer is No then go to next question
2.15.1	Why is it advisable to clean the injection site with a spirit swab before vaccination?	a) Nullify the effect of vaccine-1 b) Live components of the vaccine are killed-2	Don't give the options. Only encircle service provider's response

		c) Both-3 d)Don't Know-4 e) Others (specify)-5	

Fill up the response of service provider in the blank spaces and encircle the correct option which is given by service provider.

Section 3 :			
Q. NO.	**QUESTIONS On Nutritional Supplements**	**Response given by service provider**	**Instruction**
3.1	Which method will you use to check the nourishment level of children?	a) Height- weight measurement -1 b) MUAC measurement -2 c) Check Pitting type of edema -3 d) Others (specify)-4	Don't give the option. Only encircle the option whatever the service provider respond

3.2	Which of the following suggestion would you give to mothers of Infant over 6 months?	a) Stop Breast Feeding-1 b) Continue with Breast Feeding Only -2 c) Breast Feeding with Complementary Feeding -3 d) Only Complementary Feeding-4	
3.3	At which minimum age will you start the complementary feeding to the children?	a) After Birth -1 b) After 6 Months - 2 c) After 9 Months - 3 d) Any other Age-4	
3.4	What will you prefer to give as complementary feeding to children after 6 months?		

Fill up the response of service provider in the blank spaces and encircle the correct option which is given by service provider.

Section 4 :			
Q. NO.	**QUESTIONS On Breast Feeding Practices**	**Response given by service provider**	**Instruction**
4.1	When exclusive breast feeding should be started ideally?	a) Immediately after Birth -1 b) One hour after Birth -2 c) One day after birth-3 d) One week after birth-4	Encircle the answer
4.2	How long exclusive breast feeding should be continued?	a) Less than 6 Months -1 b) Up to 6 Months -2	Encircle the answer

		c) Up to 8 Months-3 d) Up to 12 Months-4	
4.3	What kind of advice would you give to mothers on feeding infants when sick (Diarrhoea, Fever, and ARI)?	a) Stop Breast Feeding-1 b) Don't stop Breast Feeding-2 c)Feed the child on demand-3 d) Decrease the number of meals-4 e) 2nd and 3rd option	Encircle the answer
4.4	What are the benefits of exclusive breastfeeding to baby?	a) Weight gain -1 b)Nutritional Food for baby-2 c) Protection from Infections-3 d) Developed bond between mother and child-4	Don't give the options. Only Encircle the options whatever service provider respond
4.5	How long should breast feeding be	a) 6 Months -1	Encircle

	continued?	b) 12 Months -2 c) 18 Months-3 d) 24 Months-4	the answer

Fill up the response of service provider in the blank spaces and encircle the answer which is given by service provider.

Section 5 -			
Q. NO.	**Questions on Childhood Illness**	**Coding categories**	**Instruction**
5.1	Which are the signs and symptoms which show that the child is in danger?	a) Not able to drink/ Breast feed -1 b) Vomits Everything-2 c) Convulsion-3 d) Very Sleepy or Unconscious-4	Don't give the options. Only Encircle the options whatever service provider respond
5.2	What is the fast respiration rate (fast breathing) in baby of age 0 to 5 yrs?		

5.3	What would be the diagnosis if you see following types of patients?		
5.3.1	When 18 months of child is coming with sign and symptoms of Fever with generalized rash, cough running nose or red eyes?	a) Malaria -1 b) Measles-2 c) Pneumonia-3 d) Others-4	Encircle the answer
5.3.2	A one year child's mother is complaining of high grade to extreme fever (108 C) to child after vaccination?	a) Viral Fever-1 b) Sepsis/ Toxic shock syndrome-2 c) Maleria-3 d) Others-4	Encircle the answer
5.3.3	Three years of child came up with symptoms of frequent loose motions with signs of sleepy or unconscious, not able to drink or breast feed, sunken eyes and skin pinch goes back very slowly?	a) Epilepsy -1 b) Dysentry-2 c) Diarrhoea with dehydration-3 d) Others-4	Encircle the answer

5.3.4	If child is coming with ear problem with tender swelling around the ear?	a) Acute ear infection -1 b) Chronic ear infection-2 c) Mastoiditis-3 d) Others-4 (specify)	Encircle the answer
5.4	What are the sign and symptoms of Pneumonia?	a) Cough or fast breathing -1 b) Chest Indrawing-2 c) Strange sound in chest-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond
5.5	What are the sign and symptoms of Diarrhea with severe Dehydration?	a) Stools more than usual-1 b) Not able to drink/Breast feed-2 c) Sunken Eyes-3 d) Skin pinch goes	Don't give the options. Only Encircle the options whatever

		back very slowly-4 e) Others (specify)-5	service provider respond
5.6	What are the sign and symptoms of Acute Ear infection?	a) Ear Pain -1 b) Child rub ear frequently-2 c) Liquid in either ear-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond
5.7	What are the sign and symptoms of Severe Malnutrition?	a) Low weight for age -1 b) Visible severe wasting-2 c) Edema of both feet-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond

3. Questionnaire for AWW:

Assessment of training needs of service providers in managing childhood illnesses

Interview Questionnaire

(For AWW)

Informed Consent: I would like to thank you for taking the time to meet us. I would like to talk to you about your experience regarding the training needs of service provider in managing childhood illnesses. The interview should take about 20 minutes. The responses will be kept confidential. This means that the interview responses will be shared only with the research team and we will ensure that any information that we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything that you don't want to and you can end the interview at any time.

Do you have any questions about what I just explained?

Are you willing to participate in the interview?

Interviewee Signature

Name of AWC	
Name of SC	
Name of PHC	
Name of Block	
Name of District	
Date of Interview	
Duration of interview (in minutes)	

Fill up the response of service provider in the respective column.

Section 1 – Background Characteristics		
Q. NO.	**QUESTIONS AND FILTERS**	**Response of service provider**
1.1	What is your name?	
1.2	How old are you? (Age in completed	

	years)	
1.3	Education	
1.4	Marital status	
1.5	Work experience (including the current experience)	
1.6	IMNCI training taken or Not?	

Fill up the response of service provider in the blank spaces and encircle the response of service provider wherever options are given.

Section 2:			
Q. NO.	**QUESTIONS On Immunization**	**Response by the service provider**	**Instruction**
2.1	What are the components of full Immunization?		
2.2	What are the components of Complete Immunization?		
2.3	What are the diseases, which can be prevented by vaccination?		

2.4	At which minimum age will you give BCG vaccine to newborn baby?	a) At time of birth-1 b) After 1 Month-2 c) After 6 Months-3 d) After 12 Months-4	Encircle the answer
2.5	What is the immunization schedule of DPT vaccine in Infants?	a) At 6,8,10 weeks -1 b) At 2,4,6 weeks -2 c) At 4,6,8 weeks -3 d) At 8,10,12 weeks-4	Encircle the answer
2.6	At which Minimum age will you give first Measles Vaccine dose?	a) At 8 Months -1 b) At 9 Months -2 c) At 10 Months -3 d) At 12 Months-	Encircle the answer

		4	
2.7	What is the immunization schedule of OPV vaccine in Infants?	a) At 0,6,8,10 weeks -1 b) At 2,4,6 weeks -2 c) At 4,6,8 weeks -3 d) At 8,10,12 weeks-4	Encircle the answer
2.8	At which Minimum age will you give second Measles Vaccine dose?	a) 9-12 Months -1 b) 12-15 Months -2 c) 16-24 Months -3 d) Any other Age-4	Encircle the answer
2.9	At which Minimum age will you give first dose of Vitamin A syrup?	a) Under 6 Months -1 b) 6- 11 Months -2	Encircle the answer

		c) 1- 5 Years -3 d) None of the above-4	

Fill up the response of service provider in the blank spaces and encircle the correct option which is given by service provider.

Section 3 :			
Q. NO.	**QUESTIONS On Nutritional Supplements**	**Response given by service provider**	**Instruction**
3.1	Which method will you use to check the nourishment level of children?	a) Height- weight measurement -1 b) MUAC measurement -2 c) Check Pitting type of edema -3 d) Others (specify)-4	Don't give the option. Only encircle the option whatever the service provider respond

3.2	Which of the following suggestion would you give to mothers of Infant over 6 months?	a) Stop Breast Feeding-1 b) Continue with Breast Feeding Only -2 c) Breast Feeding with Complementary Feeding -3 d) Only Complementary Feeding-4	
3.3	At which minimum age will you start the complementary feeding to the children?	a) After Birth -1 b) After 6 Months - 2 c) After 9 Months - 3 d) Any other Age-4	
3.4	What will you prefer to give as complementary feeding to children after 6 months?		

Fill up the response of service provider in the blank spaces and encircle the correct option which is given by service provider.

Section 4 :			
Q. NO.	**QUESTIONS On Breast Feeding Practices**	**Response given by service provider**	**Instruction**
4.1	When exclusive breast feeding should be started ideally?	a) Immediately after Birth -1 b) One hour after Birth -2 c) One day after birth-3 d) One week after birth-4	Encircle the answer
4.2	How long exclusive breast feeding should be continued?	a) Less than 6 Months -1 b) Up to 6 Months -2	Encircle the answer

		c) Up to 8 Months-3 d) Up to 12 Months-4	
4.3	What kind of advice would you give to mothers on feeding infants when sick (Diarrhoea, Fever, and ARI)?	a) Stop Breast Feeding-1 b) Don't stop Breast Feeding-2 c)Feed the child on demand-3 d) Decrease the number of meals-4 e) 2nd and 3rd option	Encircle the answer
4.4	What are the benefits of exclusive breastfeeding to baby?	a) Weight gain -1 b)Nutritional Food for baby-2 c) Protection from Infections-3 d) Developed bond between mother and child-4	Don't give the options. Only Encircle the options whatever service provider respond
4.5	How long should breast feeding be	a) 6 Months -1	Encircle

	continued?	b) 12 Months -2 c) 18 Months-3 d) 24 Months-4	the answer

Fill up the response of service provider in the blank spaces and encircle the answer which is given by service provider.

Section 5 -			
Q. NO.	**Questions on Childhood Illness**	**Coding categories**	**Instruction**
5.1	Which are the signs and symptoms which show that the child is in danger?	a) Not able to drink/ Breast feed -1 b) Vomits Everything-2 c) Convulsion-3 d) Very Sleepy or Unconscious-4	Don't give the options. Only Encircle the options whatever service provider respond
5.2	What is the fast respiration rate (fast breathing) in baby of age 0 to 5 yrs?		

5.4	What are the sign and symptoms of Pneumonia?	a) Cough or fast breathing -1 b) Chest Indrawing-2 c) Strange sound in chest-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond
5.5	What are the sign and symptoms of Diarrhea with severe Dehydration?	a) Stools more than usual-1 b) Not able to drink/Breast feed-2 c) Sunken Eyes-3 d) Skin pinch goes back very slowly-4 e) Others (specify)-5	Don't give the options. Only Encircle the options whatever service provider respond
5.6	What are the sign and symptoms of Acute Ear infection?	a) Ear Pain -1 b) Child rub ear frequently-2 c) Liquid in either ear-3	Don't give the options. Only Encircle the options

		d) Others (specify)-4	whatever service provider respond
5.7	What are the sign and symptoms of Severe Malnutrition?	a) Low weight for age -1 b) Visible severe wasting-2 c) Edema of both feet-3 d) Others (specify)-4	Don't give the options. Only Encircle the options whatever service provider respond

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!! Thank You!!