

Assessment of Essential Newborn Care(ENBC) services in secondary and primary level facilities in Mandla district (Madhya Pradesh)

UNDER GUIDANCE OF-

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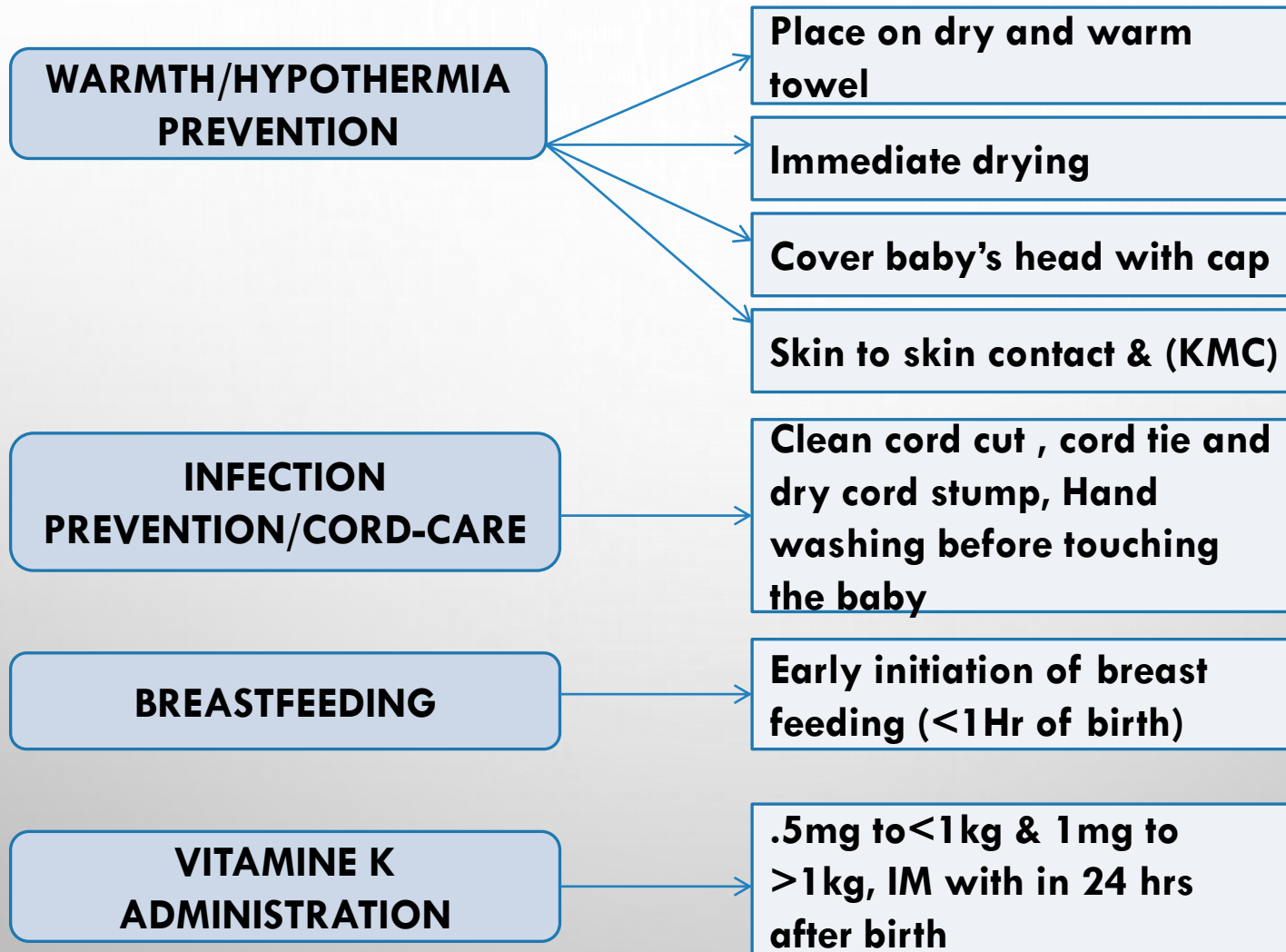
MEENAKSHI AGRAWAL

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INTRODUCTION

- **The current neonatal mortality rate (NMR) in India is 31 per 1,000 live births.**
- **Most of the neonatal deaths occur during delivery or on the day of birth. Three quarters of all neonatal deaths occur during the first week of life, and about 20% take place in the first 24 hours.**
- **Even for the deaths occurring in the rest of neonatal period, care given at the time of birth is an important influencer.**
- **Two third deaths of newborns due to hypothermia, asphyxia and infection can be prevented by providing essential newborn care to all newborns immediately after birth.**

ESSENTIAL NEWBORN CARE (ENBC)



- if the baby is not crying or breathing well, resuscitation needs to be carried out.

RATIONALE OF THE STUDY

- **Mandla district is among the high priority districts of the country. IMR of Mandla is 70* (IMR of MP is 51**), and NMR of Mandla is 48* (NMR of MP is 42*).**
- **The overall purpose of the assessment is to analyze the “current situation of ENBC services” in Mandla district so that we can ascertain the strengths and weaknesses in the quality of newborn care service provision, and could strengthen the newborn care delivery in their service area.**
- **The ENBC components included in the assessment are warmth/hypothermia prevention, breastfeeding, prevention of infections ,vitamin k administration and resuscitation.**

RESEARCH QUESTION

What is the current situation of ENBC services and knowledge of the healthcare providers regarding ENBC services in Mandla district, Madhya Pradesh?

OBJECTIVES

- **To assess the current situation of ENBC services in Mandla district, (MP).**
- **To observe the facilities for necessary infrastructure, human resources, and equipments for rendering ENBC services.**
- **To assess the knowledge of healthcare providers(SN,ANM) regarding essential newborn care at the identified facilities in Mandla district.**

METHODOLOGY

STUDY DESIGN-

- **Observational and descriptive study design.**

STUDY LOCATION-

- **Mandla district (all nine blocks)**

STUDY SUBJECTS-

- **Staff nurse and ANMs were randomly selected for knowledge assessment for ENBC services.**

STUDY PERIOD-

- **Study period is 3 months(Feb–April)**

SAMPLING-

- **Simple Random Sampling was done.**
- **One District hospital and three functional delivery points from each block (one functional CHC, one functional PHC, one functional SHC) were randomly selected. ANM and SN from selected delivery point, who were responsible for rendering immediate essential newborn care services were interviewed.**

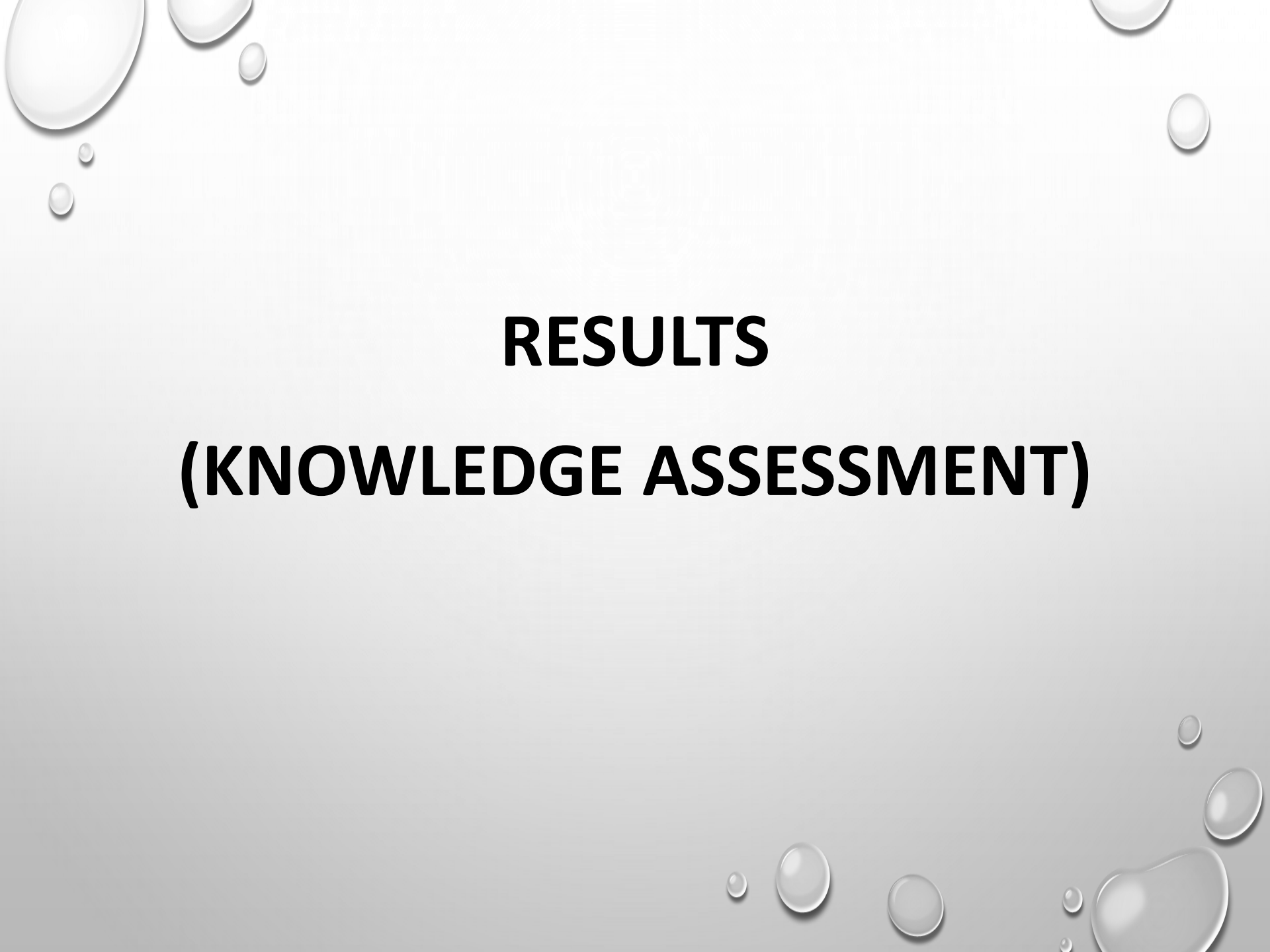
SAMPLING SIZE-

- **Total no. of delivery points in Mandla district is 48. Only 33 out of 48, are functional.**
- **Total 28 checklists for facility assessment, but two blocks (block Bamhni has no functional SHC or PHC and block Bichhiya had no functional SHC).**
- **Overall 25 checklists for facility assessment and 56 healthcare providers (SN/ANM) of identified selected DPs, who are rendering essential newborn care was interviewed.**



METHOD AND INSTRUMENTS-

- **Checklist for facility assessment.**
- **Semi structured questionnaire through face to face interview.**



RESULTS

(KNOWLEDGE ASSESSMENT)

Table.1 knowledge grade of healthcare providers (n=56)with respect to warmth/hypothermia prevention, breastfeeding, infection prevention ,Vit K administration.

Knowledge level	Warmth/Hypothermia prevention(%)	Breastfeeding (%)	Infection prevention (%)	Vitamin K administration (%)
Satisfactory (>75%)	(36%)	(77%)	(39%)	(44%)
Moderate (75-50%)	(41%)	(3%)	(43%)	(29%)
Non-Satisfactory (<50%)	(23%)	(20%)	(18%)	(27%)

- **KNOWLEDGE ON RESUSCITATION:**

More than ninety percent (n=52) of the health providers said they had knowledge on management of newborns who did not cry at birth. Only sixteen percent (n=15) was correctly able to demonstrate NBR on the mannequin.

- **KNOWLEDGE ON KMC:**

All health providers had knowledge about KMC, but only half of them (n=28) were able to demonstrate the right technique.



- **KNOWLEDGE FOR WARMTH/HYPOTHERMIA PREVENTION-**

Almost all health providers had knowledge about the use of radiant warmers, but only sixty percent (n=33) of them demonstrated its correct operation.

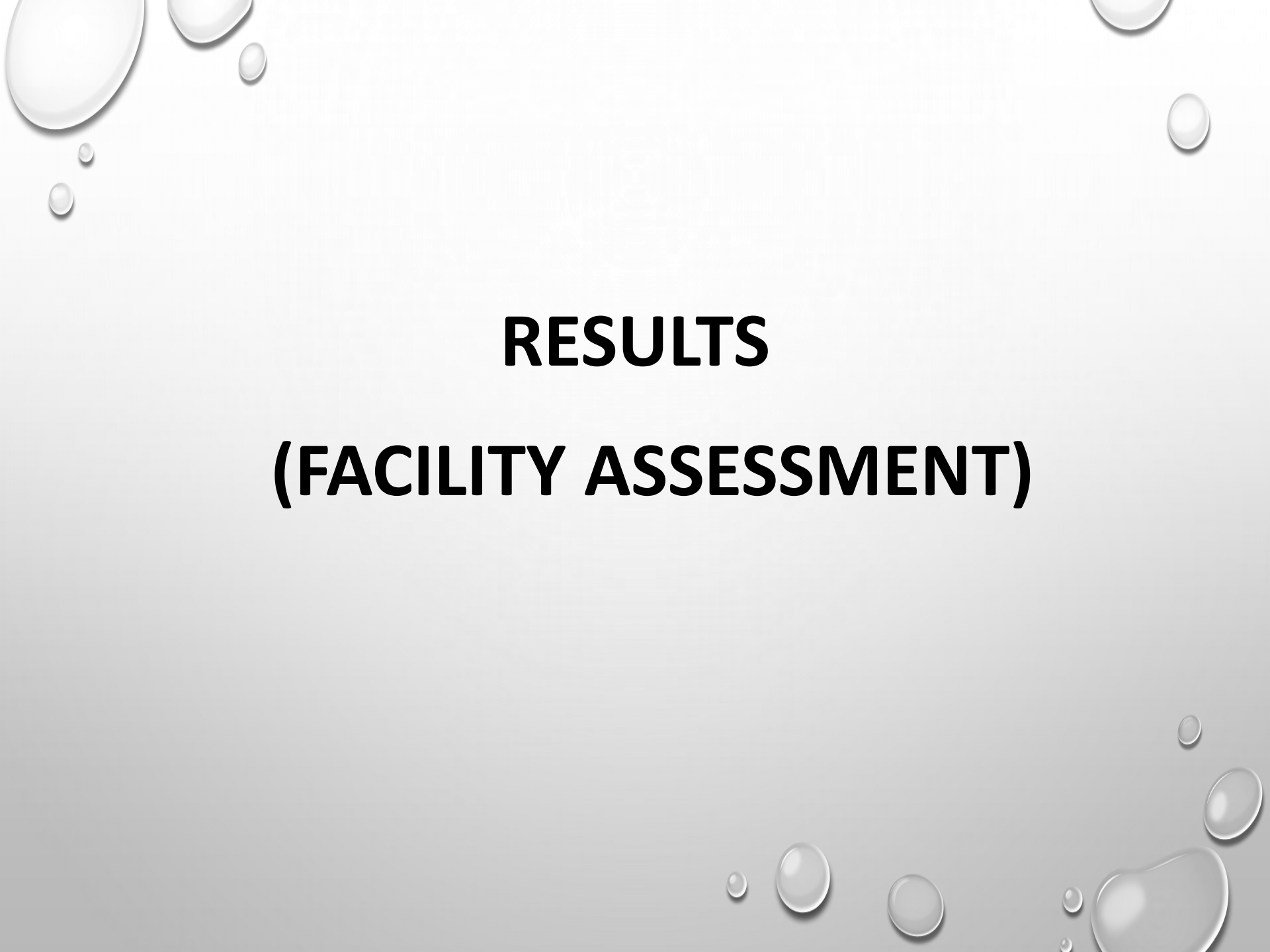
- **KNOWLEDGE FOR BREASTFEEDING-**

Sixty four percent (n=36) of the care providers demonstrated all four steps correctly in positioning the baby for breastfeeding.

- **KNOWLEDGE FOR INFECTION PREVENTION-**

Only nine percent (n=5) of the providers know the six steps of washing hands correctly and its duration.





RESULTS

(FACILITY ASSESSMENT)

**Table:2 Availability of Infrastructure in various types of facilities(n=25)
assessed in the study**

S.No.	INFRA-STRUCTURE	DH (n=1)	CHC (n=9)	PHC (n=8)	SHC (n=7)	Total (n=25)	(%)of Total facility with available Infrastructure
1	DESIGNATED NEWBORN CARE CORNER IN LABOUR ROOM	1	9	8	5	23	92%
2	RADIANT WARMER	1	9	8	5	23	92%
3	ELECTRICITY SUPPLY	1	9	8	7	25	100%
4	ELECTRICITY BACKUP	1	8	3	2	14	56%
5	RUNNING WATER SUPPLY	1	7	6	4	18	72%
6	ELBOW TAP	0	0	0	0	0	0
7	PROTOCOL DISPLAY FOR NBCC	1	9	8	7	25	100%

Table:3 Availability of Equipments and drugs in various types of facilities(n=25) assessed in the study

S.No.	INFRA-STRUCTURE	DH (n=1)	CHC (n=9)	PHC (n=8)	SHC (n=7)	Total (n=25)	(%)of Total facility with available equipment/drugs
1	RADIANT WARMER	1	9	7	5	22	88
2	BAG & MASK	1	8	6	4	19	76
3	BOTH MASK (SIZE ONE AND ZERO)	1	0	0	0	1	4
4	BABY WEIGHING MACHINE	1	9	8	7	25	100
5	CLINICAL THERMOMETER	1	7	3	5	16	64
6	ROOM THERMOMETER	1(NF)	0	0	0	0	0
7	IV INFUSION SET	1	9	8	6	24	96
8	O2 CYLINDER/O2 CONCENTRATOR	1	9	6	5	21	84
9	SUCTION DEVICE	1	9	7	5	22	88
10	MUCOUS EXTRACTOR	1	9	5	4	19	76

Table :6 CONTINUED

11	DISPOSABLE SYRINGES	1	9	8	7	25	100
12	CORD CLAMP	1	9	6	3	19	76
13	TOWEL FOR DRYING	1	9	8	7	25	100
14	STERILE GLOVES	1	9	8	7	25	100
15	HAND WASH/SOAP	1	9	8	7	25	100
16	WALL CLOCK	1	9	7	7	24	96
17	VITAMIN K	1	3	0	0	4	16
18	ANTIBIOTICS	1	9	8	7	25	100
19	EMERGENCY DRUG (ADRENALIN AND AMINOPHYLLIN)	1	9	6	5	21	84
20	IV FLUID	1	9	8	7	25	100

Table 4: Availability of Human Resource and training status (Specialist and MO's)

	Gynaecologist	Paediatrician	Anaesthesias	MO	CEMoC/BEMoC Trained
DH	1	2	1	4	2
CHC	NA	NA	NA	22	NONE
PHC	NA	NA	NA	6	NONE

Table 5: Availability of Human Resource and training status(SN/ANM)

	SN	SBA	NSSK/FBNC/IMNCI trained	ANM	SBA	NSSK/FBNC/IM NCI trained
DH	25	15	9(FNBNC),5(NSSK)	1	1	1(NSSK)
CHC	51	26	13(NSSK)	8	3	1(NSSK)
PHC	7	3	1(NSSK)	17	10	6(NSSK)
SHC	NA			14	10	5(NSSK)

CONCLUSION

- **The study highlighted the need for having skill-based capacity-building initiatives targeted to health personnel posted in facilities where childbirth occurs and immediate care is provided to the neonates.**
- **Availability of equipment and more importantly, keeping them functional in these facilities will ensure the practise of acquired skills in resuscitation.**
- **It is suggested that by meeting the shortage of resources such as infrastructure, equipments, supplies and human resource.**
- **By providing skill-based training and periodic assessment, existing situations can be improvised.**

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THANK YOU