

**KNOWLEDGE REGARDING MINIMUM ESSENTIAL
COMMODITIES OF 5*5 MATRIX OF RMNCH+A AMONG
HEALTH WORKERS IN KAIMUR DISTRICT**

**Dissertation
At
CARE India, Bihar**

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**Under the guidance of
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2013–15**


**Institute of Health Management Research
Jaipur
2015**

TO WHOMSOEVER MAY CONCERN

This is to certify that Kumari Anisha Shah student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone internship training at CARE India, Bihar from 9th March 2015 to 9th May 2015

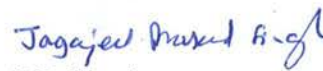
The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.



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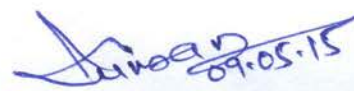
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To Whom It May Concern

This is Certify that Ms. Anisha Shah, student of the IIHMR University has successfully completed Sixty days Long (From 9th Mar 2015 to 9th May 2015) Dissertation Programme under the guidance of Mr. Ashwini Kumar (District Manager) Care India , District –Kaimur. During the Period of her Dissertation Programme with us she was found punctual hard working and inquisitive

We wish her Successful in life.


District Manager
Care India
Care India (BTSP)
Kaimur, Bihar

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **knowledge regarding minimum essential commodities of RMNCH+A 5*5 matrix among health worker of Kaimur District, Bihar** and submitted by Kumari **Anisha Shah** Enrollment No **2013-15/1457** under the supervision of **Prof.JP Singh** for award of MBA Hospital and Health Management of the university carried out during the period from **2013 to 2015** 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

ABSTRACT:

The Reproductive, Maternal, Neonatal, Child and Adolescent Health programme is the heart of our flagship programme National Rural Health Mission (NRHM). Central guiding tenets of this programme are equity, universal care, entitlement and accountability. The aim of the program is to protect the lives and safeguard the health of women, adolescents and children and this has been the driving force for reaching out to the maximum numbers, in the remotest corners of the country through constant innovation and calibration of interventions. Our strategies have yielded rich and quick dividends, evident in improved IMR and MMR. However there is much that needs to be done – the extension of the Mission into a new phase of five years is a strategic opportunity that we must seize and make the most of it in terms of taking forward the agenda of health for all.

The objective of this study was to find out the existing knowledge about RMNCH+A among health workers of Kaimur District. The study area was limited to PHC's and CHC's of Kaimur district and respondents were medical officers and Female health supervisors of the respective PHC.

Stratified random sampling was done to select the subjects. As a result of which 59 MO's and 45 FHS were taken into consideration of study.

A structured questionnaire was used as a data collection tool. This study was a questionnaire based survey. A self developed questionnaire was prepared which has 1 open ended question and other closed ended questions based on RMNCH+A 5*5 matrix. The questionnaire was prepared in two languages ie in English for MO's and in Gujarati for FHS.

After getting response we analyzed the data in two parts :

- 1.Knowledge of minimum essential commodities of RMNCH+A 5*5 matrix among medical officers.

- 2.Knowledge of minimum essential commodities of RMNCH+A 5*5 matrix among Female health supervisors.

one of the above mentioned group has complete knowledge and awareness about RMNCH+A matrix. Under Reproductive Health 23 out of 59 medical officers were not aware that Tubal rings is included in RMNCH+A 5*5 matrix under minimum essential commodities. Similarly many of the subjects were not aware about IUCD 380 inclusion in this strategy.

Under maternal health both the group of subject was not aware about many of the essential commodities. Only 100 percent awareness was seen in medical officers about

use of injection oxytocin. We got wrong answers in rest of questions. Out of four minimum essential requirements under neo-natal ie Injection vitamin k, mucous extractor, Syrup Vit A and vaccination only complete awareness was about vaccination. Doctors were seemed to be more aware about 5*5 matrix than FHS in child health Component of RMNCH+A.

Adolescent health includes only 3 minimum essential commodities ie Tablet Albendazole, Tablet Dicyclomine and sanitary napkins. None of the group was completely aware about all the three sub-component of minimum essential commodities under Adolescent health. High level of unawareness was seen among FHS as compared to Medical officers.

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I hope that I can build upon the experience and knowledge that I have gained and make a valuable contribution towards the industry in coming future.

ANISHA SHAH

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List of Abbreviations

S.NO	ABBREVIATION	FULL FORM
1	ANC	Antenatal Check up
2	ANM	Auxillary Nursing Midwife
3	ASHA	Accredited Social Health Activists
4	AWW	Aanganwadi Worker
5	BCC	Behaviour Change Communication
6	CHC	Community Health Centre
7	DDO	District Development Officer
8	DHS	District Health Society
9	IEC	Information Education Communication
10	IMR	Infant Mortality Rate
11	IUCD	Intra Uterine Contraceptive Device
12	JSY	Janani Suraksha Yojana
13	JSSK	Janani Shishu Suraksha Karyakram
14	MCH	Maternal and Child Health
15	MMR	Maternal Mortality Ratio
16	MOHFW	Ministry Of Health and Family Welfare
17	PW	Pregnant Women
18	PHC	Primary Health Centre
19	RCH	Reproductive and Child Health
20	RMNCH+A	Reproductive,Maternal,Neonatal,Childand Adolescen Health
21	TT	Tetanus Toxoid
22	UNICEF	United Nation International Children Fund

Part-2

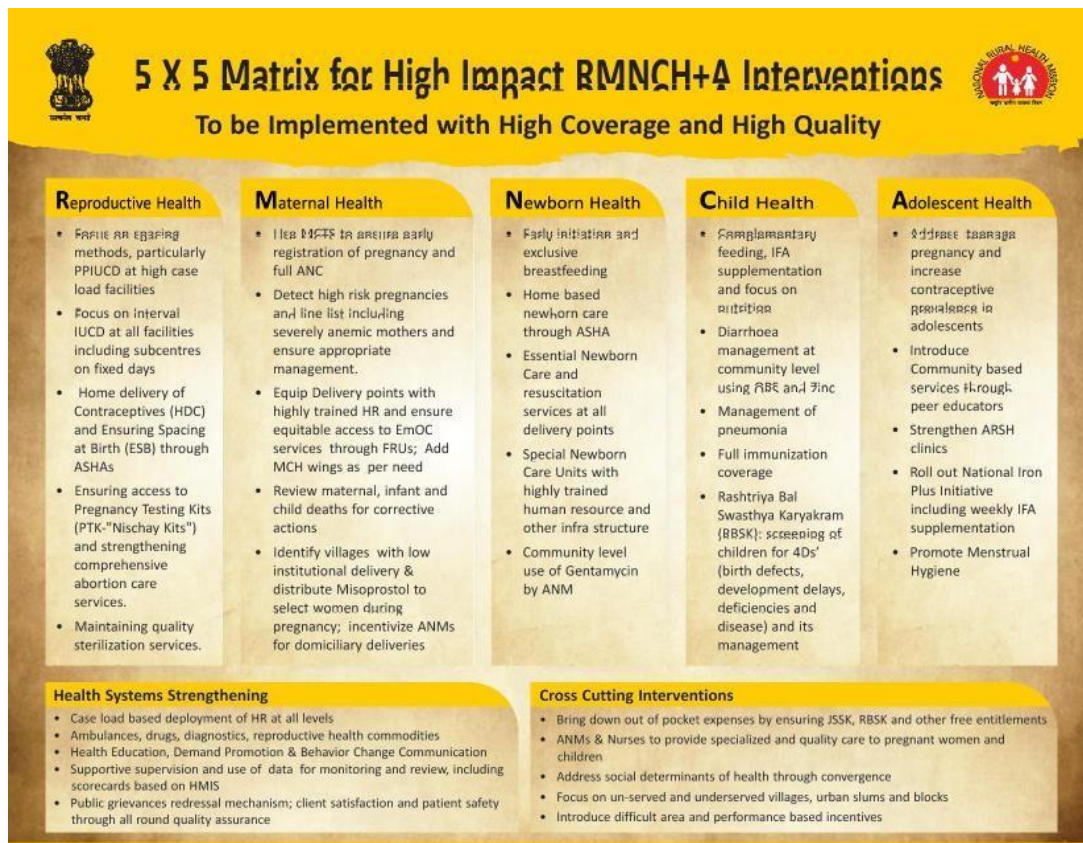
Dissertation Report

on

**KNOWLEDGE REGARDING Minimum
ESSENTIAL COMMODITIES OF 5*5
MATRIX OF RMNCH+A AMONG
HEALTHWORKERS IN KAIMUR
DISTRICT**

2.1 Introduction

5 *5 Matrix of RMNCH+A



5 X 5 Matrix for High Impact RMNCH+A Interventions				
List of Minimum Essential Commodities				
Reproductive Health	Maternal Health	Newborn Health	Child Health	Adolescent Health
• ER നെക്കൾക്കുടിച്ചിടൽ Rings, IUCD 380-A, IUCD 375 • Oral Contraceptive Pills (OCPs) / (Mala-N), Condoms • Emergency Contraceptive Pills (ECP) - (Levonorgestrel 1.5mg) • Pregnancy Testing Kits (PTKs) - Nischay • Tablet Mifepristone (Only at facilities conducting Safe	• Injections Oxytocin • Tablet Mifeprestone • Injection Magnesium Sulphate	• Injections Vitamin K • Mucous antiseptic • Vaccines - BCG, Oral Polio Vaccine (OPV), Hep B	• Oral Rehydration Salt (ORS) • Zinc Sulphate Dispersible Tablets • Syrup Salbutamol & Salbutamol nebulising solution • Vaccines - DPT, Measles, OPV, Hep B • IE (19 States), Pentavalent vaccine • Syrup Vitamin A	• Tablet Albendazole • Tablet Rifampicin
Cross cutting Commodities as per level of facility				
• Iron & Folic Acid (IFA) Tablet, IFA small tablet, IFA syrup • Syrup /tablets: Paracetamol, Trimethoprim & Sulphamethoxazole, Chloroquin and Inj. Dexamethasone • Antibiotics: Cap /Inj. Ampicillin, Metronidazole, Amoxycillin; Inj. Gentamicin, Inj. Ceftriaxone; • Clinical /Digital Thermometer; Weighing machine; BP apparatus; Stop Watch; Cold box; Vaccine carrier; Oxygen; Bag & mask • Testing equipments for Haemoglobin, urine and blood sugar				

2.1 Introduction:

Improving the maternal and child health and their survival is central to the achievement of National health goals under the National Health Mission (NHM) as well as the Millennium Development Goals (MDG) 4 and 5. In the past seven years, innovative strategies have evolved under the national program to deliver evidence-based interventions to various population groups. A substantial increase in the availability of financial resources for Reproductive and Child Health (RCH), healthcare infrastructure and workforce as also the expansion of program management capacity since the launch of NRHM in 2005 provides an important opportunity to consolidate all our efforts. As we reach closer to 2015, there is an opportunity to further accelerate progress towards MDG and redefine the national agenda to come up with a coordinated approach to maternal and child health in the next five years.¹

In order to bring greater impact through the RCH program, it is important to

recognize that reproductive, maternal and child health cannot be addressed in isolation as these are closely linked to the health status of the population in various stages of life cycle. The health of an adolescent girl impacts pregnancy while the health of a pregnant woman impacts the health of the newborn and the child. As such, interventions may be required at various stages of life cycle, which should be mutually linked. The reasons for adopting such a strategy can be understood when the available data is taken into account and the close inter-linkages between different stages of life cycle are recognized.¹

outcome; half of adolescents (boys and girls) have below normal body mass index (BMI) and almost 56% of adolescent girls aged 15–19 years have anaemia.¹

Therefore, the nutritional status of adolescent girls and young women is inextricably linked to the birth weight of their children and subsequently to child survival. There is evidence to show that adolescent mothers are vulnerable to problems related to pregnancy and childbearing. Of all mothers, adolescent mothers are more likely to have preterm births. According to national surveys, adolescents (15–19 years) contribute about 16% of total fertility in the country and 15–25 years age group contributes 45% of total maternal mortality.

With substantial unmet need of contraception – about 27% among married adolescents (15–19 years) – and low condom use by adolescents in general, adolescent girls are at a high risk of contracting sexually transmitted infections, HIV and unintended and unplanned pregnancies. This in turn contributes to maternal morbidity and mortality due to unsafe abortions and infections.

High maternal and child mortality in adolescent mothers and a smaller but significant contribution of adolescents to total fertility brings the focus back on the need to address adolescents as an integral part of the strategy so as to improve maternal and child health. Another compelling reason to invest in an integrated strategy across life stages is the well-known link between maternal and child survival, and the use of family planning methods.

2.2 Review of literature

- At the cusp of the new phase of NRHM, it is my privilege to present ‘A strategic Approach to Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) in India’ that embodies our vision for comprehensive and integrated health services most importantly for the adolescents, mothers and children. In the last seven years the Reproductive and Child Health Program (RCH II) have provided the flexibility and opportunity to introduce new interventions and to pilot and scale up innovative service delivery mechanisms. This has resulted in an ever-growing and dynamic list of interventions and service packages across the reproductive, maternal and child health spectrum.¹
- Significant disparities in reproductive, maternal, newborn, and child health (RMNCH) outcomes and intervention coverage exist between the Mountains and other eco regions of Nepal. Delivery of essential health services to remote mountainous areas is challenging and access is a known barrier to utilization. Consequently, policies and programs cannot strategically target constraints to increase coverage.²
- To assess the knowledge about RCH services among the health care workers, pregnant women, mothers and adolescent girls. A cross sectional study was conducted in the rural field practice areas of K. S. Hegde Medical Academy. A total of 37 health workers, 50 pregnant women and mothers and 56 adolescents were interviewed using a pre tested questionnaire for assessing their knowledge regarding RCH services. Descriptive statistics was used in the analysis. Knowledge regarding high risk pregnancy identification, normal birth weight and identifying anaemia in the field was good among health workers. Only 10.8% of them knew the minimum strength of medical officers in a FRU and only 5.4% knew about fast breathing in less than 2 months old infant. With regard to mothers knowledge 64% were aware of the number of ANC visits, 44% knew about correct interval between 2 pregnancies, 38% knew about methods to prevent STI transmission. 82% of adolescents had good knowledge regarding legal age for marriage. 75% were

aware of various methods of contraception.³

- This was a cross sectional descriptive study, conducted in rural areas of Jamnagar district. The study subjects were health workers - female, of various PHCs & SCs of the district. All the 230 HW-F working in all the 37 PHCs & 266 SCs of the district were included for the study. Of them 12 HW-F could not be included in the study because of various reasons (viz. absenteeism, on the job training at places other than place of work, field visits, involvement with other national programs & various personal reasons) Only 71.56% HW-F were able to enumerate at 5 criteria of at-risk mothers. Less than one third of HW-F (32.3%) knew methods of prevention of malaria during pregnancy like providing insecticide treated mosquito nets (ITMN) and prophylaxis through CHQ 300mg once weekly in high risk areas. There were serious deficiencies in the knowledge, practice skills of HW-F in regards to ANC & PNC services. This suggests a very casual & negligent attitude of HW-F on these very crucial aspects of maternal care which is so important for prevention of maternal mortality & morbidity. Therefore in service periodical sensitization & advocacy workshops & trainings of these HWs are recommended. Supervisory cadres are required to brace themselves for more strict & stringent vigilance & supervision of the functioning of HW-Fs. Encouraging research on health care system for proper implementation of national health programmes is necessary.⁴

2.3 Research Question

- What is the existing knowledge among health workers about 5*5 matrix of RMNCH+A?

2.4 Aim

- The study aims in identify whether current knowledge of RMNCH+A among health workers is helping them in implementation of RMNCH+A Strategy.

Objective:

- To assess the knowledge regarding essential commodities of RMNCH+A among Health workers.

2.5 Methodology

2.5.1 **Study Design:** This was a descriptive cross sectional study.

2.5.2 **Study Duration:** Two Months

2.5.3 **Study Area:** Primary Health Centres, and Community Health Centre of Kaimur District.

2.5.4 **Study Participants:** Medical officers of PHC and CHC, Female Health Supervisors of Primary health Centres.

The details of the participants is given in the table below

Total 52 Medical officers and 45 Female health supervisors were interviewed from PHC's. 7 Medical officers from 11 CHC's were interviewed for the study. Out of 52 medical officers from PHC 29 were MBBS and 23 were AYUSH. As Kaimur district is high priority and tribal. Female doctors are less in number while on the other hand out of 23 AYUSH doctors 13 were male and 10 were female. In CHC one out of four doctors (MBBS) is female and similarly one out of three AYUSH doctors is female. Total of 45 Female Health Supervisor were part of the study.

2.5.5 **Sampling:** Stratified random sampling was done. Fifty two medical officers out of 65 PHC's were selected and Seven Medical officers out of 11 CHC were selected. Female health supervisor of all the PHC's were selected. There are 45 FHS in 65 PHCs.

2.5.6 **Methods and Instruments of Data Collection:** A structured questionnaire was used as a data collection tools. This study was a questionnaire-based survey. A self-developed, consisting of both open-ended and closed-ended (checklist) items were used. The study population comprised of medical officers of PHC's and Female health supervisor of that PHC. Data was collected in block meeting of MO's and during field visit. Data for FHS was collected during staff meeting and during field visit.

2.5.7 **Statistical Treatment:** The returned questionnaire was checked for completeness and correctness and data was entered in Microsoft excel for further analytical treatment and graphical presentations.

2.6 Results

Based on the questionnaire data analysis it revealed that Thirty two medical officers (55%) knew both full form and number of stages in RMNCH+A, nine MO's(15%) didn't had an idea about both the questions , eleven MO's (18%) knew only full form but had no idea about number of stages in RMNCH+A and seven MO's(12%) knew only number of stages (pillars) in RMNCH+A.

2.6.1 General awareness about RMNCH+A

Table 2: Percentage Distribution of MOs According to the awareness regarding full form & stages of RMNCH+A

S.NO	CRITERIA	MEDICAL OFFICERS (n=59)
1	KNEW BOTH	55%
2	DON'T KNOW BOTH	15%
3	ONLY FULL FORM	18%
4	ONLY NUMBER OF STAGES	12%
	TOTAL	100

2.6.2 Knowledge of Medical officers about Minimum essential commodities of 5*5 Matrix of RMNCH+A

59 Medical officers were interviewed for knowledge of minimum essential commodities required in RMNCH+A, the questionnaire was divided into five Components:-

- Minimum essential commodities required for reproductive health.
- Minimum essential commodities required for maternal health.
- Minimum essential commodities required for neo-natal health.
- Minimum essential commodities required for child health.
- Minimum essential commodities required for adolescent health.

These are the minimum needed commodities that should be present at PHI and should be known to every health service provider.

Insufficient knowledge about it means there is some gap in knowledge, which is needed to be filled in order to successful implementation of the strategy.

REPRODUCTIVE HEALTH

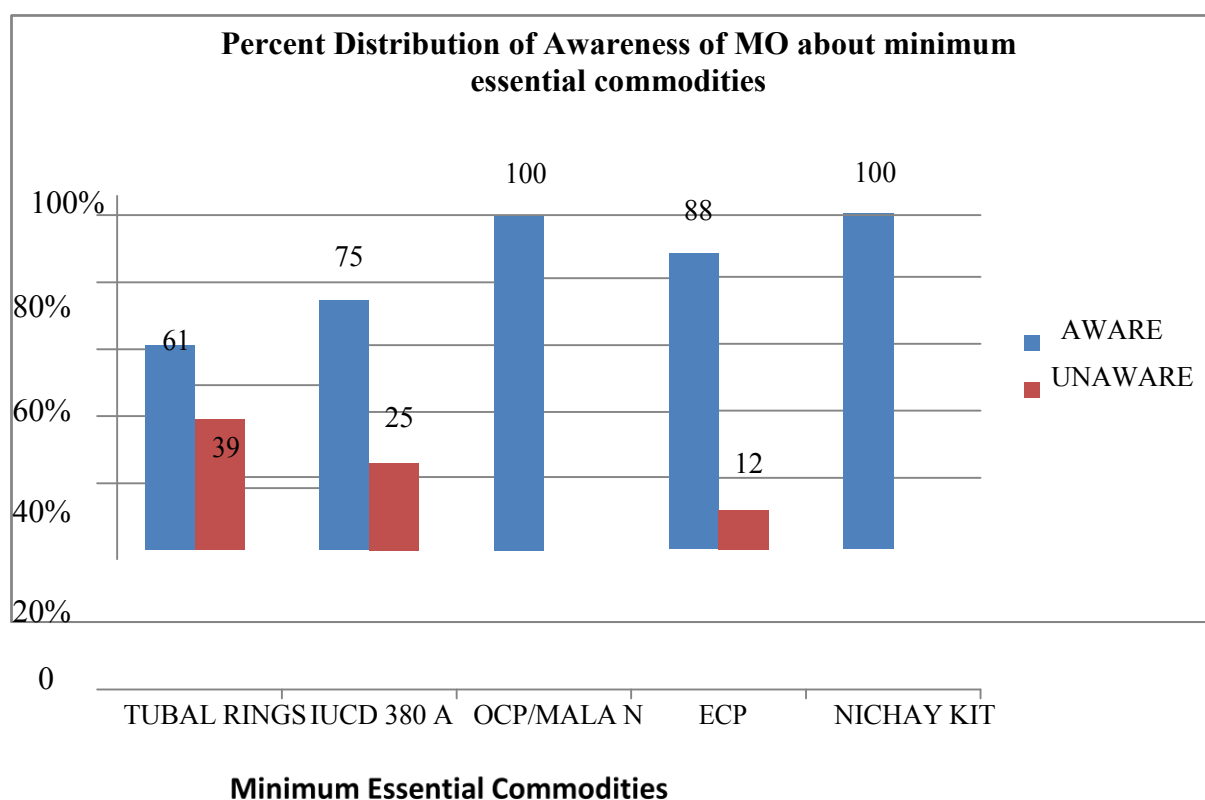


Figure 1: Knowledge of minimum essential commodities of reproductive health in 5*5 matrix of RMNCH+A among Medical officers

When medical officer were asked about first component of RMNCH+A ie reproductive health and what are the minimum essential commodities required for service delivery, it was found that most of the medical officers were aware about the commodities that are essential to deliver service for reproductive health. 23 , 15 and seven medical officers were not aware or able to recall about Tubal rings, IUCD 380 A and emergency contraceptive pills. All the medical officers were aware about oral contraceptive pills and Nischay kit which is included in 5*5 matrix of RMNCH+A under minimum essential commodities.

MATERNAL HEALTH

A higher percentage of medical officer were aware about maternal health component and its service delivery under RMNCH+A. Under this component of RMNCH+A it was very surprising to know that still 24 percentage of medical officers were not aware about IFA tablet is essential part in delivering service in maternal health component of RMNCH+A. Similarly almost 50 percent of medical officers were not aware about tablet methyldopa is included in the same. 19 MO's out of 59 i.e. 33 % were not aware that Tetanus toxoid injection is included in RMNCH+A. All the doctors were aware about injection oxytocin.

Table 3: Knowledge of minimum essential commodities of maternal health in 5*5 matrix of RMNCH+A among Medical officers

Minimum Essential commodities	Aware (%)	Unaware (%)
Inj. Oxytocin	100	0
Inj. Mgso4	69	31
Inj. T.T	67	33
Tab. Mesoprostol	79	21
Tab. Methyldopa	50	50
Tab. Labetol	62	38
IFA Tablet	74	26

NEO-NATAL HEALTH

Knowledge about the minimum essential commodities under Neo-natal health was found to be good. Almost all doctors were aware about the things required for delivering good services. It was satisfying to know that all the medical officers were aware about vaccination. Only 17 medical officers out of 59 were not aware about or not able to recall the injection Vitamin K is included in package. Similarly 14 and 11 Medical officers were not aware about syrup Vita min A and Mucous extractor. Overall knowledge was found to be good in this component.

Table 4: Knowledge of minimum essential commodities of Neo-Natal health in 5*5 matrix of RMNCH+A among Medical officers

Minimum Essential commodities	Aware(%)	Unaware(%)
Inj. Vitamin A	69	31
Syrup Vitamin A	76	24
Mucous Extractor	81	19
Vaccines	100	0

CHILD HEALTH

Medical officers were very well oriented and aware about child health component. 100 percent medical officers were able to recall about Syrup albendazole, vitamin K, and routine immunization of child is included in minimum essential package of RMNCH+A. Only 23, 15 and 12 medical officers were not able to recall that salbutamol , tablet zinc sulphate and ORS is been included under minimum essential package of RMNCH+A .

Table 5: Knowledge of minimum essential commodities of child health in 5*5 matrix of RMNCH+A among Medical officers

Minimum Essential commodities	Aware(%)	Unaware(%)
SYRUP ALBENDAZOLE		
Vit. A	100	0
Sulbutamol	61	39
Tab. Zinc Sulphate	74	26
Vaccine	100	0
ORS	79	21

6.2.5 ADOLESCENT HEALTH

Table 6: Knowledge of minimum essential commodities of Adolescent health in 5*5 matrix of RMNCH+A among Medical officers

Minimum Essential commodities	Aware(%)	Unaware(%)
Albendazole	71	29
Dicylomite	52	48
Sanitary Napkin	81	19

Adolescent health , the newly added component in RCH -2. Knowledge among medical officers of Kaimur district about adolescent component of RMNCH+A was found to be satisfactory. 48 percent of medical officers were not aware about dicylomite is included in minimum essential commodities which is on a very higher side. Similarly seventeen out of fifty nine and eleven out of fifty nine medical officers were not able to recall as well as not aware Albendazole and sanitary napkins are part of minimum essential requirements for improving adolescent health. As adolescent health has only three sub-components therefore it is very easy to remember these minimum essential commodities. But it was not seen. Level of current knowledge was very low.

2.6.3 Knowledge of Female Health Supervisors about Minimum essential commodities of 5*5 Matrix of RMNCH+A

REPRODUCTIVE HEALTH

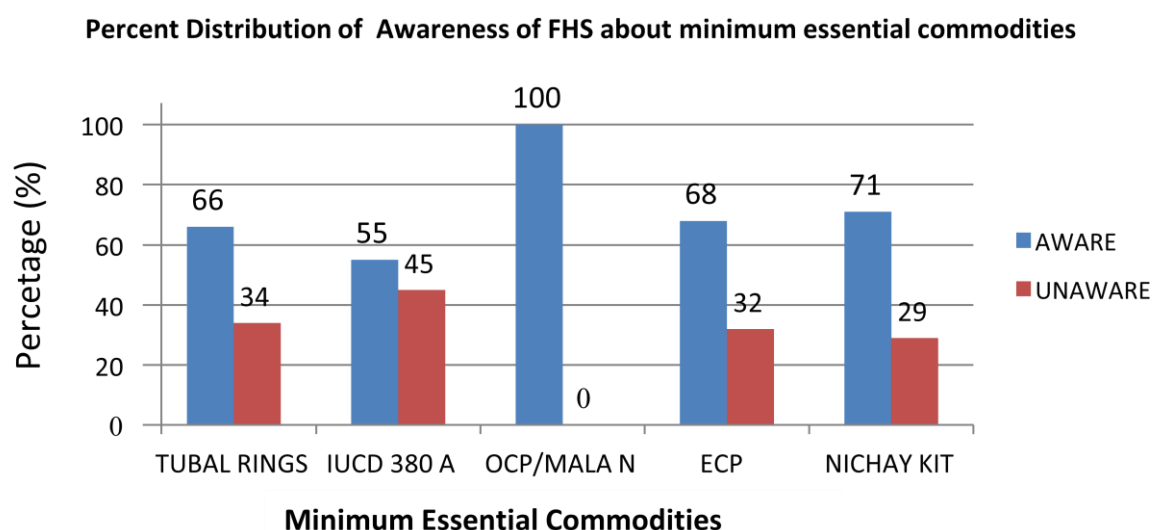


Figure 2: Knowledge of minimum essential commodities of reproductive health in 5*5 matrix of RMNCH+A among FHS

Based on above figure Forty five Female health supervisors were interviewed for different components of 5*5 matrix of RMNCH+A. Fifteen FHS were found to be unaware about tubal rings in reproductive health out forty five. 45% of Female health workers were not aware about IUCD 380 A is an important service delivery component in reproductive health. Similarly 14 and 13 FHS out of 45 were not having idea about emergency contraceptive pill and nichay kit was a part of minimum essential requirements in reproductive health component of 5*5 matrix respectively.

MATERNAL HEALTH

As Female health supervisor are the person who work on field most of the time, so the knowledge about maternal health service delivery is expected to be good among those. But it was not found as expected 19 out of 45 FHS were not having an idea about that oxytocin injection is been used for maternal health service delivery. 17 out of 45 were not aware about injection magnesium sulphate is being used in maternal health component of RMNCH+A, which is used to slow down uterine contractions. 17 out of 45 were unaware about the usage of tablet misoprostol, only 53 percent FHS were aware about methyldopa usage and only 50 percent FHS were aware about antihypertensive drug ie Labetol.

Table 7:knowledge of minimum essential commodities of Maternal health in 5*5 matrix of RMNCH+A among FHS

Minimum Essential commodities	Aware(%)	Unaware(%)
Inj. Oxytocin	57	43
Inj. Mgso4	62	38
Inj. T.T	100	0
Tab. Mesoprostol	62	39
Tab. Methyldopa	53	47
Tab. Labetol	37	63
IFA Tablet	100	0

NEO- NATAL HEALTH

Neonatal health is very important component of RMNCH+A. It should be taken very seriously. But existing knowledge among health workers (FHS) was not seen sufficient enough which can justify well planned strategy such as RMNCH+A. Only complete knowledge of vaccination was seen among FHS while 33 percent were unaware about syrup vitamin A is a component in minimum essential requirement for Neonatal health, while 45 percent of the respondents did not knew that mucous extractor is a part of RMNCH+A strategy under neonatal health.

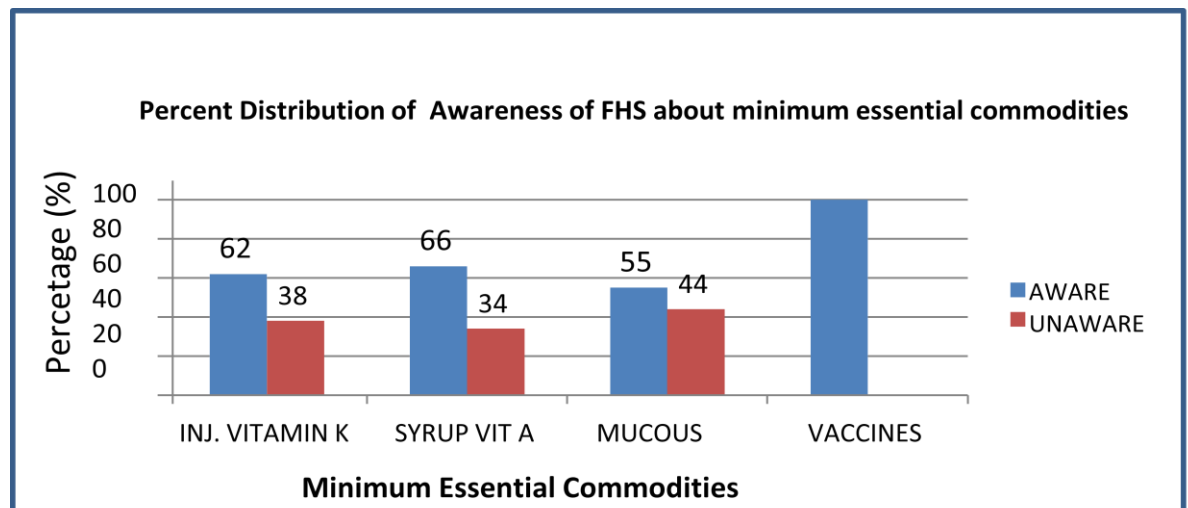


Figure 3: Knowledge of minimum essential commodities of Neonatal health in 5*5 matrix of RMNCH+A among FHS

CHILD HEALTH

Knowledge about minimum essential requirements under child health was satisfactory. Not a single component was known fully to FHS. Relatively high level of unawareness as compared to other components of RMNCH+A well as very low awareness when we compare them to medical officers for the same. These are the key persons who can motivate community and such a low awareness about RMNCH+A was not expected. 19 out of 45 FHS were not aware about syrup albendazole usage and 12 out of 45 respondents did not had complete knowledge about routine immunization service under RMNCH+A strategy. Only 63 percent of respondent were aware that ORS is included in child health component of RMNCH+A strategy which is a very low level of awareness as FHS of some PHC.

Table 8: Knowledge of minimum essential commodities of child health in 5*5 matrix of RMNCH+A among FHS

Essential Commodities	Aware (%)	Unaware (%)
Syrup Albendazole	57	43
Vit A	64	36
Salbutamole	68	32
Tab. Zinc Sulphate	71	29
Vaccines	73	27
ORS	63	38

ADOLESCENT HEALTH

The new entrant in RCH -2 strategy ie adolescent health is seem to be suffering the most in Kaimur district, very high level of unawareness among service providers was noted. There are only three sub-component in adolescent health as minimum essential requirements for adolescent health improvement. 50 percent were unaware about tablet albendazole usage in adolescent period. Similarly awareness about dicyclomine usage in adolescent health was only 42 percent. Knowledge about sanitary napkins inclusion in RMNCH+A was only about 55 percent.

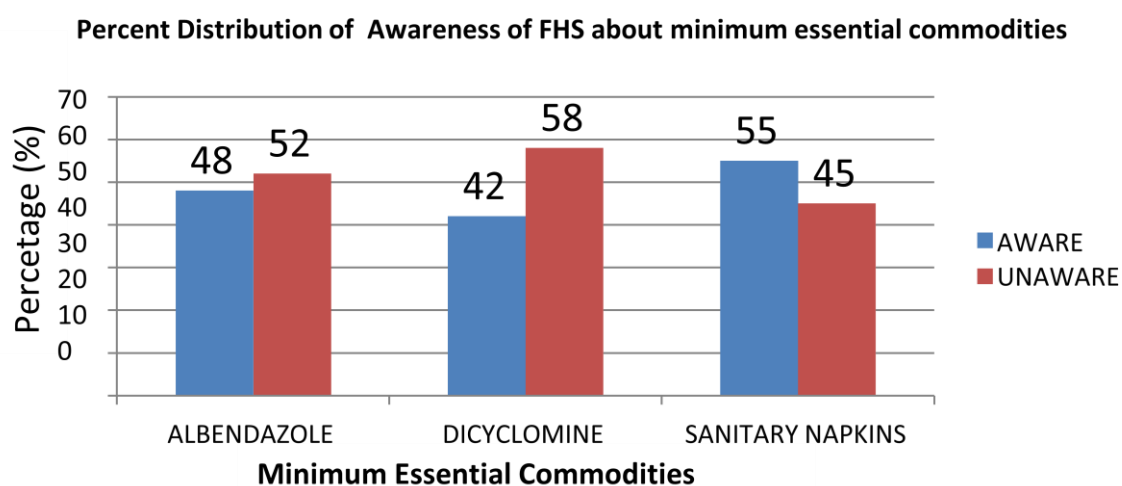


Figure 4: Knowledge of minimum essential commodities of Adolescent Health in 5*5 matrix of RMNCH+A among FHS

2.6.4 Incorrect Knowledge of RMNCH+A minimum essential commodities among Health Workers

Table 9

WRONG KNOWLEDGE AMONG HEALTH WORKERS ABOUT MINIMUM ESSENTIAL COMMODITIES					
REPRODUCTIVE HEALTH					
SERIAL NUMBER	INCORRECT OPTION	MEDICAL OFFICER(59)	FEMALE HEALTH SUPERVISOR(45)	PERCENTAGE OF WRONG ANSWERS(MO)	PERCENTAGE OF WRONG ANSWERS(FHS)
1	STREPTOMYCIN INJECTION	36	28	61%	62%
2	CASH ON HAND	34	25	57%	55%
3	CONDOMS	42	25	71%	55%
4	CHLORINE TABLETS	14	20	23%	44%
5	AMBU BAG	35	23	59%	51%
6	CHLOROQUINE	27	0	45%	0%
MATERNAL HEALTH					
1	INJECTION STREPTOMYCIN	37	45	62%	100%
2	DOTS KIT	31	45	52%	100%
3	TABLET ARTEESUNATE	41	24	69%	53%
4	INJECTION KANAMYCIN	27	24	45%	53%
NEONATAL HEALTH					
1	COWS MILK	0	0	0%	0%
2	CASH ON	31	31	52%	68%
3	HONEY AND STERILE WATER	0	0	0%	0%
4	OT SOLUTION	29	26	49%	64%
CHILD HEALTH					

1	QUININE	49	34	83%	75%
2	TAB. MEFIPROSTINE & MISOPROSTOL	32	28	54%	62%

3	TAB AZITHROMYC	34	29	57%	49%
ADOLESCENT					
1	CONDOMS	36	26	61%	57%
2	IUCD 380 A	35	24	59%	53%
3	PREGNANCY TESTING KIT	43	28	72%	62%
4	TABLET MESOPROSTO	31	33	52%	73%
5	TABLET PARACETAM	36	29	61%	64%
6	INJECTION KANAMYCIN	20	33	33%	73%
7	INJECTION STRPTOMYCI	28	26	47%	57%

Above table explains the percentage of respondents who gave answers to those questions which were wrong and purposefully included in the questionnaire. Many of the respondents gave incorrect answers, which was not according to 5*5 matrix of RMNCH+ A strategy.

This study is very straight-forward, whether health workers are aware about 5*5 matrix or not, it is just to know whether they know about minimum essential commodities which are required for service delivery.

Incorrect options were included in each section of the questionnaire, these options were not according to 5*5 matrix of RMNCH+A. Many of the respondents marked these options as correct according to them which shows that there is a prevalence of incorrect knowledge among health workers about RMNCH+A 5*5 matrix. It is more harmful in correct implementation of RMNCH+A strategy.

57 percent of MO's said cash on hand to ASHA worker and FHW is a part of 5*5 matrix under reproductive health. 55 percent of FHS marked condoms as a correct option under reproductive health and 44 percent said that chlorine tablet is a part of minimum essential commodities under 5*5 matrix of RMNCH+A.

100 percent of FHS had a wrong knowledge that DOTS kit is provided in RMNCH+A strategy in maternal health component, similarly 69 percent of MO's marked tablet artesunate as correct option under maternal health of RMNCH+A strategy as minimum essential commodities. 75 percent of FHS were wrongly aware that that quinine is included in this strategy.

Under Adolescent health component 61 percent of doctors said that condoms is minimum essential commodity under RMNCH+A and 59 percent of doctors said that IUCD 380 A is a part of adolescent health component under minimum essential commodities.

Percentage of wrong answers given was more prevalent in FHS as compared to Medical officers.

2.7 Discussion

As RMNCH+A includes five components ie Reproductive health, Maternal health, Neo-Natal health, Child Health and Adolescent Health and it is about continuum of care through out the life so we as a service provider are supposed to be have complete knowledge about RMNCH+A but it was not seen so in Kaimur district..

Knowledge of minimum essential commodities of RMNCH+A among medical officers

23 medical officers were not aware about tubal rings , 15 medical officers were not aware about IUCD 380 A and 7 medical officers were not aware about emergency contraceptive pills as a component in minimum essential commodities in reproductive health. 100 percent awareness was there about OCP and Nicshay kit.

Twenty nine medical officers were unaware about tab. Methyldopa , 22 were not aware about tab. Labetol and 19 were unaware about injection TT in maternal health component.

17 subjects were unaware about service of injection vit k at delivery and 11 were unaware about that mucous extractor as a subcomponent of neonatal health as minimum essential commodity. Complete awareness was observed in vaccination part.

Twenty three doctors were not aware about salbutamol inclusion in RMNCH+A matrix, 15 were not aware about inclusion of tablet zinc sulphate in 5*5 matrix of RMNCH+A. Even 12 doctors were unaware that ORS being used under this strategy.

Seventeen, twenty eight and eleven MO's did not knew the inclusion of albendazole, dicyclomine and sanitary napkins in RMNCH+A 5*5 matrix as minimum essential requirement for delivering service under adolescent health component respectively.

Knowledge of minimum essential commodities of RMNCH+A among Female Health Supervisors.

15 FHS were unable to recall the inclusion of tubal rings usage in RMNCH+A , 20 out of 45 were not aware about the inclusion of IUCD 380 A in reproductive health component of the new strategy. Similarly 14 supervisors were not aware

about OCP and Nischay kit as a service delivery component in 5*5 matrix respectively.

100 percent awareness was seen only for injection TT and IFA tablet among FHS about minimum essential requirement. For rest of the components under maternal health lack of awareness was noticed.

Only 28 FHS were aware about injection vit k inclusion in RMNCH+A matrix and 25 knew about mucous extractor as a minimum essential requirement under neonatal phase life.

High level of unawareness was seen about child health, none of the minimum required component was completely known to FHS.

Adolescent health which is a newly added was also least known by FHS twenty three, twenty six, twenty FHS out of 45 were not aware about albendazole, dicyclomine and sanitary napkins inclusion in minimum essential requirements of 5*5 matrix of RMNCH+A respectively.

2.8 Conclusion

The aim of the study was to check that current knowledge RMNCH+A 5*5 matrix among health workers of Kaimur is helping them in implementation of the strategy.

After analysis it was found that current knowledge about RMNCH+A is not sufficient in both medical officers as well as female health supervisors. Some of the important components of RMNCH+A 5*5 matrix were not known by both of the service providers which is not good for a high priority district like Kaimur where implementation of RMNCH+A at a good pace is needed. We can-not think of good implementation without good and complete knowledge. So we need to sensitize all the health force about RMNCH+A 5*5 matrix in order to deliver good results. Also with the help of this study we came to know about the prevalence of wrong knowledge, None of the medical officer had complete and correct knowledge about minimum essential commodities of RMNCH+A and similar pattern was seen in Female health supervisors. With current status of awareness in Kaimur District about RMNCH+A among health workers it can be concluded that a lot of investment is required in terms of training and knowledge up-gradation about this newly introduced strategy.

2.9 Ethical Considerations

- Respect of people's right and dignity
- Voluntary participation
- Purpose of the study was explained to all the subjects. They were told that the questionnaire is not be shared with anybody and the study is strictly for academic purpose. If they agree to it then questionnaire was distributed.
- The study will maintain the confidentiality of the respondents.
- Information received will not be misused in any form.
- The research work will try to maximize the benefits of the respondents.

2.10 Annexure

2.10.1 QUESTIONNAIRE FOR HEALTH WORKERS

KNOWLEDGE AMONG MEDICAL OFFICERS ABOUT RMNCH+A 5*5
MATRIX

FACILITY - 1) PRIMARY HEALTH CENTRE 2)

CHC DATE –

NAME –

DESIGNATION –

PHC-

CHC-

MOBILE NUMBER-

MEDICAL OFFICER – 1) M.B.B.S

2) AYUSH

Q1. What do you mean by RMNCH+A?

Q2. How many life stages are covered in

RMNCH+A? a) 2 b) 4 c) 6 d) 5 e)

6

Q3 Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

REPRODUCTIVE HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / x
3.1	TUBAL RINGS	
3.2	IUCD 38A	

3.3	CHLORINE TABLETS	
3.4	STREPTOMYCIN INJECTION	
3.5	CASH ON HAND	

3.6	OCP/ MALA N	
3.7	CONDOMS	
3.8	EMEGENCY CONTRACEPTIVE PILLS	
3.9	NISCHAY KIT	
3.10	CHLOROSCOPE	
3.11	AMBU BAG	
3.12	CHLOROQUINE TABLET	

Q4. Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

MATERNAL HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / x
4.1	INJECTION OXYTOCIN	
4.2	INJECTION MAGNESIUM SULPHATE	
4.3	INJECTION TT	
4.4	TAB. MESOPROSTOL	
4.5	TAB. METHYLDOPA	
4.6	TABLET AND INJECTION LABETALOL	
4.7	INJECTION STREPTOMYCIN	
4.8	DOTS KIT	
4.9	INJECTION ARTEESUNATE	
4.10	INJECTION KANAMYCIN	
4.11	IFA TABLET	

Q5. Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

NEWBORN HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / X
5.1	INJECTION VITAMIN K	
5.2	COW'S MILK	
5.3	CASH ON HAND OF FHW	
5.4	SYRUP VITAMIN A	
5.5	HONEY & STERILE WATER	
5.6	MUCOUS EXTRACTOR	
5.7	ROUTINE IMMUNIZATION	
5.8	OT SOLUTION	

Q.6 Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

CHILD HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / X
6.1	SYRUP ALBENDAZOLE	
6.2	VITAMIN A	
6.3	SALBUTAMOL	
6.4	INJECTION QUININE	
6.5	TAB. ZINC SULPHATE (60 mg)	
6.6	ORS	
6.7	TAB. MEFIPROSTONE	
6.8	ROUTINE IMMUNIZATION	
6.9	TAB AZITHROMYCIN	

Q7. Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

ADOLESCENT HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / X
7.1	Condom	
7.2	ALBENDAZOLE	
7.3	IUCD 380 A	
7.4	Pregnancy test kit	
7.5	DICYCLOMINE	
7.6	Sanitary Napkin	
7.7	Tab. MEFIPROSTONE & MESOPROSTOL	

SIGNATURE OF RESPONDENT
OF INVESTIGATOR

SIGNATURE

2.10.2 QUESTIONNAIRE FOR HEALTH WORKERS

KNOWLEDGE AMONG FHS ABOUT RMNCH+A 5*5 MATRIX

FACILITY - 1) PRIMARY HEALTH

CENTRE DATE –

NAME –

DESIGNATION –

PHC-

MOBILE NUMBER-

Q1. What do you mean by RMNCH+A?

Q2. How many life stages are covered in

RMNCH+A? a) 2 b) 4 c) 6 d) 5 e)

6

Q3 Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

REPRODUCTIVE HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / x
3.1	ट्यूबल छल्ले	
3.2	IUCD 38A	
3.3	क्लोरीन की गोलियाँ	
3.4	स्ट्रेप्टोमाइसिन इंजेक्शन	
3.5	हाथ पर 3.5 नकदी	

3.6	ओसीपी / माला एन	
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3.7	कंडोम	
3.8	EMEGENCY गर्भनिरोधक गोलियां	
3.9	NISCHAY किट	
3.10	CHLOROSCOPE	
3.11	अम्बु बैग	
3.12	क्लोरोक्वीन गोली	

Q4. Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

MATERNAL HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / x
4.1	इंजेक्शन ऑक्सीटोसिन	
4.2	इंजेक्शन मैग्नीशियम सल्फेट	
4.3	इंजेक्शन टीटी	
4.4	टैब। MESOPROSTOL	
4.5	टैब। मिथाइलडोपा	
4.6	गोली और इंजेक्शन LABETALOL	
4.7	इंजेक्शन स्ट्रेप्टोमाइसिन	
4.8	डॉट्स किट	
4.9	इंजेक्शन ARTEESUNATE	
4.10	इंजेक्शन kanamycin	
4.11	आइएफए गोली	

Q5. Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

NEWBORN HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / X
5.1	इंजेक्शन विटामिन	
5.2	गाय का दूध	
5.3	FHW के हाथ में नकदी	
5.4	सिरप विटामिन ए	
5.5	हनी और बाँझ पानी	
5.6	श्लेष्मा चिमटा	
5.7	दिनचर्या प्रतिरक्षण	
5.8	ओटी समाधान	

Q.6 Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

CHILD HEALTH

S.NO	ESSENTIAL REQUIREMENTS	✓ / X
6.1	SYRUP ALBENDAZOLE	
6.2	विटामिन ए	
6.3	सैल्बुटामोल	
6.4	इंजेक्शन कुनैन	
6.5	टैब। जिंक सल्फेट (60 मिलीग्राम)	
6.6	ओआरएस	
6.7	टैब। MEFIPROSTONE	
6.8	दिनचर्या प्रतिरक्षण	

6.9	टैब azithromycin	
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Q7. Please tick the option you think is correct according to RMNCH+A 5*5 matrix.

ADOLESCENT HEALTH

S.NO	आवश्यक आवश्यकताएं	✓ / X
7.1	कंडोम	
7.2	ALBENDAZOLE	
7.3	IUCD 380 A	
7.4	गर्भावस्था परीक्षण किट	
7.5	DICYCLOMINE	
7.6	सैनिटरी नैपकिन	
7.7	गोली MEFIPROSTONE और MESOPROSTOL	

SIGNATURE OF RESPONDENT
OF INVESTIGATOR

SIGNATURE

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