Internship

At

PIRAMAL SWASTHYA, RAJSTHAN

Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in Chhabra (Rajasthan)

By

Gulshan kumar
PG/19/032

Under the guidance of

Dr. Vinay Tripathi

(Associate Professor, IIHMR New Delhi)

Post Graduate Diploma in Hospital and Health Management

2019-21

The certificate is awarded to

Gulshan kumar

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

Operations

and has successfully completed her Project on

Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in Chhabra (Rajasthan)

1st March 2021-30th April 2021

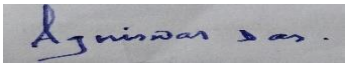
At

Piramal Swasthya, Rajasthan

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

We wish him all the best for future endeavors.

Training & Development **Zonal Head-Human Resources**



TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Gulshan kumar** student of PGDM (Hospital & Health Management) from International Institute of Health Management Research; New Delhi has undergone internship training at **Piramal Swasthya, Rajasthan** from **1st March 2021 to 30th April 2021.**

The Candidate has successfully carried out the study designated to his 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 her future endeavors.

Ms. Divya Aggarwal
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi

Mentor
Dr. Vinay Tripathi
Associate Professor
IIHMR, New Delhi

Certificate of Approval

The following dissertation titled

"**Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in Chhabra (Rajasthan)**"

At

"**Piramal Swasthya, Rajasthan"**

is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name	**Signature**
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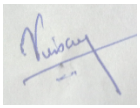
Certificate from Dissertation Advisory Committee

This is to certify that **Gulshan Kumar,** a graduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. He is submitting this dissertation titled **"Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in Chhabra (Rajasthan)" at "Piramal Swasthya, Rajasthan"** in partial fulfillment of the requirements for the award of the **PGDM (Hospital & Health Management).**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.



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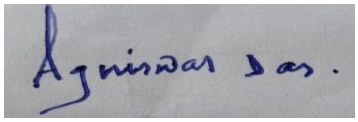


Agniswar Das
State Transformation Manager
Piramal Swasthya, Rajasthan

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled

"**Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in Chhabra (Rajasthan)**"

At

Piramal swasthya, Rajasthan

Submitted by Gulshan kumar

Enrollment No. PG/19/032

Under the supervision of **Dr. Vinay Tripathi, Assistant Professor** for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from **1st March 2021 to 30th April 2021** 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 :- Gulshan Kumar

FEEDBACK FORM

Name of the Student: Gulshan Kumar

Dissertation Organization: PIRAMAL SWASTHYA, RAJASTHAN

Area of Dissertation: Operations

Attendance: Satisfactory.

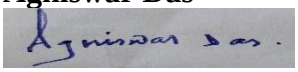
Objectives achieved: Successfully completed the research objectives within given timeline.

Deliverables: Attended model VHSNDs and facilitated the activities of VHSNDs in close coordination with frontline Health workers. Data collection on Growth monitoring and data of FRU along with COVID Management work assigned by block and District.

Strengths: Dedicated and Eagerness to learn.

Suggestions for Improvement: Found sincere and hardworking ,more to work on Technical aspects of Health system stregthening .

State Transformation Manager
Agniswar Das



Acknowledgement

Any attempt at any level cannot be satisfactorily completed without the support and guidance of learned people. I would like to take this opportunity to thank Piramal Swasthya, Rajsthan for giving me opportunity to complete my dissertation.

I would like to express to my immense gratitude to **Agniswar Das (State Transformation Manager) Piramal Swasthya, Rajasthan,** for providing support and guidance for my learning at Piramal swasthya Rajsthan and for directing my thoughts and objectives towards the attitude that drives to achieve and other aspects that one as novice needs to be acquainted with.

I am glad to acknowledge Piramal Swasthya, Rajasthan and **Dr. Vinay Tripathi** (Mentor), IIHMR New Delhi for incorporating right attitude into me towards learning and for helping and supporting whenever required. I am grateful to them for giving me an opportunity to learn administrative tricks and styles, so I come to know how a health caters their people successfully and how a hospital, NHM, NUHM, gives quality treatment to patient/people.

Lastly, I thank all the employee of BCMO office and ICDS office of Chhabra Block, Piramal Swasthya, Rajsthan, all Front-line workers, i.e. AWWs, ASHAs and ASHAs in respective villages, for being a constant source of support and guidance during the data collection in their block & village respectively.

Gulshan kumar

Table of Contents

List of Figures

List of Symbols & Abbreviations

FLHWs	Front Line health worker
ANM	Auxiliary nurse midwife
AWW	Anganwadi Worker
ASHA	Accredited Social Health Activist
ICDS	Integrated Child Development Services
HWC	Health care worker
MERS-CoV	Middle East respiratory syndrome coronavirus
AWH	Anganwadi Helper
CoV	Coronavirus
WHO	World Health Organization
PRIs	Panchayati Raj Institutions
THR	Take Home Ration
SHGs	Self Help Groups
PHC	Primary Health Centre
CHC	Community Health Centre
FRU	First Referral Unit
BCMO	Block community medical officer
MMR	Maternal Mortality Ratio
M & E	Monitoring and Evaluation
LS	Lady Supervisor
CDPO	Child Development Programme Officer
DPO	District Programme Officer
MoHFW	Ministry of Health and Family Welfare
MoWCD	Ministry of Women and Child Development
IEC	Information Education Communication
BCC	Behaviour Change Communication
IFA	Iron Folic Acid
MDGs	Millennium Development Goals
ANMs	Auxiliary Nurse midwives
MOs	Medical Officers
BRG	Block Resource Group
PNC	Post Natal Care
ECD	Early childhood Development
DCR	District Control Room
BCR	Block Control Room

CAS	Common Application Software
AAA	ASHA, AWW & ANM
ENMR	Early Neonatal Mortality Rate
NMR	Neonatal Mortality Rate
AARR	Average Annual Rate of Reduction
NRHM	National Rural Health Mission
NHM	National Health Mission
SRS	Sample Registration System
LBW	Low Birth Weight
GNI	Gross National Income
GDP	Gross Domestic Product
NCD	Non-Communicable Disease
INAP	Indian Newborn Action Plan
KMC	Kangaroo Mother Care
U5MR	Under Five Mortality Rate
MOIC	Medical Officer In charge
FLWs	Frontline Workers

Organization Profile

Piramal foundation is the philanthropic arm of piramal group the foundation undertakes projects under the four broad area healthcare, education, and water & youth empowerment. These projects are rolled out in partnership with various NGOs & government bodies. It was founded in 2006 & headquarter is in Mumbai, Maharashtra india. Key people are Ajay & swati piramal.

Piramal swasthya is one of the big projects of piramal group. Piramal swasthya is association with national health mission. The focus is to reduce MMR & IMR. & focusing on bridging public healthcare gaps by supplementing and completing government of india's vision to meet universal health care for all. In the primary public health care space with focuses on maternal health, child & adolescent health, non-communicable disease. Piramal swasthya has over a decade long experience in operating several healthcare innovations at scale which are addressing primary health care need of most underserved and marginalized population across India.

Piramala swasthya is operational in 20 states in India through 35 innovation public health care delivery program and has served more than 10.7 cores beneficiaries thus far with its service designed to reach the last village and & last house hold. Piramal swasthya is association with the NITI AAYOG in order to transform the healthcare facility, education and all. & piramal swasthay has a MOU with the Jphegio group & working fatherly with the motherhood project in district.piramala is committed to make health care affordable accessible and available to all but also to ensure that it is complete continuous & comprehensive project.

There is sub-district hospital in Taloda, Nandurbar. It is 30 bedded government hospital having, Labor room, Maternal OT, Exclampsia room, KMC room etc. Labour Room at the Hospital is a 24X 7 functional unit that is manned by a team of efficient staff, (Medical Officer, Nursing staff and group D staff). The labour room provides free services to all its inpatients and referred patients from close by public health facilities.

Vision: Safe, reliable, high-quality care for every patient every day in competitive environment

Mission: To provide exception healthcare service in a safe and trustful environment, through the expertise, commitment, and compassion of our family of care provider to all community at affordable rate.

Objective:

a. To provide diagnostic, curative and rehabilitative obstetric services to ensure the safe delivery in terms with reducing infant as well as maternal mortality and morbidity.
b. To provide timely and continuous nursing care to all pregnant mother and new born.
c. To adopt infection control practices to ensure a safe and hygienic environment of care.
d. To provide care in terms with adherence to patient rights.

To adopt all infrastructural & process regulations like id tags for mother & newborn, visitor regulations, 24X7 availability of security personnel for providing safe care to patients.

Service lines provide

Piramal Swasthya:- an initiative of Piramal Foundation, is one of the largest not-for-profit organizations in India working in the primary public health care domain with a focus on improving maternal, child and adolescent health and reducing non-communicable diseases (Diabetes Mellitus, Hypertension, Oral, Breast and Cervical Cancers).

From supplementing the existing Healthcare System to advocating changes in it, Piramal Swasthya endeavors to bridge the last mile gap in primary healthcare service delivery through its innovative solutions.

It is one of the largest implementers of Public Private Partnership (PPP) programmes in India. Such collaborations enable Piramal Swasthya to complement and supplement the government's healthcare delivery efforts while empowering communities. The solutions provided mitigate issues of accessibility and availability in remote areas, and also serve as a platform through which technology enabled quality healthcare services can be rendered and customized to fulfill specific needs of the society.

Starting with a pilot in Andhra Pradesh in 2007, Swasthya has spread its reach to now cover 16 states in India.

Piramal Foundation for Education Leadership (PFEL):- Piramal Foundation for Education Leadership (PFEL) is a change management organization working in the field of education. PFEL started its intervention in 2008 with a focus to improve learning outcomes in public schools in India by supporting Public Education System Leaders to cause self and systemic behavior change through:

Developing Leadership Skills: PFEL works closely with the District Education officials, Principals and Teachers across 5 states to develop their leadership skills by conducting workshops on leadership development, implementing Need-based Assessment Tools and providing on field support with our Gandhi fellows.

Improving Processes: PFEL works closely with the Principals, Teachers and officials of Public Education system to improve processes in schools and the school administration system such as Library, Assembly, Mid-Day Meal, BAL Sabha, distribution of free items for schools, delivery of teaching-learning material, officials' recruitment and induction process etc.

Deploying Technology: PFEL supports Education officials, Principals and Teachers by implementing unified scalable technology solutions which provide an assessment based digital learning, remote support, and encourages group learning for Education officials.

Piramal School of Leadership is a training facility located in Jhunjhunu, Rajasthan, India. Established in 2013 by PFEL, as a unique training center to spearhead education leadership in India, Piramal School of Leadership offers services to develop leadership skills and relevant knowledge by training government teachers, headmasters, resource persons, block/district administrators and youth in order to positively impact the quality of education in schools. PFEL runs Gandhi Fellowship program, a professional program in transformational leadership for young social entrepreneurs. PFEL provides youth with the opportunity for personal transformation through self-discovery and thereby, leads social transformation.

Gandhi Fellowship provides a platform for youth who wish to:

- Engage themselves on grass root action
- Discover themselves
- Find purpose in their work
- Develop market relevant skills

Through the Fellowship the youth develop self-awareness, leadership skills and the acumen to solve social problems to impact lakhs of lives.

Gandhi Fellows are recruited from top colleges across the nation. Gandhi Fellows undergo a rigorous 5-stage selection process, picking the most qualified students who excel in academics and extracurricular activities, from top colleges across India. The Fellow cohort is an amalgamation of rural and urban backgrounds, with the right gender balance.

The selection process is intense and diverse. The process tests the candidates on whether they have the grit, mindset, problem solving capabilities and the motivation to become next nation builders.

Piramal Sarvajal is a mission driven social enterprise which designs and deploys innovative solutions for creating affordable access to safe drinking water in underserved areas.

Piramal Sarvajal has designed and deployed decentralized community level drinking water set-ups which provide 24x7 accesses even in remote rural areas. Piramal Sarvajal sets up community level solutions that are locally operated but centrally managed on a market based pay per use system. Sarvajal is purification technology agnostic, leveraging cloud based technology for greater operational oversight. As such, its initiatives are low cost and high impact.

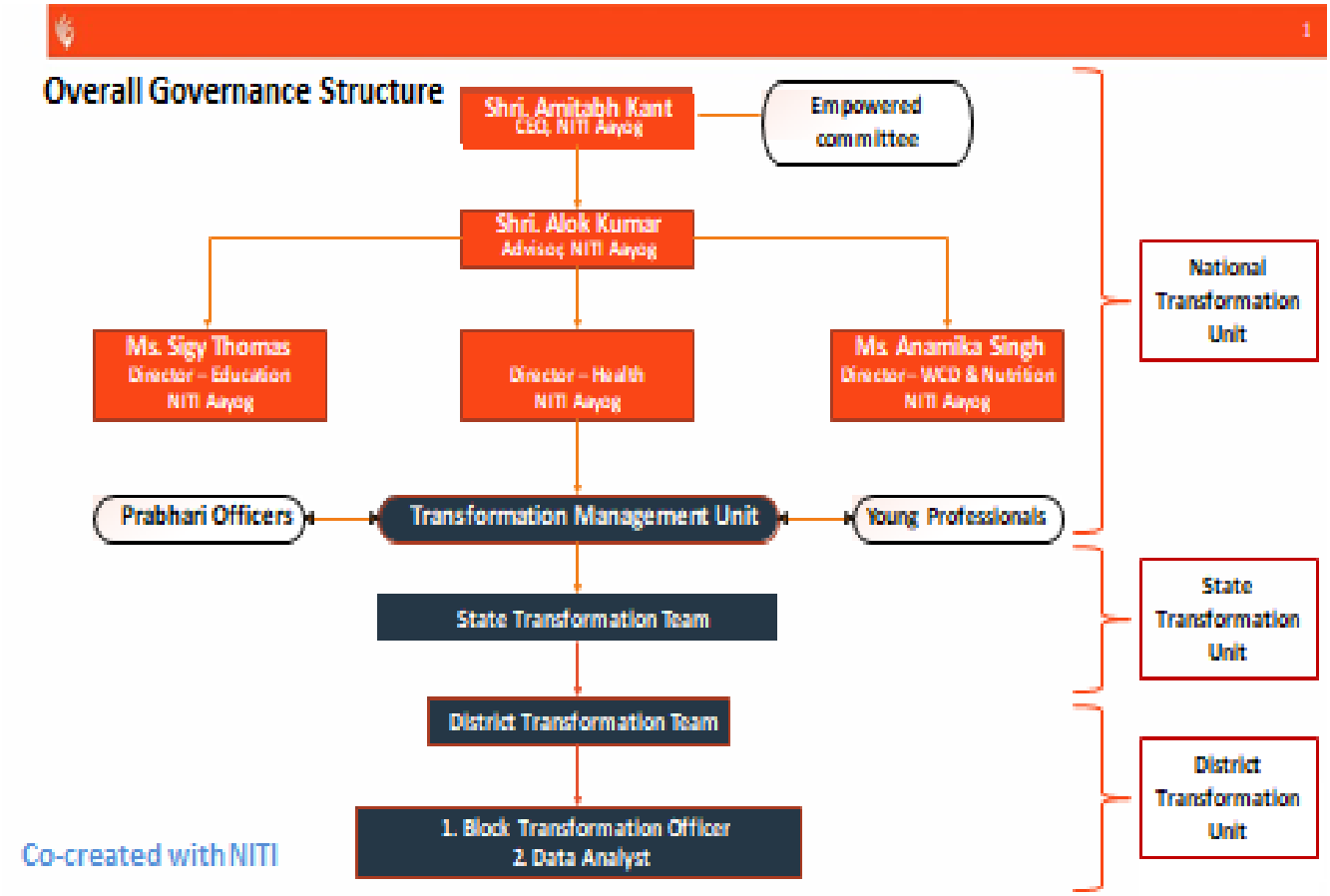
India has more than 6 lakh villages with population density varying from a lakh to a few hundreds. This brings its own set of challenges towards ensuring viability of the water set-up. Piramal Sarvajal has developed varying models keeping in mind these challenges.

Achievement

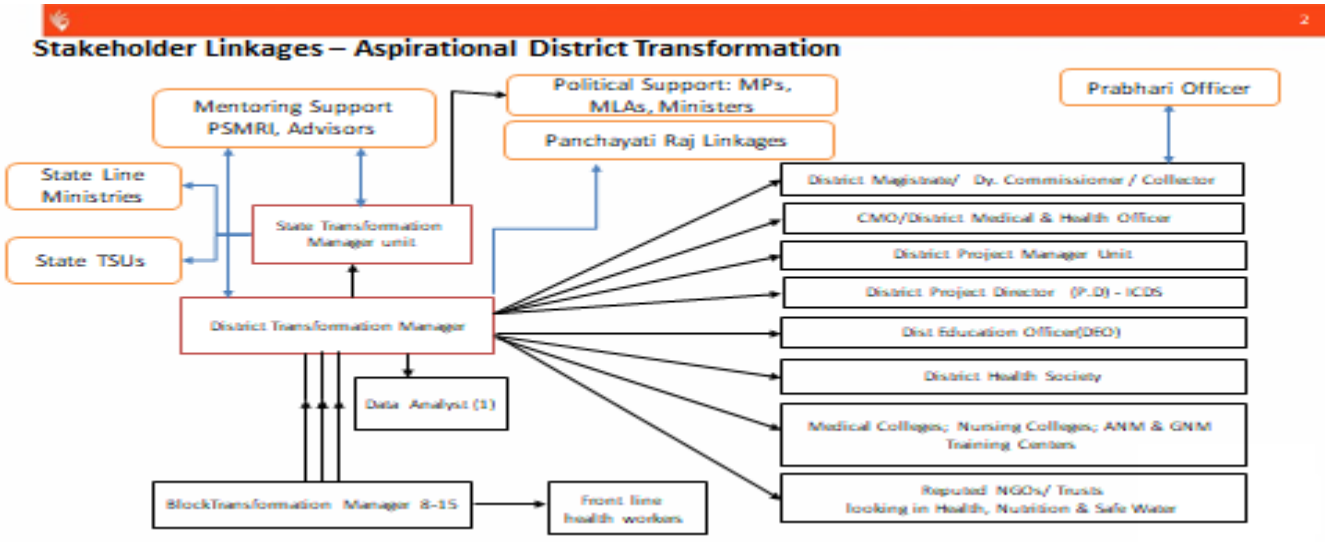
- Piramal Swasthya has been awarded USAID Inclusive Access Health Prize at the United Nations General Assembly event "Locally leading the way to UHC" (Universal Health Coverage).
- Piramal Swasthya recognized at Outlook Poshan Awards 2019 for its nutrition interventions in Andhra Pradesh
- Won the best poster presentation awards at "FICCI HEAL2019 – Transforming healthcare Federation of Indian Chambers of Commerce & Industry (FICCI)" for operating a large-scale mobile healthcare program in rural India.
- 2018 "Chandranna Sanchara Chikitsa" has won the SKOCH Gold Award under the Swasth Bharat Category and also the SKOCH ORDER-OF-MERIT Award for qualifying amongst Top-50 Swasth Bharat Projects in India.
- 2017 "CSR Health Impact Award 2017" in the category of "Health CSR Project of the Year" presented By Paras Healthcare (supported by Apollo Hospitals)
- 2016 "Community Healthcare organization" of the year award 2016 at the Amul-Medics-Times Now India, Health & Wellness Summit.
- 2016 "Express Public Health Award" 2016 under corporate contributions to public health for providing Health Information Helpline & Mobile Health Services in several states under PPP
- 2015 Times of India "Social Impact Award" under Corporate NGOs category for Healthcare

- 2014 Skoch Order-of-Merit Award, ”India’s Best Governance Projects” for Health Advice Call Centre, Government of Maharashtra
- 2013 eGovernance Award for Health Advice Call Centre, Government of Maharashtra
- 2012 eIndia, ehealth Award, “Best Public Private Initiative” of the Year for 104 Health Information helpline
- 2011 eWorld Forum, Jury Choice Award for “Best ICT Initiative in Improving Maternal Health” forAsara© Telehealth Services
- 2011 NASSCOM and KPMG, Healthcare IT Awards, “Best Technology Solution for Healthcare Inclusion” for Asara© Telehealth Services
- 2010 EdelGive, Social Innovation Honors, “Health and Well Being” for Asara© Telehealth Solutions
- 2010 NASSCOM, Social Innovation Honors, “ICT-led Innovation by Non-profit Organizations” for 104 Health Information Helpline

Organization structure



Stakeholder Linkages – Aspirational District Transformation



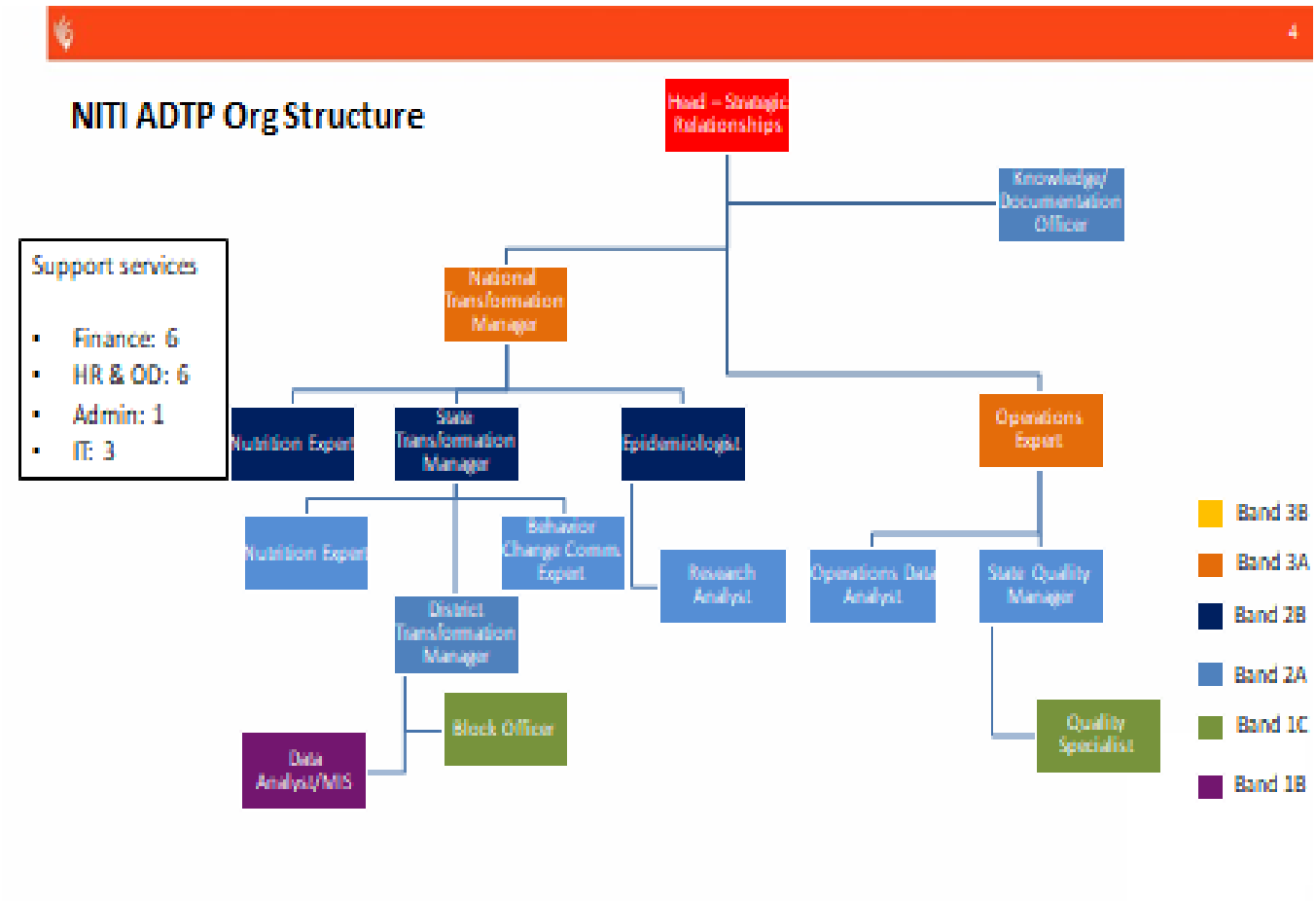
Organization Structure – Swasthya

Team at NITI (6)
Public Health Specialist – National
Transformation Manager (1)
Operations Management Expert (1)
Epidemiologist (1)
Nutritionist (1)
Research Analysts (2)

Team at State HQ (5)
Public Health Operations Specialist (1)
Behavior change communication expert (1)
Nutritionist (1)
State Quality Manager (1)
Quality Specialist (1)

Team at District Level (2)
Public Health Operations Specialist (1)
Data Analyst (1)

Team at Block Level (1)
Block Transformation Officer (1)


4
NITI ADTP Org Structure
Head – Strategic Relationships
Knowledge/ Documentation Officer
National Transformation Manager
Support services
Finance: 6
HR & OD: 6
Admin: 1
IT: 3
Nutrition Expert
State Transformation Manager
Epidemiologist
Operations Expert
Nutrition Expert
Behavior Change Comm. Expert
Research Analyst
Operations Data Analyst
State Quality Manager
District Transformation Manager
Block Officer
Data Analyst/MIS
Quality Specialist
Band 3B
Band 3A
Band 2B
Band 2A
Band 1C
Band 1B

Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in chhabra (Rajasthan)

Abstract

Background:

The coronavirus disease 2019 (COVID-19) outbreak spread to over 100 countries in the first week of March, with over 100,000 cases. Health-care authorities around the world have also started raising awareness and preparing for disasters. A lack of understanding of the disease among healthcare workers (HCWs) could result in delayed treatment and infection spread. COVID-19 not only killed people through virus incursion but also due to economic and mental collapse, where developing countries suffered from unemployment and hunger. The COVID-19 pandemic caused by severe acute coronavirus 2 (SARS-CoV-2) has become one of the most important health problems in recent history affecting more than 50 million people globally. The novel Coronavirus (2019-nCoV, officially known as SARS-CoV-2 or COVID-19) was first reported in December 2019, as a cluster of acute respiratory illness in Wuhan, Hubei Province, China, from where it spread rapidly to over 198 countries. "The first case of COVID-19 was detected in India in January when WHO declared the novel Coronavirus outbreak as a Public Health Emergency of International concern". "Current evidence suggests that SARS-CoV-2 is transmitted predominantly from person to person through respiratory secretions in small droplets when in close contact or by touching contaminated surface or objects (WHO 2020b). The cornerstone of the Indian public healthcare system largely depends on the grassroots level trained female community workers known as FLWs (ASHA, AWW and ANM). In India, FLWs (ASHA, AWW and ANM) are the primary frontline workers disseminating awareness and ensuring the recommended preventive measures in the community. They represent an interface between the community and the health facilities forming the primary care delivery system. In this crisis, the WHO recommends preventive measures including social distancing, regular hand washing and maintaining respiratory etiquette (WHO 2020c). With the surge of COVID-19 cases in India, awareness of the disease transmission and infection control measures as implemented by the Govt. of India needs proper dissemination among the communities and this is facilitated by the FLWs In addition to this, lack of adequate knowledge has been directly associated with negative attitude, practice and unwillingness to work with the healthcare workers. Therefore, the present study was conducted to assess the knowledge and practices of FLWs during the COVID-19 Pandemic."

Methods:

A cross sectional study was conducted in Chhabra block district Baran of Rajasthan. The study was conducted from 1st march to 30th April 2021.Data was collected by interviewing ANM, ASHA and AWW over the phone and also by using Google form. Interviews were carried out for those ASHAs and AWWs who did not have smart phones or internet connectivity

Result:

The total number of FLWs (ANM, ASHA and AWW) is 412. 272 FLWs was able to participate in the study out of 412 FLWs. Most participants were Between 30 to 40 of age. The majority of the participant was AWW (224) out of 224 AWW 174(77%) AWW participated in the study and then ASHA (160) out of 160 ASHA78 (49%) ASHA participated in the study and then ANM (28) out of 28 ANM 20 (71%) ANM participated in the study. The majority of the FLWs agree that maintaining hand hygiene, covering the nose and mouth while coughing, and avoiding sick patients could help to prevent COVID-19 transmission. However, participants' knowledge of questions related to the mode of transmission and the incubation period of COVID-19 was very good.

Conclusion:

In this study it was observed that 85.74% FLWs had adequate knowledge and, 93.92% FLWs adhered to the good practices. FLWs are good in practice but in knowledge they are supposed to more than 95%.

Keywords:-

Knowledge, practice, FLHWs (front line Health workers), ASHA, AWW and ANM.

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INTRODUCTION

“FLHWs, also known as Community Health Workers, deliver health services directly to communities where access is typically limited. “FLHWs are women from the communities they serve in India, and they serve as an important link to health facilities by providing services to people's homes. The Ministry of Health and Family Welfare (MoHFW) and the Ministry of Women and Child Development (MoWCD) are responsible for three types of FLWs in India (MoWCD). Covid (CoV) diseases are arising respiratory infections that are known to cause ailment going from the regular cold to serious intense respiratory disorder (SARS). CoV is a zoonotic microbe that can be sent by means of creature to-human and human-to-human collaborations. Numerous scourge flare-ups happened in 2002 (SARS), with roughly 800 passing, and in 2012 (Middle East respiratory disorder Covid, MERS-CoV), with 860 passing. The tale Coronavirus (2019-nCoV, formally known as SARS-CoV-2 or COVID-19) was first announced in December 2019, as a bunch of intense respiratory ailment in Wuhan, Hubei Province, China, from where it spread quickly to more than 198 nations. It was announced as a worldwide pandemic by WHO on twelfth March 2020. On January 30, 2020, the World Health Organization (WHO) proclaimed COVID-19 a general wellbeing crisis of global concern. Amazingly, during the primary seven day stretch of March, an overwhelming number of new cases were accounted for around the world, COVID-19 arose as a pandemic. As of March 12, 2020, in excess of 125,000 affirmed cases across 118 nations and more than 4600 death had been accounted for. Coronavirus is spread by human-to-human transmission through drop, feco-oral, and direct contact and has a brooding time of 2-14 days. Medical services laborers (HCWs) are the essential area in touch with patients and are a significant wellspring of openness to tainted cases in medical services settings; subsequently, HCWs are required to be at high danger of disease. Before the finish of January, the WHO and Centers for Disease Control and Prevention (CDC) had distributed suggestions for the counteraction and control of COVID-19 for HCWs. The WHO likewise started a few web based instructional meetings and materials on COVID-19 in different dialects to fortify preventive procedures, remembering bringing issues to light and preparing HCWs for readiness exercises. In a few occurrences, misconceptions among HCWs have deferred controlling endeavors to give important treatment, prompted the fast spread of disease in emergency clinics, and put patients' lives in danger. Information can impact the view of HCWs because of their past encounters and convictions. Undoubtedly, it can postpone acknowledgment and treatment of potential COVID-19 patients during the pandemic time frame. Be that as it may, the degree of information and practices of HCWs toward COVID-19 stay indistinct. In such manner, the COVID-19 pandemic offers a novel chance to research the degree of information and practices of FLWs (ANM, ASHA and AWW) during this worldwide wellbeing emergency. Furthermore, we intend to investigate FLWs (ANM, ASHA and AWW) wellspring of data of COVID-19 during this pinnacle period.

"Cutting edge Health Workers (FLWs), otherwise called Community Health Workers (CHWs), are the individuals who convey wellbeing administrations to networks where access is commonly restricted. FLWs are for the most part ladies from the networks they serve in India, and they fill in as a significant connection to wellbeing offices by offering types of assistance to individuals' homes. The Ministry of Health and Family Welfare (MoHFW) and the Ministry of Women and Child Development (MoWCD) are the two services answerable for FLWs in India".

Objective

- **To assess knowledge about COVID19 among the Front Line Health Workers.**
- **To assess practices with respect to adherence to COVID 19 appropriate behaviors among the Front Line Health Workers.**

Literature Review

Literature 1

"Assessment of Knowledge, Attitudes, and Perception of Health Care Workers Regarding COVID-19, A Cross-Sectional Study from Egypt"

"The 1,026 responses comprised of 558 HCWs (54.4%) and 468 GPPs (45.6%) were present in the study. The most reliable source of information was TV news for 43% GPPs, whereas it was HCWs/Local health authorities for 36.8% HCWs".

Literature 2

"Assessment of knowledge, attitude and practices among Accredited Social Health Activists (ASHAs) towards COVID-19: a descriptive cross-sectional study in Tripura, India"

"In this study it was observed that only 10% of the ASHAs had adequate knowledge, 30.9% showed positive attitude and 88% adhered to the good practices".

Literature 3

"Knowledge and Perceptions of COVID-19 among Health Care Workers: Cross-Sectional Study"

"The findings of this study suggest a significant gap between the amount of information available on COVID-19 and the depth of knowledge among HCWs, particularly about the mode of transmission and the incubation period of COVID-19".

Literature 4

"Assessment of knowledge gaps and perceptions about COVID-19 among health care workers and general public-national cross-sectional study"

"The results show that HCWs had moderate level of knowledge, whereas GPPs had low to moderate knowledge about the COVID-19 infection and its preventive aspects, with large scope of improvement in both the groups. This study emphasizes the need to intensify the awareness program by community-based health education program, particularly among lower SES and training of HCWs, particularly the paramedics".

Literature 5

"Knowledge, attitude and practices towards COVID-19 among Indian residents during the pandemic: A cross-sectional online survey"

"In this study, more the 90% were optimistic about pandemic control. But accuracy for knowledge was around 75% and less than 50% respondents had 80% knowledge

score, thus reflecting inadequate information about COVID-19. The knowledge score had significant association with optimism, adherence to preventive and control measures. Around 75% followed the recommended guidelines of hand hygiene and a few (5%) didn't follow lockdown restrictions".

Methodology

Study Design:

- A cross sectional study

Study Location:

- Block: - Chhabra, Dist.:- Baran, Sate: - Rajasthan.

Study Duration:

- 1st March 2021 to 30th April 2021.

Study Population:

- The study participants included all FLHWs.
- ANM (20)
- ASHA (78)
- AWW (174)

Data Collection:

- A Google from link was distributed to all the FLHWs on Whatsapp by the help of BCMO and Lady Supervisor (LS) and the participants were requested to fill the form.
- Data is collected by interviewing ANM, ASHA and AWW over the phone.

Study variables:

- The questionnaire covered demographic details of the FLHWs like name, age, gender and education.
- "Knowledge section of the questionnaire consisted of 23 questions for AWW and ASHA, AND 25 questions for ANM about COVID-19 symptoms, mode of transmission, risk factors, hand washing, body temperature, and range level of

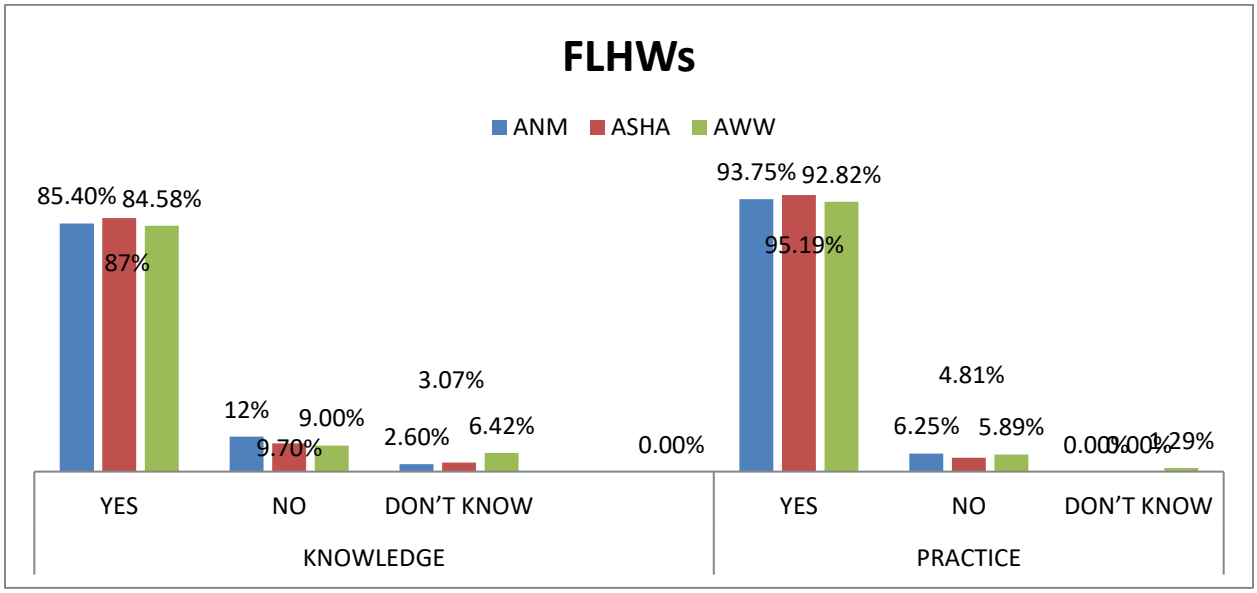
oxygen, vaccine, basic medicine and prevention. The answer for each question was either yes, no or don't know".

- "The practice section of the questionnaire consisted of 8 questions to understand the implementation of the recommended practices in field during the pandemic". The answer for each question was either yes, no or don't know.

Data Analysis:

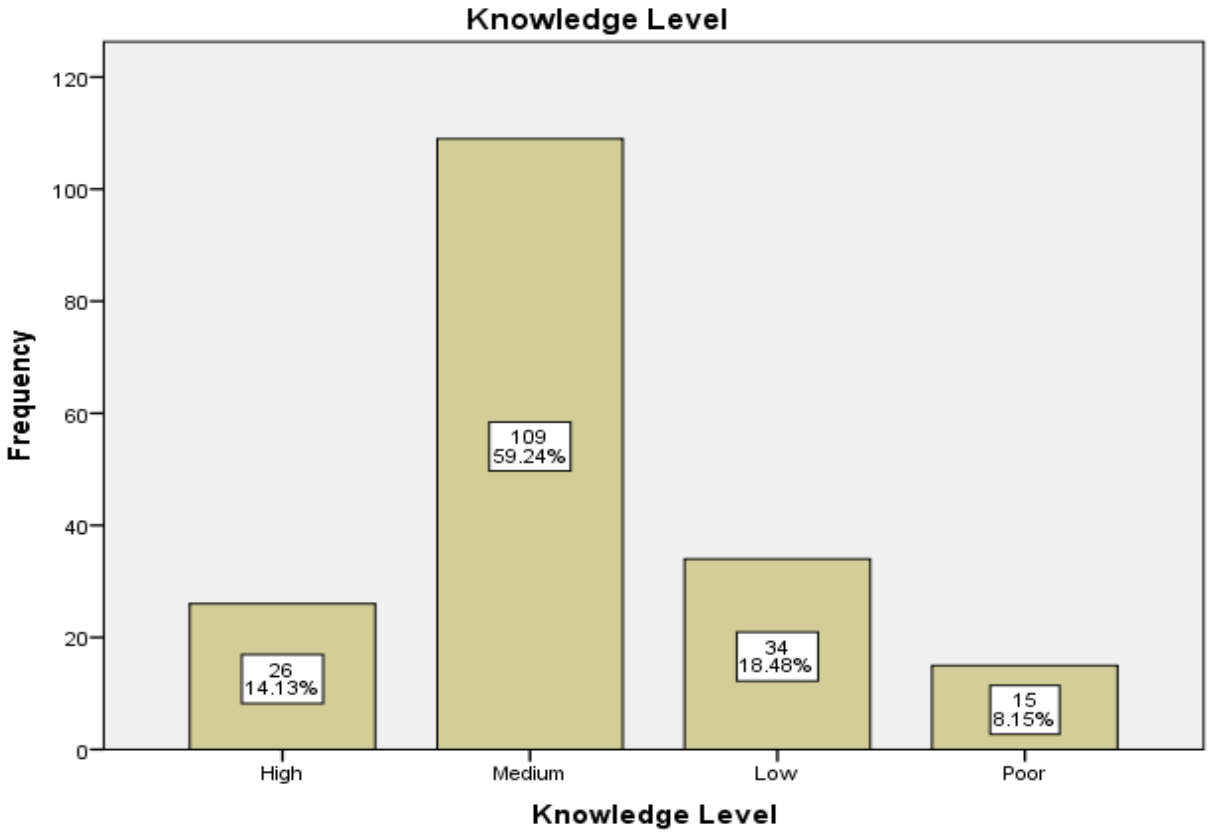
- The collected data was compiled and analyzed using Microsoft Office Excel.

FLHWs

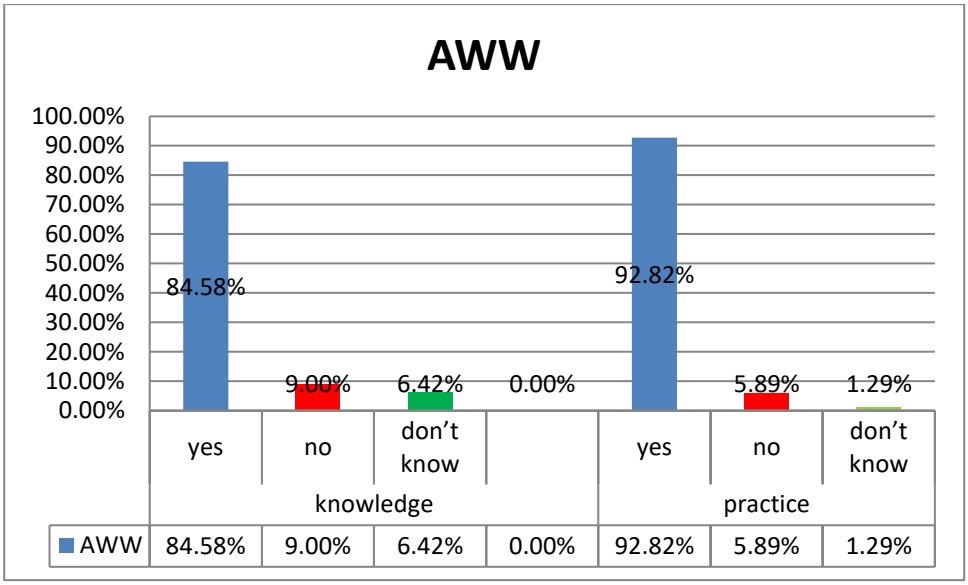


Graph 1 shows the average percentage of Knowledge and Practices of FLHWs.

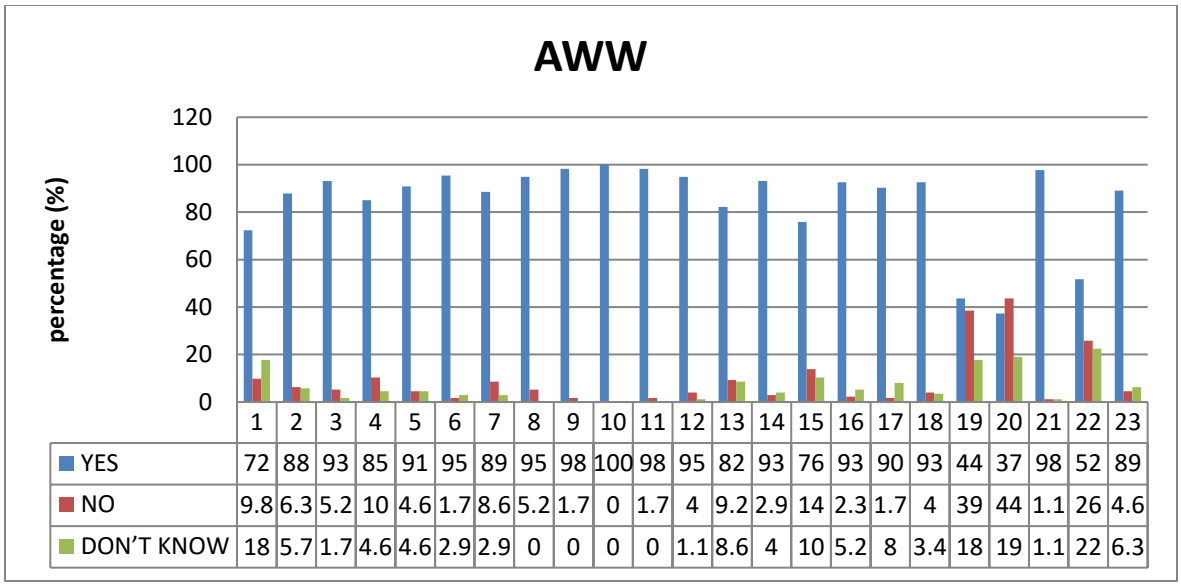
This table shows Overall knowledge level



AWW

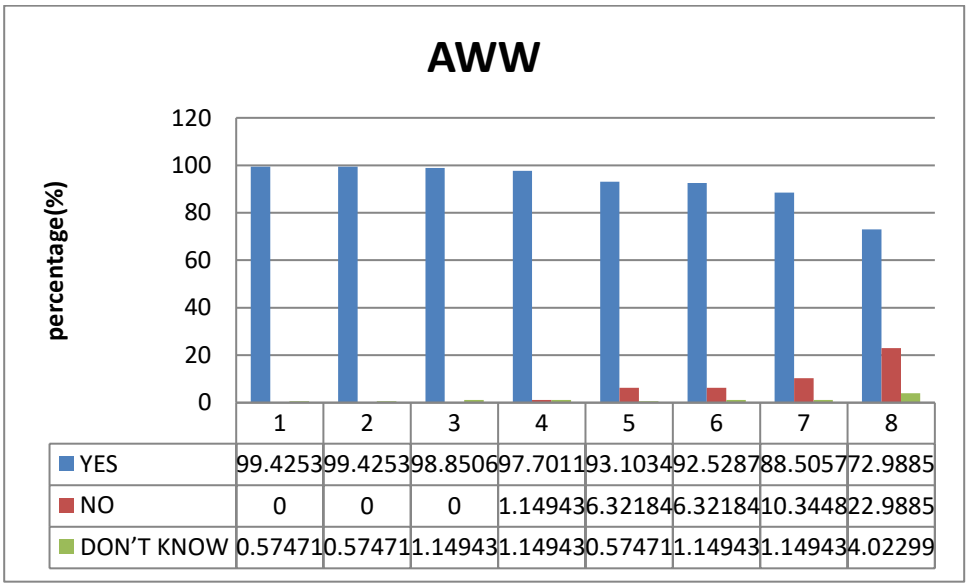


Graph2 show the average percentage of knowledge and practice of AWW



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
YES	72	88	93	85	91	95	89	95	98	100	98	95	82	93	76	93	90	93	44	37	98	52	89
NO	9.8	6.3	5.2	10	4.6	1.7	8.6	5.2	1.7	0	1.7	4	9.2	2.9	14	2.3	1.7	4	39	44	1.1	26	4.6
DON'T KNOW	18	5.7	1.7	4.6	4.6	2.9	2.9	0	0	0	0	1.1	8.6	4	10	5.2	8	3.4	18	19	1.1	22	6.3

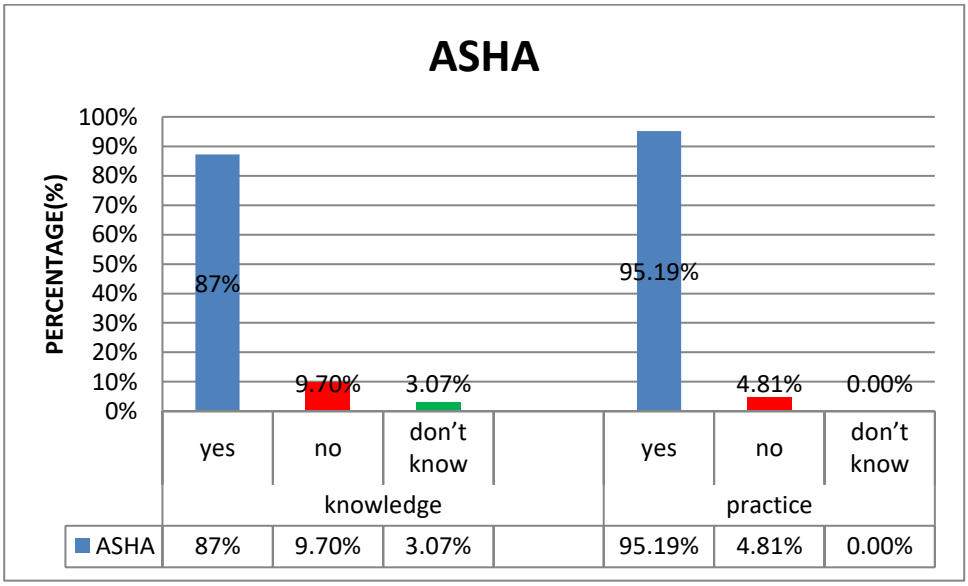
Graph 3 shows the level of knowledge of AWW in percentage.



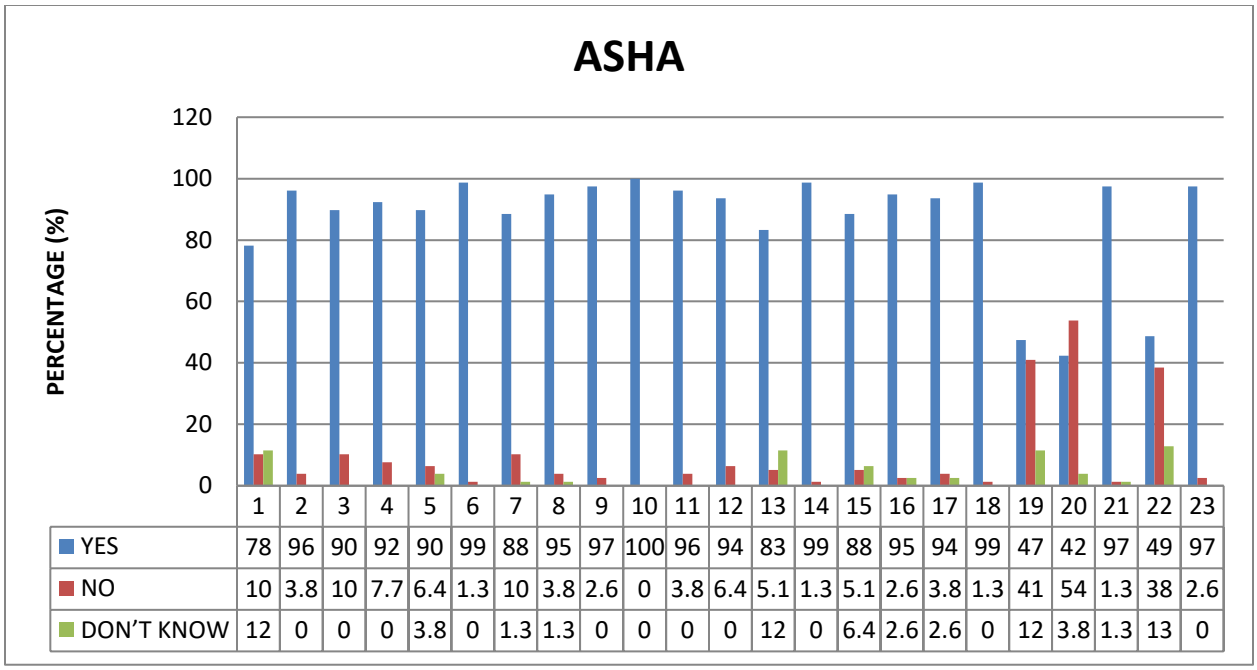
	1	2	3	4	5	6	7	8
YES	99.4253	99.4253	98.8506	97.7011	93.1034	92.5287	88.5057	72.9885
NO	0	0	0	1.14943	6.32184	6.32184	10.3448	22.9885
DON'T KNOW	0.57471	0.57471	1.14943	1.14943	0.57471	1.14943	1.14943	4.02299

Graph 4 shows the level of practice of AWW according to the question.

ASHA

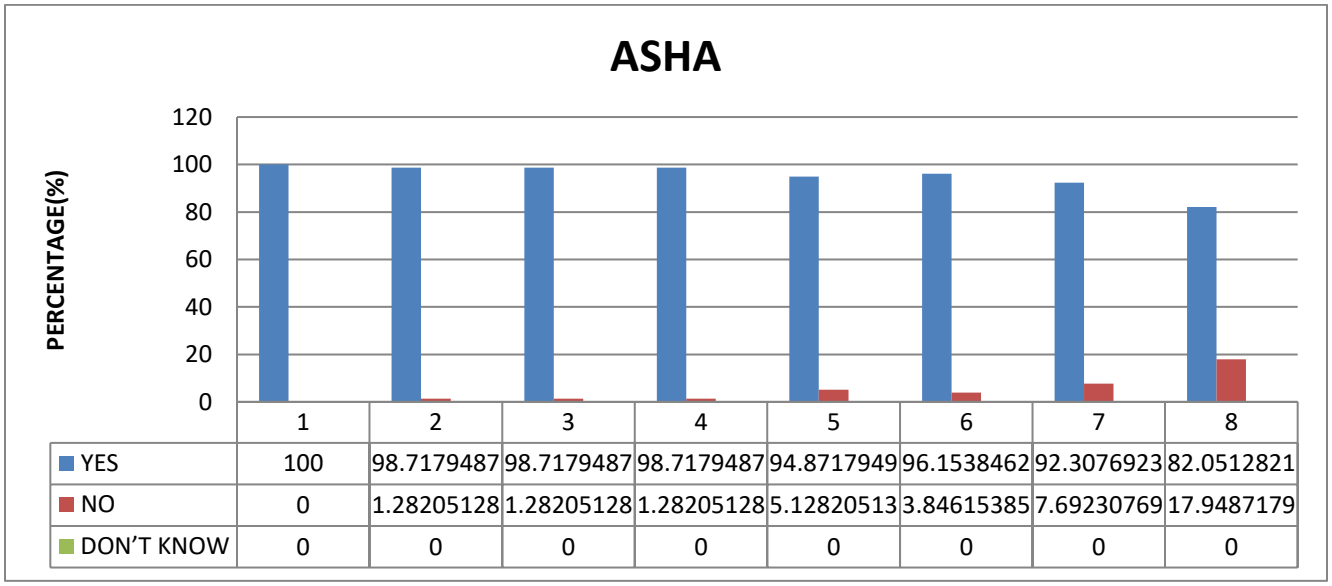


Graph5 shows the average percentage of knowledge and practice of ASHA.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
YES	78	96	90	92	90	99	88	95	97	100	96	94	83	99	88	95	94	99	47	42	97	49	97
NO	10	3.8	10	7.7	6.4	1.3	10	3.8	2.6	0	3.8	6.4	5.1	1.3	5.1	2.6	3.8	1.3	41	54	1.3	38	2.6
DON'T KNOW	12	0	0	0	3.8	0	1.3	1.3	0	0	0	0	12	0	6.4	2.6	2.6	0	12	3.8	1.3	13	0

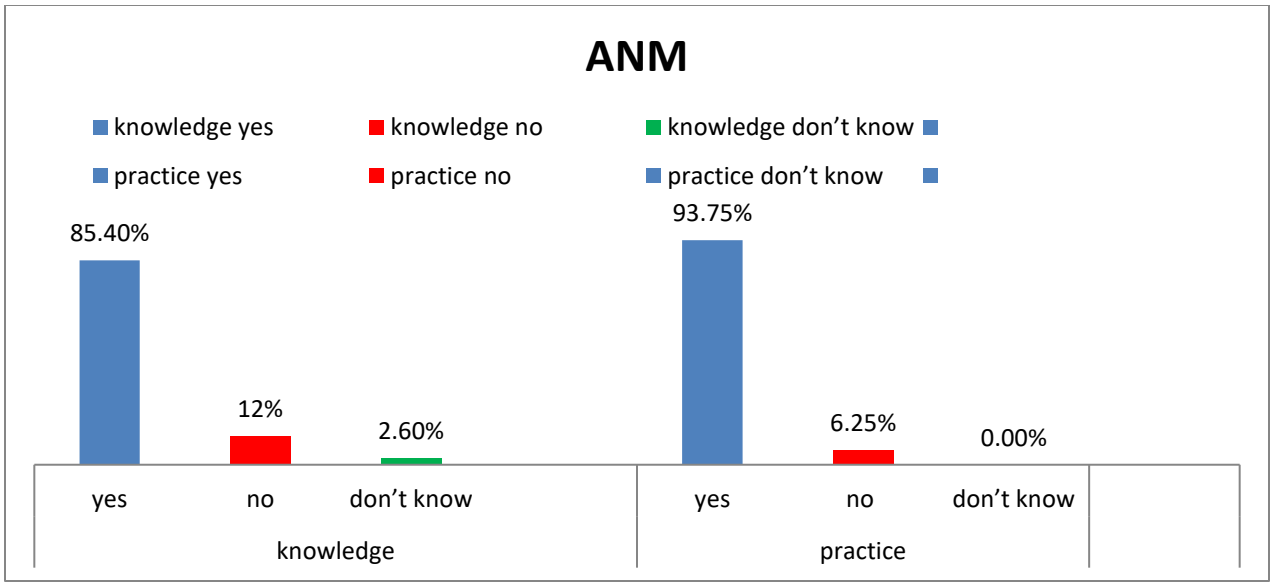
Graph 6 shows (knowledge) percentage according to question. (ASHA)



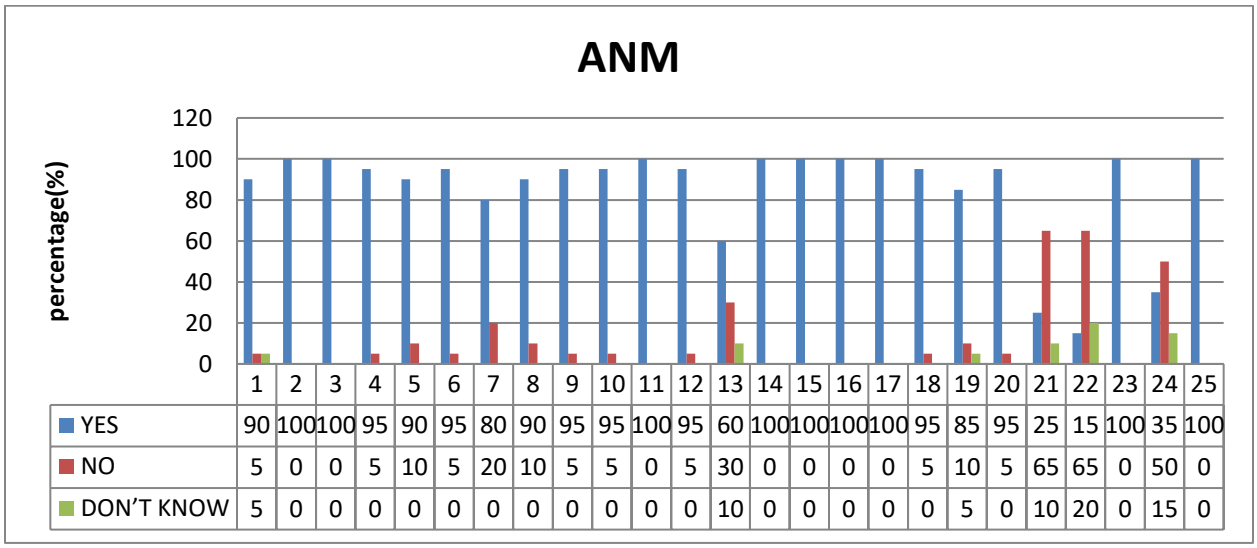
	1	2	3	4	5	6	7	8
YES	100	98.7179487	98.7179487	98.7179487	94.8717949	96.1538462	92.3076923	82.0512821
NO	0	1.28205128	1.28205128	1.28205128	5.12820513	3.84615385	7.69230769	17.9487179
DON'T KNOW	0	0	0	0	0	0	0	0

Graph 7 shows the level of practice of ASHA according to the question.

ANM

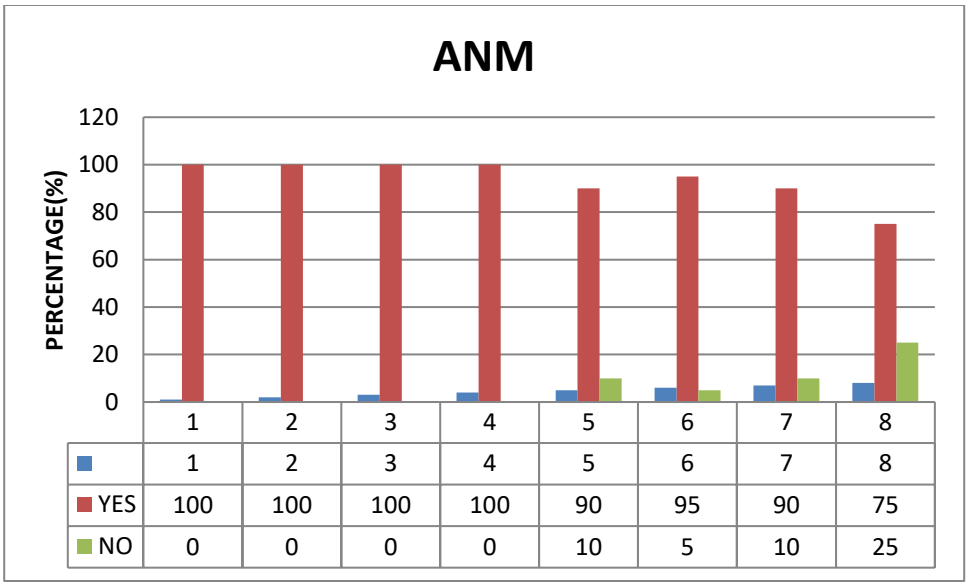


Graph 8 shows the average percentage of knowledge and practices of ANM.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
YES	90	100	100	95	90	95	80	90	95	95	100	95	60	100	100	100	100	95	85	95	25	15	100	35	100
NO	5	0	0	5	10	5	20	10	5	5	0	5	30	0	0	0	0	5	10	5	65	65	0	50	0
DON'T KNOW	5	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	5	0	10	20	0	15	0

Graph 9 shows the average percentage according to question of knowledge.



Graph 10 shows the level of practice of ANM according to the question.

Results:-

DEMOGRAPHIC DISTRUBUTION OF STUDY PARTICIPANTS

AGE

AGE	AWW	ASHA	ANM
20-30	43(25%)	19(24%)	5(25%)
31-40	67(39%)	40(51%)	10(50%)
41-50	37(21%)	17(22%)	2(10%)
51-60	27(16%)	2(3%)	3(15%)
TOTAL(FLHWs)	174	78	20

QUALIFICATION

QUALIFICATION	AWW	ASHA	ANM
10TH	70(40%)	37(47%)	2(10%)
12TH	54(31%)	29(37%)	8(40%)
UG	40(23%)	9(12%)	8(40%)
PG	10(6%)	3(4%)	2(10%)
TOTAL(FLHWs)	174	78	20

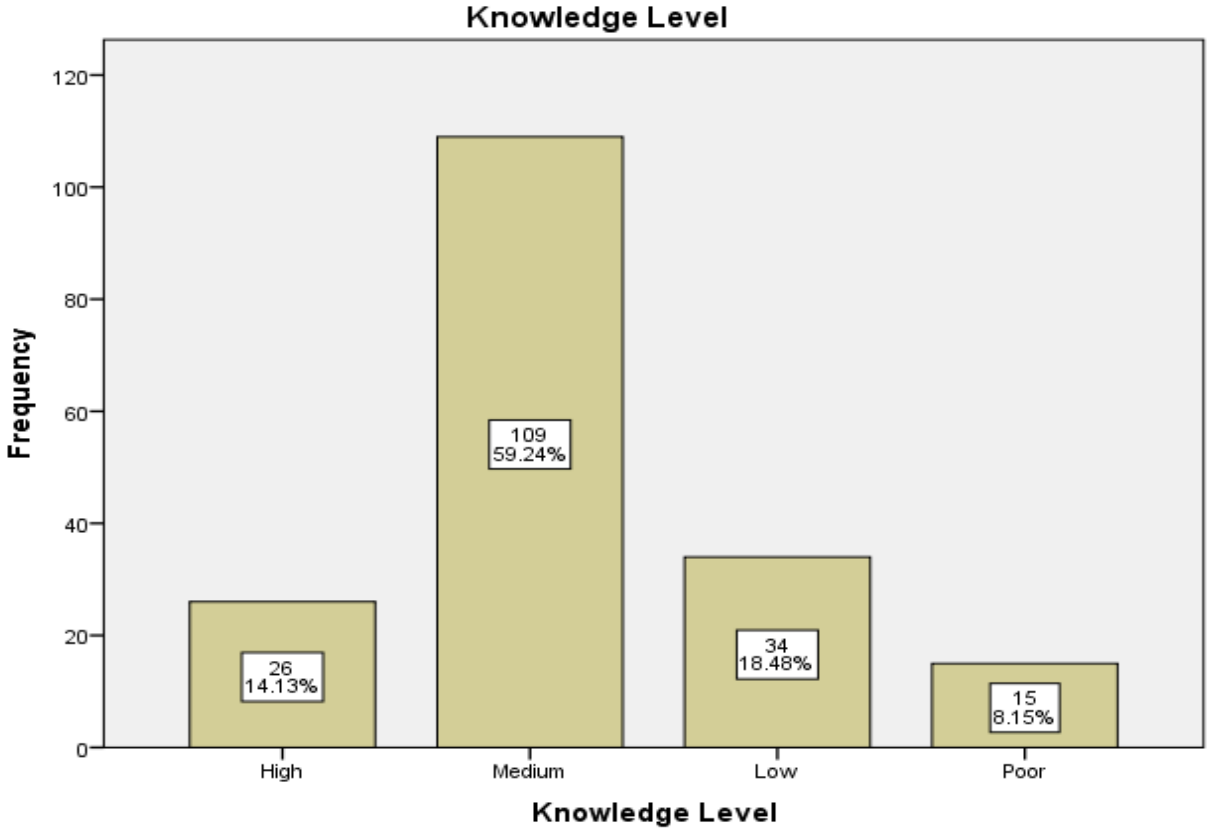
GENDER

GENDER	AWW	ASHA	ANM	TOTAL(FLWs)
FEMALE	174(100%)	78(100%)	20(100%)	272(100%)

Overview:-

The total number of FLHWs (ANM, ASHA and AWW) is 412. 272 FLWs was able to participate in the study out of 412 FLWs. Most participants were Between 30 to 40 of age. The majority of the participant was AWW (224) out of 224 AWW 174(77%) AWW participated in the study and then ASHA (160) out of 160 ASHA78 (49%) ASHA participated in the study and then ANM (28) out of 28 ANM 20 (71%) ANM participated in the study.
Based on the responses received on the different parameters of the knowledge, a composite score has been computed, using which the knowledge level has been categorized in four categories:
High (score of 25)
Medium (score range: 26 - 31)
Low (score range: 32- 37)
Poor (score: 38 and above)

This table shows Overall knowledge level


Knowledge Level
Frequency
120
100
80
60
40
20
0
26
14.13%
109
59.24%
34
18.48%
15
8.15%
High
Medium
Low
Poor
Knowledge Level

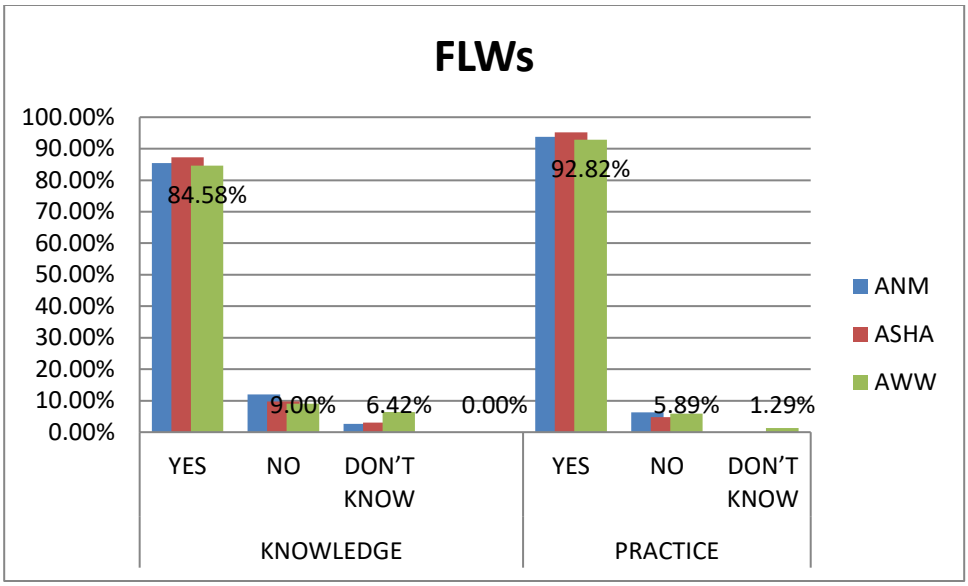
.

LEVEL OF KNOWLEDGE	ANM	ASHA	AWW	Total
High	0 0.0%	12 28.6%	14 11.4%	26 14.1%
Medium	15 78.9%	23 54.8%	71 57.7%	109 59.2%
Low	4 21.1%	6 14.3%	24 19.5%	34 18.5%
Poor	0 0.0%	1 2.4%	14 11.4%	15 8.2%
Total	19	42	123	184

This table shows FLHWs Wise Knowledge Level

	ANM	ASHA	AWW
COVID-19 symptoms	100%	90%	93%
Mode of transmission	100%	96%	88%
Covid19 Appropriate Behavior	96%	97%	98%
Risk factor	85%	65%	45%
six step of hand washing	90%	95%	95%
Normal body temperature	100%	94%	90%
Incubation period	95%	99%	95%
Range level of oxygen	85%	51%	56%
vaccine Availability	100%	89%	76%
basic medicine and prevention	100%	99%	93%

PRACTICES			
VARIABLE	ANM	ASHA	AWW
	YES	YES	YES
Wearing mask	100%	100%	99%
Washing hand regularly	100%	99%	99%
practices social distance during MCHN DAY	100%	99%	99%
you wash your cloth of your filed work separately	100%	99%	98%
Install AAROGYA SETU app	75%	82%	73%

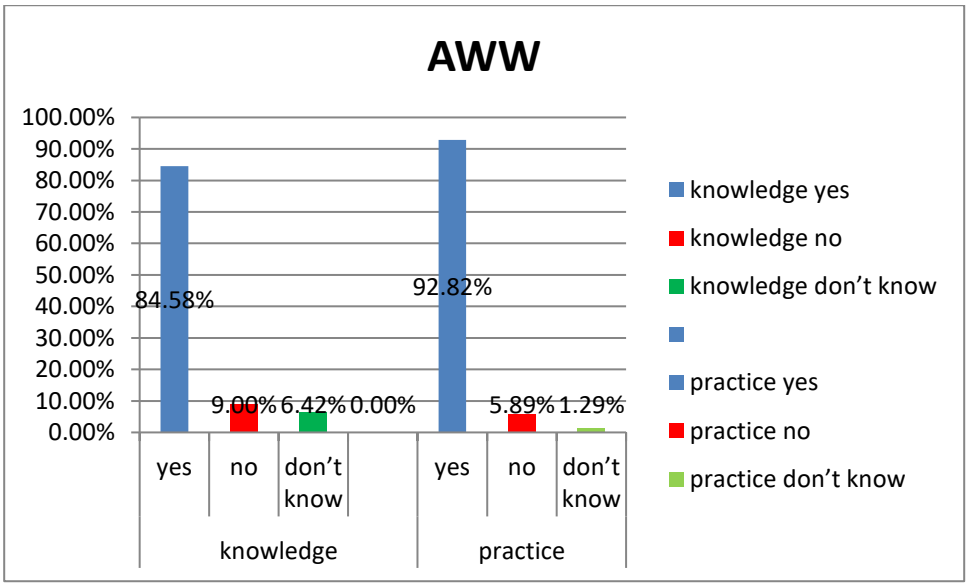


Graph 11 shows the average percentage of Knowledge and Practices of FLWs (ASHA, AWW and ANM).

AWW

Out of 224 AWW 124(81%) AWW participate in the study.

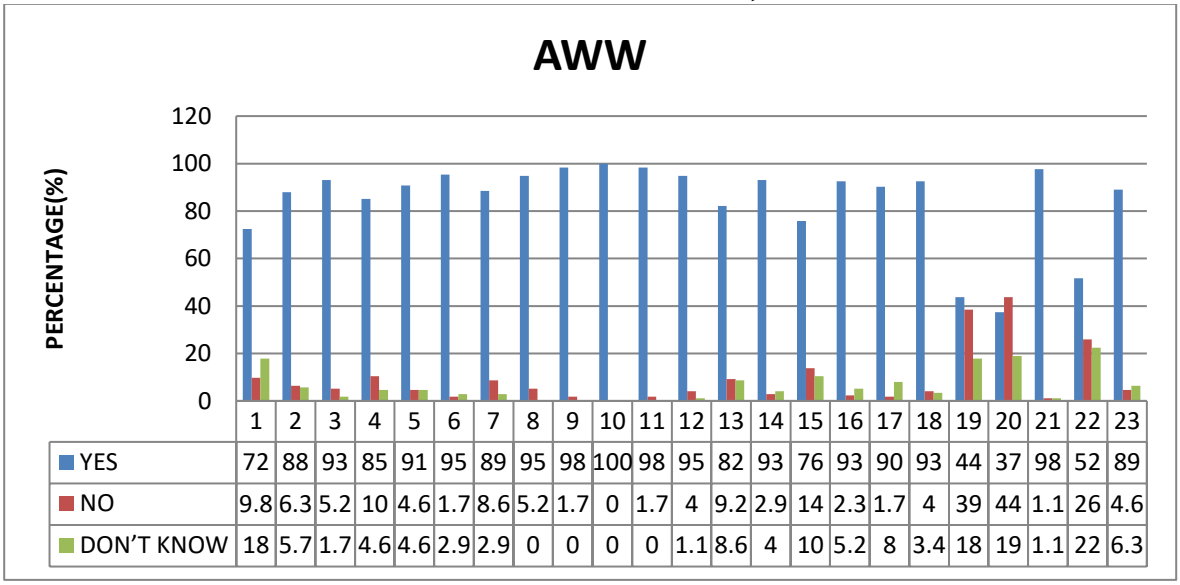
- Approximately, 84.58 % AWW has the knowledge of covid19.
- Approximately, 9% AWW has no knowledge of covid19.
- Approximately, 6.42%AWW has no idea of covid19.
- Approximately, 92.82%AWW very good in practice of covid19.
- Approximately, 5.89% AWW don't do practice of covid19.
- Approximately, 1.29% AWW doesn't have any idea about practice of covid19.



Graph 12 shows the average percentage of Knowledge and Practices AWW.

Knowledge about COVID19.

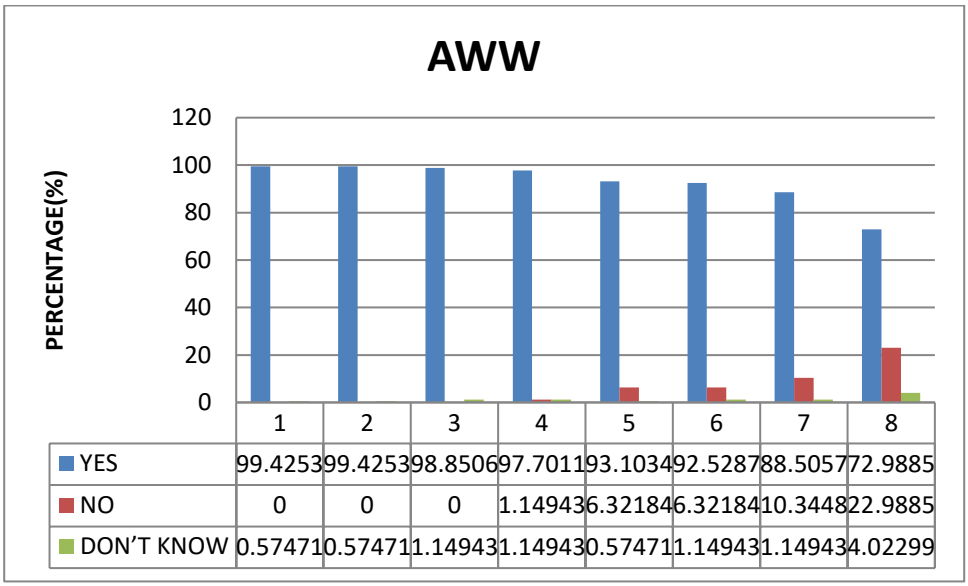
This graph shows the level of knowledge of AWW according to the question, there are consist of 23 questions. Where the highest percentage question 10 i.e. 100% and the lowest percentage question 19 approximately 44% aww think “eating fish and meat covid19 spread” 39% don’t think so. And in question 20 approximately 37.35% aww think “beating mosquito covid19 can spread”. 44% don’t think so. Question 15 is about” vaccine of covid19” approximately 76% knows about covid19 vaccine i.e. covidshild and covaxin, which is available.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
YES	72	88	93	85	91	95	89	95	98	100	98	95	82	93	76	93	90	93	44	37	98	52	89
NO	9.8	6.3	5.2	10	4.6	1.7	8.6	5.2	1.7	0	1.7	4	9.2	2.9	14	2.3	1.7	4	39	44	1.1	26	4.6
DON’T KNOW	18	5.7	1.7	4.6	4.6	2.9	2.9	0	0	0	0	1.1	8.6	4	10	5.2	8	3.4	18	19	1.1	22	6.3

Graph 13 shows the level of knowledge of AWW in percentage.

Practice about COVID19.
In the practice section there are 8 questions, where the highest percentage of question 1 and question 2 are approximately 99.42% and 99.42% respectively.
Question number 8 shows, approximately 78% have install aarogya setu app in her phone.



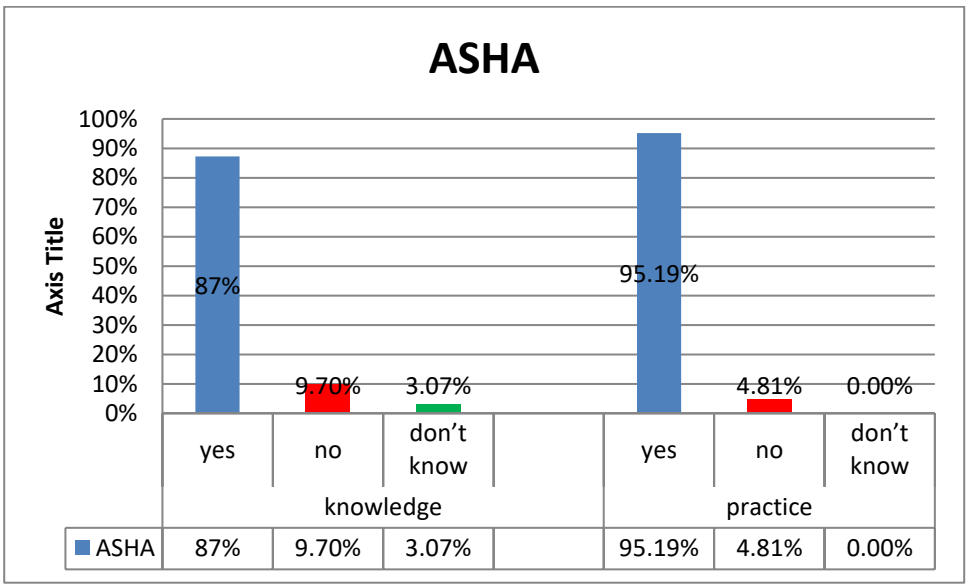
	1	2	3	4	5	6	7	8
YES	99.4253	99.4253	98.8506	97.7011	93.1034	92.5287	88.5057	72.9885
NO	0	0	0	1.14943	6.32184	6.32184	10.3448	22.9885
DON'T KNOW	0.57471	0.57471	1.14943	1.14943	0.57471	1.14943	1.14943	4.02299

Graph 14 shows the level of practice of AWW according to the question.

ASHA

Out of 160 ASHA 124(81%) AWW participate in the study.

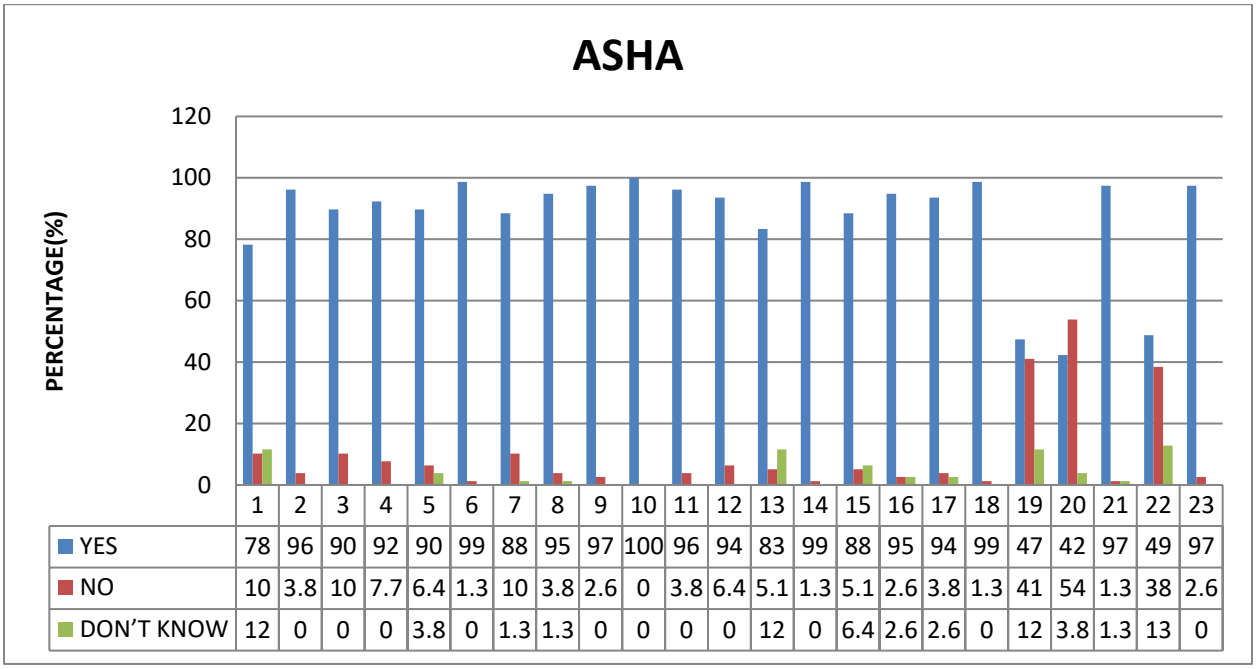
- Approximately, 87% ASHA has the knowledge of covid19.
- Approximately, 9.70% ASHA has no knowledge of covid19.
- Approximately, 3’07% ASHA has no idea of covid19.
- Approximately, 95.19% ASHA very good in practice of covid19.
- Approximately, 4.81% ASHA don’t do practice of covid19.



Graph 15 shows the average percentage of Knowledge and Practices of ASHA.

Knowledge about COVID19.

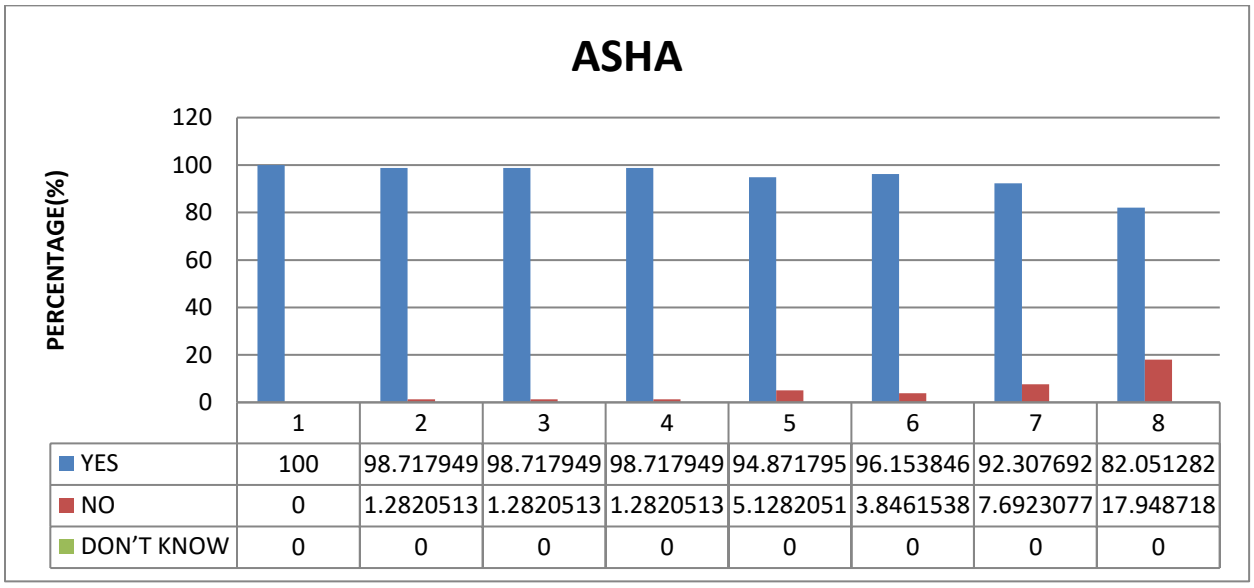
This graph shows the level of knowledge of ASHA according to the question, there are consist of 23 questions. Where the highest percentage question 10 i.e. 100% and the lowest percentage question 19 approximately 47% ASHA think “eating fish and meat covid19 spread” 41 don’t think so. And in question 20 approximately 42% ASHA think “beating mosquito covid19 can spread”. 53.84% don’t think so. Question 15 is about” vaccine of covid19” approximately 88% knows about covid19 vaccine i.e. covidshild and covaxin, which is available



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
YES	78	96	90	92	90	99	88	95	97	100	96	94	83	99	88	95	94	99	47	42	97	49	97
NO	10	3.8	10	7.7	6.4	1.3	10	3.8	2.6	0	3.8	6.4	5.1	1.3	5.1	2.6	3.8	1.3	41	54	1.3	38	2.6
DON’T KNOW	12	0	0	0	3.8	0	1.3	1.3	0	0	0	0	12	0	6.4	2.6	2.6	0	12	3.8	1.3	13	0

Graph 16 shows the level of knowledge of ASHA in percentage.

Practice about COVID19
In the practice section there are 8 questions, where the highest percentage of question 1 is approximately 100%.
Question number 8 shows, approximately 82% have install aarogya setu app in her phone.



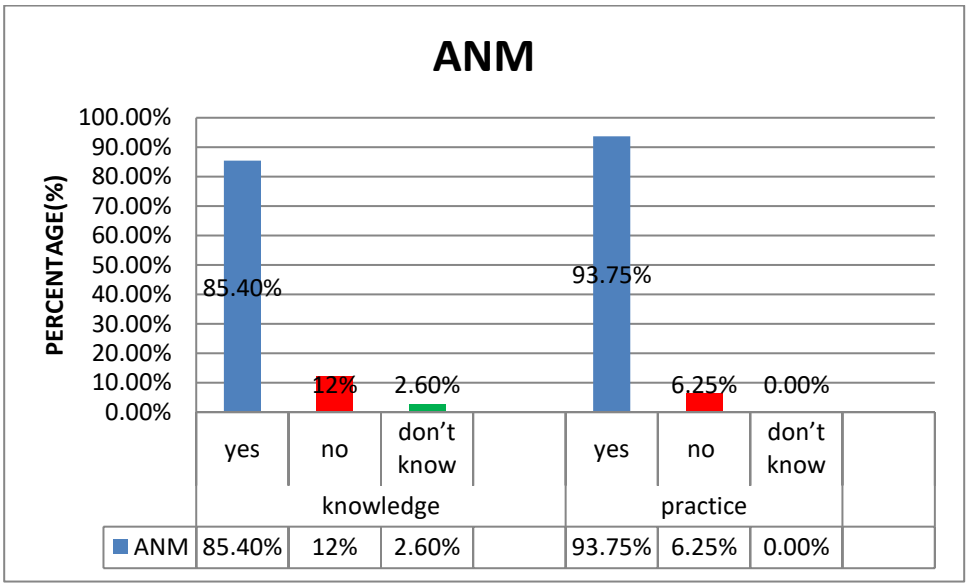
	1	2	3	4	5	6	7	8
YES	100	98.717949	98.717949	98.717949	94.871795	96.153846	92.307692	82.051282
NO	0	1.2820513	1.2820513	1.2820513	5.1282051	3.8461538	7.6923077	17.948718
DON'T KNOW	0	0	0	0	0	0	0	0

Graph 17 shows the level of practice of ASHA according to the question.

ANM

Out of 28 ANM 20(64.5%) ANM participate in the study.

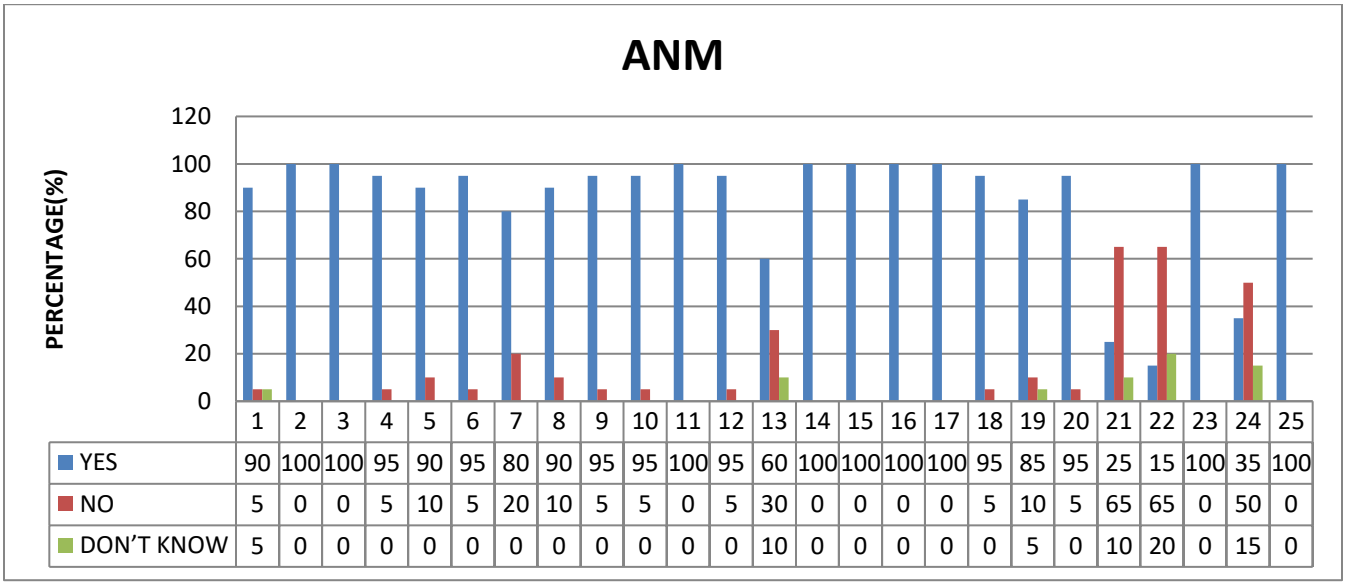
- Approximately, 85% ANM has the knowledge of covid19.
- Approximately, 12% ANM has no knowledge of covid19.
- Approximately, 2.60% ANM has no idea of covid19.
- Approximately, 93.75% ANM very good in practice of covid19.
- Approximately, 6.25% ANM don't do practice of covid19.



Graph 18 shows the average percentage of Knowledge and Practices of ANM.

Knowledge about COVID19.

This graph shows the level of knowledge of ANM according to the question, there are consist of 25 questions. Where the highest percentage question 2, 3,11,14,15,16,17,23 and 25 i.e. 100% and the lowest percentage question 13 and 24 approximately 60% and 24% respectively. Question 15 is about" vaccine of covid19" approximately 100% knows about covid19 vaccine i.e. covidshild and covaxin, which is available.

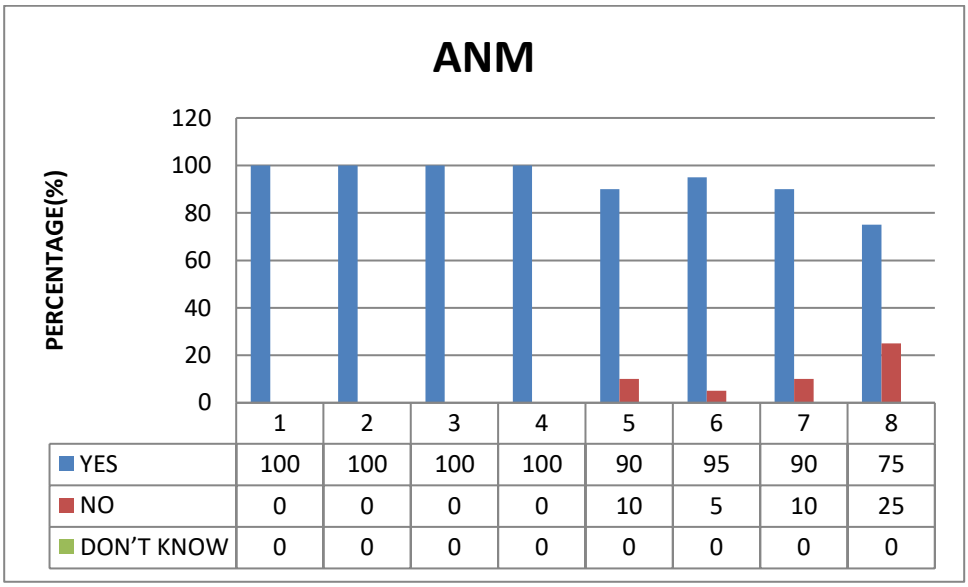


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
YES	90	100	100	95	90	95	80	90	95	95	100	95	60	100	100	100	100	95	85	95	25	15	100	35	100
NO	5	0	0	5	10	5	20	10	5	5	0	5	30	0	0	0	0	5	10	5	65	65	0	50	0
DON'T KNOW	5	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	5	0	10	20	0	15	0

Graph 19 shows the level of knowledge of ANM in percentage.

Practice about COVID19.

In the practice section there are 8 questions, where the highest percentage of question 1, 2, 3 and 4 is approximately 100%. Question number 8 shows, approximately 75% have install aarogya setu app in her phone.



	1	2	3	4	5	6	7	8
YES	100	100	100	100	90	95	90	75
NO	0	0	0	0	10	5	10	25
DON'T KNOW	0	0	0	0	0	0	0	0

Graph 20 shows the level of practice of ANM according to the question.

Discussion:-

The study was conducted from 1st march to 30th April in the middle of the pandemic and few days after communal riots took place and block went in curfew. Considering communal riots decided to take online survey. So Google form was created consisting of 25 question in knowledge part and 8 question in practices part respectively. After that Google form link shared to ASHA, AWW and ANM directly and the help of BCMO and Lady's Supervisor through whatsapp. 272 FLWs had participated in the survey out of 412, rest of them not because many of them had network issue and some of them don't have smart phone. This is to access the knowledge and practices of covied19 among FLWs (ASHA, AWW and ANM). In this study demography were covered like name, age, gender and qualification. Though there was predominance of age group 31-40 years. The percentage of female was 100% in the study. There qualification is 40% FLWs 10th pass, 33% FLWs is 12th pass, 21% FLWs is graduated and 6% FLWs is post graduate pass. The survey was an initiative to understand Knowledge and practice among the FLWs (AWW, ASHA and ANM) towards COVID-19. In this study it was observed that 85.74% FLWs had adequate knowledge and, 93.92% FLWs adhered to the good practices.

Conclusion and Recommendation:-

- Knowledge level varied across different categories of FLHWs
- Majority of the FLHWs (60%) had ‘medium’ level of knowledge
- About 27% of FLHWs had ‘low’ and ‘poor’ knowledge level (with majority being ASHAs and AWWs)
- Most of the FLHWs adhered to appropriate COVID related practices
- Reinforcing of targeted messages among all the categories of FLHWs for educating them on specific COVID related protocols

“HCWs are the frontline defense in our war against COVID19. Despite the high knowledge score and high practices score observed in this study, the number of infected public in their area and they don’t fellow the covid19 protocol. Health workers were at high risk when compared to the general population. The FLWs has good basics knowledge about covid19 and also know covid19 protocol”. “It has been observed that most of these community healthcare workers are confronted with a number of problems in course of rendering their duty. The major ones are in the nature of psychological stigma, occupational discrimination and even possible exposure to the disease in the field of duty. I recommend educate who has less knowledge about covid19 also educated them covid19 protocol according to the WHO Guideline”.

Conflict of Interest:

There are no conflicts of interest.

Reference

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7193987/
2. https://www.joacp.org/article.asp?issn=0970-9185;year=2020;volume=36;issue=3;spage=337;epage=344;aulast=Paul
3. https://www.jdrntruhs.org/article.asp?issn=2277-8632;year=2020;volume=9;issue=2;spage=107;epage=115;aulast=Kartheek

   https://link.springer.com/article/10.1007/s10900-020-00882-0

Annexure

CONSENT FORM

Assessment of knowledge and practice among Front Line Health Workers' about COVID 19 in chhabra (Rajasthan)

Consent to take part in research

- I…… voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that participation involves… [ASHA, ANM, AWW].
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview and fill the Google form.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that if I inform the researcher that I or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that under freedom of information legalization I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Signature of research participant

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Signature of participant Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study

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Signature of researcher Date