Study to Assess the WiHNRC Programme Intervention in Health Care Facilities and Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centers and NRCs

By

Jitendra Kumar Sindhi

Dissertation submitted for the partial fulfillment of the

MBA Rural Management

Academic year, 2015-2017

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

Study to Assess the WiHNRC Programme Intervention in Health Care Facilities and Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centers and NRCs

By

Jitendra Kumar Sindhi

Dissertation submitted for the partial fulfillment of the

MBA Rural Management

Academic year, 2015-2017

IIHMR University, Jaipur

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Jitendra Kumar Sindhi student of MBA Rural Management from The IIHMR University; Jaipur has undergone internship training at IIHMR University from 6th March 2017 to 5th May 2017.

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

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Dr. Ashok Kaushik
Dean, Academics and Student Affairs
The IIHMR University, Jaipur

Dr. Goutam Sadhu Professor and Dean
of Rural Management
the IIHMR University, Jaipur

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **"A Study to Assess the WiHNRC Programme intervention in Health Care Facilities and Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centers and NRCs"** and submitted by Jitendra Kumar Sindhi Enrollment No 004 under the supervision of Dr. Goutam Sadhu, Professor and Dean In Charge, IIHMR University, Jaipur for award of MBA in Rural Management of the University carried out during the period from 6th February 2017 to 5th May 2017 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.

Jitendra Kumar Sindhi
Student – MBA RM-04

The IIHMR University, Jaipur

Certificate by Scholar

This is to certify all ethical issues have been considered while collecting data for my dissertation title "A Study to Assess the WiHNRC Programme intervention in Health Care Facilities and Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centers and NRCs"

Jitendra Kumar Sindhi

Contents

Executive Summary

India is one of the fastest growing economies of the world, yet has poor social development indicators and crowded with large population of the poor. Studies have revealed that the eradication of extreme poverty is only possible if everyone has the affordable access to basic amenities such as safe drinking Water, Sanitation and Hygiene (WASH) practices in their life. Looking at the issue, UNICEF, Madhya Pradesh along with National health Mission (NHM) took a step to address the issues by building capacity of state and district level officials on WASH in Health Care Facility (HCF) and Nutritional Rehabilitation Center (NRC) of the selected high priority districts (HPDs) of MP. UNICEF commissioned this assignment to IIHMR University who is acting as a technical agency to improve the WASH conditions in the HCF of the seven selected district of MP.

The objectives of the project are to

- communicate importance of WASH in Health facilities, situation analysis, planning and WASH improvements for Health facilities;
- disseminate practices on WASH in health available from various states;
- orient district based Health officials on conducting WASH assessment, planning and monitoring in Health facilities and NRCs of selected High Priority Districts (HPDs);
- develop an operational plan for improvement of WASH in Health facilities and NRCs in the district; and
- Conduct Facility assessment and develop Improvement planning on WASH in 10 selected health facilities in the district

To fulfil all the objectives a team conducted and visited all the selected Health Care Facilities for assessment and creating improvement plan accordingly. The assessment divided into 3 part general assessment which included general facility of water, toilet and biomedical waste management and in the second part assessment done on the basis of location like Post Natal Ward, SNCU, NRC, Paediatric ward etc. In this assessment every aspect analyzed by the team and created an improvement plan to improve the facility of this facility.

In assessment almost every facility were lacking behind and mostly facilities did not have any basic service like drinking water, toilets and Waste management. In this assessment responsible person identified and divided works between them.

To ensure successful implementation 10 points also developed and these 10 points were the problem which was on priority basis and completely addressing the WASH requirements.

For successfully implementation of the programme a district level District Coordinator appointed to facilitate the facilities and for successful implementation the plan.

This study done to identify the gaps which are still need to address for this the entire improvement plan analyzed and a questionnaire given to the patients of the HCFs who were using the facilities of HCFs. Mostly patients were visiting the facilities for more than 1 year and they were regular visitor of the HCFs. According to them now HCFs are improving all the facility and now they are getting improved service from HCFs.

Water, Toilet and Cleanliness is now better and these changes they have seen recently, now mostly patients are satisfy with the HCFs but still there is a long way to go as still there are lots of gaps which this programme need to address. Patients are satisfy because they have never seen this kind of treatment before as mostly population of Umaria district is tribal and people are now rendering the services from HCFs. According to them all things are good but if we see the reality than still there are lots of things which need to be improve to provide better health care services to the people.

HCFs are trying very hard but load of HCFs is very high and resources are very less. Before this programme HCFs never paid attention towards the services but now they are tried very hard to provide improved facility but this is not a work of single day because its need lots of effort and its completely based on behaviour change.

Now almost every HCF is working very hard and they are trying to full fill the Kayakal guideline as well as they want 5 Star also from the WASH programme.

List of Figures

List of Tables

ABBREVIATIONS

BMW	Bio Medical Waste
BMO	Block Medical Officer
CHC	Community Health Centre
CMHO	Chief Medical Health Officer
DH	District Hospital
DPM	District Programme Manager
HCAI	Health Care Association Infection
HCF	Health Care Facilities
IMR	Infant Mortality Rate
MMR	Maternal Mortality Rate
NFHS	National Family Health Survey
NHM	National Health Mission
NRC	Nutrition Rehabilitation Centre
OPD	Out Patient Department
OT	Operation Theatre
PHC	Primary Health Centre
SC	Sub Centre
SNCU	Sick New Born Care Unit
SRS	Sample Registration System
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WiHNRC	Wash in Health and Nutrition Rehabilitation Centre

Chapter 1: WiHNRC Intervention in the Umaria District

1. Introduction

India is one of the fastest growing economies of the world, yet has the poor social development indicators and a large population of the poor. The eradication of extreme poverty is only possible if everyone has the affordable access to basic amenities such as Water, Sanitation and Hygiene (WASH). WASH is basic human rights, and it is believed that universal access to WASH is possible with some commitment and deployment of resources where it is required. WASH is a public resources and its demand is the fundamental right of every citizen to get equal access. It is essential for life, as it is fundamental in prevailing diseases and maintaining good health. It is already established that water is the main factor for causing around 70 percent of the disease. Research studies revealed that inadequate access to WASH facilities anywhere can significantly impact health, and result in adverse consequences from exposure to pathogens. Although, its role in preventing diseases is not new, yet the attention on this critical determinant of health has received from health sector is underwhelming.

It has been also seen that even though the number of neonatal deaths around the world has seen a decline, in India it is higher than any other country. According a recent study, it is estimated that around 7, 58,000 new born die annually. According to a study, Newborn deaths has been decreased from 4.6 million to 3.3 million within last two decades i.e., from 1990 to 2009 and fell slightly faster in the years since 2000. The study, carried out over a period of 20 years found that new born deaths i.e., characterized as deaths in the first four weeks of life (neonatal period) account for 41 percent of all children deaths before the age of five years. Not only this, it was also envisaged in another study that almost 99 percent of the newborn deaths occur in the developing world, with more than half taking place in the five large countries of India, Nigeria, Pakistan, China and Congo. One of the study reports conducted by WHO says, "India alone has more than 900,000 newborn deaths per year, which contributes to nearly 28 percent of the global total". In other words it declares that India had the largest number of neonatal deaths throughout the study.

India has one of the highest rates of maternal and infant mortality rate in the world. As per recent SRS report, the country revealed 167 maternal deaths per 100000 live births and 28 neo natal deaths per 1000 live births. In-spite of decline in Maternal mortality rate (MMR) and Infant Mortality rate (IMR), India still contributes highest number of under five and new born deaths globally till yet.

Madhya Pradesh (MP), one of the largest states of India is claimed to have 72.2 million peoples out of which 52.5 million people reside in the rural MP. As per SRS report published in 2015, MMR, IMR and Neo-natal mortality rate (NNMR) are higher than the National average. As per

NFHS 4, MP state still has the highest infant mortality rate of 51 deaths per 1000 live births in India. It is also estimated that 68,000 infants die within the first month and about 100,000 die within the first year from Birth at MP. Among the new born, most of them die within the first seven days and among those who die within the first days, 70 percent die within the first 24 hours of Birth. It was also learnt that maternal mortality which stands at 221 per 1,00,000 live births annually is also a major contributor of new born deaths. If, action will be taken at the time of birth, within first 24 hours period of intra-partum care & immediate post-natal care, maternal, new born sepsis and linked morbidity can be reduced. Data from Specialized Newborn Care Units (SNCUs) of 53 units in MP and from six states suggests that 17 percent of the new born deaths are caused because of sepsis. It has been also reported that three quarters of neonatal deaths around the world are caused by pre-term delivery, asphyxia and severe infections, such as sepsis and pneumonia.

1.2 Rationale

This backdrop raises the concern over the quality of care being provided at the health facilities, especially in terms of Health Care Associated Infection (HCAI) control measures, which significantly contribute to early-neonatal diseases, such as sepsis. World Health Organization (WHO) in his one of the report pointed out, those two thirds or more of these deaths can be prevented with existing interventions on WASH. **United Nations Children's Emergency Fund** (UNICEF)-MP in collaboration with **National Health Mission** (NHM)-MP and **Institute of Health Management Research University** (IIHMRU) Jaipur, Rajasthan has commissioned to pilot an intervention to build the capacity of the NHM officials in the state and districts on WASH in Health facilities and **Nutritional Rehabilitation Center** (NRCs) through a phased intervention in selected seven district of the state named *Guna*, *Sheopur*, *Shivpuri*, *Mandla*, *Anuppur, Shahdol* and *Umaria* covering around 76 numbers health facilities. This report described the findings of the first two months of the intervention and patients satisfaction after the completion of 4 months of intervention i.e., November & December 2016 first two months and January to April 2017 next 4 months for Umaria District.

1. Objective & Outcome

The objectives of the project are to:

- Review & refine WASH assessment & improvement tools in Health centers, with inputs from existing comprehensive tool, Kayakalp Guidelines and other relevant documents;
- Build capacity of Health care staff, consultants and Mentors on WASH related issues, especially demonstration of safe WASH practices and use of monitoring tools, including support implementation of WASH improvement plans;
- Assess the status of WASH infrastructure, services and systems in the select facilities;
- Develop facility wise phased WASH improvement plans by the agency team, mentor team, BMOs and the MoICs;
- Handholding support to MoICs/Health staff in operationalization & monitoring of the WASH improvement plans;
- Share findings of assessment and operationalization of improvement plans with NHM implementers and policy makers for improved action and resourcing for WASH in health in Health and Contribute to state strategy and SoPs.

2.1 Expected Outcome

- Enhanced appreciation and action for WASH in Health to contribute to the infection free environment in Health Centres of 7 HPDs;
- Enhanced capacity of the Health Care Staff to assess the status of WASH in Health and NRC of selected 7 HPDs, prepare, implement and monitor improvement plans; and
- Operational out plans agreed for roll out of WASH in Health and NRCs in 7 HPDs.

1. About Umaria District where WiHNRC intervention implemented

Umaria is an important district of MadhyaPradesh in Shahdol Division. Its global location is between north latitude 23º38' to 24º20' and east latitude 80º28' to 82º12'. Total geographical area of Umaria District is 4548 Square Kilometere and its population is 515,963. Umarial district is covered with forest and coal mines. Coals mines are the main source of revenu of Umaria district and it's also a most important mineral which is found in Umaria. There are total 8 coal mines operated by South Eastern CoalFields Limited. Apart from coal mines the famous Bandhavgarh Tiger Century also attracts the tourist and Sanjay Gandhi Thermal Power also located in Umaria District. According to Census 2011, Umaria is the second least populous district after Harda.

3.1 Demographic Profile

According to 2011 census Umaria District has a population 643,579, which is contribute approx 0.88% in total Population (72,626,809) of Madhya Pradesh. Density, which related to the number of persons living per square kilometre in the district, is 158 inhabitants per square kilometres (410/sq mi). The decadal growth rate, during 2001-2011 is 24.73%. Total sex ratio of Umaria District is 953 females for every 1000 males and total literacy rate is 67.34%.

3.2 Population of Umaria in compare of 2001 and 2011 Census

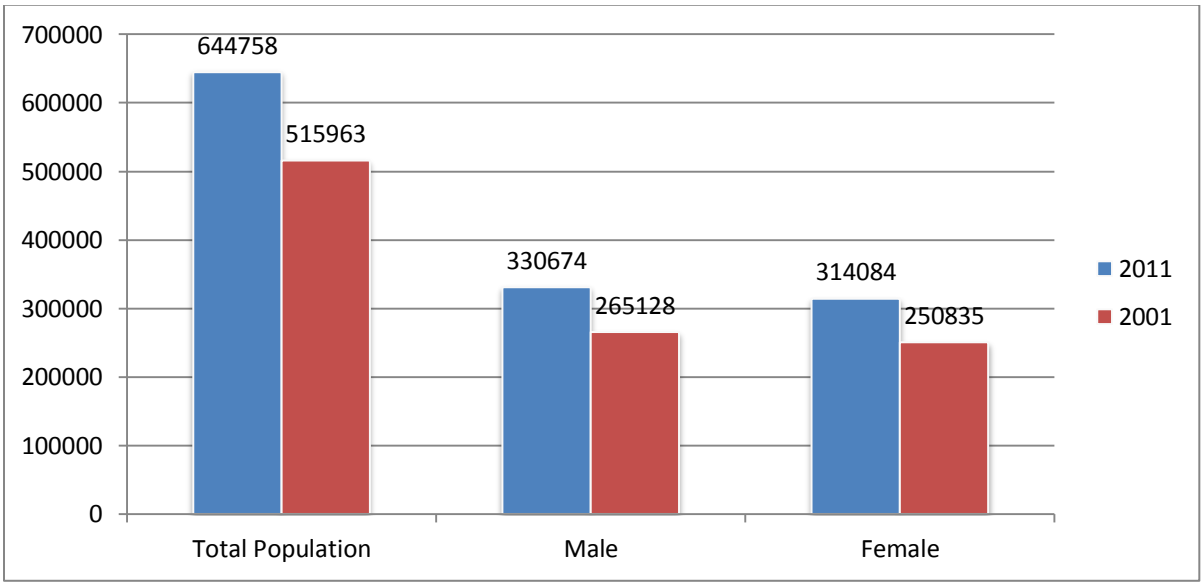


Figure 1:Population Comparison According to Census

3.3 Pattern Table of Umaria

Description	2011	2001
Actual Population	644,758	515,963
Male	330,674	265,128
Female	314,084	250,835
Population Growth	24.96%	22.60%
Area Sq. Km.	4,076	4,076
Density/km2	158	127
Proportion to Madhya Pradesh Population	0.89%	0.85%
Sex Ratio (Per 1000)	950	946
Average Literacy	65.89	59.13
Male Literacy	76.02	72.89
Female Literacy	55.23	44.54

3.4 Public Health Care Structure in Umaria

Although Umaria is a 2nd least populous district of Madhya Pradesh still there is sufficient health services available for everyone and public health structure is sufficient to serve district's people with the good and quality health care services.

S.No.	Name of Facility	Quantity
1	Blocks	3
2	Sub Centers	89
3	Primary Health Centers	12
4	Community Health Centers	3
5	Comprehensive Mobile Units	0
6	District Hospital	1

1. Selection of Health Care Facilities (HCF) in Umaria District for Intervention:

Selection of HCFs made on the basis of load of delivery. A HCF is eligible for WiHNRC intervention if it has delivery load more than 70%. All data observed and found that there are six facilities which has high delivery load and intervention could be implemented there.

Name of District	DH		CHC		PHC		SC		Total		SNCU		NRC		Paediatric	
	Available	Selected	Available	Selected	Available	Selected	Available	Selected	Available	Selected	Available	Selected	Available	Selected	Available	Selected
Umaria	1	1	3	3	12	2	89	0	104	6	1	1	4	4	1	1
Total	**1**	**1**	**3**	**3**	**12**	**2**	**0**	**1**	**104**	**06**	**1**	**1**	**4**	**4**	**1**	**1**

4.1 Selection Tools

- Pre tested Comprehensive Assessment and Planning Tool
- Microbiological test done and drinking water tested by H2S vial. It is a test which can test bacterial contamination in the water. These tests done in every selected facility and where it was found positive that facility selected for the WASH program implementation.
- Star Grading Tool (SGT) – it's a very effective tools which was developed to assess the facility on the basis of star. These star are similar like hotel star and if a facility is getting only 1 star it means this facility need lots of efforts to do and if a facility getting 5 star it means this facility is completely focusing on WASH.

4.2 Methodology

- District level workshop conducted for Health Officers and engineers on WASH assessment. This workshop conducted in the month of October 2016.
- A group of mentor formatted and this mentor group given responsibility to take care of this programme.

Chapter 2: Research Report

"A Study to Assess the WiHNRC Programme intervention in Health Care Facilities and Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centres and NRCs"

1. Review of Literature

WiHNRC is new intervention in Madhya Pradesh but need of Water, Sanitation and Hygiene is from all over the world. There were lots of study done in the area of WASH and lots of work done. UNICEF is working in almost 100 countries to improve the Water, Sanitation and Hygiene conditions. According to UNICEF all three words are interdependent to each other and there is lots of scope available to work in it. For example without clean water we cannot think about Hygiene and sanitation and without toilets, water source can become contaminated as open defecation will harm the water sources.

Kaliski (2015*)* concluded through her study that reforms in sanitation are not supposed to be limited to simply construction of toilets, or supply of educational components or welfare programs to create demand. She suggested that there is a need to focus more on proper data collection and monitoring.

A report titled **"The Final Frontier" (2014**) published in *The Economist* newspaper states that the problem of open defecation in India cannot be resolved for decades yet, through the mere availability of government-built latrines. The report further highlights that the media, along with the schools, needs to play a crucial role in spreading awareness about the health and economic benefits of using toilets and maintaining hygiene.

A report published by the **United Nations University (2010, April 14)** quoting UN experts concludes that though India can be called a country wealthy enough considering the fact that around half of its population owns mobile phones, yet about the same number of people do not have access to the basic necessity and dignity of a toilet.

Chennaiaha et al. (2013) in their study found that largely, the water available in the area of study was not fit for drinking purposes. The study also revealed that a lot of emphasis has been laid on setting up and upgrading laboratories at the state and district levels, and on water monitoring through field testing kits. However, there still exist obstructions like lack of awareness, surveillance, monitoring and testing, mitigation measures, non-availability of alternate water sources, and poor hygiene practices. It is imperative to undertake and promote sanitary assessment and community-based water quality monitoring and surveillance at the grassroots level, so as to locate the problem areas and adopt remedial measures thereof.

UNICEF, Food and Agriculture Organization, and South Asia Consortium for Interdisciplinary Water Resources Studies' (2013) article titled "Water in India: Situation and Prospects" states that according to Indian water policy, resource allocation is to be done by considering the domestic requirements of water first. In practice, however, this is rarely followed provided that many parts of urban and rural India continue to be "un-served" by formal water supply systems.

WASH Media-South Asia (2012) stated that more than 1 billion people in South Asia do not have access to improved sanitation facilities, while around 700 million practice open defecation. The report further remarks that in 2006, as per the figures given by The World Bank, the consequences of inadequate sanitation cost India approximately $53.8 billion, which amounts to 6.4% of its GDP.

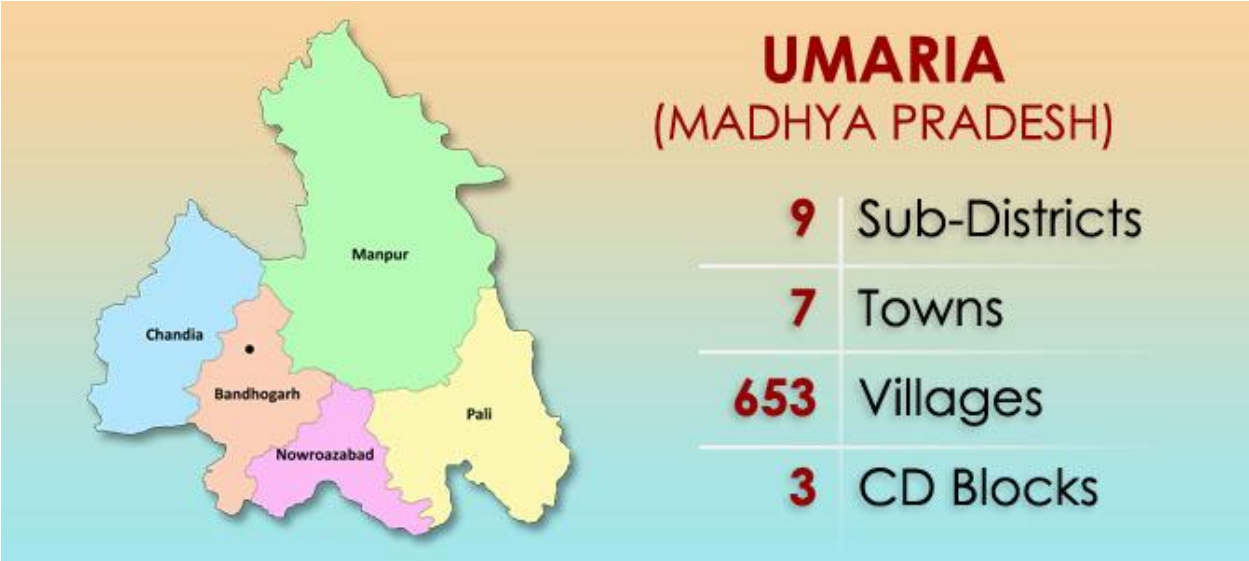
Water and Sanitation Program's (2011) report concluded that inadequate sanitation causes the poor in India to endure considerable adverse bearings on their lives, health, and limited financial resources.

2. OBJECTIVES of the Study

- To assess the WiHNRC intervention and find out its impact.
- To assess the visitors perspective about Water, Sanitation and Hygiene in Health centres and NRCs.

3. Methodology

3.1 Overview: The field survey was undertaken to collect the data from visitors of Health Care Facilities to know their perception, thoughts, improvements, suggestion to improve the HCFs. The purpose of this survey was to know the status of the facilities which was given by the HCFs and how much visitors are satisfied with this facility. In this survey all 6 facilities chosen for the assessment and from every facility 10 respondent were selected. Mostly respondents were female as intervention is aim to reduce the IMR and female and their child's need a clean and infection free environment with the basic drinking water, toilet and hand wash facility.



3.2 Methods: The Questionnaire developed for the visitors is included with this report in appendix section. This questionnaire developed in Hindi language as mostly population of the Umaria is not comfortable with the English and language could be barrier for them. In Umaria number of people belongs to tribal belt and for tribal even Hindi could be a barrier. Questionnaire filled with the researcher in the presence of a government authority or a member of staff who is serving the HCF more than 3 year. After filling every questionnaire researcher took the signature of the officials and signed by himself too.

Data was collected from: Primary and Secondary sources

Primary Data: Raw data was collected from the primary sources available with:

- Interview of Visitors of the Health Care Facility.

Secondary Data: collected from following source

- Improvement plan for WiHNRC.
- Assessment of intervention.
- Reports.

3.3 Sampling: From every facility 10 respondents had chosen on the basis of their time visit in HFC. There were no respondent who were new in the HCFs or coming first time. Every respondent were the frequent user of the facility. 70-30 ratio chosen for the interview. 70% women and 30% men were interviewed for the assessment.

4. Operational Definition

4.1 WASH: Wash stands for Water, Sanitation and Hygiene in the context of health care WASH means availability, management and distribution of Water, Sanitation practices and management of personal hygiene. Below is a table by which we can understand easily about WASH

Item	Task	Importance
Water	• Availability of clean drinking water. • Regular chlorination of water source and storage. • Hygiene of water source and place	• Reduction of water related diseases. • To ensure proper supply of water. • Prevention of water related infection.
Sanitation	• Adequacy of toilets. • Separate toilets for men and women. • Proper maintain ace of toilets. • Proper drainage and distance between water source and sewerage lines. •	• To avoid water contamination. • To maintain privacy of man and women. • Avoid diseases by open defection.
Hygiene	• Presence of hand washing station • Promotion with IEC material. • Adequate hand washing station outside every toilets.	• To prevent water related diseases. • To prevent infection which cause by soiled hand. • Safety from infection.

4.2 Hand Washing: Hand washing with soap is among the most effective and inexpensive ways to prevent diarrheal diseases and pneumonia, which together are responsible for the majority of child deaths.

In West and Central Africa alone, making this simple practice an entrenched habit could save about half a million children each year, making a significant contribution to the Millennium Development Goal of reducing deaths among children under the age of five by two-thirds by 2015 (MDG 4).

Yet, despite its lifesaving potential, hand washing with soap is seldom practiced. Around the world, the observed rates of hand washing with soap at critical moments range from zero percent to 34 percent.

4.2.1 Washing hands with water alone is not enough: Although people wash their hands with water, very few wash their hands with soap at critical moments (for example, after using the toilet, while cleaning a child, and before handling food).

But washing hands with water alone is significantly less effective than washing hands with soap in terms of removing germs.

Lack of soap is not a significant barrier to hand washing at home. The vast majority of even poor households have soap in their homes. The problem is that soap is rarely used for hand washing. Laundry, bathing and washing dishes are seen as the priorities for soap use.

4.2.2 Hand washing with soap reduces disease: Washing hands with soap after using the toilet or cleaning a child and before handling food can reduce rates of diarrheal disease, including some of its more severe manifestations, such as cholera and dysentery, by 48-59 per cent and rates of respiratory infection by about one-quarter.

4.2.3 Hand washing with soap is the single-most cost-effective health intervention: Hand washing with soap is a life-saving intervention within the technological and financial reach of all countries and communities. Research shows that a $3.35 investment in handwashing brings the same health benefits as an $11.00 investment in latrine construction, a $200.00 investment in household water supply and an investment of thousands of dollars in immunization.

4.2.4 Fast Facts And Figures about Hand washing

- Over 1.5 million children under five die each year as a result of diarrhea. It is the second most common cause of child deaths worldwide.
- Hand washing with soap at critical times - including before eating or preparing food and after using the toilet - can reduce diarrhea rates by more than 40 per cent.
- Hand washing with soap can reduce the incidence of acute respiratory infections (ARI's) by around 23 per cent.
- Pneumonia is the number one cause of mortality among children under five years old, taking the lives of an estimated 1.8 million children per year.
- Hand washing can be a critical measure in controlling pandemic outbreaks of respiratory infections. Several studies carried out during the 2006 outbreak of severe acute respiratory syndrome (SARS) suggest that washing hands more than 10 times a day can cut the spread of the respiratory virus by 55 per cent.
- Hand washing with soap has been cited as one of the most cost-effective interventions to prevent diarrheal related deaths and disease.
- A review of several studies shows that hand washing in institutions such as primary schools and daycare centers reduce the incidence of diarrhea by an average of 30 per cent.

- Rates of hand washing around the world are low. Observed rates of hand washing with soap at critical moments – i.e., before handling food and after using the toilet - range from zero per cent to 34 per cent.
- A study shows that hand washing with soap by birth attendants and mothers significantly increased newborn survival rates by up to 44 per cent.
- Water alone is not enough; yet soap is rarely used for hand washing. The lack of soap is not a significant barrier to hand washing – with the vast majority of even poor households having soap. Soap was present in 95 per cent of households in Uganda, 97 per cent of households in Kenya and 100 per cent of households in Peru. Laundry, bathing and washing dishes are seen as the priorities for soap use.
- New studies suggest that hand washing promotion in schools can play a role in reducing absenteeism among primary school children. In China, for example, promotion and distribution of soap in primary schools resulted in 54 per cent fewer days of absence among students compared to schools without such an intervention.

4.3 Post Natal Ward: Post natal ward is a ward in hospital where women and their babies are provided with medical care immediately after the birth of the baby. Post natal care (PNC) ward is a focused area of government of Madhya Pradesh as this ward is use for new borne babies and new borne babies can easily catch the infections. PNC ward should be very clean and infection free. Flies, rodents, mosquitoes and any other vector should not be there.

Every facility should be available there as drinking water within the 15 meter of range, a functional toilet with hand washing station, Color coded bins should be placed there to

4.4 Labour Room: Labour room is the area which is equipped for the delivery of babies. Main focus of WASH programme is cleaning of the hospital, NRC, ANC, PNC ward and Labour room. Labour room is the very sensitive area because after every labour there was lots of human tissues waste remaining which called as Placenta. There should be safe disposal of placenta and for this every HCF should have deep burial pit.

There are lots of rules and regulations for the Labour room as there should be facility of drinking water, toilet should be attached with the labour room, running water facility should be there, a hand washing station should be there and to prevent infection elbow tap should be installed in hand washing station, soap should be available for the hand washing, all four colour coded bins

should be available and toilet seat should be western. If a labour room has all these things it means that labour room completing mostly WASH requirements.

4.5 Out Patient Department: OPD defines as the Out Patient Department and as per the name any patient from outside use this section of the HCFs to get consultation from the expert health care service provider. And other allied services also provided in OPD.

It has following parts and services

- **Consultation chambers** in this chambers patients are provided medical, surgical or allied (physiotherapy, dietetics) consultation and expert opinion.

- **Examination rooms** where patients can be examined for any disease condition.

- **Diagnostics** which have radiology, pathology, microbiology and other diagnostic services and/or sample collection points

- **Pharmacy** which provides medications to the patients.

4.6 Sick New Born Care Unit: Sick New Born Care Unit (SNCU) are special care units in the large hospitals generally at district level hospital meant to reduce case fatality among sick newborn either born within the hospital or outside including home delivery.
SNCU have an emergency care for new born to avoid delay in treatment of babies. In the SNCU there is a neonatal ward for new born where mothers also kept with babies to feed them time to time.

4.7 Nutrition Rehabilitation Center (NRC): is a in a health facility where children with Severe Acute Malnutrition (SAM) are admitted and managed. A steady linkage with ICDS identifies and refers severely malnourished children in the community using MUAC tape. Children are admitted in NRC as per the defined admission criteria adopted in line with IAP 2006 and new WHO 2009 recommendations and provided with medical and nutritional therapeutic care.

Once discharged from the NRC, the child continues to be in the Nutrition Rehabilitation program till she/he attains the defined discharge criteria from the program. In addition to curative care special focus is given on timely, adequate and appropriate feeding for children; and on improving the skills of mothers and caregivers on complete age appropriate caring and feeding

practices. In addition, efforts are made to build the capacity of mothers/caregivers through counseling and support to identify the nutrition and health problems in their child.

4.7.1 Admission & Discharge Criteria

<table>
<tr><td colspan="2">Children less than 6 months of age</td></tr>
<tr><td>• Admission Criteria
o Problem of breastfeeding: the infant is too weak to suck
• And/Or
o The mother has not enough milk
• And/Or
o Biletral pitting oedema
• And/Or
o W/H or W/L <-3 Z score (WHO-2005 standards)</td><td>• Discharge Criteria
o Child is gaining weight on breast milk alone, regardless of current weight or W/H%
o No medical Complications
o Absence of Bilateral Oedema for at least past 10 days</td></tr>
<tr><td colspan="2">For children <6 months of age suffering from severe acute malnutrition, emphasis is laid on supporting and sustaining breastfeeding through counselling and re-establishment of lactation in mothers with lactation failure using supplementary suckling technique (SST).</td></tr>
<tr><td colspan="2">Children age 6 months up to 60 months</td></tr>
<tr><td>• Admission Criteria
o W/H or W/L <-3 Z score (WHO-2005 standards)
• And/Or
o MUAC <11.5cm
• And/Or
o Presence of bilateral oedema</td><td>• Discharge Criteria
o 15 % Weight gain from Admission Wt. or weight on the day free of oedema
o Absence of Bilateral Oedema for at least 10 days</td></tr>
</table>

4.7.2 Infrastructure

NRCs are essentially set up in district hospital campus and Community Health Centers with NRC ward of bed strength of 20 or 10, a kitchen with proper cooking and feed demonstration space and attached toilets/bathrooms. A possibility of having kitchen garden can also be explored considering the availability of space. NRC wards are painted with child friendly pictures keeping in mind the emotional and psychosocial development of child. The SAM children admitted continue their stay in NRC for 14-21 days. Four follow ups of the children discharged from NRC at an interval of 15 days is done. The criteria for discharge of children 6m-60m from the programme is 15% weight gain of the admission weight (WHO recommendation 2009).

4.7.3 Human Resource

NRC in M.P. is in form of Facility based care unit governed by

- One doctor
- One Female Feeding demonstrator
- 2 Nurse (10 Bedded NRC)/3 Nurse (20 Bedded NRC)
- 1 Cook (10 Bedded NRC)/2 Cook (20 Bedded NRC)
- 2 Caretakers (10 Bedded NRC)/3 care takers (20 Bedded NRC)

4.8 Bio Medical Waste (BMW)

According to Biomedical Waste (Management and Handling) Rules, 1998 of India "Any waste which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biological.

The Government of India (notification, 1998) specifies that Hospital Waste Management is a part of hospital hygiene and maintenance activities. This involves management of range of activities, which are mainly engineering functions, such as collection, transportation, operation or treatment of processing systems, and disposal of wastes.

4.9 Deep Burial of Bio Medical Waste: A pit or trench should be dug about 2 meters deep and One meter dia. On each occasion, when wastes are added to the pit, a layer of 10 cm of soil shall be added to cover the wastes. When the pit number 1 is half full with waste, it should be covered with lime powder and then fully filled with soil. Than start using the second pit. When second pit is half filled with waste start using the third pit. So on.

4.10 Safe pit or Sharp Pit: Sharps (needles and blades etc) are being used in a day to day practice in all health care establishments. To avoid recycling of sharps, their burial in safe pit is an effective and economical disposal method. It can be constructed by 1 mtr dia and 2 mtr deep circular pit of Brick work. An MS top cover fitted on top of the pit. In the MS cover a 15 x 15 cm door fitted with lock and key which is used to drop Sharps (needles and blades etc) inside the pit. The pit is plastered inside on the wall and the bottom. Outside plastering is not required. When it is filled up, the MS cover plate is removed and cement slurry is used to close it permanently and a second pit is constructed and fitted with the old MS top cover.

Chapter 3: Assessment result of the WiHNRC in Umaria District

1. Water Source, Quality, Management, Distribution and Drinking Water

1.1Water Source Abstraction

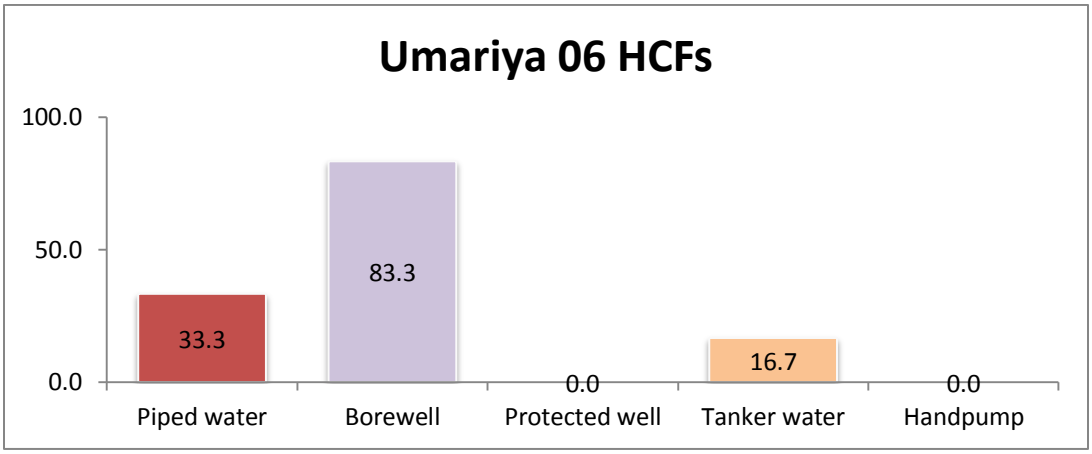


Figure 2: Water Source Abstraction

Above figure states that in all facilities bore well is the main source of drinking water and mostly facilities has their own bore wells but in the season of summer some of them dependent on the water tanker. It was clearly denotes that in summer season facilities suffer from water problems and drinking water is not properly available in the health care facilities. Whereas it was also found that 1 in every two facilities have insufficient water supply.

Chlorination also a problem in these facilities proper chlorination was not doing by the HCFs and more than 3 in 5 facilities are not using chlorination to clean overhead water and storage and source of water also found unprotected and it was increasing the risk of contamination due to leakage. It was not a good picture of the Umaria district.

1.1Water Quality

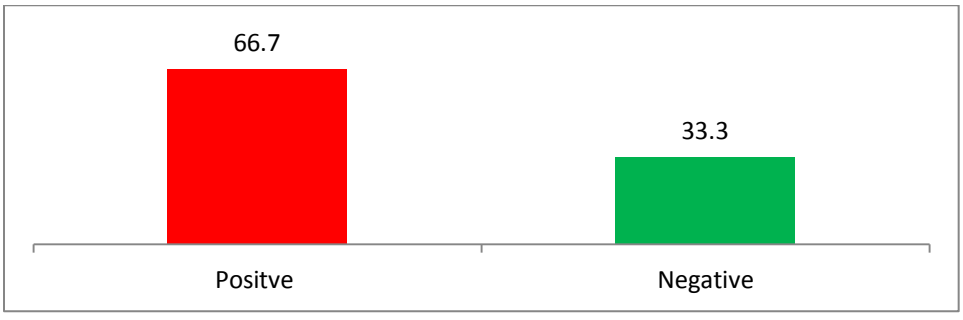


Figure 3: Water Quality

According to the above figure it was surprising that there were no kit available in HCFs for the test of chemical and bacterial contamination. No facility has such kit and water testing was not done by them properly. There is a government laboratory also which is able to do any type of water test but still there was no test done by this laboratory and HCFs official did not take any interest to do this test.

When WASH assessment team checked this water than 66% facilities failed and water of these facilities found positive. It means drinking water of these facilities was infectious and not safe for drinking.

1.2Water Storage, Distribution and Management

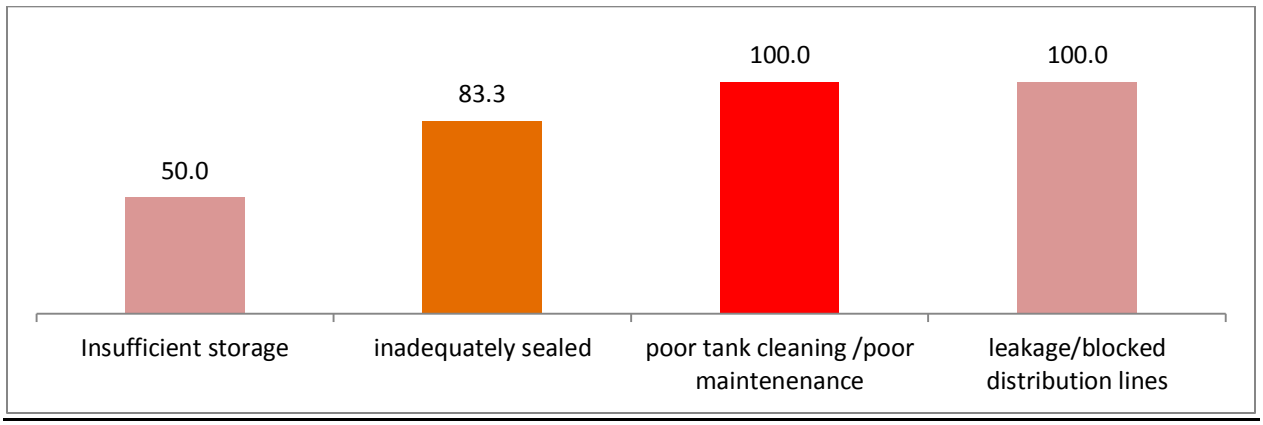


Figure 4: Water Storage, Distribution and Management

Above figure indicates that during this assessment water storage, distribution and management checked by the team and it was found that 1 in 2 HCFs there was insufficient means of the water storage and their storage tanks and source were not sealed or covered properly to stop the water contamination.

All 6 facilities did not have any cleaning system of tanks and water source. It was found that all the tanks were not cleaned and water quality of those tanks was not good.

It was also found that all 6 facilities were not maintaining their water pipelines and pipelines were broken and there was leakage in pipelines. Poor maintenance, inadequately sealed water tanks, insufficient storage and broken pipelines clearly presenting water problem in Umaria and water is an essential thing and everyone has right to have clean water for drinking but in Umaria district no facilities was completing this and all facilities lack to provide clean water or adequate water to their patients and employees.

1.3Drinking Water treatment – Point of use

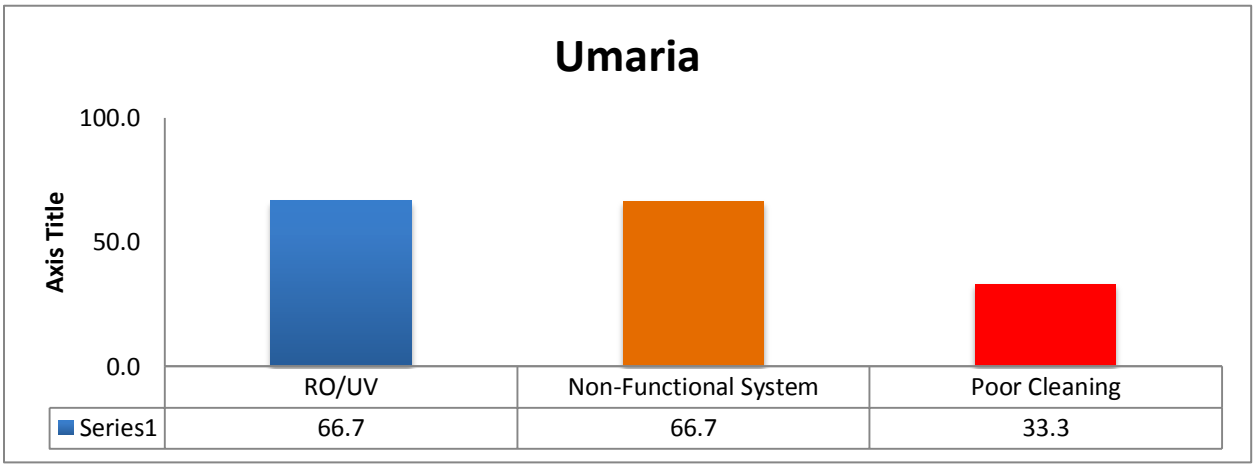


Figure 5: Drinking Water Treatment

This figure is denotes to the water treatment and it was found during the assessment time that there are 66.7% facilities are which have RO/UV installed in the facility but it was also found that all the RO/UV was not working or non functional. It means maintain of these system was not properly and patients and visitors of these facilities were drinking non treated water.

Remaining 33% facilities has RO/UV but cleaning system was poor there. According to assessment it was totally disturbing that 100% facilities were not having treated water.

2. Toilet Facilities

2.1 Toilet Facilities: Superstructure & Disposal System

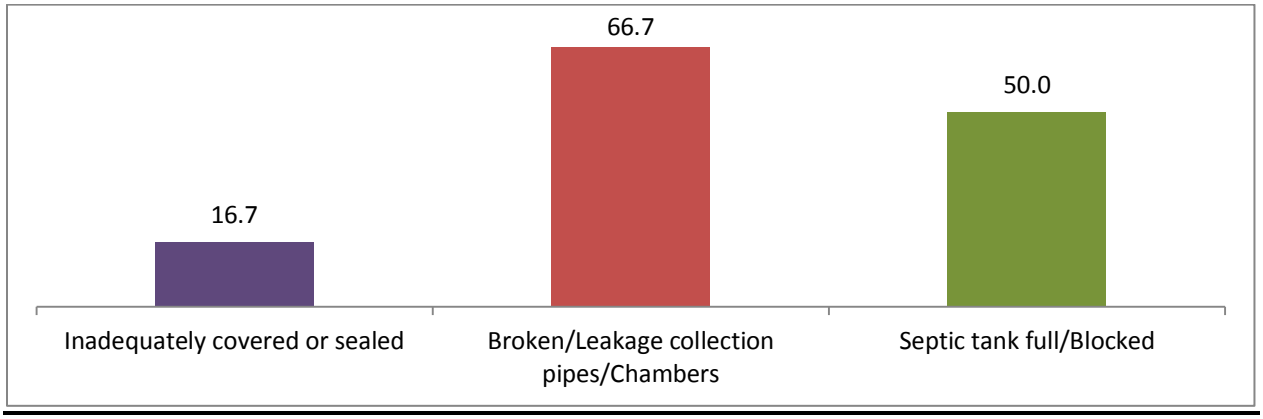


Figure 6: Toilet Facility: Structure and Disposal

Figure 6 is a graphical representation of toilet facilities in HCFs and disposal system it states that there were 1 toilet in 6 facility which was not covered or sealed and 66.7% toilets were broken, leaking pipelines were there and chambers were broken. We can say 100% toilets were not in good condition and it was not a good picture of the facilities. Mostly toilets were non functional

and patients and visitors of HCFs facing many problem regarding toilets. 3 facilities found that their septic tanks were full or blocked and Facility in charge was not paying attention toward this problem.

It was also observed that people who are coming in the HCFs were not using these toilets and open defecation became a problem for the HCFs.

2.2 Cleaning and Maintenance

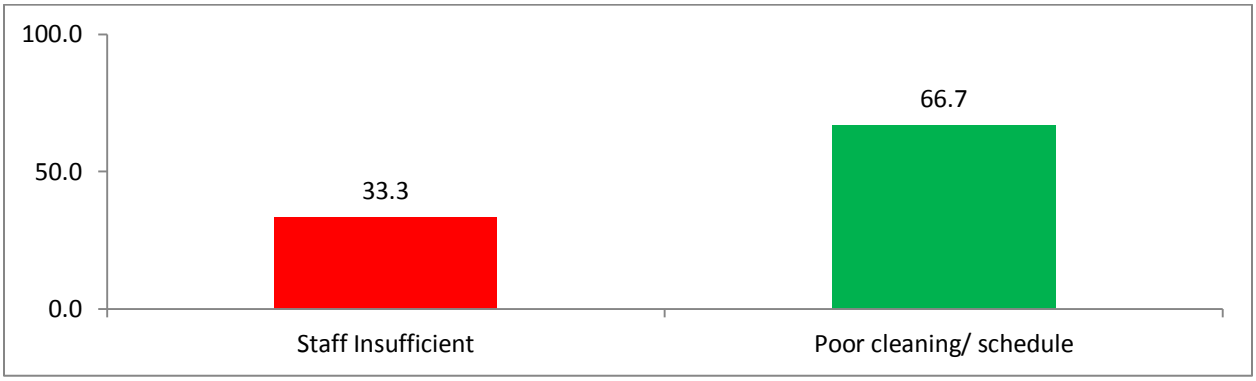


Figure 7: Toilet Cleaning and Maintainace

Above figure represents the data of cleaning and maintenance of the toilets and during assessment of WASH programme it was found that 66% facilities have sufficient staff and 33.3% facilities are lacking in cleaning and maintenance staff. In the first picture it was a good picture but schedule of cleaning was not maintaining by the staff or there was poor cleaning schedule. It was also observed that in the cleaning staff is only cleaning all these only 1 time in a day and rest of the time staff do not pay attention on the cleaning of toilets. According to norm toilets should be clean at least 3 times in a day but mostly facilities were not following this rule and staff was only cleaning toilet only 1 time in a day.

Rest 33.3% facilities were lacking in sufficient cleaning staff and cleaning of the toilets were not proper in these facilities.

2.3 Waste Water Disposal

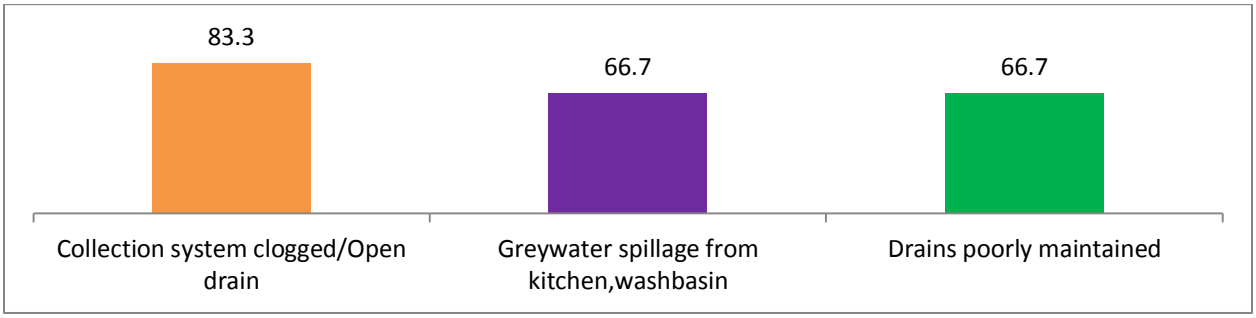


Figure 8: Toilet Waste Water Disposal

This figure indicates about waste water disposal and facilities had poor drainage system and due to this water disposal was a big problem for these HCFs. First water quality was not good in the facilities and drain of this water became a big problem. It was hazardous water and HFCs disposing water openly. According to assessment 4 in 6 HFCs have grey water spillage in kitchen and washbasin and drains maintained poorly.

3. Bio Medical Waste

3.1 Collection

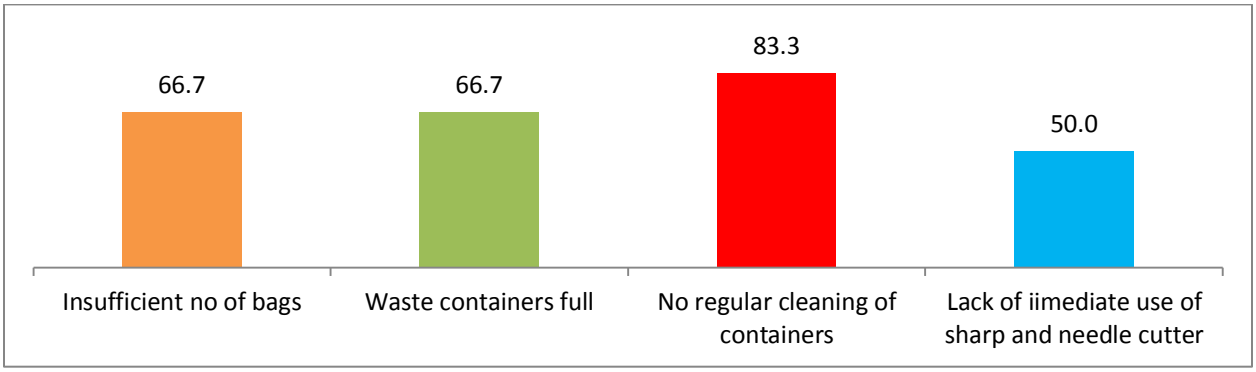


Figure 9: Bio Medical Waste: Collection

Figure 9 represent the data of Bio Medical Waste and in the time of assessment it was found that 66.7% facilities were not having sufficient no. of bags and bins. It was also found that segregation of biomedical waste was not proper in mostly HCFs. Bio Medical Waste Management is a very sensitive area and its causes lots of infection but mostly HFCs was not paying attention in this area and bags and bins were not sufficient.

Waste containers were full and according to the rule it should not be the full and full container should be empty every time. But cleaning and maintenance system was not good and mostly containers were full and cleaning of these containers was not proper.

It was also found that in these container syringe and disposal were thrown with destroying in needle cutter. Needle cutter is an electronic devise which destroy the needle and cut the hub of syringe and after cutting this syringe and needle were safe to throw in bins. But it was not doing by HCFs and syringe and needle were throwing without cutting and destroying.

3.2 Conveyance and Storage

Figure 10: Bio Medical Waste: Conveyance

Conveyance and storage of BMW should be in proper way because it is very sensitive to collect conveyance and store it. BMW should not be kept in openly and should be conveyance safely to the disposed. For conveyance of this a closed trolley should be there in HCFs and after unload of BMW, trolley should be clean properly and disinfect.

Any person who is collecting BMW and conveyed it by trolley should be wear Personal Protective Equipments like Hand Gloves, Masks, Apron, Cap to cover head, Long boots. If a person carrying this waste without PPE then it is not secure for them.

According to assessment it was found that there were 66.7% facilities were carrying this BMW without any Personal Protective Equipments and all these facilities were not having any trolley to conveyance it.

Approximate 83.3% facilities were not having any intermediate storage room to store this BMW and all the BMW were throwing in openly or without segregation.

3.3 Disposal of Bio Medical Waste

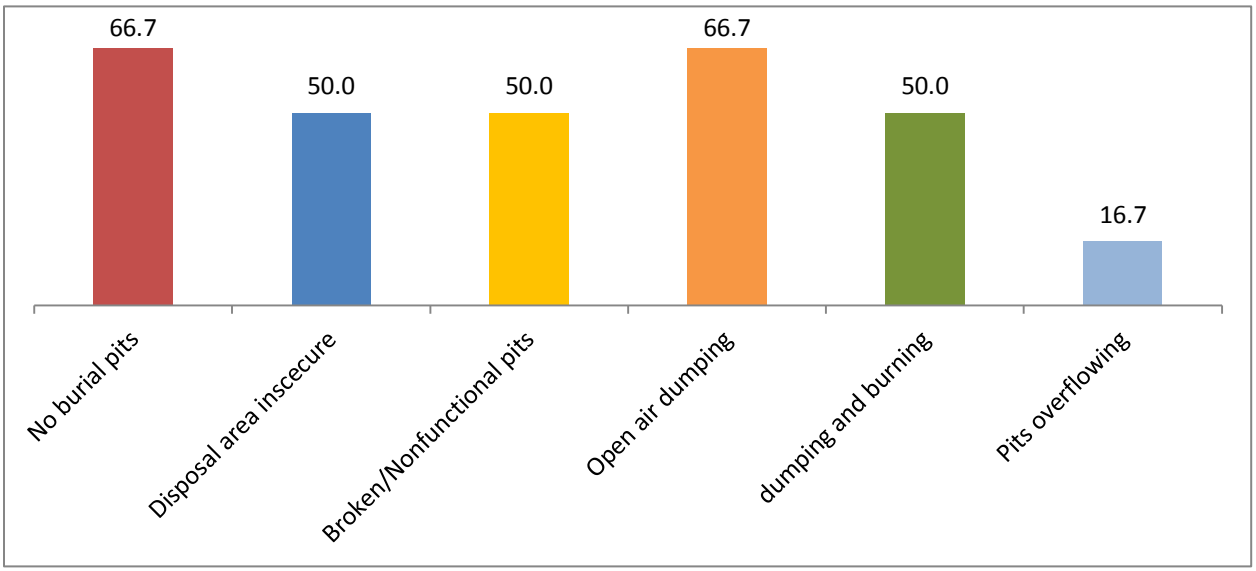


Figure 11: Bio Medical Waste: Disposal

According to the 2011 draft, every HCF shall set requisite bio-medical waste treatment facilities like incinerator, autoclave, microwave system for the treatment of waste, or, ensure requisite treatment at a common biomedical waste treatment facility. At the time of assessment it was found that in the 66.7% facilities there were not burial pits for the waste like placenta (The placenta is an organ that grows inside the lining of uterus during pregnancy.) and it was throwing openly and as it is an organ then animals like dogs, pigs attracted towards it to eat. It is an infectious part and throwing it openly can be a reason to infection. Approximately 50% area of waste disposal was not secure or pits like Sharp, waste pits were broken.

Approximately 70% facilities dumping waste in open air and there were no secure dumping of the waste. Open air dumping is very dangerous because if waste is in open then everyone can reach it easily and it can be hazardous for the people. It was also found that only 50% facilities were burning the waste safely and approx 16% facilities pits were overflowing. It was clear that HCFs were not taking any interest to clear this.

4. Disease Control

4.1 Vector

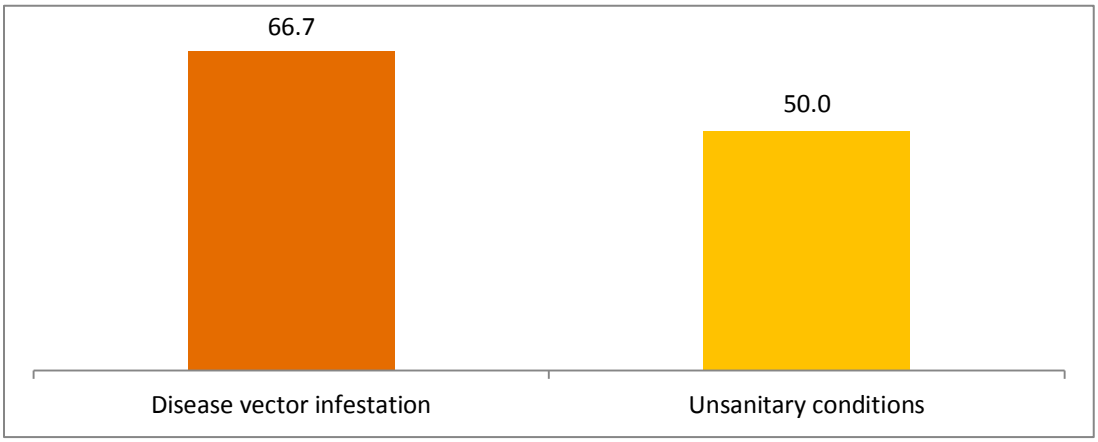


Figure 12: Disease Control: Vector

Vector-borne diseases are infections transmitted by the bite of infected arthropod species, such as mosquitoes, ticks, triatomine bugs, sand flies, and black flies. In India there is a programme which is working for prevent of the vector borne disease. Programme named as National Vector Borne Disease Control Programme (NVBDCP). This programme is aimed to control vector borne disease like Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India.

At the time of assessment in Umaria District it was found that there are 66.7% facilities has disease vector infestation and 50% of these facilities were not maintaining the sanitary condition of floors. Floors were not cleaning time to time and it was became the breeding sites of mosquitoes.

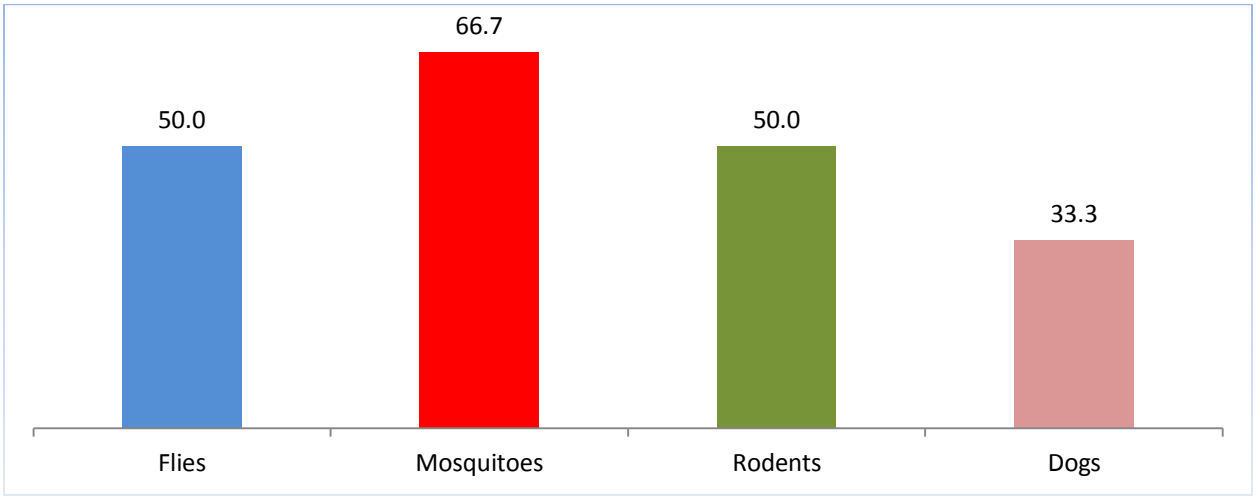


Figure 13: Disease Control: Vector 2

Above figure represent the data of Vector presence in HCFs and almost in every HCF flies, mosquitoes, rodents and dogs found. It was very problematic situation and every facility became breeding site of the vector and rodents, dogs were also a problem. These were attracted towards to the facility because of unsanitary conditions of the HCFs; open dumping of waste and placenta.

4.2 Disease Control Barrier

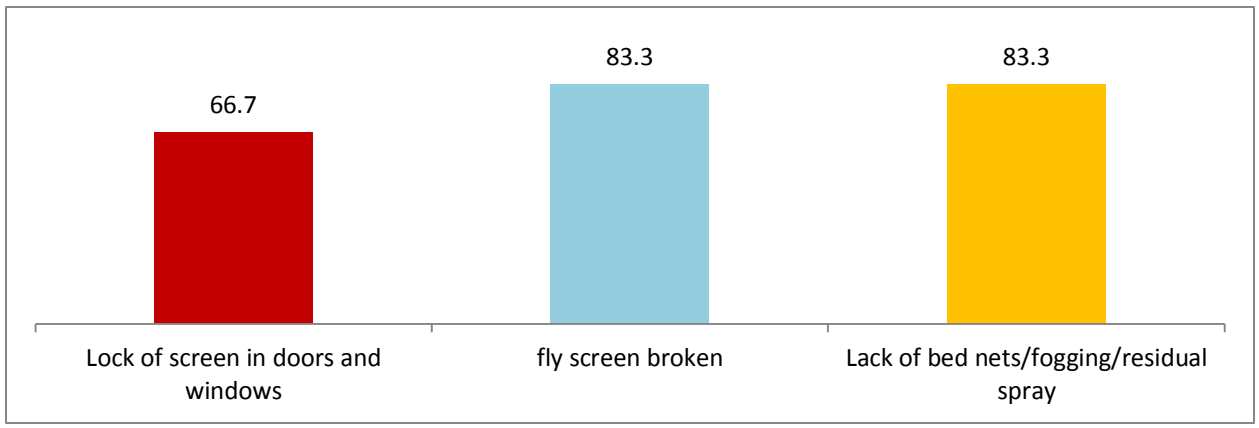


Figure 14: Disease Control: Vector Barrier

Figure 14 denotes the disease control barrier for vector and situation of the all HCFs was not good. To control the vector all the security measures were also not good. Almost every facility were failed to control the vector in the HCFs premises and also there were no prevention methods using by the HCFs. There were lack of screens in approximately 70% HCFs and almost 84% HCFs fly screen were broken and there were lack of Bed net, fogging machine and HCFs also not doing any spray for the prevention of the Mosquitoes and flies.

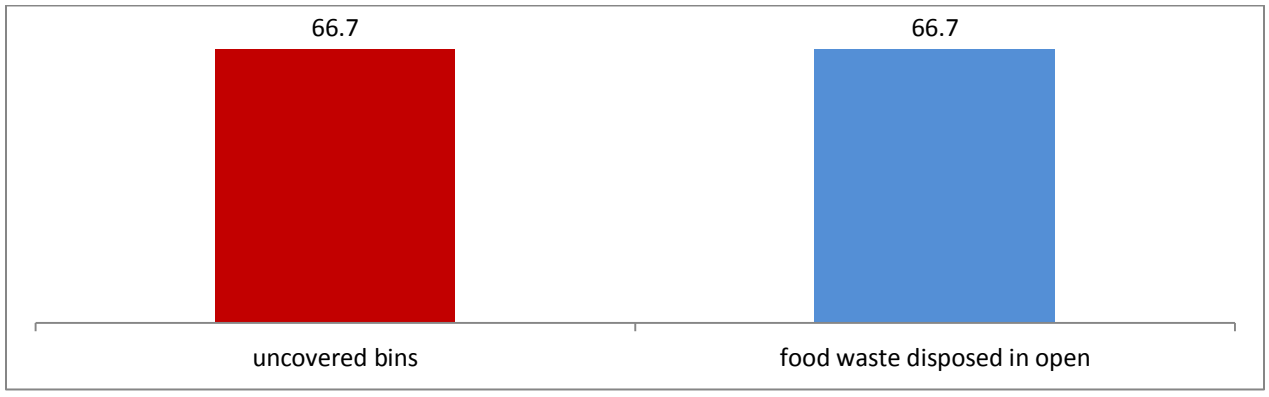


Figure 15Disease Control: Vector Barrier 2

Figure 15 is showing Disease control barrier and according to the assessment uncovered bins, open food waste disposal attracts the rodents, mosquitoes or flies and in 66.7% facilities were not

paying attention in this area. All the bins were open there and people disposing food waste openly. This was the main cause of vector borne disease.

4.3 Hand Washing Access and Use in Umaria HCFs

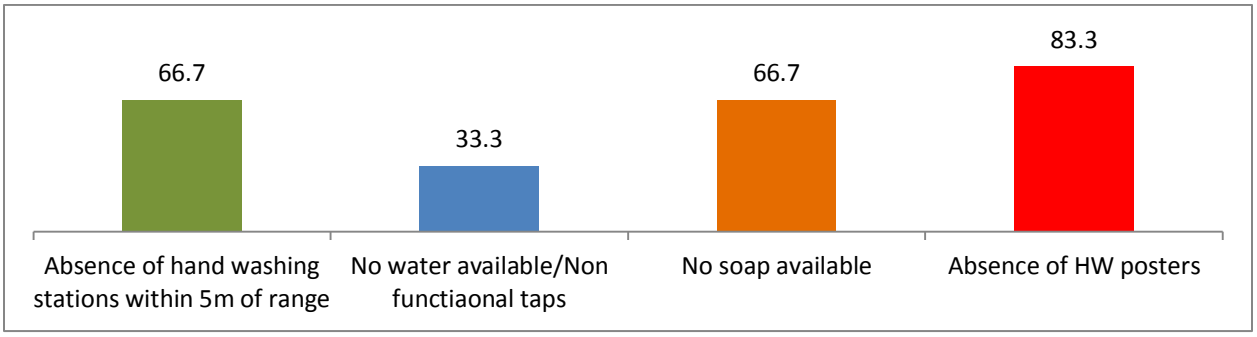


Figure 16: Hand Washing: Access and Use

Proper hand washing can reduce lots of infections and it can also beneficial to reduce IMR. Mostly child die just because of diarrhea and without proper hand washing these children also can catch infection. At the time of assessment in Umaria's HCFs a disturbing picture came in front and it was found that 66.7% facilities did not have hand washing station near the 5 Meter of range and 33.3% hand washing station were not in good condition there were no functional taps and no running water available for hand wash.

A proper hand washing can be complete by the soap and soap plays a great role in the hand washing. Soap is very helpful to reduce the bacterial infection and with the help of soap we can clean our hand properly but in Umaria district there were 66.7% facilities did not have soap to clean hands and 83.3% facilities did not paste any hand washing posters at the hand washing station.

5. Clinical Hand Hygiene

5.1 Access and Use in Umaria

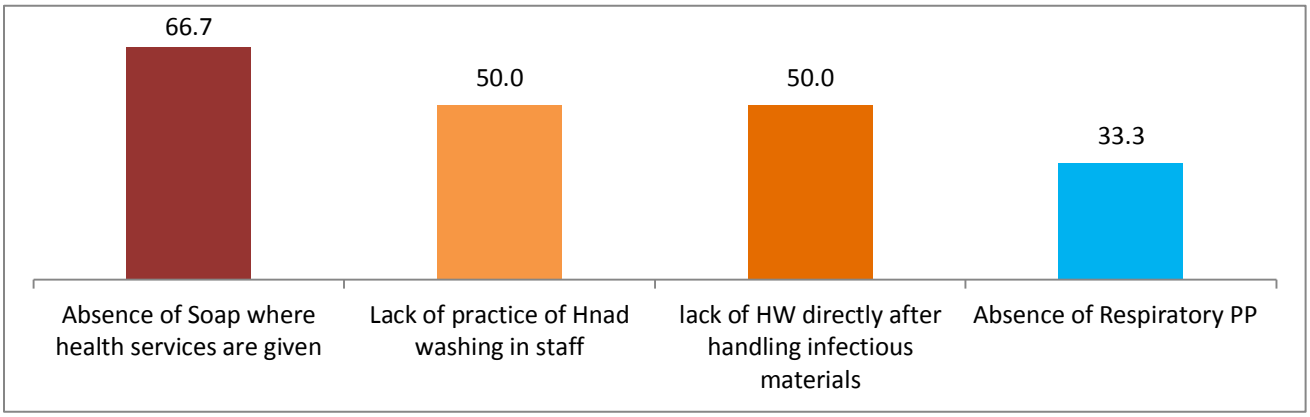


Figure 17: Clinical Hand Hygiene: Access and Use

This data represent the Clinical hand hygiene access and use and at the time of assessment it was found that 66.7% facilities where health care services were given like Operation theatre, SNCU, Labour room there were no soap fond to wash hands properly. Almost 50% HCF's staff were not doing any practice of hand washing it means they were not following six steps to clean their hands. Almost 50% health staff was not cleaning their hand directly after providing any health care services or handling the infectious materials.

Location Based WASH Assessment

1. Post Natal Ward

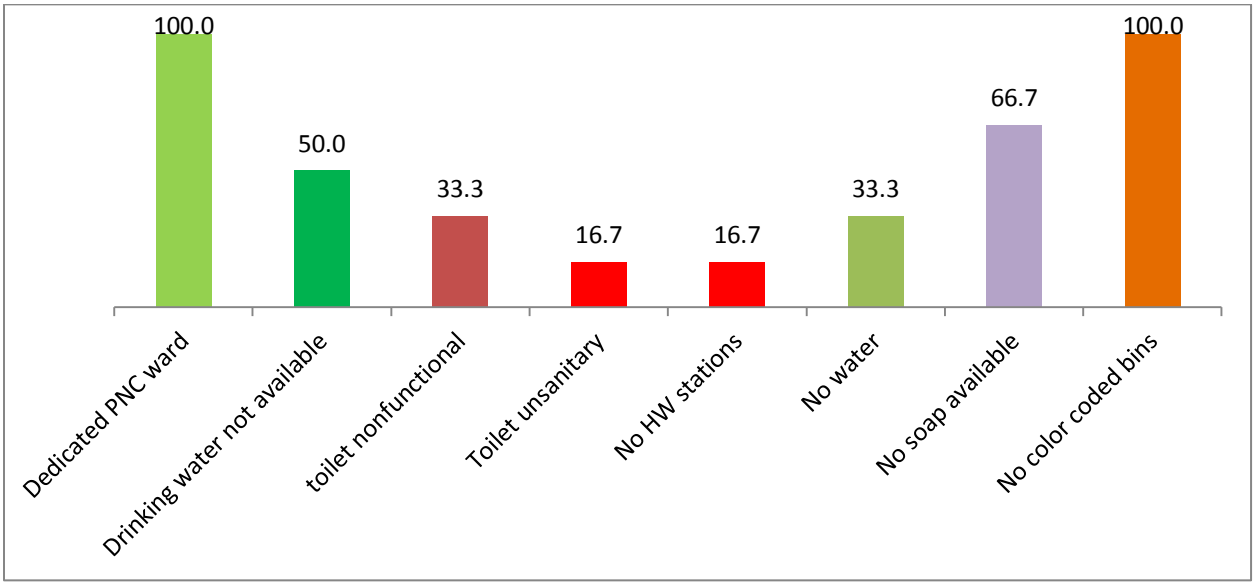


Figure 18: Post Natal Ward Assessment

WASH programme is running on the facilities which have high delivery load that is why every facilities had the dedicated PNC ward and it was a nice picture because every facilities had the facility of PNC care. Care is the different thing and care with full facility is the different thing and all HCF failed to provide these facilities to new borne and mother.

In all HCFs there were 50% facilities were not having drinking water facility and 33.3% HCFs failed to provide proper toilets facility. Toilet reported broken and almost 17% facilities toilets were unsanitary or we can say it was not cleaned as per the norms. 17% HCF did not have proper hand washing station to clean the hands and in if there were hand washing station than there were 33.3% facilities were without water.

Hand washing plays a crucial role to prevent infection and proper hand washing can save us by infection and if a mother washes hands properly than it is 100% secure for her child too. But in 66.7% facilities there were no soap found in the toilets to proper hand washing. It means soap was not available for patients, visitors as well as clinical staff too. Clinical staff was giving their services without proper hand washing and patients and visitors were also not cleaning their hands properly or we can say they were cleaning their hand without soap and it was very dangerous for new borne babies and for their mother.

100% HCFs did not have color coded dustbins in post natal care ward and it means cleaning of PNC ward and ambience of the ward was dirty. All the medicine, syringe, plastic bottles were thrown by people and staff were in the single color dustbin and waste of the HCFs were not segregating by the staff.

2. Labour Room

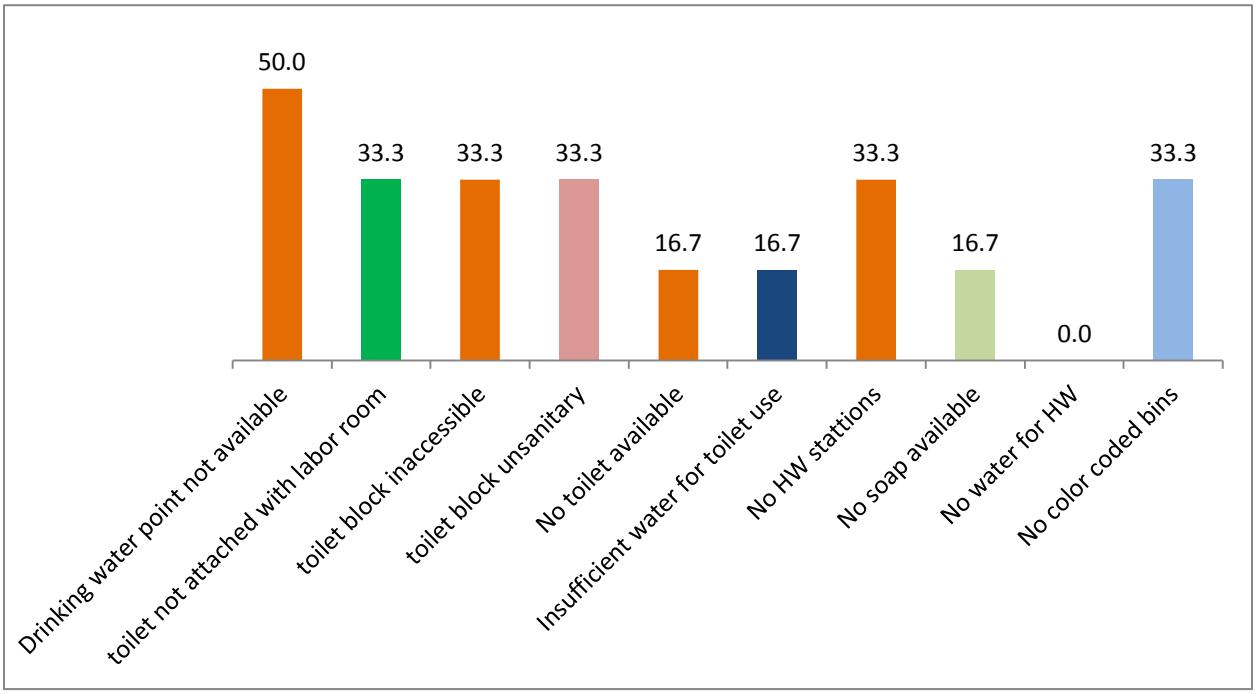


Figure 19: Labour Room Assessment

Figure 19 is a graphical representation of the data of labour room and at the time of assessment of HCFs it was found that mostly HCFs are doing well for labour room but still there were some issue like 50% HCFs did not have drinking water facilities. There were no drinking water point was available. 33.3% HCFs reported no toilet attached with the labour room, toilet block or unsanitary conditions of the toilets. There were 16% facilities with no toilet facility and insufficient water for toilet use.

33.3% HCFs reported no hand washing station and only 16.7% reported with any soap availability, there were no labour room found without water facility for hand washing. It was a good picture for the team that at least there mostly labour room doing very well.

33.3% facilities fond without colour coded bins and it was the problematic because labour room generates lots of Bio Medical Waste and every labour room should have all four colour coded bins.

3. Out Patient Department (OPD)

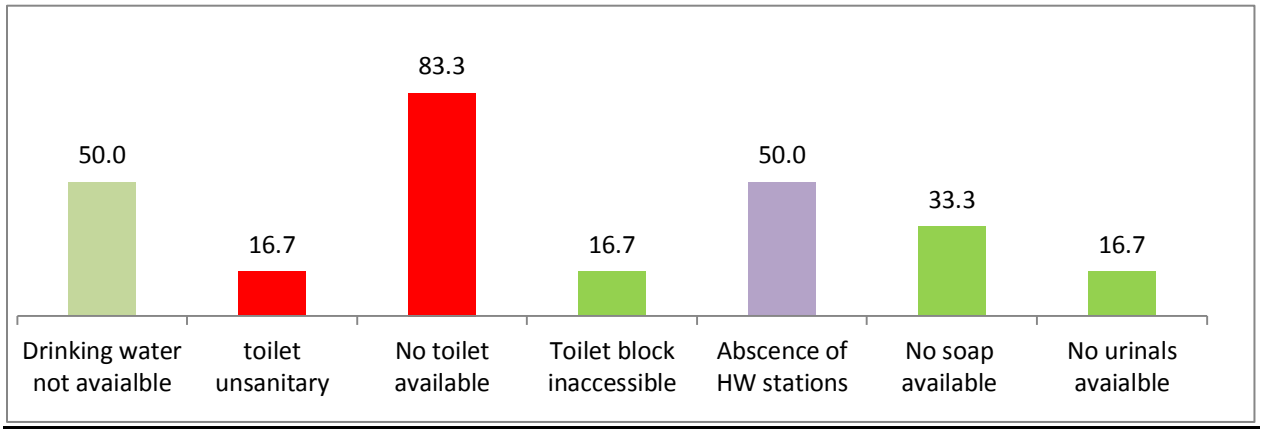


Figure 20: OPD Assessment

OPD is the most crowded area of any HCF and mostly patients first comes in this area. It is crowded and full of patients with the same count of visitors with them. It means all the facility should be there like toilet, drinking water, hand washing station etc.

At the time of assessment it was found that 50% HCFs did not have any Drinking water point. Almost 17% HCFs had unsanitary toilets. Almost 85% HCFs did not have toilets for the OPD patients and visitors and if there was only 16.7% facilities had the toilets but it was blocked. So we can say that almost 100% HCFs did not have any kind of toilet facility for the OPD patients and visitors.

In 50% of HCFs no hand washing station found and if there was hand washing station than 33.3% facilities did not have soap to clean their hands. It was not a good picture for the HCFs. No toilets and urinals were not found there it means OPD was completely neglected and HCFs were not providing toilets facility to the OPD patients and visitors.

4. Sick New Born Care Unit (SNCU)

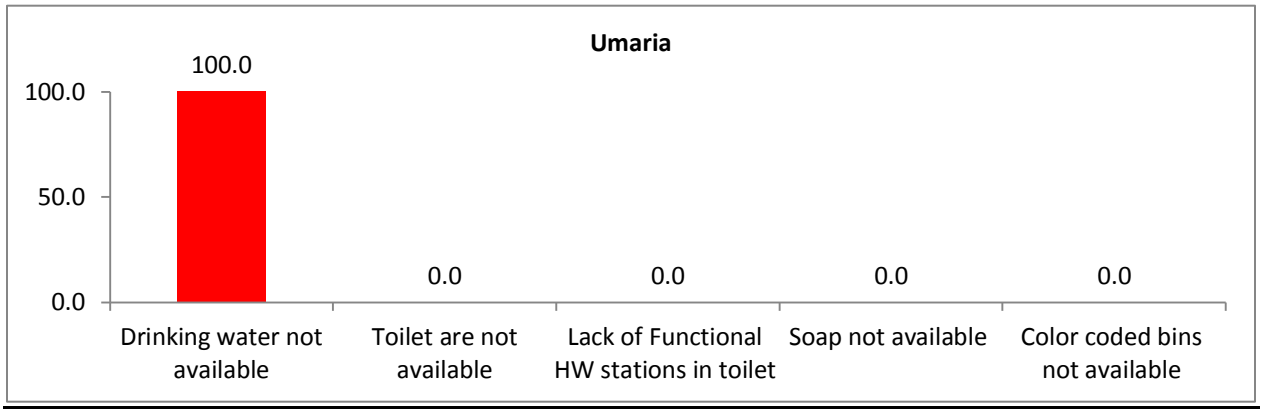


Figure 21: SNCU Assessment

As SNCU is a special care unit and its only for large hospital like district level that is why in Umaria district there is only one SNCU in the District Hospital. SNCU is the main priority of the Government and special focused as new born care is given in SNCU. Every facility should be available there like drinking water for staff as well as for mothers, toilets, hand washing station with the soap and elbow tap, colour coded bins. In the Umaria district there was everything good in SNCU but drinking water station was not there.

5. Nutrition Rehabilitation Centre (NRC)

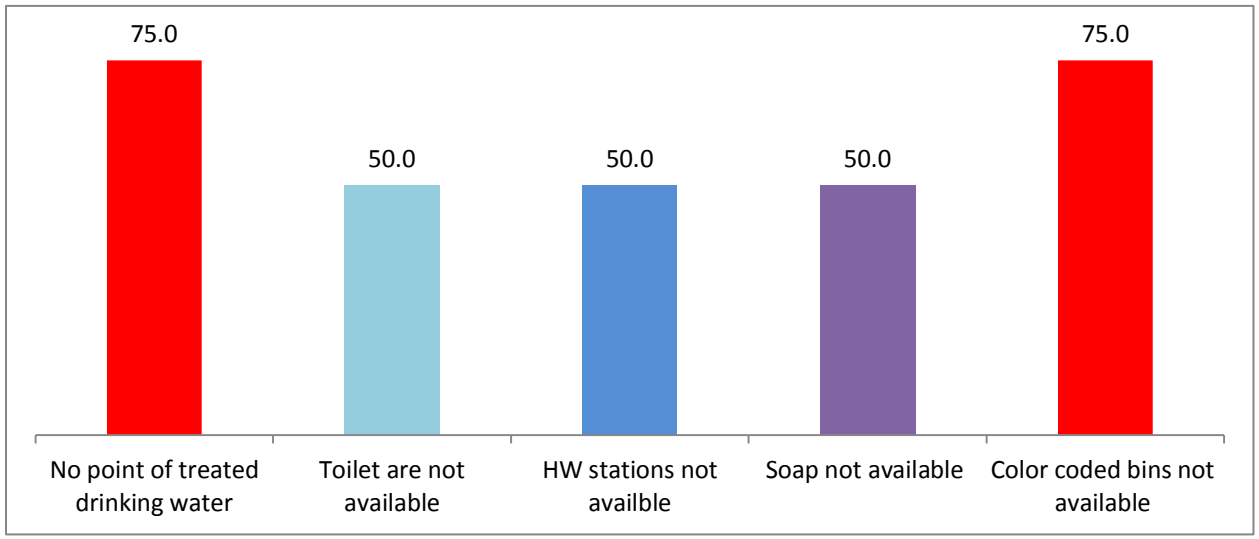


Figure 22: NRC Assessment

There are 4 NRC in the Umaria district and NRC also a main focus area of government as its directly related with the child who are malnourished. According to government NRC should be maintained very effectively and it should not be ignored but after lots of fund, direction and

interest of government Umaria's NRC was not in good condition. 75% of NRC did not have treated drinking water it means Childs were having non treated water or contaminated water and it could be very dangerous for them. 50% NRCs did not have proper toilet facilities it mean child and their mother were defecating openly and it could be the reason of bacterial infection in child.

50% NRC reported that there were no hand washing station and it was not a good picture of NRC. Soaps were not available for hand washing in 50% NRCs. Colour coded bins was not there in 75% of NRCs and waste of NRCs throwing openly. Mostly waste of NRC is food item and throwing food openly can attract the animals and it could be very dangerous for the child who is already suffering from malnourishment.

It's all about the assessment which has done in Umaria district and Umaria is the High Focus District. In this district it was found that HCFs condition is not good and WASH programme should be implement here to improve the conditions of the HCFs.

Key Findings of the Assessment

Drinking Water

- Contamination risks due to unsanitary conditions near by the sources and leakages in the distribution pipe lines;
- No water testing kits available and schedules;
- Water storage tanks – inadequately covered, poor maintenance, untrained staff
- Non functional treatment units at point of use

Toilet & Grey water management

- Filled septic tanks and poor drainage system
- Poor cleaning and maintenance.
- Absence of soap with HW facilities, soap and water.
- Untrained hospital staff

Biomedical Waste

- Poor waste segregation and color coded system;
- Unsafe disposal of hospital waste
- Inappropriate maintenance system and lack of personal protection equipments.

Immediate Action Points Recommended

Grey Water Management

- ✓ Repairing and cleaning of drainage system.
- ✓ Covering and routine cleaning of drains and roofs.

Bio Medical Waste Management

- ✓ Availability of Hub cutter, puncture proof box, sharp boxes at the requisite sites.
- ✓ Availability and use of Color coded bins and plastic bags.
- ✓ Trolley and PPE for safe disposal of the BMW product.
- ✓ Safe storage and disposal of hospital waste through Centralized treatment facility.
- ✓ Construction of Deep burial pits for share and infectious materials.

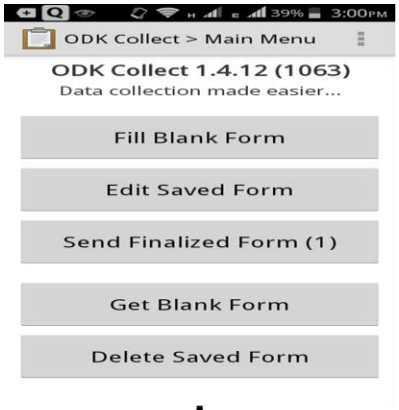
Infection Control Management

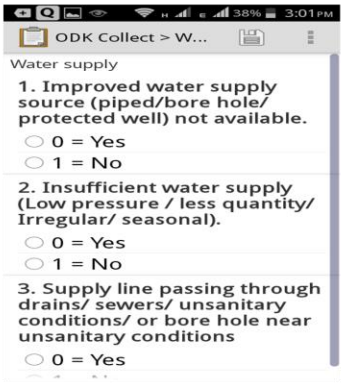
- ✓ Functional Hand washing stations with elbow taps, running water, soap and hand sanitizers.
- ✓ Promotional materials on clinical hand washing.

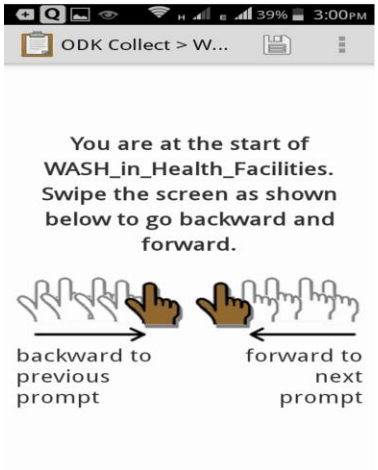
Vector Control Management

- ✓ Routine vector control system and barriers for animals.
- ✓ Follow regular fogging schedules and promote use of mosquito net at wards of HCF.

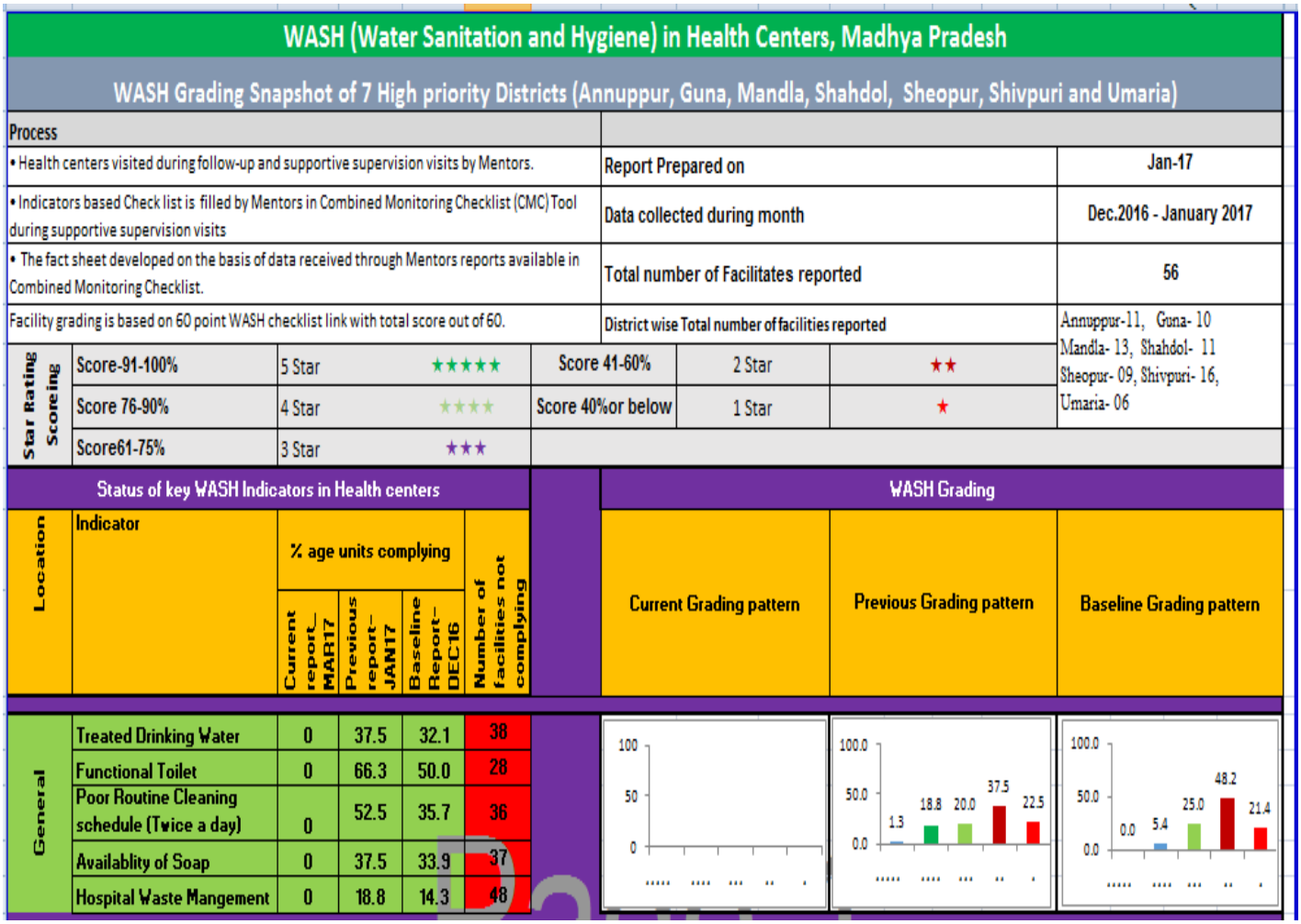
Monitoring and Supportive supervision







- **Star grading tool and its manual - For MENTOR;**
- **Mobile based real time tracking through ODK collect app**



WASH (Water Sanitation and Hygiene) in Health Centers, Madhya Pradesh

WASH Grading Snapshot of 7 High priority Districts (Annuppur, Guna, Mandla, Shahdol, Sheopur, Shivpuri and Umaria)

Process		
• Health centers visited during follow-up and supportive supervision visits by Mentors.	Report Prepared on	Jan-17
• Indicators based Check list is filled by Mentors in Combined Monitoring Checklist (CMC) Tool during supportive supervision visits	Data collected during month	Dec.2016 - January 2017
• The fact sheet developed on the basis of data received through Mentors reports available in Combined Monitoring Checklist.	Total number of Facilitates reported	56
Facility grading is based on 60 point WASH checklist link with total score out of 60.	District wise Total number of facilities reported	Annuppur-11, Guna- 10 Mandla- 13, Shahdol- 11 Sheopur- 09, Shivpuri- 16, Umaria- 06

Star Rating Scoreing						
	Score-91-100%	5 Star	★★★★★	Score 41-60%	2 Star	★★
	Score 76-90%	4 Star	★★★★	Score 40%or below	1 Star	★
	Score61-75%	3 Star	★★★			

Status of key WASH Indicators in Health centers						WASH Grading		
Location	Indicator	% age units complying			Number of facilities not complying	Current Grading pattern	Previous Grading pattern	Baseline Grading pattern
		Current report_ MAR17	Previous report- JAN17	Baseline Report- DEC16				
General	Treated Drinking Water	0	37.5	32.1	38			
	Functional Toilet	0	66.3	50.0	28			
	Poor Routine Cleaning schedule (Twice a day)	0	52.5	35.7	36			
	Availablity of Soap	0	37.5	33.9	37			
	Hospital Waste Mangement	0	18.8	14.3	48			

Month Wise Star Grading and Improvement after intervention

S.No	Facility Name	Star grade in Feb 2017	Star Grade in March 2017	Expected Star Grading in May 2017
1	District Hospital	***	***	****
2	CHC – Pali	****	****	*****
3	CHC Chandiya	***	***	*****
4	CHC- Manpur	**	***	***
5	PHC Karkeli	***	***	*****
6	PHC Nowrozabad	**	**	***

After Implementation of the WASH Programme successfully in UMARIA District it was found that every facility is now taking interest to implement this programme and they are cooperating as much as they can.

1. Improvements after Intervention

1.1 Water Quality

Paramater	Name of Facility					
	District Hospital	CHC-Pali	CHC-Manpur	CHC-Chandia	PHC-Karkeli	PHC-Nowrozabad
Availability of Water	Yes	Yes	Yes	Yes	Yes	Yes
Type of Water Facility	Borewell	Borewell	Borewell	Borewell	Borewell	Borewell
Condition of water Facility	Good	Good	Good	Good	Good	Good
Hygienic condition of water point	Yes	Yes	No	Yes	Yes	Yes
Treatment Available for drinking water	Yes	Yes	Yes	Yes	Yes	Yes
Treatment available in NRC	Yes	Yes	Yes	Yes	Yes	Yes
H2S Test Positive	Yes	No	No	No	No	No

Above table states that almost in every facility there is improved facility of drinking water. There are water treatment available in every facility and mostly facility has its own source of water. After the WASH intervention drinking water facility has improved completely and there is no facility which does not have treated water for drinking.

1.2 Toilet Facility

Paramater	Name of Facility					
	District Hospital	CHC-Pali	CHC-Manpur	CHC-Chandia	PHC-Karkeli	PHC-Nowrozabad
Toilets available	Yes	Yes	Yes	Yes	Yes	Yes
Separate Toilets for Men and Women	Yes	Yes	Yes	Yes	Yes	Yes
Condition of Toilets	Good	Good	Good	Good	Good	Good
Functional Hand Washing Station	Yes	Yes	Yes	Yes	Yes	Yes
Soap Available for Hand Washing	No	Yes	No	No	Yes	No
Running water available for Handwashing	Yes	Yes	Yes	Yes	Yes	No
Toilet Block or Non Functional	Yes	No	Yes	No	No	Yes

Above table indicates that toilet facility is available in almost every facility. There are separate toilets for men and women in every facility and mostly facilities have all toilets functional. Soap for hand washing is the main issue as there are only two facilities which have soap for hand washing in the facility and there are two facilities which have toilets block. District hospital has sufficient toilets for the visitors but there is a section which is block and other is working very well and in Nowrozabad there are toilets which are partially blocked.

1.3 Hygiene Facility

Paramater	Name of Facility					
	District Hospital	CHC-Pali	CHC-Manpur	CHC-Chandia	PHC-Karkeli	PHC-Nowrozabad
Hand Washing Facility						
Presence of Hand Washing Station	Yes	Yes	Yes	Yes	Yes	Yes
Type of Hand Washing Station	Wash Basin	Wash Basin	Wash Basin	Wash Basin	Wash Basin	Wash Basin
Condition of Hand Washing Station	Good	Good	Good	Good	Good	Bad
Soap for Hand Washing	No	Yes	No	No	Yes	No
Cleanliness of Hand Washing Station	Yes	Yes	Yes	Yes	Yes	Yes
Hand Washing Station non functional	No	No	No	No	No	Yes
Bio Medical Waste Management						
Color Coded Bins for waste	Yes	Yes	Yes	Yes	Yes	Yes
Proper Waste Segregation	Yes	Yes	No	No	No	No
Proper waste disposal	Yes	Yes	No	Yes	Yes	No

Following table shows that there are mostly facilities are following the intervention and they are maintaining hygiene. There are some facilities which are not improving very fast but still they are trying. Soap for hand wash, waste segregation is the main problem which should be address very soon. There is only one facility which has bad condition of hand washing station and it's good that almost every facility now have proper hand washing station.

Chapter 4: Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centers and NRCs District for the WASH Programme

1. Introduction

This Assessment done on patients who are using the HCFs services. In this assessment mostly women participants included. Women are the most focus area of the government of MP and in this programme also because if women is taking care about their daily hygiene then it can be very helpful to reduce the IMR.

This assessment done in 3 category Drinking Water, Toilets and Waste Management. Waste management. Question related to drinking water, toilets facilities and waste management asked them and there were no forced assessment done. It was completely depend on the respondent that what he answers. Mostly women were in right direction and they were giving answer very clearly. Male respondent also included in this assessment and they also answered very well. All respondent were the regular visitors of the HCFs and respondents who are coming first time in the facility kept excluded from this assessment.

2. Objective of the Study

- To assess the WiHNRC intervention and find out its impact.
- To assess the visitors perspective about Water, Sanitation and Hygiene in Health centres and NRCs.

3. Source of Data

- Primary Data: Raw data was collected from the primary sources available

4. Sampling

- From every facility 10 respondents had chosen on the basis of their time visit in HFC.

Assessment Results

1. Drinking Water Services

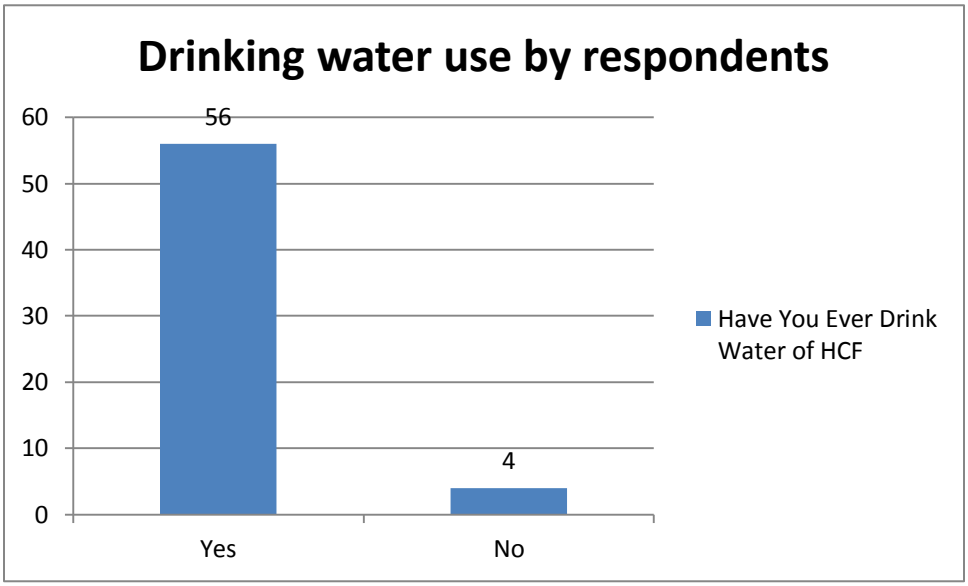


Figure 23: Drinking Water Service Assessment

Umaria Districts mostly population is tribal and people who are living here not well educated and poor also. In this time of development still people are using Well for drinking water and quality of water does not matter for them because they are habitual to drink water which comes direct from the surface. That is why what kind of water they are having and what is the quality of water they ignore it and drink whatever water which is available. In this assessment found same and in the 60 respondents 56 were having the drinking water which is available in the facility. People want to have treated water but if it is not available then they do not hesitate to have water without treatment.

2. Quality of Drinking Water

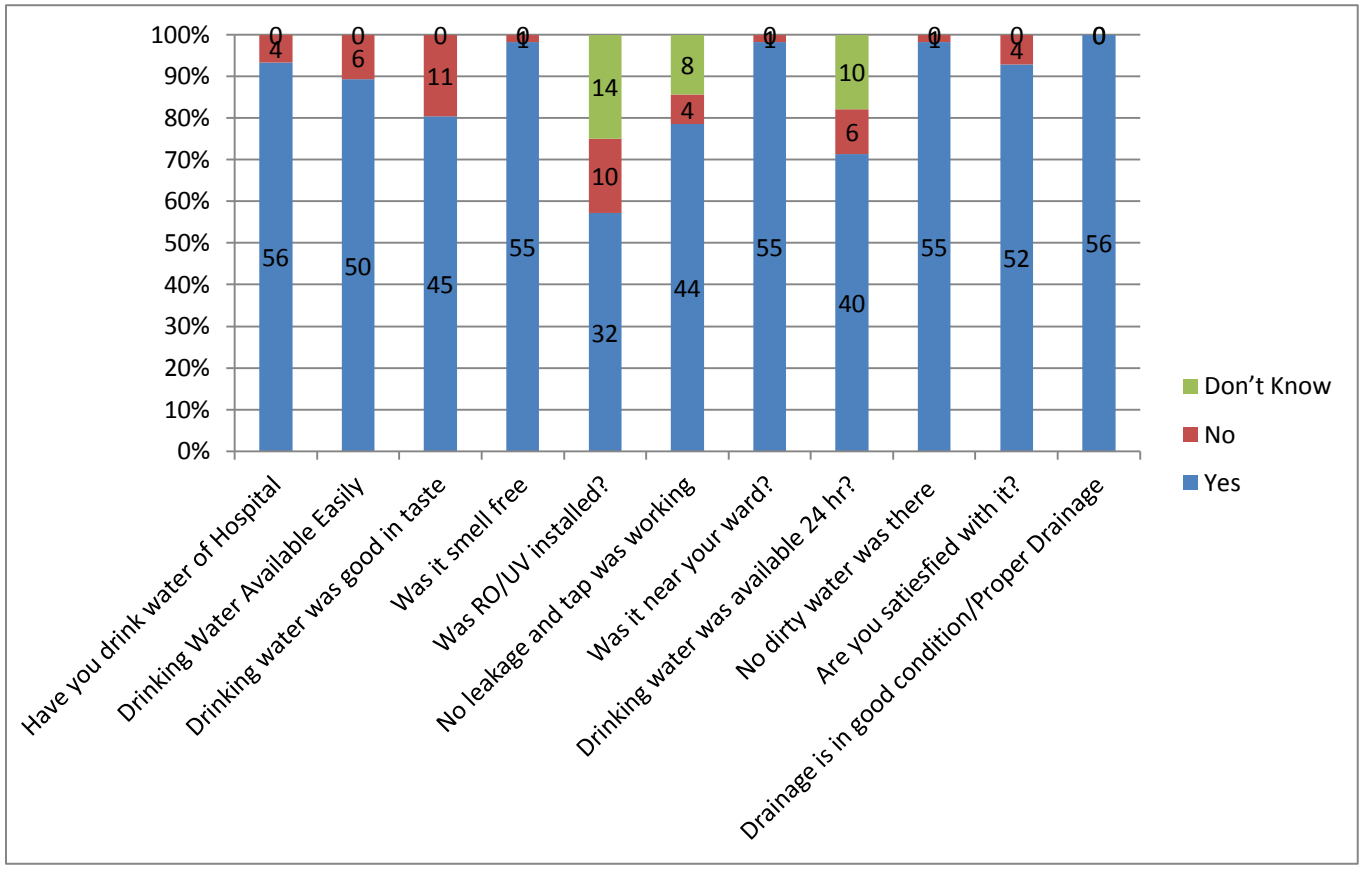


Figure 24: Quality of Drinking Water Visitor Assessment

In this category there were 11 question asked to the respondents and mostly question related to the water quality. In all 60 respondents there were 56 respondents who are using the drinking water of HCFs and 4 were not having. 50 respondents were agreeing that drinking water was easily available and 45 respondents were agree that it was good in taste. Approx 82% respondent were given answer as yes in of different question like drinking water was good in taste, RO/UV was installed, No leakage found there, Station was near the ward, no dirty water there and almost 87% respondents were satisfied with the drinking water facility.

Average 4% respondents given their response as no in all category and they were saying that facilities should be improved by the health care facility and this kind of facility is not in the condition to use. Facilities should be improved more. Almost 6% respondents were not satisfied with the facility of drinking water.

There were average 5% respondents who did not given their response in any category and because they were regular visitors of the hospital but they were not paying attention to the drinking water facility.

3. Toilets Facility

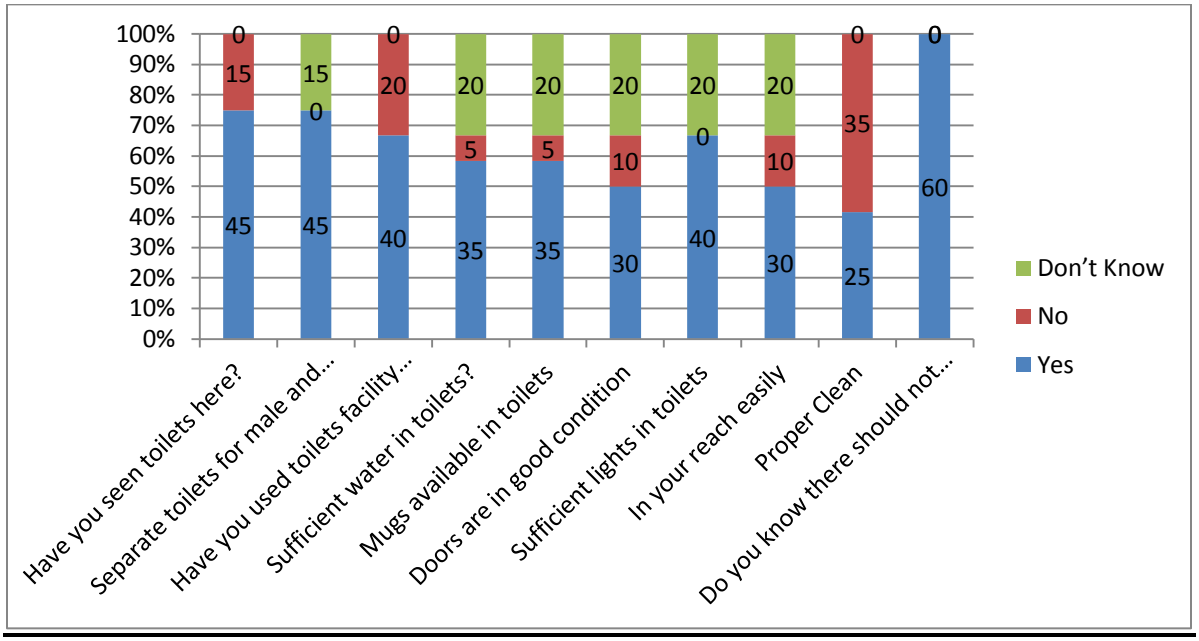


Figure 25: Toilet Facility: Visitor Assessment

Toilet facility is an essential facility which should be provided by HCFs as they are providing drinking water facility. Mostly HCFs providing toilet facility but in all assessment this area was not good as much as others. As 25% patients responded that they did not see any toilet here to use. Only 66.66% people agreed that they are using the facilities of toilet and it was very surprising that approximately 33.33% respondents were using toilets of outside or they were going outside. Already they were patients but still they were using the facilities of outside so it could be dangerous for them.

4. Hand Washing

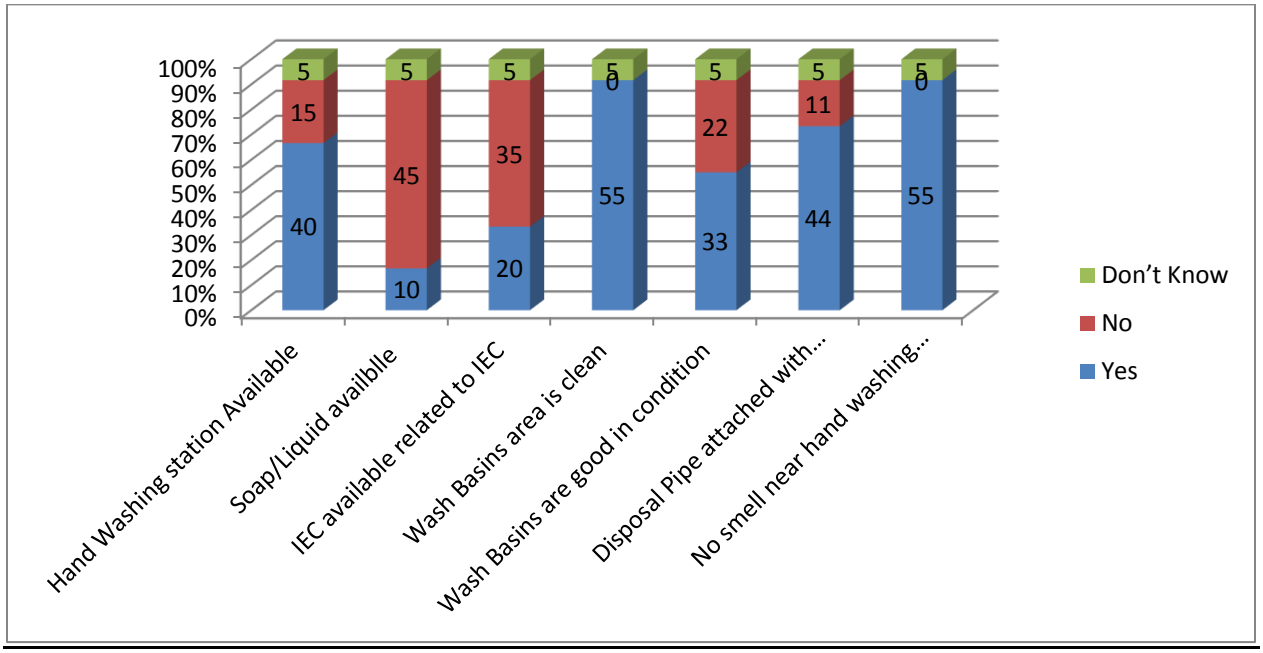


Figure 26:Hand Washing Facility: Visitor Assessement

By an effective and proper hand washing we can save a life of child. It is found that many child die just because of sepsis and diarrhea and it was just because of infection or hand washing. In this assessment respondents answered about hand washing stations. Only 66.66% respondent answered that hand washing station available in the premises of Hospital and 25% were disagreeing. Approx 9% answered as don't know. Handwashing is essential for everyone and if we have toilets than there should be hand washing station necessarily but condition was not good in the Health Care Facilities. Cleaning of hand washing stations doing on regular basis by the Health care facilities but almost 75% patients denied that there was no soap or liquid hand wash available to wash the hands properly.

5. Bio Medical Waste Management

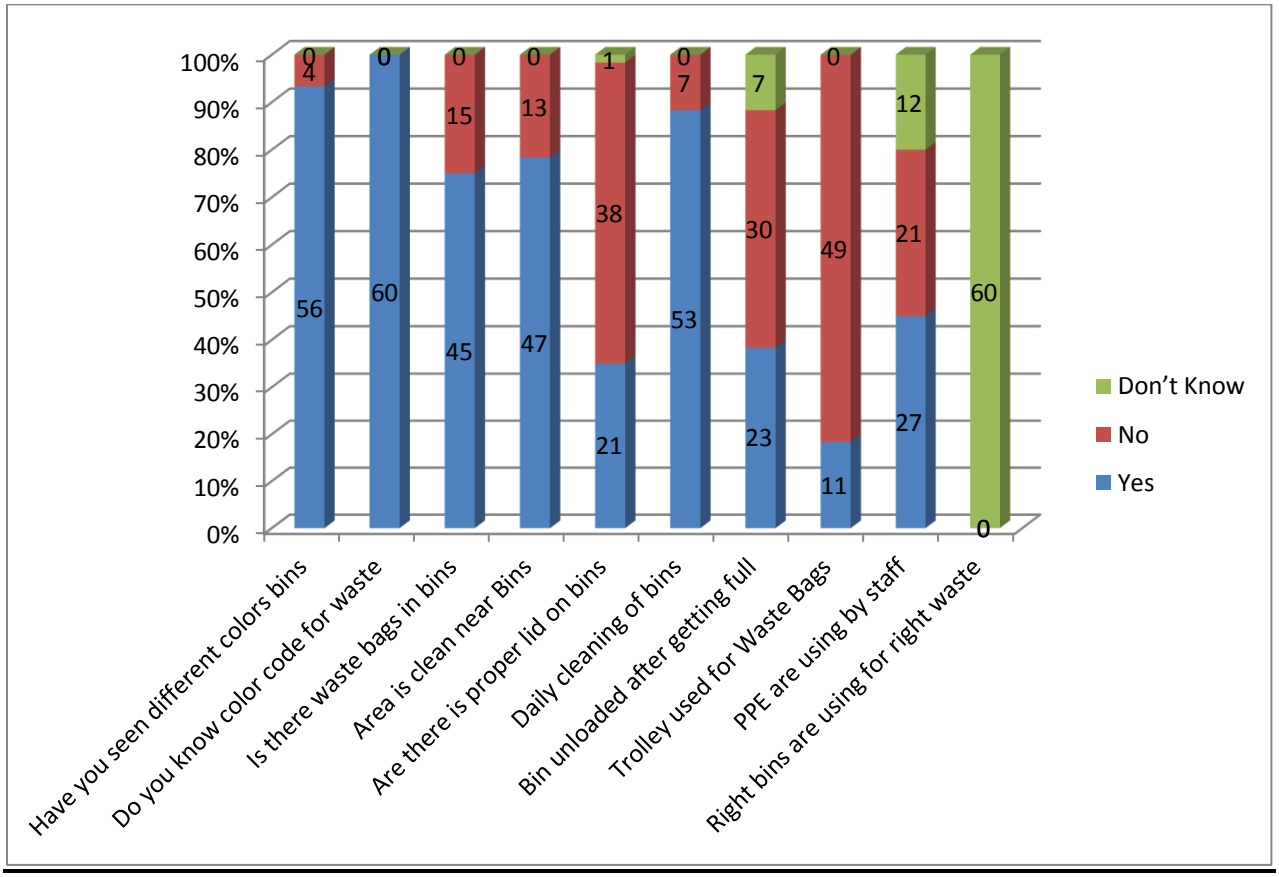


Figure 27:Bio Medical Waste Management: Visitor Assessment

In this assessment 10 questions asked by the patients and these questions were related to Medical Waste Management. Approx 94% respondents given a positive picture and they were agreeing that they have seen color coded dustbins here but they all did not know why they are different in colors and which color code is using for which kind of waste. Here it was clear that they were picking dust bin randomly and throwing plastics, rappers, food items in almost every dustbins. Overall here was a good picture of waste management but use of trolley for carrying waste and

6. Overall Improvement

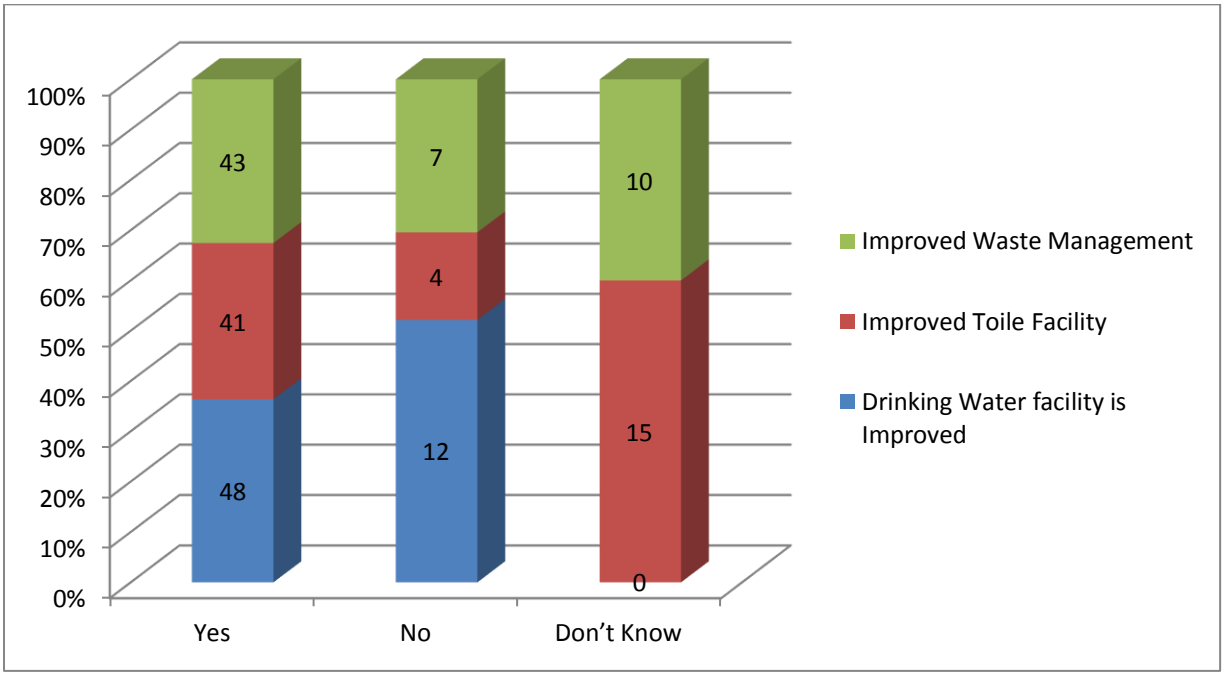


Figure 28: Overall Improvement: Visitor Assessment

There were three question for overall improvement and mostly people agreed that condition of HCFs are now improving and there is lots of changes in HCFs as now they are providing good facilities including water, toilet and cleanliness. 80% respondents were satisfy with the drinking water facility and approx 69% respondents were satisfy with the toilet facility on the other hand more than 70% respondents were satisfy with the cleanliness and waste management.

References

1. Census of India 2011
2. Sample Registration Survey (2013) Chapter 4 – Estimates of Mortality Indicators [Online]. Available at : http//www.censusindia.gov.in/vital_statistics/SRS_Reports_2013.html (accessed 27 July 2016)
3. Brief note in Healthy Start-WASH in healthcare facilities – Bhopal, Sehore, Panna and Tikamgarh districts of Madhya Pradesh, 2016

APPENDICES

Visitor's Perspective about Water, Sanitation and Hygiene (WASH) in Health Centers and NRCs in selected districts of Madhya Pradesh

Questionnaire for Rapid Assessment

जिला : उमरिया

vLirky dk izdkj DH -1 CHC -2 PHC -3

अस्पताल का नाम : _____

अस्पताल में ईलाज के लिए आये हुए आगंतुकों से पूछे जाने वाले प्रश्न

प्र.-1. **vkxUrqd dk uke &**

प्र.-2. **vkxUrqd dk ?kj dk irk** (अनिवार्य नहीं) **&**

प्र.-3. **vkxUrqd dk LkaidZ lw=** (अनिवार्य नहीं) **&**

प्र.-4. **vkxUrqd dh vk;q &**

प्र.-5. **fyxa&** पुरुष - 1 महिला -2

प्र.-6. आप कितनी अवधि से बीमारी के ईलाज के लिए इस अस्पताल में आ रहे है. ?

1) विगत छः माह से
2) छः माह से 12 माह
3) 12 माह से अधिक

iz- 7- vki bl vLirky esa fdl प्रकार dh lsok,a ysus ds fy, vk, gS"?

1) lzklo पूर्वZ lsok ysus ds fy;s
2) lzklo lsok ysus ds fy;s
3) lzklo i'pkr~ lsok ysus ds fy;s
4) Okkg; jksxh foHkkx esa lsok ysus ds fy;s
5) lkks"k.k iquokZl dsUnz esa lsok ysus ds fy;s
6) vUr% jksxh foHkkx esa lsok ysus ds fy;s

प्र.-8 अस्पताल में पेयजल व्यवस्था, साफ-सफाई, शौचालय एवं स्टाफ के व्यवहार सम्बंधित मुख्य परिवर्तन आपने क्या देखा?

(अ) पहले से ज्यादा बेहतर पेयजल प्रबंधन हुआ है!

(ब) पहले से ज्यादा साफ-सफाई रहती है!

(स) शौचालय एवं मूत्रालय पहले से अधिक स्वच्छ हो गए है!

(द) डाक्टर नर्स एवं अन्य स्टाफ का स्वच्छता के प्रति व्यवहार में सुधार हुआ है!

(इ) अन्य.....

{1} पेयजल व्यवस्था से सम्बंधित प्रश्न :-

प्र.-9 क्या आपने अस्पताल में आने के बाद पीने के पानी के स्थान से पानी पिया है? हाँ / नहीं

यदि हाँ तो बताएं-

प्र.-10 D;k is;ty vklkuh ls miyO/k Fkk \ हाँ / नहीं

प्र.-11 D;k पेयजल का स्वाद अच्छा था ? हाँ / नहीं

प्र.-12 D;k पेयजल बदबू रहित एवं धुंधलापन मुक्त था ? हाँ / नहीं

प्र.-13 D;k पेयजल का स्थान गंदगी मुक्त था? हाँ / नहीं

प्र.-14 D;k पेयजल के स्थान पर RO अथवा फ़िल्टर लगा हुआ था ? हाँ / नहीं

प्र.-15 D;k पेयजल के स्थान पर नल सही था एवं कोई लीकेज नहीं था ? हाँ / नहीं

प्र.-16 D;k पेयजल का स्थान आपके वार्ड से नजदिक था ? हाँ / नहीं

प्र.-17 D;k पेयजल पर्याप्त मात्रk में था / 24 घंटे मिल रहा था ? हाँ / नहीं

प्र.-18 क्या पेयजल की वयवस्था इस अस्पताल में आपके हिसाब से संतोषप्रद है ? हाँ / नहीं

प्र.- 19 अस्पताल परिसर में पेयजल स्त्रोत अथवा पेयजल के स्थान के पास बेकार पानी का जमाव नहीं था? हाँ/ नहीं

प्र.- 20 अस्पताल परिसर में बेकार पानी की निकासी हेतु बनाई गई नालियों में पानी सुगमता से बह जाता है? हाँ/ नहीं

प्र.- 21 पिछले छः माह में आपने पेयजल व्यवस्थ्या में मुख्य सुधार क्या देखा ?

1) vLirky esa LoPN ,oa lqjf{kr ikuh feyus yxk gS ,oa O;oLFkk osgrj gqbZ gSA
2) vLirky esa is;ty dh O;oLFkk esa dksbZ lq/kkj ughq gqvk gSA

{2} शौचालय वयवस्था से सम्बंधित प्रश्नः-

प्र.-22 क्या आपने इस अस्पताल में शौचालय बने हुए देखा है? हाँ /नहीं
प्र.-23 क्या अस्पताल में पुरुषो एवं महिलाओ के लिए अलग-अलग शौचालय बने हैं? हाँ /नहीं
प्र.-24 क्या आपने इस अस्पताल के शौचालय का इस्तेमाल किया है? हाँ /नहीं
प्र.-25 शौचालय में इस्तेमाल के लिए पर्याप्त पानी कि वयवस्था थी? हाँ /नहीं
प्र.-26 शौचालय में मग या डिब्बा रखा हुआ था? हाँ /नहीं
प्र.-27 शौचालय में दरवाजा अन्दर से बंद होता है (आपकी निजता एवं सुरक्षा के लिए)? हाँ /नहीं
प्र.-28 शौचालय के अन्दर पर्याप्त रौशनी थी ?
हाँ/नहीं
प्र.-29 शौचालय व्यवस्था आसानी से आपकी पहुँच में थी? हाँ/नहीं
प्र. -30 शौचालय में सफाई की स्थिति कैसी थी ?
(a) बहुत गन्दा एवं मल से भरा हुआ है (जाम)।

(b) शौचालय की शीट पीली एवं बदबूदार है|
(c) शौचालय की शीट टूटी हुई है|
(d) शौचालय स्वच्छ एवं साफ-सुथरा है|

प्र.-31 क्या आपको जानकारी है कि खुले में शौच नहीं करना चाहिए, शौच के लिए शौचालय का ही प्रयोग करना चाहिए ?

हाँ/नही

प्र.-32 यदि हाँ तो जानकारी का स्त्रोत क्या था?

(अ) टीवी पर दी गई जानकारी से (ब) पोस्टर के चित्रों से (स) रेडियो /FM से

(द) अस्पताल के स्टाफ द्वारा (इ) प्रेरक द्वारा

प्र.- 33. क्या आप शौचालय की व्यवस्था से संतुष्ट है?

हाँ/नहीं

{3} हाथ धोने की व्यवस्था सम्बन्धी प्रश्न:-

प्र.-34 क्या शौचालय के पास में हाथ धोने की व्यवस्था है ? हाँ/नहीं

प्र.-35 यदि है तो निम्नमेंसे किस प्रकार की व्यवस्था है?

(अ) पानी की बाल्टी एवं मग है (ब) नल / टोंटी लगी हुई है (स) वाश बेसिन जिसमे नल लगा हुआ है

प्र.-36 हाथ धोने के स्थान पर साबुन अथवा लिक्विड सोप रखा हुआ मिला? हाँ/नहीं

प्र.-37 हाथ धोने के स्थान के आस-पास हाथ धोने के तरीके से सम्बंधित कोई पोस्टर या वाल पेंटिग आपने देखी है? हाँ/नहीं

हाथ धोने की स्थिति सम्बंधित निम्न जानकारी दीजिये :

(38) वाश बेसिन के आस-पास साफ-सफाई है? हाँ/नहीं

(39) क्या वाश बेसिन की स्थिति सही थी (कोई टूट फुट तो नहीं थी)? हाँ/नहीं

(40) वाश बेसिन स्वच्छ एवं साफ सुथरा था? हाँ/नहीं

(41) वाश बेसिन का डिस्पोजल पाइप लगा हुआ था? हाँ/नहीं

(42) हाथ धोने का स्थान दुर्गन्ध रहित था ? हाँ/नहीं

{4} जैव चिकित्सकीय आप्शिष्ट के प्रबंधन सम्बन्धी प्रश्न :-

प्र.-43 आपने अस्पताल परिसर में अलग-अलग रंग केकचरा पात्र देखे हैं? हाँ/नहीं

प्र.-44 क्या आपको पता है कि किस रंग के कचरा पात्र में कौन सा कचरा डालना चाहिए? हाँ/नहीं

प्र.-45 उक्त प्रश्न का उत्तर यदि हाँ है तो जानकारी का स्त्रोत बताएं-

(अ) अस्पताल परिसर में लगे हुए पोस्टर

(ब) अस्पताल कर्मियों द्वारा दी गई जानकारी

(स) अन्य

प्र.-46 क्या कचरापत्रों में अलग-अलग निर्धारित रंगों की प्लास्टिक लगी हुई हैं? हाँ/नहीं

प्र.-47 क्या कचरा पात्र के अस-पास स्वच्छता रहती है
हाँ/नहीं

प्र.-48 क्या कचरा पात्र के ढक्कन लगे हुए देखे हैं? हाँ/नहीं

प्र.-49 प्रतिदिन या भर जाने पर कचरा पात्र सफाई कर्मियों द्वारा खाली किये जाते हैं हाँ/नहीं

प्र.-50 कचरा ले जाते समय सफाई कर्मी बंद ट्राली का इस्तमाल करते है? हाँ/नहीं

प्र.-51 सफाईकर्मियों द्वारा कचरा खाली करने ले जाते समय मास्क,दस्ताने,और एप्रन आदि पहने जाते है? हाँ/नहीं

प्र.-52 अस्पताल में इस्तsमाल कि गई सुइयां, ब्लेड, दस्ताने,ग्लूकोस की बोतलें , संक्रमित/ इस्तsमाल किये हुए रुई के टुकड़े, सेनेटरी पेड आदि निर्धारित कचरा पात्र में डाले जाते है? हाँ/नहीं

प्र.-53 अस्पताल परिसर कि सफाई वयवस्था पहले कि अपेक्षा सुधरी है हाँ/नहीं

प्र.-54 यदि हाँ तो किस प्रकार का सुधार हुआ?

(अ)साफ सफाई व्यवस्था में सुधार (ब) जल प्रबंधन में सुधार

(स) शौचालय मूत्रालय की व्यवस्था में सुधार (द) अन्य .....

प्र.-55 क्या अस्पताल परिसर में गाय/कुत्ता/सूअर अथवा अन्य जानवरों का आना जाना रहता है ?हाँ/नहीं

प्र.-56 क्या अस्पताल परिसर की खिड़कियों एवं दरवाजों पर नेट की जालियां लगी हुई है ?
हाँ/नहीं

साक्षात्कारकर्ता का नाम : .....हस्ताक्षर:

पद/विभाग/संस्था : .....रैपिड अस्सेस्मेंट कि तिथि : ...../...../.....