

# Assessment of Water, Sanitation and Hygiene services & practices at Functional Delivery Points of 8 High Priority Districts in Gujarat



सत्यमेव जयते

Health and Family Welfare Department  
Government of Gujarat



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# Assessment of Water, Sanitation and Hygiene services and practices at Functional Delivery Points of 8 High Priority Districts, Gujarat

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Departments of

1. GMERS Medical College, Dharpur - Patan
2. Medical College Baroda, Vadodara
3. GMERS Medical College, Gotri – Vadodara
4. GCS Medical College, Ahmedabad
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We sincerely hope that this report will be useful in enhancing WASH in health facilities. Your suggestions/queries for improving WASH in health are always welcome.

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### **Foreword**

The State Government is committed to make all public health facilities Water and Sanitation Hygiene (WASH) Compliant. In order to achieve this goal, the State Government conducted a WASH Gap Assessment exercise at all the Functional Delivery Points in eight High Priority Districts of the state, in partnership with UNICEF via Indian Association of Preventive and Social Medicine (IAPSM) - Gujarat Chapter.

For effective implementation of the efforts toward WASH compliant public health facilities, it is pertinent to find gaps in provision of WASH infrastructure, services and practices. Accordingly, a state report of WASH assessment has been prepared linking WASH gaps with strategic options and recommendations. This quantitative cum qualitative report of 118 public health facilities across 8 districts of state, will help state and district officials, facility in charges and end users to make necessary arrangements for WASH compliance of Public Health Care Institutions across the state.

To carry forward it further, it is being considered to strengthen the supportive supervision of these health facilities with the support of UNICEF and IAPSM, envisaging key commitment of making the public health facilities WASH compliant in the State.

I would like to acknowledge and appreciate hard work of the team and recommend the optimal use of the findings of WASH assessment exercise.

**(J. P. Gupta)**

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## Preface

Gujarat presents a development paradox with impressive economic growth but relatively poor health and social development indicators. More than 70 per cent of the State's infant mortality is contributed by neonatal mortality. Maternal mortality also presents a challenge. As India moves towards the Millennium Development Goals (MDGs) and looks ahead to the post-2015 era, progress in reducing maternal and neonatal mortality are important frontiers that need to be addressed.

The Reproductive Maternal Newborn and Child Health + Adolescents (RMNCH+A) strategy, that focuses on the life cycle approach, is the cornerstone of the Government's response to Child Survival and Development. UNICEF, as the State Lead Partner for this Initiative in Gujarat, is committed to support acceleration of efforts to achieve the RMNCH+A goals with focus on eight High Priority Districts.

Evidence has shown that neonatal mortality and morbidity can be significantly reduced by preventive measures, including ensuring the availability of functional Water, Sanitation and Hygiene (WASH) facilities in health centers and the adoption of key WASH practices by mothers and caregivers at home and in the community. The capacity-building of health functionaries and front line workers to bring about this behavior change is equally important.

We are aware that the provision and functionality of appropriate WASH facilities in health centers has been a challenge. To address this, UNICEF, in partnership with the Indian Association of Preventive and Social Medicine – Gujarat Chapter (IAPSM-GC) and the Department of Health & Family Welfare, Government of Gujarat, facilitated the conduct of a WASH Gap Assessment exercise covering 118 Functional Delivery Points (FDPs) of the eight RMNCH+A High Priority Districts.

The objective of the assessment was to assess the extent of provision of WASH services and practices in health centers especially the labour room, post-natal ward and ANC OPDs of the 118 FDPs. The assessment, which was carried out from September to December 2014, documented some good practices and several bottlenecks relating to WASH compliance in delivering RMNCH+A services in health facilities, and came up with specific recommendations to improve this compliance. The teams from the Medical Colleges that carried out the assessment also proposed on-site adjustments/modifications, where feasible.

UNICEF sincerely hopes that the recommendations of the assessment will inform government plans to make health facilities WASH complaint so that they become patient and family-friendly. We are confident that the Department of Health and Family Welfare, Government of Gujarat, which is committed to achieve the goals of the *Mahatma Gandhi Swacchata Mission* (MGSM) will monitor implementation of these recommendations to make Gujarat's health facilities WASH compliant.

*Jeroo Master*

Jeroo Master,  
Chief, Field Office  
UNICEF, Gujarat

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## Acknowledgement

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Provision of appropriate “Water Supply, Sanitation and Hygiene (WASH) services” at government health facilities are keys to improve quality of health care provided by government. It also improves overall image of government health care system in community. Many maternal and neonatal deaths are linked to unhygienic conditions. In this context this project was carried out to assess and to give recommendations for WASH related services and practices at Functional Delivery Points of 8 High Priority Districts of Gujarat (Kutch, Banaskantha, Sabarkantha, Panchmahal, Narmada, Dahod, Dang and Valsad).

At this point we would like to acknowledge with thanks to Mr. P. K. Taneja, Then Principal Secretary, Public Health, Mr. J. P. Gupta, Secretary and Commissioner, Health, Dr. N. B. Dholakia, Additional Director, Family Welfare, Dr. J. L. Meena, State Quality Assurance Medical Officer, Health & Family Welfare Department, Government of Gujarat, for providing administrative support to carry out WASH assessment of Functional Delivery Points of 8 high priority districts.

Thanks are also expressed to Ms. Jeroo Master, Chief of UNICEF, Gujarat office; Mr. Manish Wasuja, WASH specialist; Dr. Narayan Gaonkar, Health specialist and Dr. Kanan Desai, State Consultant –WASH Gap Assessment for advocating this project as well as for providing technical and financial support to this project.

We would like to thank Regional Deputy Directors, Chief District Health Officers and District Quality Assurance Medical Officers of respective districts for providing administrative support at the district level. We are also thankful to Hospital Superintendents, Medical Officers and also other staff of those District Hospitals, Sub-District Hospitals, Community Health Centres, Primary Health Centres and Sub-Centres of the districts which were visited during this project for providing co-operation during field visit.

We are especially thankful to all Head of Departments and team members of Community Medicine Departments of GMERS Medical College Dharpur – Patan, GMERS Medical College Gotri – Vadodara, Medical College Baroda - Vadodara, GMERS Medical College Valsad, GCS Medical College, Ahmedabad and PDU Govt. Medical College, Rajkot for carrying out this project.

## Acknowledgement

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We would also like to thank Dr. Chandresh Pandya, Associate Professor, Community Medicine Department, GMERS Medical College, Gotri and Dr. Atul Trivedi, Associate Professor, Community Medicine Department, Government Medical College, Bhavnagar for providing technical support to carry out this project. We are also thankful to Dr. Vihang Mazumdar, Professor & Head, Community Medicine Department, Medical College Baroda for reviewing the report. We also extend our thanks to Dr. Nirav Joshi and Dr. Dipesh Zalavadiya, Tutor, Community Medicine Department, PDU Govt. Medical College, Rajkot for preparing state level report of the project.



Dr. K. N. Sonaliya  
President  
IAPSM - GC



Dr. A. M. Kadri  
Secretary  
IAPSM - GC

## Abbreviations

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|            |  |
|------------|--|
| AD (FW)    | Additional Director (Family Welfare)                                   |
| ANC        | Ante Natal Care  |
| ASHA       | Accredited Social Health Activist                                      |
| BCC        | Behaviour Change Communication   |
| BMW        | Bio Medical Waste  |
| BMWM       | Bio Medical Waste Management   |
| CBWTF      | Common Biomedical Waste Treatment Facility                             |
| CDHO       | Chief District Health Officer  |
| CDMO       | Chief District Medical Officer   |
| DQAMO      | District Quality Assurance Medical Officer                             |
| CHC        | Community Health Centre  |
| COH        | Commissioner of Health   |
| CTF        | Common Treatment Facility  |
| DH         | District Hospital  |
| DoHFW      | Department of Health and Family Welfare                                |
| FDPs       | Functional Delivery Points   |
| FHW        | Female Health Worker   |
| GCS        | Gujarat Cancer Society   |
| GDP        | Gross Domestic Product   |
| GMERS      | Gujarat Medical Education and Research Society                         |
| GMSCL      | Gujarat Medical Services Corporation Limited                           |
| GOI        | Government of India  |
| HBNC       | Home Base Newborn Care   |
| HOD        | Head OF Department   |
| HPD        | High Priority District   |
| HR         | Human Resource   |
| I/C        | In charge  |
| IAPSM - GC | Indian Association of Preventive and Social Medicine - Gujarat Chapter |
| IEC        | Information Education Communication                                    |
| ILR        | Ice Lined Refrigerator   |
| IMEP       | Infection Management and Environment Plan                              |
| IPC        | Inter Personal Communication   |
| IPD        | Indoor Patient Department  |
| IYCF       | Infant and Young Child Feeding   |
| MBBS       | Bachelor of Medicine and Bachelor of Surgery                           |
| MO         | Medical Officer  |
| MOU        | Memorandum OF Understanding  |
| MPHW       | Multi Purpose Health worker  |
| NHM        | National Health Mission  |
| NSSK       | Navjaat Shishu Suraksha Karyakram                                      |
| O&M        | Operation & Maintenance  |
| OPDs       | Out Patient Departments  |
| PHC        | Primary Health Centre  |

## Abbreviations

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|          |  |
|----------|--|
| PIP      | Programme Implementation Plan                            |
| PIU      | Planning Implementation Unit                             |
| POU      | Point of Use   |
| PPE      | Personal Protective Equipment                            |
| RKS      | Rogi Kalyan Samiti                                       |
| RMNCH+A  | Reproductive Maternal Neonatal Child Health + Adolescent |
| RMT      | Regional Monitoring Team                                 |
| RO Plant | Reverse Osmosis Plant                                    |
| SC       | Sub Centre   |
| SDH      | Sub District Hospital                                    |
| SOP      | Standard Operating Procedure                             |
| SRS      | Sample Registration System                               |
| THO      | Taluka Health Officer                                    |
| TOR      | Term Of Reference  |
| UNICEF   | United Nations Children's Fund                           |
| VHSC     | Village Health and Sanitation Committee                  |
| WASH     | Water Supply, Sanitation and Hygiene                     |
| WASMO    | Water And Sanitation Management Organization             |

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# Background

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## Background

Global access to safe water, adequate sanitation, and proper hygiene education can reduce illness and death from disease leading to improved health, poverty reduction, and socio-economic development.

Unimproved hygiene, inadequate sanitation, and insufficient and unsafe drinking water account for about 7% of the total disease burden and 19% of child mortality worldwide. Globally, around 2.4 million deaths (4.2% of all deaths) could be prevented annually if everyone practiced appropriate hygiene and had good, reliable sanitation and drinking water.<sup>(1)</sup>

Globally 8% of maternal deaths and in developing countries estimated 10-15% maternal deaths are due to infections that can be directly linked to unhygienic conditions during labour and birth, at home or in facilities, and to poor hygiene practices in the six weeks after birth.<sup>(2)(3)(4)</sup>

Poor hygiene during and after umbilical cord cutting, such as unclean hands or use of dirty cloth, can produce significantly more cord site infections in newborns.<sup>(5)</sup>

Approximately half a million children die every year of diarrheal disease caused by unsafe water and poor sanitation and hygiene practices. Fifty percent of global malnutrition is due to waterborne diseases such as diarrhoea and intestinal worms and one quarter of stunting can be attributed to five or more episodes of diarrhoea before two years of age.<sup>(6)(7)</sup>

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1. Cairncross, S., Bartram, J., Cumming, O., & Brocklehurst, C. (2010). Hygiene, Sanitation, and Water: What Needs to Be Done? *PLoS Med*, 7(11).
  2. Goodburn, E., & Campbell, O. (2001). Reducing maternal mortality in the developing world: Sector - wide approaches may be the key. *BMJ*, 322, 917–920.
  3. Gravett, C., Gravett, M., Martin, E, et al. (2012). Serious and life-threatening pregnancy-related infections: Opportunities to reduce the global burden. *PLoS Med*, 9.
  4. Simavi. (2012). Getting It Right: Improving maternal health through water sanitation & hygiene.
  5. WHO.int. (n.d.). Retrieved March 18, 2015, from <http://www.who.int/pmnch/knowledge/publications/summaries/ks30.pdf>
  6. Pruss-Ustun, A., Bos, R., Gore, F., & Bartram, J. (2008). *Safer water, better health*
  7. Walker, C., Rudan, I., Liu, L., & Al, E. (2013). Global burden of childhood pneumonia and diarrhoea. *The Lancet*, 381, 1405–1416.

## Background

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As per estimates, inadequate sanitation cost India almost \$54 billion or 6.4% of the country's GDP in 2006. Over 70% of this economic impact or about \$38.5 billion was health-related, with diarrhoea followed by acute lower respiratory infections accounting for 12% of the health-related impacts.<sup>(8)</sup>

Infant mortality and morbidity can be significantly reduced by preventive measures, including ensuring availability of WASH facilities in health centres and adoption of key WASH practices by mothers at home and capacity building of health functionaries and front line workers.

Provision and functionality of appropriate WASH facilities in health centres has been a challenge. Anecdotal evidence indicates lack of user friendliness and functionality of WASH facilities in health centres. These are affecting the utilization of services as well as leading to infection to the mother and newborns, who are utilizing the services.

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8. Kumar, G., Kar, S., & Jain, A. (2011). Health and environmental sanitation in India: Issues for prioritizing control strategies. *Indian J Occup Environ Med*, 15(3), 93–96.

## Background

### WASH Impact on RMNCH+A <sup>(5)</sup>

| Continuum of Care                    | WASH Interventions  | RMNCH+A Impact  |
|--------------------------------------|---|---|
| <b>Adolescents and Pre-Pregnancy</b> | <ul style="list-style-type: none"> <li>• Menstrual hygiene management</li> <li>• Decreased distance to sanitation and safe water source</li> </ul>  | <ul style="list-style-type: none"> <li>• Improved self-esteem, better school attendance and potential decrease in infections</li> </ul>   |
| <b>Pregnancy</b>                     | <ul style="list-style-type: none"> <li>• Improved access and decreased distance to water, sanitation and safe water source</li> </ul>   | <ul style="list-style-type: none"> <li>• Improved weight gain during pregnancy, due to fewer worm infections and decreased physical labour</li> </ul>   |
| <b>Child Birth</b>                   | <ul style="list-style-type: none"> <li>• Implementation of “seven cleans”               <ol style="list-style-type: none"> <li>1. Clean hands</li> <li>2. Clean delivery surface</li> <li>3. Clean cord cutting</li> <li>4. Clean cord tying</li> <li>5. Clean cord care</li> </ol> </li> </ul> | <ul style="list-style-type: none"> <li>• Decrease in maternal morbidity and mortality from puerperal sepsis</li> </ul>  |
| <b>Post Natal</b>                    |   | <ul style="list-style-type: none"> <li>• Decrease in neonatal morbidity and mortality, due to tetanus infections and sepsis</li> </ul>  |
| <b>Infancy and Childhood</b>         | <ul style="list-style-type: none"> <li>• Improved access to safe water, sanitation and hygiene and decreased distance to safe water sources</li> <li>• Improved access to soap and consistency of hand washing with soap</li> </ul>   | <ul style="list-style-type: none"> <li>• Decrease in diarrhoeal disease, pneumonia and child mortality; reduction in stunting and improved weight gain and growth</li> <li>• Reduction in skin infections, childhood pneumonia and diarrhoea</li> </ul> |

5. WHO.int. (n.d.). Retrieved March 18, 2015, from <http://www.who.int/pmnch/knowledge/publications/summaries/ks30.pdf>

# Objectives

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## Objectives

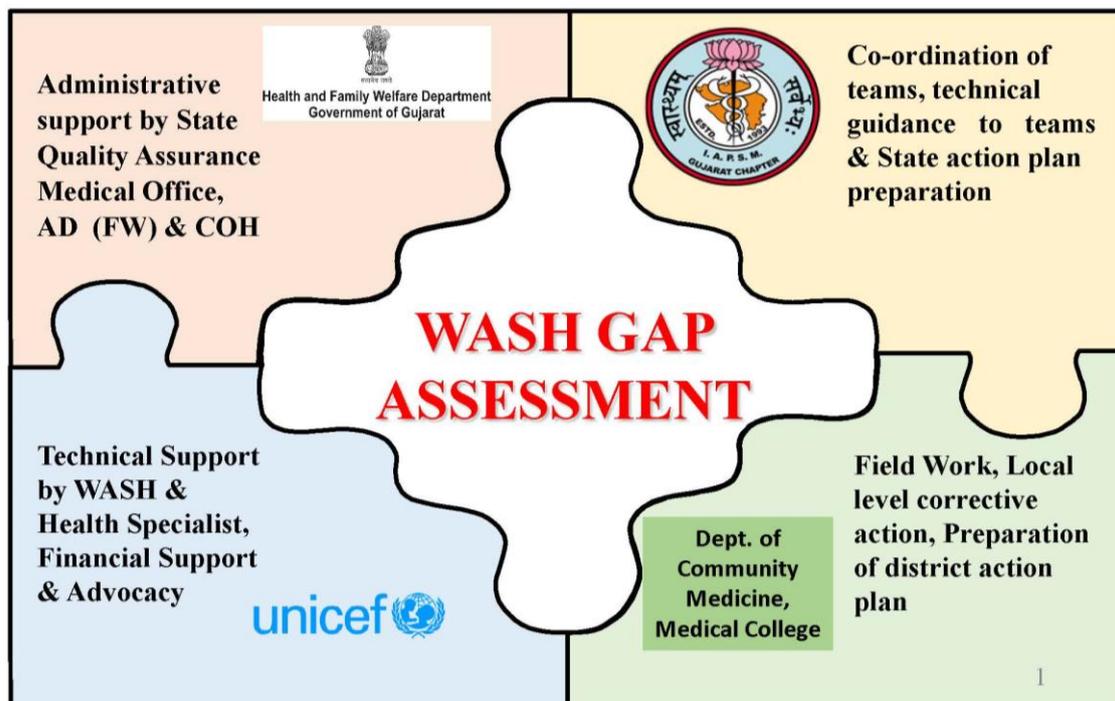
- To assess extent of provision of WASH services and practices in health centres especially Labour room, Postnatal ward and ANC OPDs of FDPs in High Priority Districts of Gujarat
- To identify the WASH related challenges and bottlenecks at health centres
- Providing on-site technical support to address issues that can be solved at local level
- To make strategic recommendations and preparing State Specific Action Plan for improving WASH compliance in health centres

# Methodology

## Methodology

The assessment was conducted in partnership with DoHFW, Govt. of Gujarat; UNICEF, IAPSM-GC and Six Medical colleges.

### Partnerships for the WASH Gap Assessment



The assessment was conducted in all the FDPs of 8 High Priority Districts of Gujarat identified under RMNCH+A. FDP list as on March, 2014 for all identified districts was obtained from DoHFW, Govt. of Gujarat, on request by IAPSM-GC. District was assigned to specific medical college depending on the college's RMT areas.

## Methodology

### District wise distribution of the FDPs

| District           | Medical College                       | DH        | SDH       | CHC       | PHC       | SC        | Total      |
|--------------------|---------------------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| <b>Panchmahal</b>  | Medical College Baroda                | --        | 02        | 06        | 06        | --        | <b>14</b>  |
| <b>Dahod</b>       | Medical College Baroda                | 01        | 01        | 10        | 08        | 01        | <b>21</b>  |
| <b>Banaskantha</b> | GMERS Medical College, Dharpur-Patan  | --        | 01        | 09        | 07        | 04        | <b>21</b>  |
| <b>Valsad</b>      | GMERS Medical College, Valsad         | 01        | 01        | 04        | 01        | --        | <b>07</b>  |
| <b>Dang</b>        | GMERS Medical College, Valsad         | --        | NA        | 01        | 03        | --        | <b>04</b>  |
| <b>Sabarkantha</b> | GCS Medical College, Ahmedabad        | 01        | 01        | 10        | 05        | --        | <b>17</b>  |
| <b>Narmada</b>     | GMERS Medical College, Gotri-Vadodara | --        | NA        | 04        | 02        | --        | <b>06</b>  |
| <b>Kutch</b>       | PDU Govt. Medical College, Rajkot     | 01        | 01        | 08        | 08        | 10        | <b>28</b>  |
| <b>Total</b>       |                                       | <b>04</b> | <b>07</b> | <b>52</b> | <b>40</b> | <b>15</b> | <b>118</b> |

Letter from Additional Director (Family Welfare) was sent to concerned district CDHO/CDMO and Medical College Dean to facilitate for the WASH Gap Assessment.

Letter was also sent from Medical College to concerned district CDHO/CDMO with schedule of visits for WASH Assessment for effective co-ordination.

Each centre was visited by team of faculty and/or residents as per the schedule for detail observations and information collections as per the standard WASH Gap Assessment Tool. Uniformity of data collection was maintained by capacity building of assessor's at the state level training and provision of technical guide note for the tool from State.

# Methodology

## WASH Gap Assessment Tool

| <b>SECTION I: HARDWARE COMPONENTS OF WASH</b>  |   |
|--|---|
| <b>WATER SUPPLY</b>  | <b>MODE OF ASSESSMENT</b>   |
| <ul style="list-style-type: none"> <li>• Water Source, storage and distribution</li> <li>• Water Quantity and Quality testing</li> <li>• Functional Treatment Unit at POU</li> <li>• Monitoring Mechanism/corrective actions</li> </ul>                        | <ul style="list-style-type: none"> <li>• Personal Observations</li> <li>• Interview with I/C</li> <li>• Vouchers of Payment for Maintenance</li> <li>• Register Available for Maintenance, if any</li> <li>• Photos of good and bad practices</li> </ul>  |
| <b>TOILET FACILITIES, EXCRETA DISPOSAL and O&amp;M</b>   |   |
| <ul style="list-style-type: none"> <li>• Excreta Collection / Storage/disposal system</li> <li>• Toilet cleaning and maintenance</li> <li>• Monitoring mechanism/corrective actions</li> </ul>   | <ul style="list-style-type: none"> <li>• Personal Observations</li> <li>• Interview with I/C</li> <li>• Vouchers of Payment for Maintenance</li> <li>• Register Available for Maintenance, if any</li> <li>• Checklist for Cleaning, if any</li> <li>• Request Letter to PIU</li> <li>• Peti Supply/Indent Register for Cleaning materials</li> <li>• Photos of good and bad practices</li> </ul> |
| <b>HOSPITAL WASTE MANAGEMENT</b>   |   |
| <ul style="list-style-type: none"> <li>• Waste Collection, Storage, Treatment /Disposal</li> <li>• Supply of consumables</li> <li>• Monitoring Mechanism /corrective actions</li> </ul>  | <ul style="list-style-type: none"> <li>• Personal Observations</li> <li>• Interview with I/C</li> <li>• BMW Register</li> <li>• Stock of BMW bags and containers</li> <li>• Photos of good and bad practices</li> </ul>   |
| <b>LOCATION BASED WASH STATUS (MAMTA CLINIC, LABOUR ROOM, POSTNATAL WARD)</b>  |   |
| <ul style="list-style-type: none"> <li>• Functional Drinking water Point Facility</li> <li>• Toilet Facility and cleaning</li> <li>• Hand washing Facility</li> <li>• Hospital waste Management</li> <li>• Monitoring Mechanism /Corrective Actions</li> </ul> | <ul style="list-style-type: none"> <li>• Personal Observations</li> <li>• Interview with I/C</li> <li>• Register Available for Maintenance, if any</li> <li>• Checklist for Cleaning, if any</li> <li>• Complaint Letter sent to Head of Institute</li> <li>• Peti Supply/Indent Register for Cleaning materials</li> <li>• Photos of good and bad practices</li> </ul>                           |
| <b>SECTION II: CLEANING FUNDS</b>  |   |
| <ul style="list-style-type: none"> <li>• Cleaning Fund and Expenditure on WASH</li> </ul>  | <ul style="list-style-type: none"> <li>• Vouchers of Payment for Maintenance/Consumables</li> </ul>   |

## Methodology

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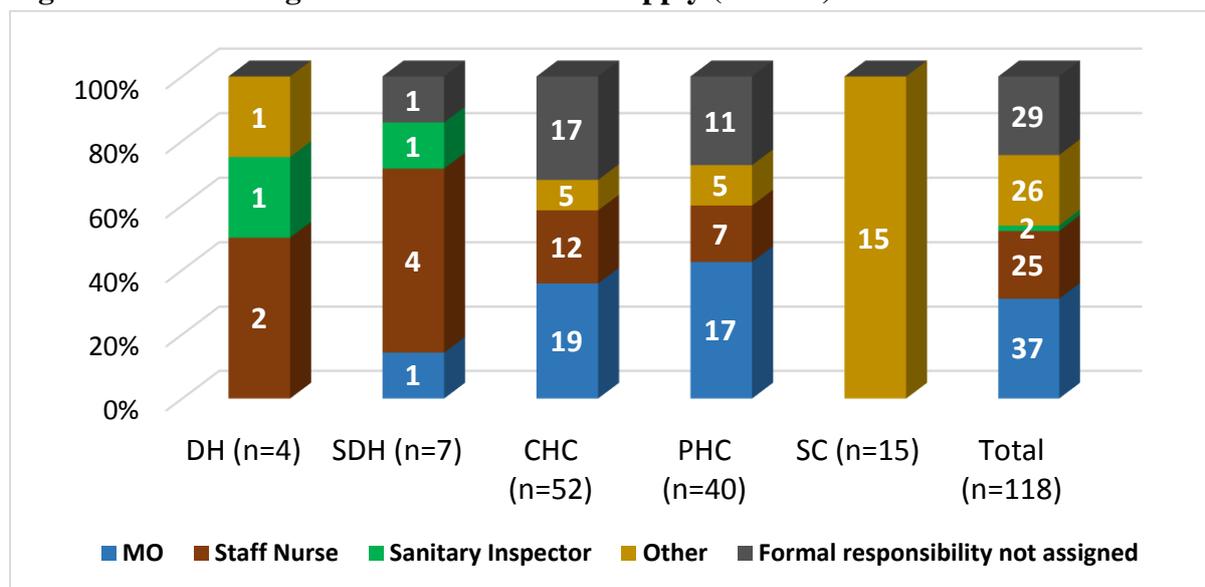
|  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Outsourcing for Housekeeping and HR</li></ul>  | <ul style="list-style-type: none"><li>• Kharch Patrak of NHM Fund of Last year</li></ul>             |
| <b>SECTION III: SOFTWARE COMPONENTS</b>  |  |
| <ul style="list-style-type: none"><li>• Clinical Hand washing Practices</li><li>• Enablers and Barriers for WASH compliance</li><li>• BCC and Monitoring for WASH</li><li>• Suggestion from fields</li></ul> | <ul style="list-style-type: none"><li>• Personal Observations</li><li>• Interview with I/C</li></ul> |

Data was entered in pre-designed Microsoft Access 2007 Sheet (Annexure). Data cleaning was done followed by quantitative analysis using Microsoft Excel, 2007. Qualitative information was included in form observation of good and bad practices, photographs, identification of major gaps linked to strategic options keeping in mind availability of resources.

## Observations

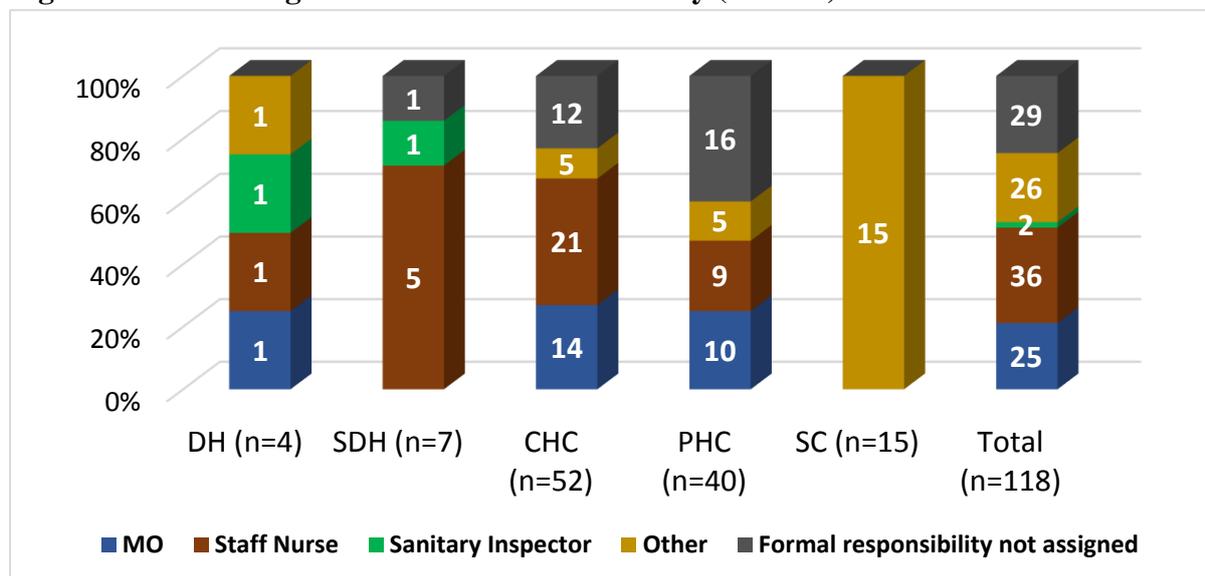
### Monitoring mechanism

**Figure 1: Monitoring Mechanism for water supply (n = 118)**



Out of all 118 health centres, water facility was being monitored in 31.4%, 21.9%, 1.7% and 20.3% by MO, Staff nurse, SI and Others like ANM, Class III/IV worker, chowkidar etc. respectively. 26.3% health centres were lacking in such monitoring mechanism.

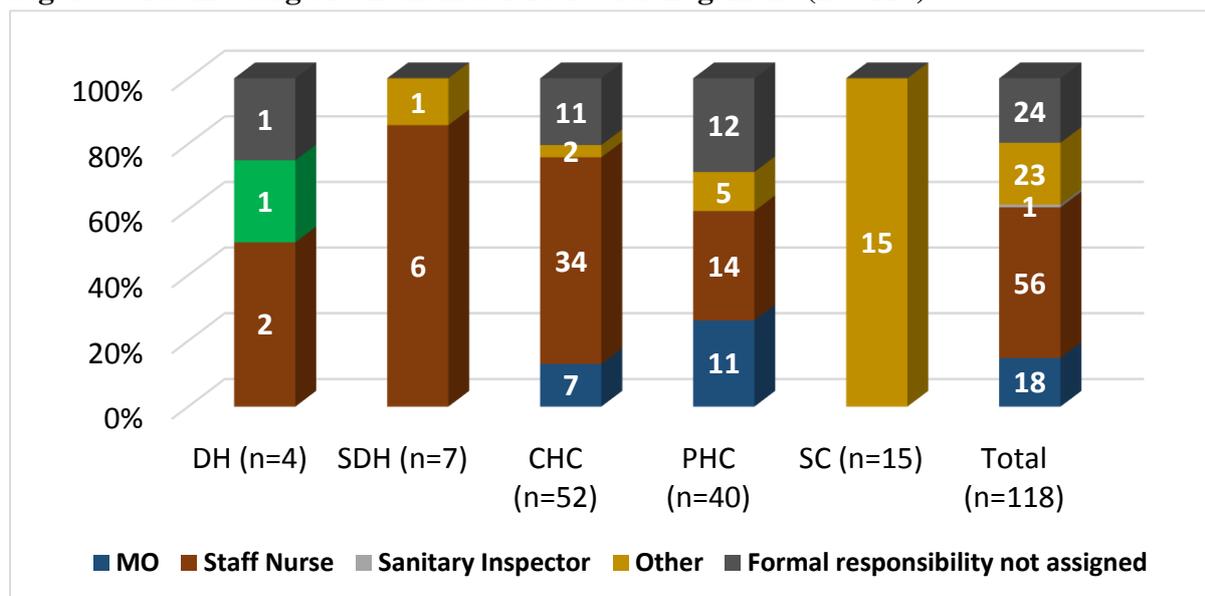
**Figure 2: Monitoring Mechanism for Toilet facility (n = 118)**



Out of all 118 health centres, toilet facilities were being monitored in 21.2%, 30.5%, 1.7% and 18.6% by MO, Staff nurse, SI and Others like ANM, Class III/IV worker, chowkidar etc. respectively. 28.0% health centres were lacking in such monitoring mechanism.

## Observations

**Figure 3: Monitoring Mechanism for BMW Management (n = 118)**



Out of all 118 health centres, toilet facilities was being monitored in 15.3%, 48.3%, 0.9% and 16.1% by MO, Staff nurse, SI and Others like ANM, Class III/IV worker, chowkidar etc. respectively.

**Table 1: Monitoring mechanism for Post natal Ward**

| Identified Person                         | Post Natal Ward |           |            |            |             |
|---|-----------------|-----------|------------|------------|-------------|
|   | DH (%)          | SDH (%)   | CHC (%)    | PHC (%)    | Total       |
| <b>MO</b>                                 | 0 (0.0)         | 0 (0.0)   | 7 (13.5)   | 5 (12.5)   | 12 (11.7)   |
| <b>Staff Nurse</b>                        | 4 (100.0)       | 7 (100.0) | 33 (63.5)  | 21 (52.5)  | 65 (63.1)   |
| <b>Other</b>                              | 0 (0.0)         | 0 (0.0)   | 3 (5.8)    | 6 (52.5)   | 9 (8.7)     |
| <b>Formal responsibility not assigned</b> | 0 (0.0)         | 0 (0.0)   | 9 (17.3)   | 8 (20.0)   | 17 (16.5)   |
| <b>Total</b>                              | 4 (100.0)       | 7 (100.0) | 52 (100.0) | 40 (100.0) | 103 (100.0) |

Out of all 103 health centres (Excluding sub centres), Post natal ward was being monitored in 11.7%, 63.1% and 8.7% by MO, Staff nurse and others like ANM, Class III/IV worker, chowkidar etc. respectively. 16.5% health centres were lacking in such monitoring mechanism.

## Observations

**Table 2: Monitoring mechanism for Labour room (n=117)**

| Identified Person                         | Labour room |           |            |            |            |             |
|---|-------------|-----------|------------|------------|------------|-------------|
|   | DH (%)      | SDH (%)   | CHC (%)    | PHC (%)    | SC (%)     | Total (%)   |
| <b>MO</b>                                 | 0 (0.0)     | 0 (0.0)   | 9 (17.3)   | 7 (17.5)   | 0 (0.0)    | 15 (12.8)   |
| <b>Staff Nurse</b>                        | 4 (100.0)   | 5 (71.4)  | 32 (61.5)  | 23 (57.5)  | 0 (0.0)    | 64 (54.7)   |
| <b>Other</b>                              | 0 (0.0)     | 0 (0.0)   | 3 (5.8)    | 3 (7.5)    | 12 (80.0)  | 18 (15.4)   |
| <b>Formal responsibility not assigned</b> | 0 (0.0)     | 2 (28.6)  | 8 (15.4)   | 7 (17.5)   | 3 (20.0)   | 20 (17.1)   |
| <b>Total</b>                              | 4 (100.0)   | 7 (100.0) | 52 (100.0) | 40 (100.0) | 15 (100.0) | 117 (100.0) |

Out of all 117 health centres, Labour room was being monitored in 12.8%, 54.7%, 0.9% and 15.4% by MO, Staff nurse and others like ANM, Class III/IV worker, chowkidar etc. respectively. 17.1% health centres were lacking in such monitoring mechanism.

**Table 3: Monitoring mechanism for OPD (n=103)**

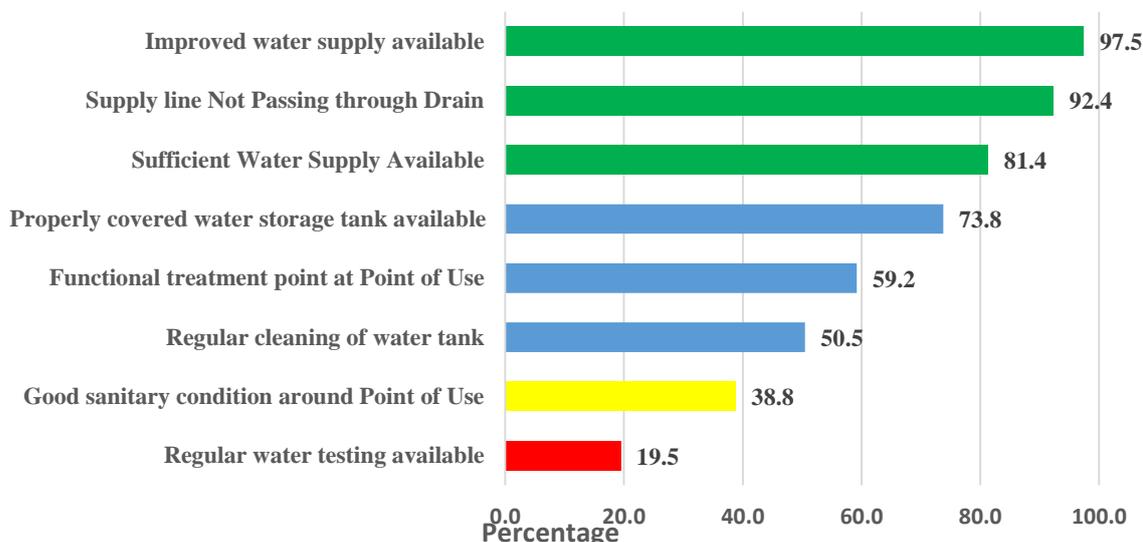
| Identified Person                         | OPD       |           |            |            |             |
|---|-----------|-----------|------------|------------|-------------|
|   | DH (%)    | SDH (%)   | CHC (%)    | PHC (%)    | Total (%)   |
| <b>MO</b>                                 | 0 (0.0)   | 0 (0.0)   | 24 (46.2)  | 21 (52.5)  | 45 (43.7)   |
| <b>Staff Nurse</b>                        | 3 (75.0)  | 5 (71.4)  | 15 (28.8)  | 6 (15.0)   | 29 (28.2)   |
| <b>Other</b>                              | 0 (0.0)   | 2 (28.6)  | 5 (9.6)    | 5 (12.5)   | 12 (11.7)   |
| <b>Formal responsibility not assigned</b> | 1 (25.0)  | 0 (0.0)   | 8 (15.4)   | 8 (20.0)   | 17 (16.5)   |
| <b>Total</b>                              | 4 (100.0) | 7 (100.0) | 52 (100.0) | 40 (100.0) | 103 (100.0) |

Out of all 103 health centres (Excluding sub centres), OPD was being monitored in 43.7%, 28.2% and 11.7% by MO, Staff nurse and Others like ANM, Class III/IV worker, chowkidar etc. respectively. 16.5% health centres were lacking in such monitoring mechanism.

# Observations

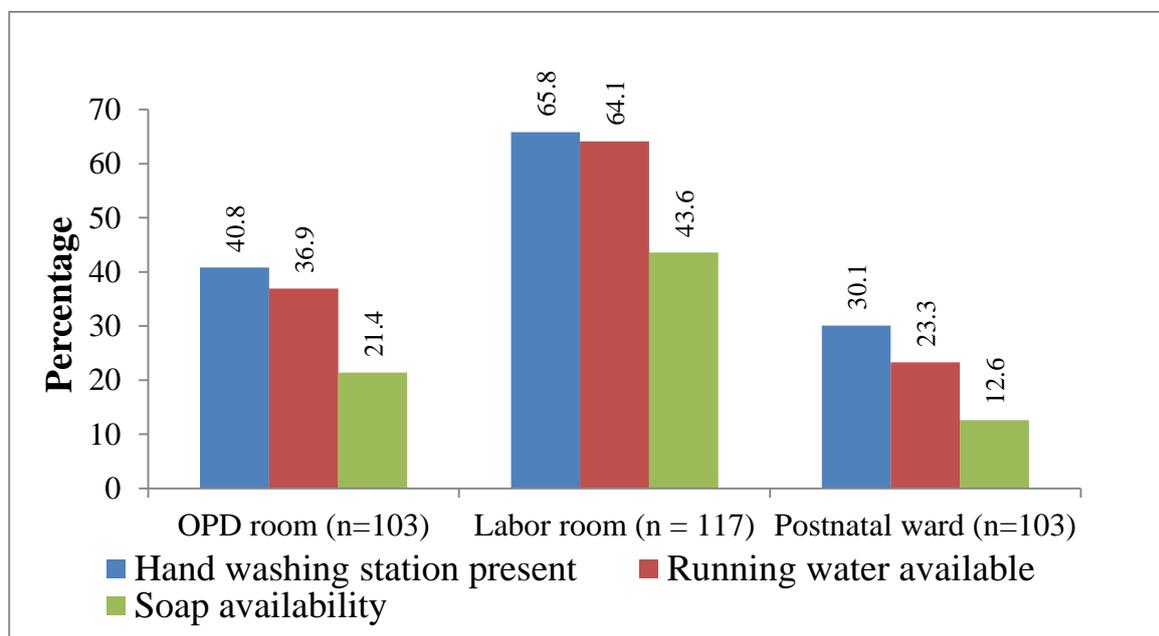
## Water Supply

Figure 4: Water supply and maintenance



Improved water supply was available at 97.5% facilities. Sufficient water supply was available at 81.4% facilities. Regular cleaning of water tank was available at only 50.5% facilities. Regular water testing was available at only 19.5% facilities.

Figure 5: Hand washing facility

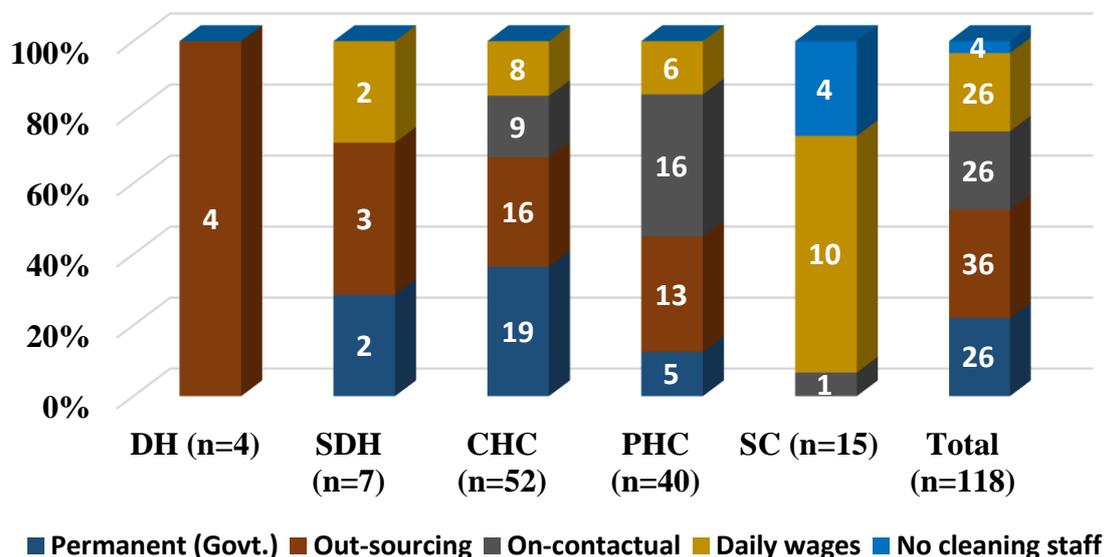


Hand washing station in OPD room, labour room, and postnatal ward was available at 40.8%, 65.8% and 30.1% facilities respectively. Running water was available in 36.9%, 64.1%, and 23.3% of OPD room, labour room, and postnatal ward respectively. Soap was available in Post natal ward in only 12.6% facilities.

## Observations

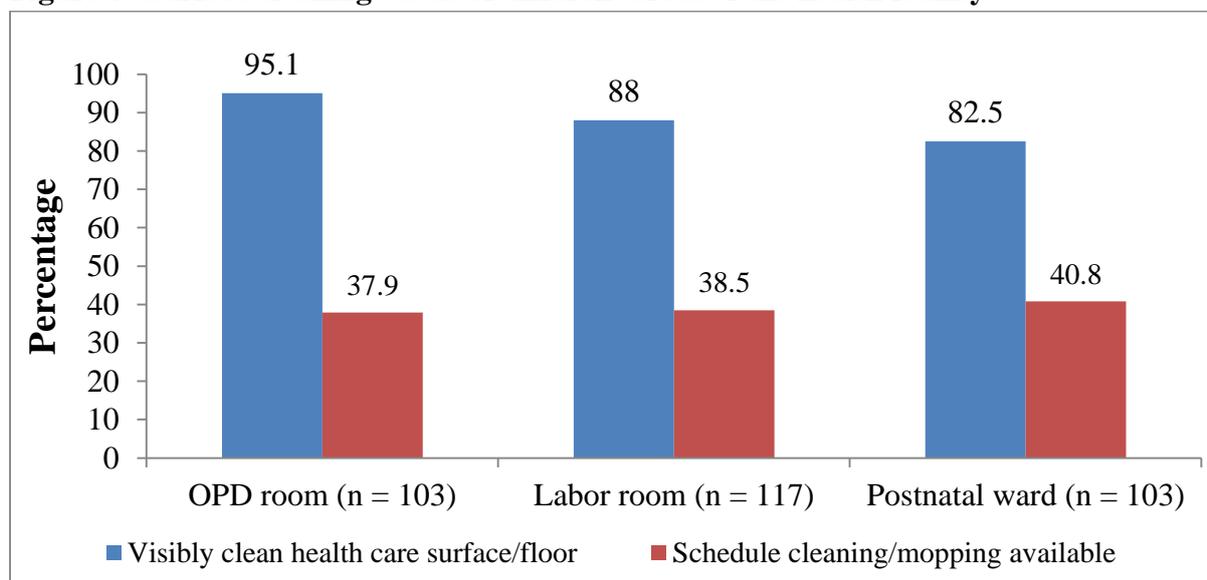
### Toilet Facilities, Excreta Disposal, and O&M

**Figure 6: Predominant Method of Recruitment of cleaning staff (n=118)**



Out of total 118 centres, 20.3%, 30.5%, 21.2% and 21.2% were having Permanent, out sourced, Contractual and Daily waged cleaning worker as predominant cleaning staff.

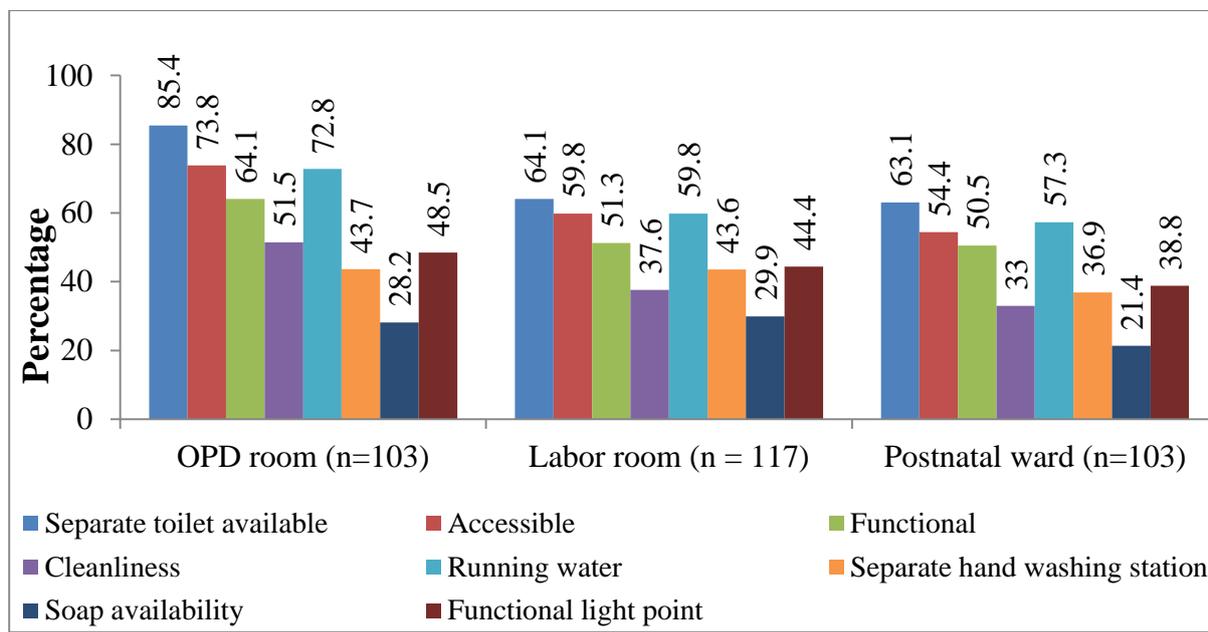
**Figure 7: Surface cleaning status of different areas of the health facility**



Visibly clean health care surface/floor is seen at 95.1%, 88%, 82.5% facilities in OPD room, labour room and postnatal ward respectively. But the schedule cleaning/mopping is available in very few facilities in all the areas.

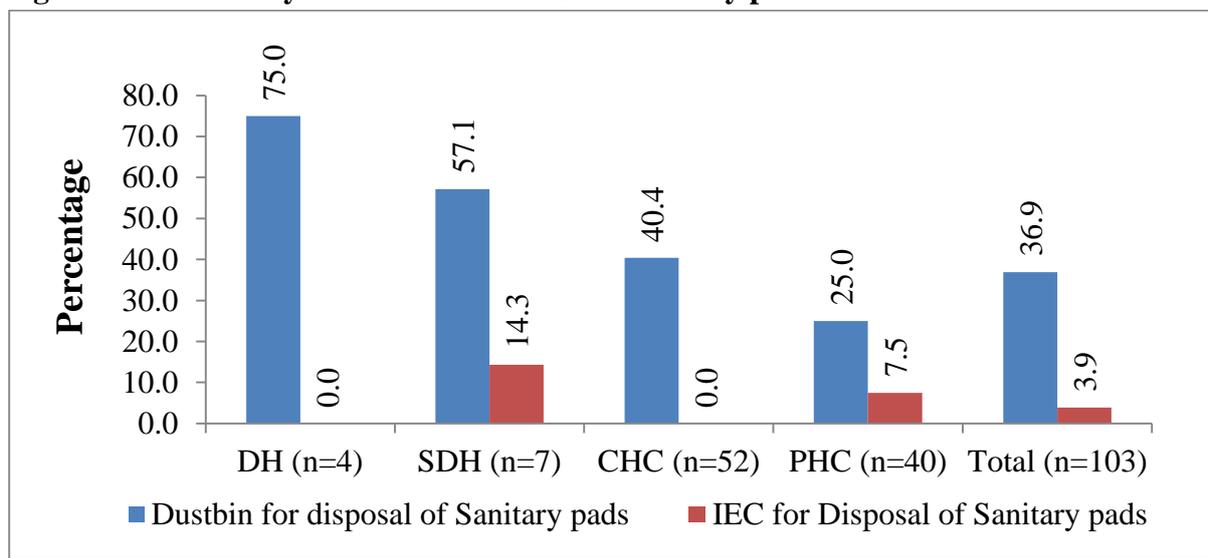
## Observations

**Figure 8: Status of Toilet facility**



Separate toilet was available at 85.4%, 64.1%, 63.1% facilities in OPD area, labour room and postnatal ward respectively. Though functional toilet was available functional only in 64.1%, 51.3%, 50.5% facilities in OPD area, labour room and postnatal ward respectively.

**Figure 9: Availability of dustbin and IEC for sanitary pad**

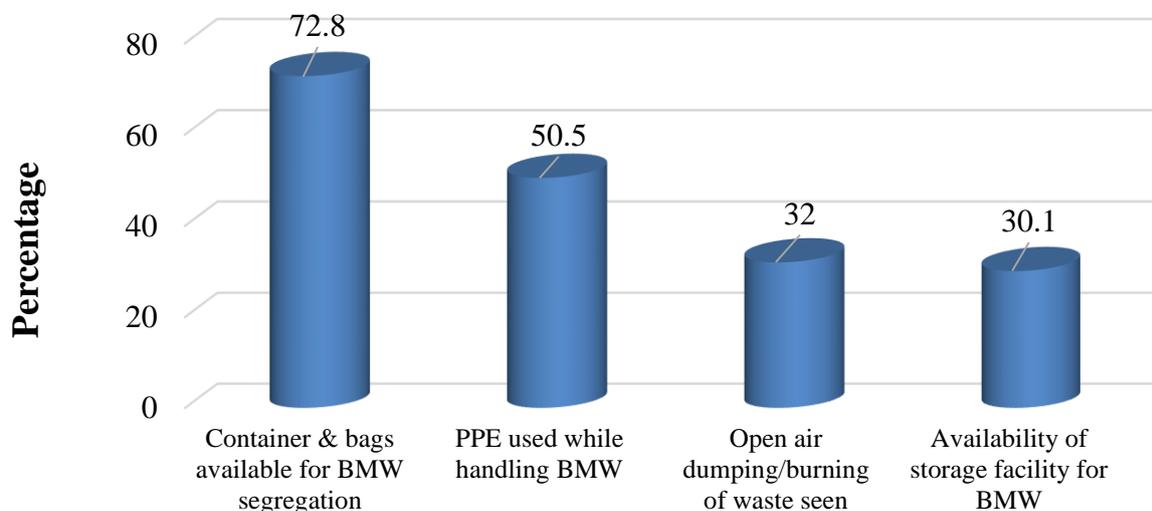


Dustbin for disposal of sanitary pads was available at 75% DH but IEC for disposal of sanitary pads was not displayed at any DH. Dustbin for disposal of sanitary pads was available at 57.1%, 40.4%, 25.0% facilities at SDH, CHC, PHC respectively. Out of total 103 facilities, only 36.9% facilities were having dustbin for disposal of sanitary pads.

## Observations

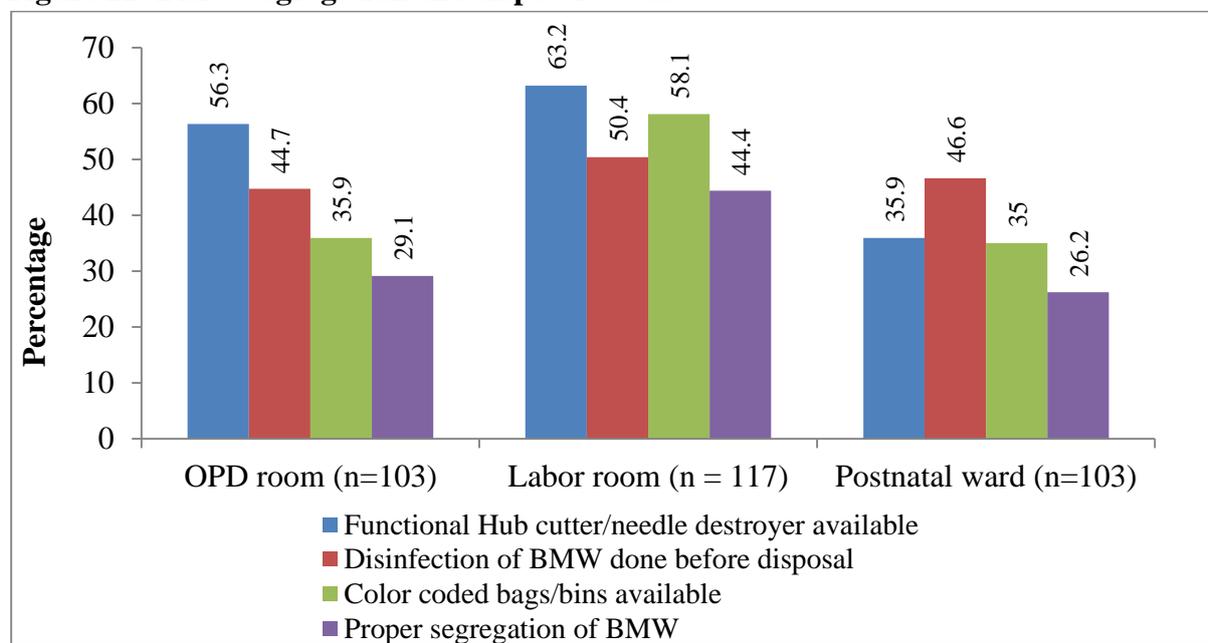
### Hospital Waste Management

**Figure 10: BMW management and PPE usage**



Container & bags for BMW segregation were available at 72.8% facilities. While handling BMW, PPE were being used only at 50.5% facilities. Storage facility for BMW was available at only 30.1% facilities.

**Figure 11: BMW segregation and disposal status**



Functional hub cutter/needle destroyer was available in 56.3%, 63.2% and 26.2% facilities in OPD room, Labour room and postnatal ward respectively. Colour coded bags/bins are available in only 58.1% facilities in labour room. Proper segregation of BMW is done only 29.1% & 26.2% facilities in OPD room and postnatal ward.

## Conclusions

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### Monitoring and Supervision

- Whereas most facilities had some health personnel to monitor WASH, but at many places absence of formal assigned responsibility for supervision and monitoring was observed.

### Water Supply

- Improved water supply was available in almost all (97.5%) health centres and was sufficient for most of them (81.4%)
- In few centres (19.5%) bacteriological water testing of drinking water was done

### Sanitation and Hygiene: Operation and Maintenance

- Almost all facilities were having cleaning staff (94.4%) for maintenance of cleanliness of the health centre with outsourcing as a predominant method of recruitment
- Most of the individual areas were visibly clean but schedule of cleaning was not available and maintained for about 2/3 of these areas
- About half of the facilities were having functional toilet in all areas
- Around one forth facilities had soap availability for hand washing
- Good number of health centres were having toilets for labour room (64.1%) and ANC OPD (85.4%).

### Bio Medical Waste Management

- Availability of bags and bins (72.8%) for BMW segregation and disposal was insufficient
- Segregation and disinfection of BMW before final disposal was poor at many health centres
- PPEs were being used in limited manner (50.5%) while handling BMW waste
- Functional hub cutter was unavailable in about half of required areas even though they were available in store at some place

### IEC and BCC

- Few facilities were having IEC materials for hand wash, for toilet use and for disposal of sanitary pad
- Separate bin for disposal of sanitary pad in Post natal ward was placed in some health centres (36.9%) with display of signage regarding the same

## Recommendations

### Key gaps and Recommended Strategic actions

| Major Gaps   | Strategic Option suggested/ Onsite correction made   |
|--|--|
| <b>Monitoring</b>  |  |
| Implementation of fixing the responsibility - answerability at institute level is weak | <ul style="list-style-type: none"> <li>✓ Ensuring the implementation of monitoring mechanism as per the job chart</li> <li>✓ MO to be sensitized for cleanliness issues and to take a daily 5-10 min round</li> <li>✓ THO/DQAMO to do continues monitoring, supervision and regular review</li> <li>✓ The ownership attitude needs to be created in all cadres of staff</li> <li>✓ Monitoring checklist should be implemented and revised periodically (3 monthly) in implement-improve-maintain-revise cycle</li> <li>✓ Regular review in monthly meeting to discuss and solve problems identified at local health facility to be started</li> <li>✓ Implementation of 5S at all health facilities</li> </ul> |
| <b>Water Supply</b>  |  |
| Functional Treatment Unit and water storage tank unavailable/ not covered              | <ul style="list-style-type: none"> <li>✓ Authority and fund for local/district purchase for Functional Treatment Unit to be provided</li> <li>✓ Proposal for new construction of water storage tank in new budget plan to be made</li> </ul>   |
| Irregular/ Absence of water testing  | <ul style="list-style-type: none"> <li>✓ Bacteriological testing of drinking water should be done on regular basis preferably every month. Proper training and guidelines regarding water testing to be provided</li> <li>✓ Regular supply of H<sub>2</sub>S kit to be ensured</li> <li>✓ Possibility of linkages with WASMO needs to be explored at panchayat/nagarpalika level for water testing</li> </ul>  |

## Recommendations

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>✓ MPHW/ASHA can also do water testing of the health facility water along with household level testing</li> </ul>   |
| <b>Hand washing and hygiene</b>  |   |
| At few centers hand washing stations and running water were not available in the OPD, LR and Post Natal Ward | <ul style="list-style-type: none"> <li>✓ Proposal to PIU for creating washbasin at such centers to be prepared</li> </ul>   |
| <b>Sanitation</b>  |   |
| Lack of implementation of cleaning schedule checklist  | <ul style="list-style-type: none"> <li>✓ Inclusion of cleaning schedule checklist in routine monitoring may help</li> </ul>   |
| Inadequate and reluctant sweepers  | <ul style="list-style-type: none"> <li>✓ The TOR of sweeper for each level of facilities including the frequency of cleaning toilet based on the utility, needs to be defined by the head of the institute</li> <li>✓ The time schedule of the class IV also needs to be defined as the class IV should work before OPD timings for cleaning.</li> <li>✓ The type of recruitment of cleaning workers depends on type of facility. At SC, PHC where no. of toilets were less, class IV worker can be kept on daily wage for hourly basis (Twice a day) with flexible approach. But minimum wages law needs to be applied. At bigger facilities permanent sweeper is required or the service contract can be outsourced.</li> <li>✓ The agency for such out sourcing must be registered and accountable. Their TOR must include provision of Penalty/punishment clause in the MOU</li> <li>✓ As daily different cleaning staff is sent by outsourced</li> </ul> |

## Recommendations

|   |  |
|---|--|
|   | <p>agency, the insistence should be that outsourced agency itself should train and recruit manpower</p>  |
| <p>Toilets were unclean and non functional at few centers</p>                     | <ul style="list-style-type: none"> <li>✓ Routine items for sanitation should be either supplied from state/district or else dedicated fund for WASH related services and maintenance should be ensured</li> <li>✓ In all toilets availability of hand washing station with soap, functional light point and proper door with locking facility should be ensured</li> <li>✓ Sensitization of staff and beneficiaries for developing and sustaining clean health facility using IPC or displaying related material on TV or banner in the health centre should be initiated</li> <li>✓ The design of toilet for patient and staff needs to be different. For e.g. in PHC Anglo-Indian/Indian toilets needs to be present rather than western style. The slope of toilet needs to be correct. PIU should take inputs from user before construction. The height of the commode needs to be specified.</li> </ul> |
| <p><b>BMW Management</b></p>  |  |
| <p>Separate BMW storage facility unavailable at few centres</p>                   | <ul style="list-style-type: none"> <li>✓ Inclusion of separate storage room in the plan for health center by PIU to be ensured</li> </ul>  |
| <p>All four bags and containers unavailable at each point of waste generation</p> | <ul style="list-style-type: none"> <li>✓ The BMW (CTF) agency must provide bags regularly as a part of their contract in different size to avoid bags-bins size mismatch, as per the need of the facility</li> <li>✓ RC of BMW bags needs to be renewed. Usage of BMW bags to be reversed audited by weight of waste</li> <li>✓ The BMW bags, cleaning material including IMEP equipment can be purchased by GMSCL at state level from cost negotiation point of view. Buffer stock of all</li> </ul>  |

## Recommendations

|  |  |
|--|--|
|  | <p>logistics to be kept at regional stores. (Currently these are purchased at PHC/SC level which increases the cost and lowers the quality)</p>  |
| <p>Improper Segregation of BMW seen at point of generation<br/>PPE for BMW is irregularly used</p> | <ul style="list-style-type: none"> <li>✓ Induction/refresher training is required of all health workers from MO to class IV, on BMWM/preparation of hypochlorite/ housekeeping.</li> <li>✓ The training modules for the same needs to be designed</li> <li>✓ Local reviewing/supervision needs to be strengthened</li> <li>✓ PPE should be supplied regularly in adequate quantity for handling BMW.</li> <li>✓ Rubber gloves should be used instead of surgical gloves while handling PPE</li> <li>✓ Functional hub cutter should be ensured at all relevant areas</li> </ul> |
| <p>Open air dumping and burning at few health centers</p>  | <ul style="list-style-type: none"> <li>✓ Local sensitization/Supervision needs to be strengthened</li> </ul>   |

## Photo Gallery

### Water: Good practices



Instruction about reducing water wastage, CHC Garudeshwar, Narmada



Clean Well Maintained Functional Drinking Water Point, CHC Nakhatrana, Kutch



Drinking Water Point Available with help of local donor, CHC Idar, Sabarkantha



Well maintained, covered water storage tank, Civil Hospital, Valsad

## Photo Gallery

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### Water: Issues that need to be addressed



Poor sanitation maintenance near Point of Use of Drinking water facility- CHC Tilakwada, Narmada



Formation of Algae Inside RO Plant, PHC Dudhiya, Dahod



Open Overhead tank with cover near it – CHC Naliya, Kutch,



Poorly Maintained Water tank with Algae- SDH Khedbrahma, Sabarkantha

## Photo Gallery

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### Toilet Facilities: Good practices



Proper Signage for Toilets in Local Language with Picture-  
CHC Malpur, Sabarkantha



Adequate Stock of cleaning material stored properly-CHC  
Vadali, Sabarkantha



Clean Functional Toilet – PHC  
Gagodar, Kutch



IEC material in local language,  
CHC Garudeshwar, Narmada

## Photo Gallery

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### Toilet facilities: Issues that need to be addressed



Overflowing choked toilet in -  
DH Valsad, Valsad



Uncovered underground sewage  
system & leaking sewage water-  
DH Bhuj, Kutch



Toilet used as store room in  
wards- DH, Rajpipla, Narmada

## Photo Gallery

### BMW management: Good practices



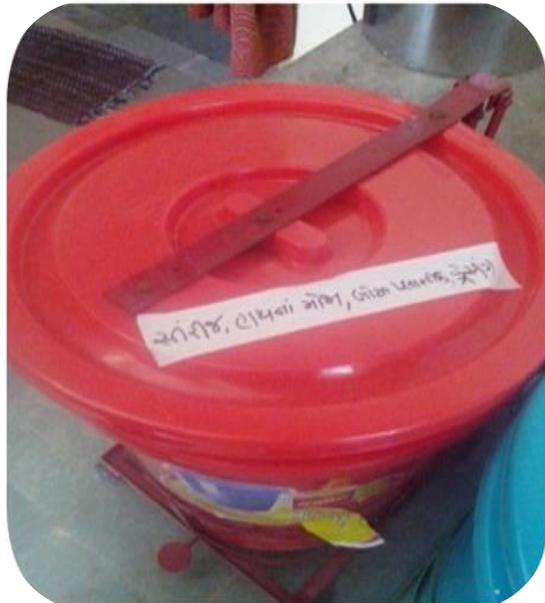
Locked storage for BMW - CHC Bhachau, Kutch



Well Maintained BMW Register -SDH Devbaria, Dahod



Functional Hub cutter & correct segregation of waste in bins with bags- CHC Sihori, Banaskantha



Tag indicating type of waste to be segregate in red bag in gujarati, PHC Khedipada, Narmada

## Photo Gallery

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### BMW Management: Issues that need to be addressed



Color coded bags were poorly available due to irregular supply from district-SDH Devbaria,



Only container without bag and BMW coming out of it at PNC ward - PHC Ratnal, Kutch



Common Bathroom occupied by BMW waste at PHC: Mithi Paldi, Block : Deodar, Dist: Banaskantha



Non-functional Needle Destroyer & sharps- Kankapur PHC, Dahod

## Photo Gallery

### Good and Bad Practices for hygiene:



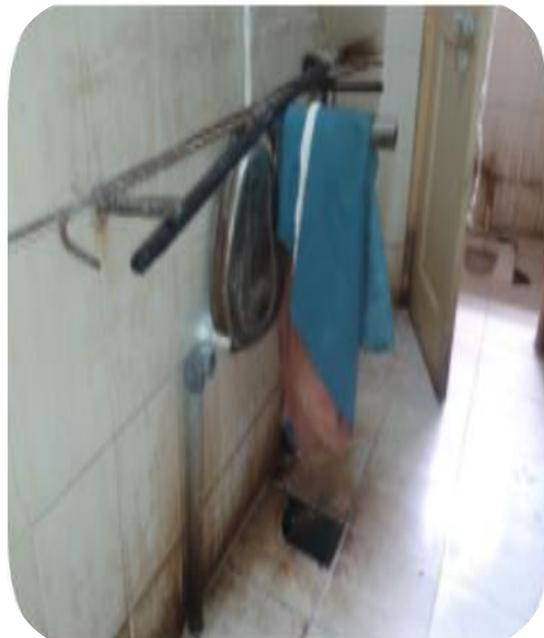
Expensive Machine for Sterisol  
Lying Idle due to Maintenance  
Issues-CHC Amodara,  
Sabarkantha



Washbasin for OPD patients with  
poster of hand washing steps-  
CHC Halol, Dahod



Washbasin with Liquid Soap, &  
Hand washing Technique Poster  
Displayed, PHC Kadiyadar,  
Sabarkantha



Broken Washbasin stand used to  
keep mops- DH Valsad, Valsad

## Photo Gallery



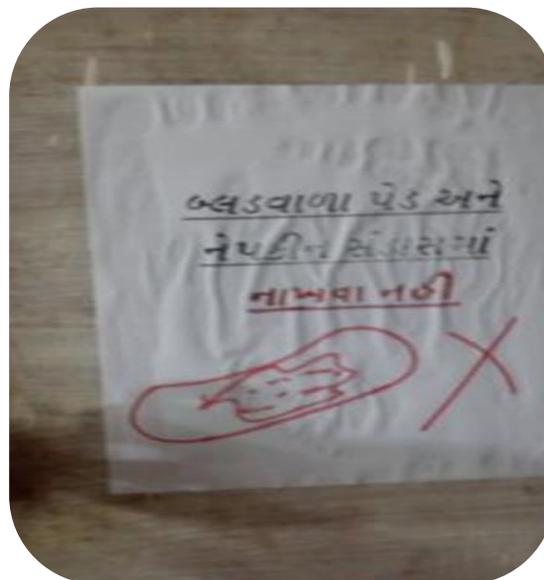
Instruction about toilet usage,  
CHC Garudeshwar, Narmada



Changes that were suggested in  
initial visit and observed during  
surprise visit 3 day afterwards -  
CHC Nakhatrana, Kutch



IEC material of hand washing,  
PHC Adesar, Kutch



IEC material displayed for proper  
disposal of Sanitary pad in toilet  
facility- PHC Sathamba,  
Sabarkantha

## Photo Gallery

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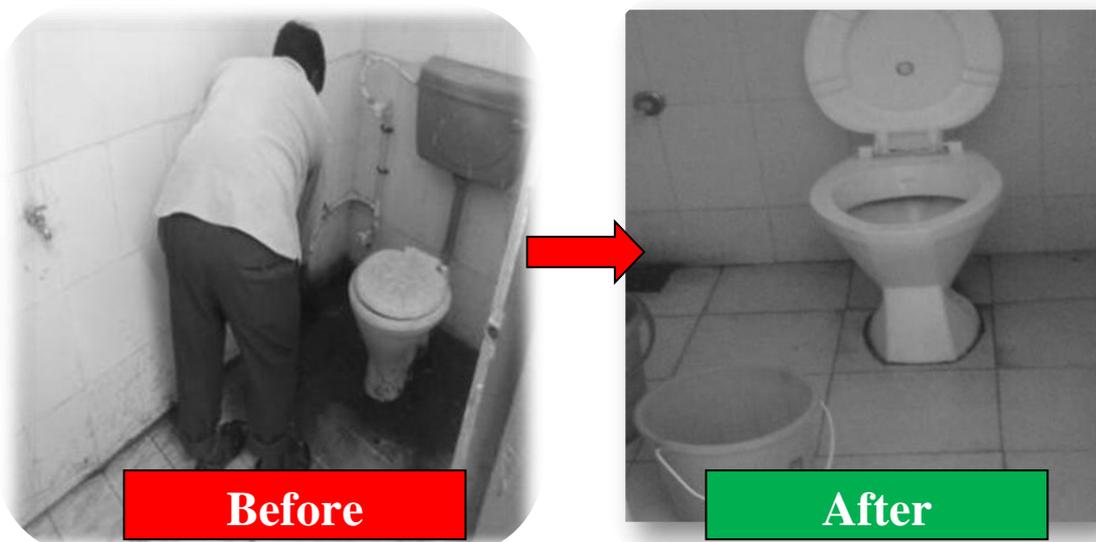
### Some On-site Corrective Actions:

- **CHC Limdi, Dahod**



Cleaning of RO plant and connecting it into socket to make both RO and cooler functional

- **CHC Tilakwada, Narmada**



Sweeper was called immediately for toilet cleaning

## Photo Gallery

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- CHC Nakhatrana, Kutch



Sweeper was called to clean toilet and bathroom

- CHC Anjar, Kutch



Staff nurse wasinsisted to keep the black bag for proper segregation of waste

## Team members

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| <b>Banaskantha District</b>   |                         |                      |
|---|-------------------------|----------------------|
| <b>Community Medicine Department, GMERS Medical College Dharpur - Patan</b> |                         |                      |
| <b>Sr. No.</b>  | <b>Name</b>             | <b>Designation</b>   |
| 1   | Dr. Sunil Nayak         | Associate Professor  |
| 2   | Dr. Nilesh Thakor       | Assistant Professor  |
| 3   | Dr. Krunal Modi         | Assistant Professor  |
| 4   | Dr. Rakesh Ninama       | Assistant Professor  |
| 5   | Dr. Mayur Vala          | Assistant Professor  |
| 6   | Dr. Jagruti Darji       | Lady Medical Officer |
| <b>Dang District</b>  |                         |                      |
| <b>Community Medicine Department, GMERS Medical College, Valsad</b>         |                         |                      |
| <b>Sr. No.</b>  | <b>Name</b>             | <b>Designation</b>   |
| 1   | Dr. Hitesh Shah         | Associate Professor  |
| 2   | Dr. Ravikant Patel      | Associate Professor  |
| 3   | Dr. Darshan Mahyavanshi | Assistant Professor  |
| 4   | Dr. Mehul Patel         | Tutor                |
| <b>Valsad District</b>  |                         |                      |
| <b>Community Medicine Department, GMERS Medical College, Valsad</b>         |                         |                      |
| <b>Sr. No.</b>  | <b>Name</b>             | <b>Designation</b>   |
| 1   | Dr. Hitesh Shah         | Associate Professor  |
| 2   | Dr. Darshan Mahyavanshi | Assistant Professor  |
| 3   | Dr. Mitali Patel        | Assistant Professor  |
| 4   | Dr. Kapil Govani        | Assistant Professor  |
| 5   | Dr. Priti               | Assistant Professor  |
| 6   | Dr. Hinal               | Assistant Professor  |
| 7   | Dr. Mehul Patel         | Tutor                |

## Team members

| <b>Narmada District</b>  |                      |                     |
|--|----------------------|---------------------|
| <b>Community Medicine Department, GMERS Medical College, Gotri</b>   |                      |                     |
| <b>Sr. No.</b>   | <b>Name</b>          | <b>Designation</b>  |
| 1  | Dr Chandresh Pandya  | Associate Professor |
| 2  | Dr Rohit Parmar      | Assistant Professor |
| 3  | Dr Dharmendra Jankar | Assistant Professor |
| 4  | Dr Sanat Rathod      | Assistant Professor |
| 5  | Dr Gaurang Suthar    | Tutor               |
| <b>Sabarkantha District</b>  |                      |                     |
| <b>Community Medicine Department, GCS Medical College, Ahmedabad</b> |                      |                     |
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| 1  | Dr. K. N. Sonaliya   | Professor & Head    |
| 2  | Dr. Viral Dave       | Assistant Professor |
| 3  | Dr. Venu Shah        | Assistant Professor |
| 4  | Dr. Arpit Prajapati  | Assistant Professor |
| 5  | Dr. Bhavik Rana      | Assistant Professor |
| 6  | Dr. Mansi Patel      | Tutor               |
| 7  | Dr. Asha Solanki     | Tutor               |
| <b>Dahod District</b>  |                      |                     |
| <b>Community Medicine Department, Baroda Medical College, Baroda</b> |                      |                     |
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| 1  | Dr. Jivraj Damor     | Associate Professor |
| 2  | Dr. Preeti Panchal   | Assistant Professor |
| 3  | Dr. Pritesh Patel    | Assistant Professor |
| 4  | Dr. Niyati Parmar    | Tutor               |
| 5  | Dr. Ajay Parmar      | Tutor               |

## Team members

| <b>Panchmahal District</b>  |                        |                     |
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| 2   | Dr. Preeti Panchal     | Assistant Professor |
| 3   | Dr. Pritesh Patel      | Assistant Professor |
| 4   | Dr. Niyati Parmar      | Tutor               |
| 5   | Dr. Ajay Parmar        | Tutor               |
| <b>Kutch District</b>   |                        |                     |
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| 1   | Dr. Rajesh Chudasama   | Associate Professor |
| 2   | Dr. Kaushik Lodhiya    | Assistant Professor |
| 3   | Dr. Chintan Dasharatha | Assistant Professor |
| 4   | Dr. Nirav Joshi        | Tutor               |
| 5   | Dr. Dipesh Zalavadiya  | Tutor               |