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Social Sciences





WASH in the context of maternal health and menstrual hygiene

How Indian and Ugandan health centres manage the sanitation needs of special user groups

01.October 2014 - 30. September 2016

Executive Summary



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Abstract

This interdisciplinary research project, combining social anthropology and gender studies with sanitary engineering, investigated water, sanitation and hygiene (WASH) infrastructure and users' needs in selected public health care facilities in India and Uganda.

WASH in health care facilities in developing countries often fail to provide user friendly and gender sensitive services, putting the most vulnerable user groups (e.g. pregnant women, small children and disabled persons) at risk. In addition to health issues, women are confronted by social norms, which often hinder proper hygienic habits during menstruation, affecting their health and challenging their dignity. Through the application of our three assessment tools, our research provides data on the sanitary requirements of health care facilities to address the gendered realities of intimate needs in the face of inadequate or poorly designed WASH infrastructure.

A technical assessment of selected sanitary infrastructures was done with an adapted and refined tool which includes specific gender indicators and is one of the project outcomes. It will be further developed into an Open Data Kit based tool for mobile phone applications. It can be used to evaluate and monitor WASH services in health care facilities worldwide. The specific needs and priorities of the patients and attendants were also explored using a modified, gender sensitive focus group discussion method, the "Gender Action Learning System" (GALS), that was modified for this project. Lastly, health centre medical staff, facility managers and cleaning personnel were interviewed using a semi-structured interview technique.

The overall data from the three different assessment tools gives evidence of needs-based, gender sensitive, technically appropriate and socially acceptable solutions to the problems identified at the health care facilities. The results were shared with the corresponding stakeholders from the medical departments, management and health authorities and are the basis of two Policy Briefs for decision makers in India and Uganda. A video and an academic article are in production as further project outcomes. The publications will be relevant for health care managers, health authorities, and the local communities, and made accessible to relevant actors at local, regional and national levels.

1. Introduction

This executive summary on the *Genderised WASH* project provides insights into the research plan, the results obtained and the practical application of these results. It also covers questions that merit further exploration, practical and policy recommendations and information regarding past and expected publications and other activities.

2. Research plan

Water, sanitation and hygiene (WASH) in health care facilities in developing countries often fail to provide user friendly and gender sensitive services, putting the most vulnerable user groups (e.g. pregnant women, small children and disabled persons) at risk. In addition to health issues, women are confronted by social norms, which often hinder proper hygienic habits during menstruation, affecting their health and challenging their dignity. Through the application of selected assessment tools, our research provides data on the sanitary requirements of health care facilities to address the gendered realities of intimate needs in the face of inadequate or poorly designed infrastructure. The central research question "What are the shortcomings of existing WASH facilities in health centres and what are the needs of specific user groups (especially of women and girls) with regards to wash infrastructure in order to achieve genderised sanitation?" addressed the following hypotheses:

H1: Existing HCFs in developing countries do not appropriately address genderised sanitation needs and therefore negative impact women's and girl's health, safety and dignity.

H2: Needs-based HCFs will strengthen the position of vulnerable groups such as women experiencing e.g. birth and menstruation.

H3: Solid data will lead to more technically appropriate and socially accepted solutions for WASH infrastructure and services.

For the purpose of this study and in order to test the hypotheses we have selected two central districts in Uganda and the State of Maharashtra in India. The research method applied was a comparative design between Indian and Ugandan settings and an ethnographic research design applying inter- and transdisciplinary approaches and employing innovative data collection methods (see figure 1).



2.1 Research design, methodical procedures and outcomes in a nutshell

Figure 1: Methodological procedure and expected project outcomes.

2.2 Data gathering methods applied in Uganda and India

Technical Assessment: One of the goals of this research project was to develop an easy to use WASH infrastructure assessment method that captures the ground reality of the HCFs, while accounting for different needs of the various user groups of the HCFs. A first draft of such an assessment method was developed and tested with the local partners in Uganda and India. A quantitative assessment of existing sanitary infrastructure in the four hospitals was done with a tool that was adapted and refined by Eawag/Sandec. This assessment tool includes specific gender indicators and is one of the project outcomes. It will be further developed into an Open Data Kit based tool for mobile phone applications that can be used to evaluate and monitor WASH services in health care facilities globally.

Gender Action Learning System (GALS): Is a focus group discussion method and is particularly known for its gender sensitivity as it promotes the collection of sex disaggregated data and gender mixed plenary discussions and the identification of sensitive topics (e.g. defecation and menstrual hygiene management concerns). It also promotes the active expression of the viewpoints of <u>all</u> participants, leading to social exchange and mutual learning among them. GALS was conducted with inpatients and their attendants capturing their specific

experiences, needs and priorities in connection with WASH services in the selected four HCFs. In the two Indian hospitals two GALS (with a total number of 50 participants; 28 female + 22 male) and in the two Ugandan hospitals four GALS (with a total number of 40 participants; 20 female + 20 male) were undertaken. The time to conduct a GALS varied from four to six hours per session.

Semi-Structured Interview (SSI): The above assessments (Technical Assessment and GALS) were supplemented by Semi-Structured Interviews along six different types of question guides for outpatients, inpatients, attendants, medical staff, cleaning personnel and managers/administrators. In each of the four hospitals 18 SSIs were undertaken, leading to a total of 72 SSIs. The time to conduct a SSI varied from 30-60 min.

2.3 Dimensions of research interest and data analysis tool

Our field work consisted of four technical assessments, six GALS and 72 SSIs undertaken in India and Uganda. The main issues raised in the three assessment tools SSIs, GALS and Technical Assessment were:

Water supply: Drinking water: source, quantity, quality, costs.

Hygiene with water: hand washing, bathing, cloth washing, sanitary practices, source, quantity, costs.

Sanitation: Ranking of sanitary facilities. What would an ideal toilet look like for the users?

Hygiene/health: Food; source, quality. General cleanliness; ranking, listing rooms and perceived cleanliness. Solid waste management and perceived cleanliness.

Menstruation and Menstrual Hygiene Management (MHM): MHM; comfort, products used, changing, washing, drying, disposal, availability. Menstruation: beliefs, myths, restrictions, taboos; practices, restrictions (in the hospital and at home).

Pregnancy and childbed: Comfort in toilet and bath use, beliefs, myths, restrictions, taboos; practices, restrictions (in hospital and home).

The questions and topics of interest concentrated on the main challenges in the respective HCFs along six key dimensions:

- Hygiene/health
- Security/safety
- Privacy
- Accessibility
- Comfort
- Menstrual Hygiene Management (MHM)

Data storage and analysis of the qualitative data (GALS and SSIs) was conducted using the Atlas.ti 7 software.

A technical assessment questionnaire was developed. The data was first gathered on paper and transferred to an Excel sheet. Based on this experience, a second version of the assessment baseline was created in the form of a mobile tool. This mobile tool was tested in Nepal as part of a partnership with Terre des Hommes, Switzerland initiated during the course of this project.

3. Results obtained and analysis

3.1 Results from the Technical Assessment

Results from the assessments in combination with direct observations in both countries showed the need to add three essential dimensions to the technical assessment tool (infrastructure assessment checklist):

- (i) Addressing the complexity of health care facility WASH infrastructure: Often, more than one sanitation system and a variety of water sources are in service in the same health care facility, varying according to the time of day, seasonal conditions and the composition of user groups. The current monitoring tools, and the Indian and Ugandan national guidelines for infrastructure requirements fail to take this complexity into account.
- (ii) Infrastructure requirements of attendants: Attendants are visitors who fulfil the role of patient care-takers, due to the fact that the (overstretched) medical staff are not able to handle basic services for all patients. Attendants provide such services as drinking water provision, cooking and much more. Because they stay at the health care facility for longer periods of time and use the infrastructure, their needs should also be taken into account when planning adequate WASH services
- (iii) Gender specific infrastructure indicators: Current HCF infrastructure in India and Uganda is centrally planned by (civil) engineers. Gender specific needs are often not reflected in existing guidelines. Infrastructure indicators and guidelines need to encompass: (i) a place to take a bath after giving birth, including warm water; (ii) a washing and drying place for reusable menstrual hygiene products; and (iii) safe disposal of used menstrual hygiene material.

India Tuljapur (SDH)	India Beed (DH)	Uganda Bbaale I (SDH)	Uganda Bbaale II (SDH)	Uganda Kawolo I (DH)	Uganda Kawolo II (DH)	
15 female + 12 male	13 female + 10 male	5 female + 5 male	5 female + 5 male	5 female + 5 male	5 female + 5 male	
Unsafe in toilet and Bathroom	Feel unsafe in toilets and bathrooms	Dirty	Dirty	No light in the toilets	No water	
Unclean hospital environment	Non availability of the soaps and towels in the toilet	Smelly	No MHM buckets	No water for hand washing after visiting the toilet	Dirty toilets	
Improper waste water treatment	Toilets, bathrooms and wards are unhygienic and dirty	No light	No hand washing facilities	Toilet dirty – either full or with faeces on toilet slab and walls, and flooded with urine	Smelly toilets	
No soap in toilet for hand washing	Scarcity of water, pads and dustbins in both toilets and bathrooms during menstruation	No hand washing facilities	No security lights	Lack of MHM facilities, i.e., no provision for women in their menstrual period	They are full	
No separate toilet for visitors and attendants	Few toilets and bathrooms remain locked throughout day and night in the hospital	No toilet covers	No separation for males/females	Smelly/ toilets smell	They are in the bush	
Many problems in hospital during menstruating						

3.2 Results from the GALS

Table1: Results from all the GALS: Main challenges mentioned in the four HCFs

3.3 Results from the SSIs

The presentation of the overall results obtained from the total 72 SSIs (18 SSIs were conducted in each hospital) with six different types of question guides (for outpatients, inpatients, attendants, medical staff, cleaning personnel and managers/administrators) would be a bit of a stretch; we therefore focus on the following selected gender specific and -relevant topics:

Main challenges around Menstrual Hygiene Management (MHM)

Comfort: uncomfortable; deficient facilities, physical discomfort.

Support: need for provision of sanitary material, upgrading of infrastructure, medical support Products used: single use fabric pads versus multiple use products.

Changing, washing, drying, disposal: No space, health hazard unawareness, no waste bins Availability: products are hardly available.

Main challenges around menstruation; beliefs, myths, restrictions, taboos, practices, restrictions. In hospital settings: no restrictions found in both countries.

In general and at home: beliefs, myths and restrictions, especially in India around food, working tasks, touching others and religious activities.

3.4 Results from GALS and SSIs, main challenges and possible solutions

The results from the three assessment tools Technical Assessment, GALS (see table 1) and SSIs were shared with the corresponding stakeholders of the medical departments, management and health authorities in two national workshops in Uganda (08.06.2016) and India (08.07.2016).



Workshop at Fairway Hotel in Kampala, Workshop in Beed Hospital, India. Uganda.

The following section presents a summary of the results of the national workshops in both countries involving health management staff and their possible solutions and recommendations to address the identified challenges.

3.4.1. Main challenges in both countries and proposed solutions identified

① Water scarcity, especially during dry season

Uganda: rainwater harvesting is done but is not very efficient, partly dysfunctional. *Proposed solution:* Repair dysfunctional equipment, assure for operation and maintenance. India: water supply from community and NGO (costly, depending on "outsiders"): *Proposed solution:* Plan for rain water harvesting.

② Lack of financial resources for infrastructure, labour, material

Facilities cannot be kept enough clean and hygienic, privacy for patients as well as for staff members is missing.

Proposed solution: Need for increased budget, especially on WASH services and on labour force.

③ Policies on water and sanitation are weak

Proposed solution: Uganda: Need for better polices on water and sanitation and the prioritising of sanitation in HCFs in the agenda.

④ Overuse of all facilities and services

Overuse due to high numbers of patients and their attendants, i.e. mismatch of toilet and bathroom to patient ratio. No room for the staff members in India.

Proposed solution: Uganda: Extension and upgrading of existing HCFs. India: Construction of more and separate toilets for patients, attendants and staff members. Staff rooms must be built.

⑤ Deficient Operation and Maintenance (O & M) of facilities

Locks and handles of the toilet doors do not work properly, windows and doors of toilets are broken, lights are missing in toilets and bathrooms, some toilets are locked. Proposed solutions: broken facilities must be repaired, bulbs installed, toilets must be opened.

Although waste segregation is done within the hospitals, the disposal of solid waste is unsafe. Uganda: dumping in the open; polluting soil, water bodies and air (by burning solid waste). In India not knowing exactly where solid waste is disposed.

Proposed solution: India: Check the third party contractor if the solid waste is safely disposed.

Adequate hygiene conditions (in general) cannot be maintained (i.e. no soap for hand washing, if provided, often removed by users).

Proposed solution: India: Provision of liquid soap. Uganda: Employ caretakers to manage the hygiene in the HCFs. Need for extra O&M budgets for the WASH facilities. Political interventions; political leaders are urged to positively intervene in the affairs of HCFs. They should supervise and monitor operations of the facilities in order to solve present problems in time.

© Lack of MHM facilities

Absence of buckets/containers for disposal of sanitary material, and in most cases no sanitary material available in the HCFs. There is deficient privacy because of sex mixed toilets in Uganda. Places to change and wash like toilets and bathrooms are non-accessible because they are locked.

Proposed solution: Provision of buckets with lid for disposal of sanitary material. Assure for sex separated toilets and bathrooms and for access to facilities.

$\ensuremath{\mathbb{O}}$ $\ensuremath{\mathbb{N}}$ Non adequate behaviour regarding use of facilities, hygiene and health matters

Some patients still practice open defecation (OD) and urinate in or outside the hospital premises, as especially rural people are not accustomed to modern toilets.

Proposed solution: In Uganda there are signs saying that urination in the open is fined by penalty.

MHM material is disposed wrongly (i.e. dumped in the open or thrown into toilets), polluting the surroundings and the environment and causing clogging of toilets.

Proposed solution: Disposal of buckets with lid for disposal of sanitary material. Proposed solutions: Uganda: Educate communities on MHM. India: Educate users of HCFs on MHM.

Uganda: Some toilet users practice "toilet art"; smearing faeces on walls inside the toilet due to the lack of cleaning material (observation by research team).

Proposed solution: Implement rules to stop polluting the toilets and provide for cleaning material.

India: People spit inside the hospital premises i.e. corners, windows, toilets, bathrooms, corridors.

Proposed solution: India: Strict rules must be implemented to stop smoking and spitting in the HCFs. Cameras should be installed in every ward for enforcement.

® Maintaining proper and clean WASH facilities is everyone's responsibility!

Strong need for proper and adequate O & M of facilities; this touches on education, sensitization, communication and involvement of communities.

Proposed solution: Educating patients on the proper use of HCFs. Increased sensitization; community members should be taught more about water, sanitation and hygiene.

India: Third party evaluations and monitoring on the status of WASH facilities must be conducted. There is need for "Health for Health Department".

Uganda: All Health Officers in the workshop agreed to work with community leaders to uplift the hygiene of community members.

4. Results obtained and their correspondence to those expected

A critical review of the three largest data gathering instruments for service delivery data in health care facilities: Service Availability and Readiness Assessment (SARA), Service Delivery Indicators (SDI) and Service Provision Assessment (SPA) showed that WASH remains a neglected topic and the relevant indicators are outdated. The Service Availability and Readiness Assessment (WHO 2013) covers questions on the water source, the type of toilet, solid waste management, including infectious and sharps waste, as well as hygiene, using the indicators for water supply and asks if soap or alcoholic hand rub are available. Three main shortcomings of the previous assessments were identified during our research pertaining to (i) gender disaggregated data; (ii) data on private caretakers, attendants and (iii) the dimensions of WASH that are covered.

Further weaknesses identified were:

- Data is gathered by looking at a health care facility as a single entity only, without further distinction of linked units. Also missing is segregated gender data. There is no distinction of services between different wards or different user groups of WASH services in health care facilities.
- Attendants are mostly private caretakers, and mostly women, who provide free basic services to inpatients. This includes all kind of WASH services, like getting drinking water and helping a person with reduced mobility to access and use a sanitary facility. The role of these (mostly family member) attendants as providers and users of WASH services is not yet documented and their (high) numbers in health care facilities are not captured.
- Relevant WASH dimensions are not covered by the previously mentioned assessments: Water availability, water quality, water quantity, sanitation for gender, sanitation for people with reduced mobility, sanitation greywater and stormwater, as well as handwashing. Furthermore the WASH indicators are measured in a binary form only, i.e. either has there is an improved sanitary facility or none, instead of a laddered approach where incremental improvements are possible and can be measured.

Additionally, the WASH indicators should aim for a more service-focused approach, where questions on availability and quality are included.

Thus, the limitations and data gaps we highlighted in our original research proposal were confirmed and the project outcomes mentioned in section 3 and outputs listed in section 8 are very much in line with our original proposal.

5. Practical application of results

Application of results from the technical assessment

As a follow-up to the technical assessment carried out in the four HCFs, a tool for mobile monitoring of WASH in health care facilities was developed in partnership with Terre des Hommes, Switzerland. The tool was then tested in 19 health care facilities in Nepal as part of a master thesis in collaboration with the University of Basel, Sustainability Studies (Prof. Burger). This hand-held app is available as open access for further usage by other agencies and NGOs. For further dissemination of results and methodology, Terre des Hommes and Eawag will continue to collaborate in setting up an online platform for assessing WASH in health care facilities. This will allow live monitoring of WASH in health care facilities globally.

Application of results from the GALS and SSIs

The data generated by GALS (see table 1) is rich and illuminates the perceived realities of the groups of patients and attendants in hospital settings. It has been used as a tool for complementing and contrasting the other two data gathering tools (Technical Assessment and SSIs). Nevertheless, there were some challenges in applying GALS in a hospital setting: one has to make sure that there is a separate room available for its conduction and that distractions and disturbances by staff members or bystanders is avoided. The ideal group size for a GALS is around 30 to 40 participant with 50% males and 50% females. A GALS duration of four to six hours requires good planning and organization as well as skilled facilitators (one woman for the women's group, one male for the men's group). The results from the GALS and SSIs on the main challenges encountered and the proposed solutions will be used to formulate Policy Briefs for decision makers in India and Uganda.

6. Questions that merit further exploration or that have arisen as a result of the research

Future potential of participatory mobile data collection

During a long and very bumpy car ride in the mountains of Nepal, which we undertook for testing the monitoring tool in rural health care facilities, a question arose. Do we really need to drive through these unpassable hills for collecting data, when mobile networks are working just fine and are capable of transmitting this data with greater speed and ease? Can we crowdsource data collection for WASH in HCFs or similar topics to ordinary persons equipped with a mobile phone? What incentives would be needed for people to participate? Our goal following this project is to further explore these questions and to test SDG-relevant crowdsourced monitoring processes.

Exploring further potentials of the GALS tool

GALS is a dynamic tool, adaptable for different uses and topics and ideal for starting action at grass root levels. As shown during our research, it has great strengths in identifying gender-specific findings. To make GALS an operative tool, we would like to further explore how it

could be integrated into existing Project Cycle Management tools used in international development.

7. Practical and policy recommendations that follow from the results obtained

We see the following practical recommendations resulting from our research:

- Rules and regulations need to be enforced to put an end to open defecation and urination in and around HCFs.
- Awareness raising for proper toilet use needs to be implemented and cleaning material (i.e. toilet paper in Uganda) provided for.
- Awareness raising, sensitization and education on menstruation and MHM matters with users in the HCFs involving community members (i.e. community worker, schools, NGOs etc.). HCF should take a lead in promoting "good practice" and is a key actor in information flow and communication.
- There is a great need for changes in the planning, design and implementation of HCF construction, taking into account the main findings of this research.

The analysis from obtained results brings forth following categorisation i. - viii.

- i.) Policies; agenda setting; prioritising sanitation, political interventions
- ii.) Education and sensitisation
- iii.) Communication
- iv.) Need for improved O&M of WASH facilities
- v.) Need for increased budget; infrastructure and labour
- vi.) Involving communities
- vii.) Infrastructure interventions; including material (i.e. soap, sanitary pads)
- viii.) Improved supervision and monitoring

The solutions for improvements in WASH infrastructure and -services in HCFs lie in software aspects (i.e. Information, Education, Communication = IEC) rather than in the hardware aspects (i.e. concrete material infrastructure interventions).

Advanced policy recommendations for both countries are being formulated and will feed into two Policy Briefs.

8. Information regarding past and expected publications and other activities

Expected publications, other products and presentations

- i.) Peer-reviewed article (to be published in 2017)
- ii.) Two Policy Briefs; one for India and one for Uganda (2017)
- iii.) Launch of project video (end of 2016)
- iv.) Launch of Technical Assessment Tool (KoBo open access) (end of 2016)
- v.) Presentation project results at the Aguasan Community of Practice, 01.12.2016

Project dissemination through publications and conference presentations

- BORDA conference paper: Kohler P. 2015. *The need for gender sensitive planning in sanitation*. Conference report, in: Key Elements for a New Urban Agenda Integrated management of urban waters and sanitation. BORDA, Bremen. ISBN 978-3-00-052550-6.
- SuSanA project data base <u>http://goo.gl/rsEn0E</u> with discussion contributions in the forum <u>http://goo.gl/zhxgao</u>
- SDC Newsletter Water News Issue N°28, June 2015
- GIZ Newsletter Issue N° 47, June 2015
- Sandec homepage: <u>http://goo.gl/6gnfZf</u>
- Sandec News N° 16 <u>http://goo.gl/ks1DcF</u>
- Sandec News N° 17 http://www.eawag.ch/en/department/sandec/publications/

Project dissemination through teaching in 2015 and 2016

University of Basel, visit to Eawag, Dübendorf 15.04.2016 PEAK course, Eawag, Dübendorf 01.07.2016 MOOC module, e-learning platform Coursera, starting 17.10.2016 TISS Campus lectures, February + October 2015, July 2016

Internal project dissemination through national and international workshops

- International workshop in Switzerland (closing workshop) 27.10. 2016 in Bern
- National workshop in India 08.07.2016 in Beed Hospital
- National workshop in Uganda 08.06.2016 in Kampala



International workshop, closing event, Bern 27.10.2016

Project dissemination through presentations and exchange in 2014 and 2015

Terres des Hommes (TdH) and Eawag-Sandec, Dübendorf

Kick-off meeting with TdH, meeting with John Brogan, Water Sanitation & Hygiene Advisor, to exchange on common interests and on the development of a common risk assessment tool for WASH (adaption of an existing mobile device application developed by TdH) and on possible future collaboration. [09.09.2015]

Swiss Tropical Institute for Public Health (STPH), University of Basel, on invitation from Prof. Elisabeth Zemp in order to exchange on health, WASH and gender issues. Followed by an invitation to present in their "department seminar" coming autumn. [20.08.2015]

Interdisciplinary Centre for Gender Studies, (IZFG), University of Bern, on invitation from Michèle Amacker (member of the expertise committee) as contribution to their format of "Groupe de Réflexion", with participants from academia and SDC. [18.08.2015]

Waterkiosk Foundation, Zurich. Meeting with Antoinette Hunziker-Ebneter, president of the Waterkiosk Foundation, for exchange and possible support for a WASH intervention in Uganda [17.08.2015]

Swedish University for Agricultural Sciences (SLU), Uppsala, on invitation from the department of Energy & Technology to present first outcomes from the field visits and the technical assessments of the sanitary infrastructures. [22.04. 2015]

WHO, Geneva, International meeting on invitation from WHO on "Water, Sanitation and Hygiene in Health Care Facilities - Urgent needs and action" in Session 6: "Knowledge gaps". [17/18.03.2015]

SuSanA meeting, Stockholm, Side event of the World Water Week 2014 on invitation from the Sustainable Sanitation Alliance (SuSanA) to participate in their Working Group 7 on "Community, rural and schools - with gender and social aspects", under the guidance of Claudia Wendland from WECF (Women in Europe for a Common Future). [06.09.2014]

9. Project team

Project team Switzerland							
Prof. Max Maurer	Eawag, Ur	ban Water N	/Ianag	ement			
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Dr. Lyla Mehta	Institute of Development Studies

Dübendorf, 30.11.2016

Petra Kohler, Samuel Renggli & Christoph Lüthi