Meeting the Challenge of WASH in Health Facilities

Fostering synergies between the health sector and community care



29th AGUASAN Workshop, June 17-21, 2013, Sigriswil, Switzerland Background and Outcomes



Application instructions

The following presentation illustrates the background, the process and the outcome of the discussion on water, sanitation and hygiene in health facilities (WASH in HF) held by members of the water network RésEAU and the community of practice AGUASAN during an e-discussion (Nov/Dec 2012) and the 29th AGUASAN Workshop (June 17-21, 2013)

The presentation is mainly designed for participants of the AGUASAN workshop 2013 who want to communitcate this topic within their network

Please feel free to change and amend this presentation according to your personal needs

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Background





What are the challenges of WASH in Health Facilities

Many health facilities in developing and transition countries do not have adequate amenities for Water supply, Sanitation and Hygiene (WASH)

Improper waste management may attract vectors of diseases (rats, flies, cockroaches) and form breeding places for mosquitos. A fatal situation in an area which stands for an accumulation of pathogenic organism

Proper hygiene practices reduce the risk of hospital-acquired infections

Adequate sanitation facilities allow patients to keep their dignity

Responsibilities regarding WASH in health facilities are often not well defined, neither within the health facility itself nor within the governmental organizational structures



Challenges: Water Supply



Water supply in a health center in Burkina Faso



Water source of a tuberculosis sanatorium in Uzbekistan



Challenges: Sanitation





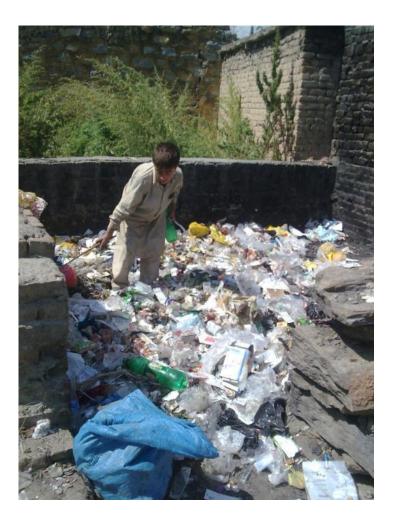
Sanitation facilities in a tuberculosis sanatorium in Uzbekistan



Challenges: Solid Waste Management



Management of hospital waste in Pakistan





Challenges: Hygiene





Facilities for personal hygiene and laundry in a tuberculosis sanatorium in Uzbekistan



Challenges: Vector Control



Waste attracts disease vectors



Mosquito nets in a hospital in Mali



Background

How does WASH in health facilities differ from the regular WASH context?

- Highly frequented by people that are potential carriers of communicable diseases
- Accumulation of infectious and hazardous waste products on the premises (infectious body fluids and excreta, organs, syringes, blood stained tissue, ...)
- **Specific requirements** due to limited mobility of patients (wheel chairs, crutches, fatigue, advanced pregnancy) or particular needs for hygiene and privacy
- Different user groups (staff, patients, visitors) have different needs
- WASH has **low priority regarding financial and personnel support** within the health facility (HF) management and the Ministry of Health

but!

- Health care staff has a high reputation and can **promote hygiene behaviour change** in the entire community
- Health facilities **function as a role model** regarding proper waste management, sanitation and hygiene

Opportunites



Relevance for the development community

- Information on WASH in health facilities and guidance on how the issues need to be practically adressed is scarce
- WASH in health facilities is not much on the radar screen of the development community and governments yet but probably will be with the Post-2015 agenda
- WASH in health facilities is nevertheless a relevant issue for many water and health programmes of Swiss development cooperation/humanitarian aid actors
- Health facilities can be an excellent entry point for the promotion of hygiene programmes

Need for action

- SDC's water network (RésEAU) therefore organised an e-discussion (together with SDC's health network) to establish a basic understanding on the needs regarding WASH in health facilities and to facilitate access of field staff to experiences of other programmes
- AGUASAN (an interdisciplinary Swiss CoP in the water sector) themed its 29th international workshop (2013) accordingly in order to develop a concept and practical guidance and to plan further steps and joint action of the development community



E-discussion





Outcomes of e-discussion

Background

- Members of SDC's networks for water (RésEAU) and health
- 48 contributions from ~20 countries
- 3 weeks, November/December 2012

Outcomes

- High significance of WASH in Health Facilities to protect the well-being of staff, patients and visitors, to prevent epidemics and to act as a role model for the community
- Experience on the topic with a potential for joint learning and knowldege generation could be spottet
- Need for further conceptual and practical guidance directed towards designers, planners, implementers and managers of WASH in health facilities
- Minimum standards on WASH in HF are available but with gaps on software aspects and not sufficiently known by the practicioners

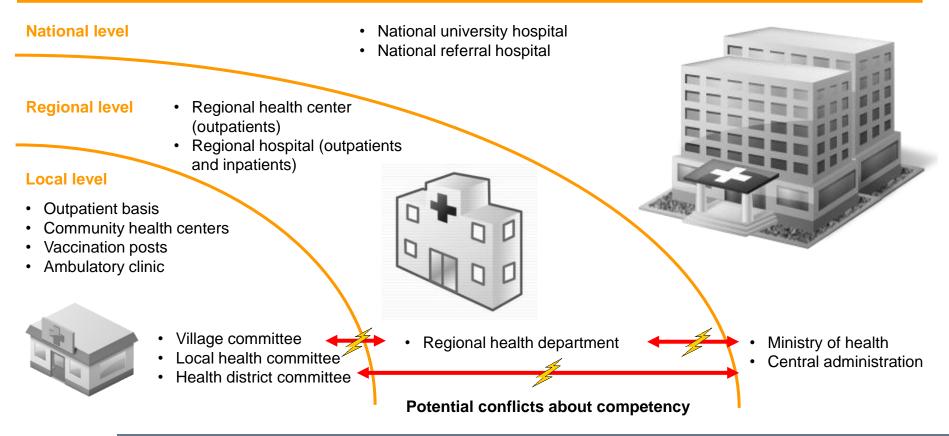






Different complexities of health facilities

- Health facilities have different complexities depending on geographical outreach as well as regarding organizational structures
- Depending on its classification, different authority levels sign responsible for the management of the health facility





Identified HF-specific WASH infrastructure issues

Clean water

 Cleaning of wards, linen, medical equipment, toilets



- Food preparation
- Cleaning of patients
- Maternity ward
- Hand washing of personnel, patients and visitors
- Re-hydration
- Surgical processes

Solid waste management

- Lack of adequate incinerators
- Lack of awareness
- Small quantities of contagious waste contaminate the large fraction of "unproblematic" waste
- Dumping of medical waste close to the buildings
- Solar incinerators as a possibility
- Need for sharps pits



Sanitation

- Proper disposal of excreta in order to prevent outbreaks of diseases
- Adequate sanitation infrastructure for special needs of various groups (disabled, pregnant women, elderly)



Hygiene

 Ensure cleanliness of environment, equipment and staff (training as well as provision of soap, towels, disinfectant, gloves, ...)



 Reliable energy source to maintain operation of refrigerators/incubators (food, medication, bacteriological tests)



Set-up of the 29th AGUASAN Workshop





Setting of the AGUASAN WS 2013

- 41 practitioners from 19 countries
- 3 thematic key inputs
 - WASH and health, with emphasis on neglected tropical diseases, Jürg Utzinger, Swiss TPH
 - **Minimum requirements**, Antoine Delepière, Terre des hommes
 - WASH in health facilities in Burkina Faso, W. Luis Nana, Sanitary District, Burkina Faso



- 5 topic cases
 - Mali, Terre des hommes
 - Benin/Burkina Faso, Helvetas
 - Uzbekistan, ISW
 - Pakistan, SDC
 - Burundi, SDC
- Visit of the Regional Hospital Thun with a special focus on supply chain and waste management





Key questions and issues of AGUASAN WS 2013

- What are the specific WASH needs (technical/operational) of different types of HFs in routine and emergency situations – and how can these needs effectively be addressed (organizationally/institutionally)?
- What are the potentials of HFs in improving the WASH situation in the surrounding communities and vice-versa – and how (approach, roles/responsibilities) can this interaction be effectively operationalized?
- What guidance exists / is further needed for successfully designing, planning, implementing, managing and sustaining WASH in HFs – and what are the cogent collective benefits driving such interventions?
- What kind of improvements in the countries' water and health policy provisions are needed to enable a conducive framework for sustainable WASH in HFs – and how can such an advancement be triggered?
- What can each of us do in the aftermath of the workshop in strengthening WASH interventions in HFs and their interaction with the surrounding communities – and what kind of support is needed for this?

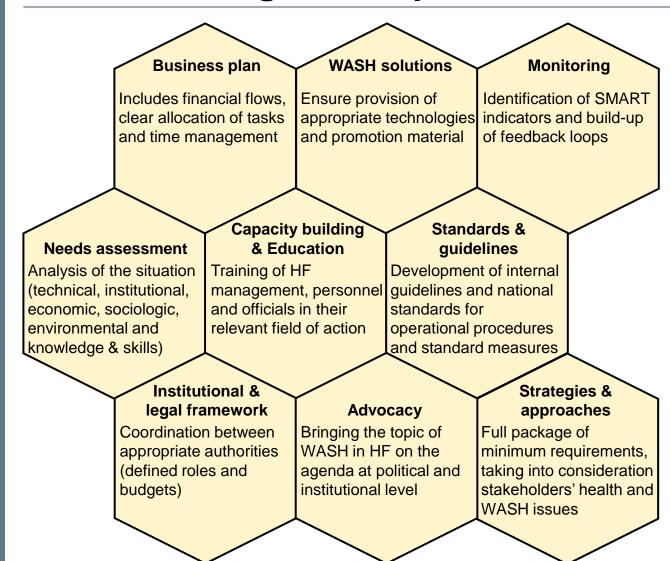


Relevant categories and practical actions



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Identified categories of practical action for WASH in HF









Development of practical actions

The participants of the AGUASAN Workshop were asked to develop **practical actions** in order to ensure proper WASH in health facilities on ...

a) ... health facility level



b) ... national level



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Practical actions on health facility level

Most relevant categories identified by the working groups:

- Needs assessment •
- WASH solutions
- Capacity building & Education
- Advocacy

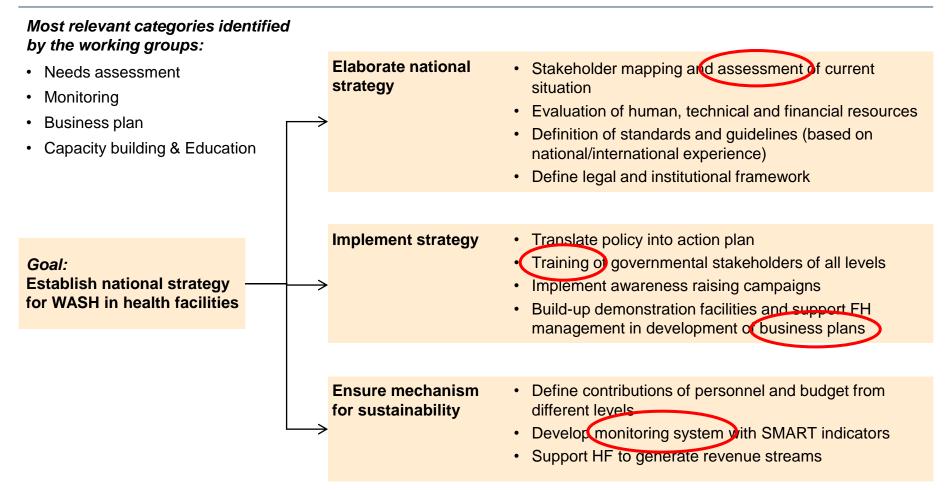
Goal:

facilities





Practical actions on national level





Case studies





Case studies





Case study: Mali



Title: WASH in health centres in Mali – minimum standards

Responsible: Bruno Pascual, Terre des hommes

Context: In Mali, the Ministry of Health is paying only the salary of the director of the health facilities. All other **costs have to be paid by the patients** through consultation fees.

The **WHO rapid assessment tool** has been used to generate a list of activities in order to guarantee minimum standards for WASH in Mali's health facilities. **Several improvements have been implemented** on the level of WASH solutions (use of Wata kit for water treatment, latrines, water source improvement, waste zone, vector control, hygiene kit, hygiene promotion, capacity building etc.).

The project also promotes **public health activities** through the training of health volunteers, hygiene promotion in the community and sensibilization campaigns which motivate people to use the services of the health facility.



Rehabilitated and protected water source



Hygiene facilities for health staff



Sanitation facilities



Sprayed mosquito nets

Case study: Mali

Challenges:

- Proper operation and maintenance of established WASH infrastructure needs to be ensured through trainings and promotion activities
- Financial sustainability and the development of a business plan for the health facilities need to be assured
- Management of solid waste has to be improved regarding technology and operational procedures

Example of work group outcome:

Identified options regarding financial management ("Business Plan"):

- Selling of chlorine for water treatment to patients (especially pregnant women)
- Sign a memorandum of understanding with the municipality in order to receive 10% of the yearly budget and to dedicate a fraction of the money into the operation and maintenance
- To promote a **membership card** for the population
- To set up an **insurance system for the transportation** of the patient to the health center
- Study income generation activities (recharge of cell phone batteries, selling water during the market day)

Capacity building & Education Business plan WASH solutions









Case study: Benin/Burkina Faso



Title: From basic WASH conditions to hygiene promotion spaces

Responsible: Apollinaire Hadonou (Helvetas)

Context: Helvetas IC initiated a **project focussed on water supply in health centers** in Benin and Burkina Faso. **47 health facilities** have been assessed and several interventions have been carried out.

Focus of the interventions was set on the provision of drinking water which had to be fetched by visiting relatives and whose quality could not be assured. The project therefore included activities such as the **construction of mini-water supply systems** where water from the communal water points is being pumped to the health facility, storage facilities on the premises of the health facility and the **production of chlorine solution** for the production of safe drinking water.

The project also initiated a possibility of **income generation** for the health facility by selling excess electric power from the chlorine solution production for the recharge of mobile phone batteries.



Water point shared by health center and community



Solar power for the production of chlorine solution and income generation (mobile battery recharge)

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Case study: Benin/Burkina Faso

Challenges:

- Implementation of the "full WASH package" needed. Sanitation and solid waste management has been neglected so far and needs to be integrated into the interventions
- Full-cost analysis to enable financial sustainability
- Establish systematic monitoring to enable evidence-based discussions and decisions within the project team and in collaboration with the authorities
- Lack of trained staff and brain drain

Example of work group outcome:

Identified options regarding the development of systematic monitoring: Data from a systematic monitoring enables evidence-based discussions and

decisions and enables extraction of best practices. Current monitoring strongly focuses on technical aspects of water supply. Suggestion to **focus project monitoring also on higher, outcome level** to assess the impact of improved WASH on the health situation of the patients, visitors and community.

- **Develop a monitoring concept** in collaboration with the gov. authorities and community that allows project monitoring and evaluation on output and outcome level (indicators should be in line with national strategies)
- Define roles and responsibilities, allocate budgets

Monitoring Capacity building & education

Needs assessment

WASH solutions

Business plan







WAS

Case study: Uzbekistan



Title: WASH in a regional tuberculosis sanatorium in Ferghana region

Responsible: Feruza Madaliyeva (ISW)

Context: A regional rural water supply project started in 2011 with the goal to provide safe water to 12,000 people in the area. The project puts the focus on the **participation by the community**. However, the **situation in the tuberculosis sanatorium has been underestimated** and needs to be tackled.

The **WASH situation** of the sanatorium for **120 inpatients** and more than **100 staff members** needs to be improved. Facilities are very limited and are often not functioning (2 showers, 14 toilets).

Fresh water is fetched from an open canal, «treated» in a sedimentation pond and chlorinated before being pumped to a 10 m³ reservoir. Wastewater is first chlorinated before it runs to a settler and is used for irrigation of half a hectare.

Hygiene and health promotion training are held at regional level which covers all the rural schools and medical staff of the villages



The two showers for the 120 patients



A block of latrines outside the hospital



Fresh water source



Fresh water treatment with chlorine

Case study: Uzbekistan

Challenges:

- Assessment and baseline survey and identification of key actors
- Supply of the sanatorium with safe drinking water and solution for waste water treatment
- Involving authorities into the process in order to assure sustainable operation of the water supply and the waste water treatment system
- Proper inclusive planning of WASH solutions

Example of work group outcome:

- I) What impresses you most about the project?
- Community driven
- WASH not priority for authorities in rural area
- Collaboration between stakholders likely
- II) What lessons come out of your discussion?
- Need for:
 - wastewater treatment
 - cooperation with authorities
 - inclusive planning





- III) What practical guidance can the project provide?
- Baseline survey
- Experience with community managed water supply system
- Motivated and mobilized community
- Existing but outdated WASH standards





Case study: Pakistan



Title: Community based emergency water treatment in Pakistan

Responsible: Waseem ul Haq, (SDC)

Context: Following the floods in Pakistan, a pilot project was designed to **establish a water disinfection system** within the health facilities through provision of

- WATA kits (portable device producing chlorine from salt water)
- Training of health staff and community members
- Hygiene promotion and distribution of Information Education and Communication (IEC) material

The goal was to **prevent the spread of water borne diseases** amongst flood-affected people and the **preparedness for any upcoming emergency** i.e. floods or water borne disease outbreak

The water treatment system has been successfully implemented in several hospitals. However, the **outreach to the community has not happened**. The community dislikes the **pungent smell of chlorine** and rumours have spread that **drinking chlorinated water will lead to sterilization** of men.



Production of chlorine solution with WATA-kit



Provision of drinking water outside HF



Training of trainers for health staff



Training of community leaders

Case study: Pakistan

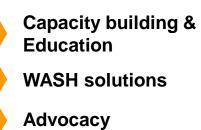
Challenges:

- Social barriers hinder the scaling up/dissemination of WASH practices (feudalism, low literacy, languages)
- Establishing the supply chain for WATA reagents is difficult and options for alternative reagents have to be found
- Financial and institutional support from Government needs to be increased

Example of work group outcome:

Lessons learned through the implementation of this project:

- Consideration of the requirements and criteria (technical, management and human/financial resources) associated with the transformation from emergency to recovery to development from the very start of an emergency operation
- The importance of **identifying the right champions** (in Pakistan: nobles, landowners, religious leaders, teachers, health staff) **to endorse the new ideas/practices** and to influence decision making authorities and the community
- The importance of getting Government approval (at the required different levels and within the required ministries) and ratification in the form of an MoU or Letter of Agreement or other document











Case study: Burundi



Title: Improvement of WASH in health facilities in the province of Ngozi

Responsible: Wellars Ndutiye (SDC)

Context: The WatSan project, implemented by the Swiss Tropical and Public Health Institute, has the objectives to (i) rehabilitate and construct water infrastructures in health facilities; (ii) mobilise the community to improve hygiene behaviour; (iii) improve the hygiene practices in health facilities.

A survey regarding hygiene behaviour of health staff revealed poor hygiene practices independently from the availability of running water in the health facility.

Health practitioners asked after the main issues related to hygiene that they observe amongst their patients mentioned lack of body and clothing hygiene (89%) and hygiene-related diseases (63%).

Health facilities organise weekly thematic community health promotion activities, in the form of animated workshops for visitors.



Rainwater harvesting



Provision of drinking water



Incinerator for solid waste

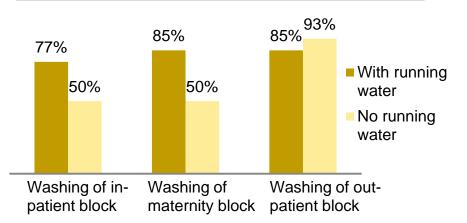


Training of hygiene/health promoters

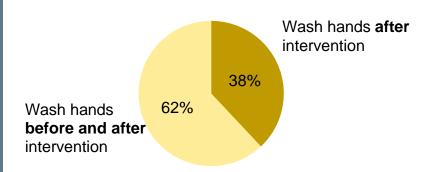


Case study: Burundi

Daily cleaning of facilities in health centers with and without running water

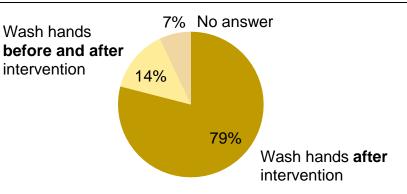


Hygiene practices of staff of health facilities *with* running water



- 13 health facilities with, and 14 without a functional running water system were selected for this survey
- A majority of the health facilities reported not having washing equipment and solutions in sufficient quantities (62% for health facilities with water and 79% for facilities without water).
- Only 31% of the facilities had soap in each service

Hygiene practices of staff of health facilities *without* running water



Holistic approach:

school level.

WASH in HF needs to be combined with action plan at community level and

Case study: Burundi

Challenges:

- Hand washing facilities and practices of staff, patients and visitors
- Cleaning of showers and latrines
- Management of anal cleansing water
- Sustainability of the water service (technological choices, management, responsibilities, cost recovery)
- Constitute strategy for WASH in HF on national level

Example of work group outcome:

Capacity build & Education		Think of gender, disabled, separation between patient and staff. Use common, proven and simple technologies to ensure that O&M can be offered with limited cost.
WASH solutio	ns•	HF is a key place for education and has to be a role model. Training for staff and general hygiene campaigns are not the same.
Business plar		Take advantage of private sector to create market and handle supply chain which cannot be a public task. Add a Budget and strategy on communication/advocacy and marketing to influence public policy.
Institutional 8 legal framewo	ork •	Elaborate national strategy for sanitation and water supply Local authority should be the owner and responsible to ensure management and involvement of all stakeholders. Be in line with existing sectorial institutional framework and identify leadership among various ministries involved.
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Burundi: Specific actions regarding Handwashing



Community

Build awareness of patients, visitors and community

- Develop information material on handwashing
- Regular communication campaigns aiming at surrounding communities
- Involve community health volunteers

Health facility

Ensure maintenance of handwashing infrastructure

- Supply chain for spare parts and consumables (soap, disinfectant)
- Ensure financial flow for maintenance work and consumables
- · Assign responsibilites for maintenance

Handwashing facility

Assess the availability and condition of the handwashing facilities

 Check appropriate number, placement, availability of soap/disinfectant



Install/repair handwashing facilities

 Use appropriate, established and affordable technology

Ensure management of handwashing facilities

Write down guidelines for the use and management of the handwash facilities

Education of all staff on necessity and practice of handwashing

- Development of training tools
- Train the trainers
- Organise trainings for new staff and institutionalised refresher courses



Most relevant areas of practical action

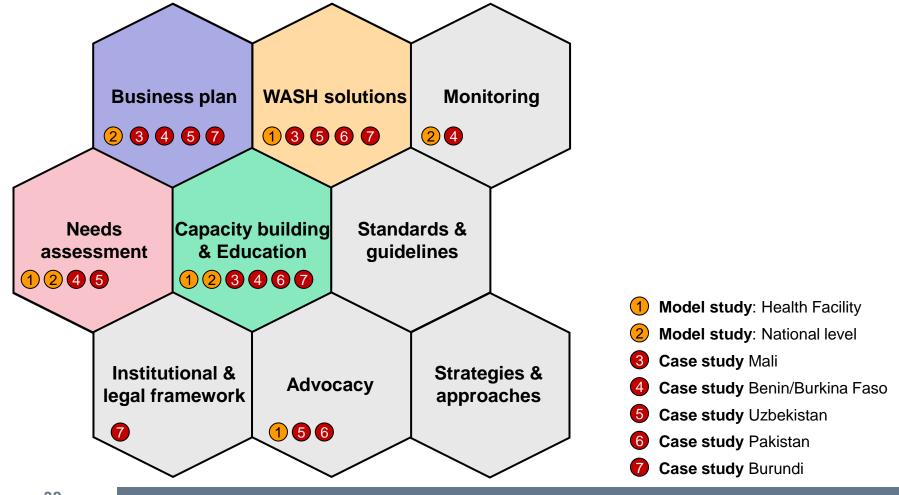


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Which are the most relevant areas of practical action?

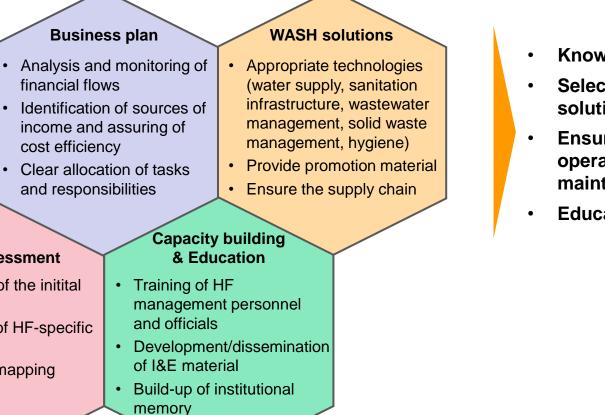
Which areas of practical actions have been mentioned during the groupwork tackling the theoretical Model studies as well as the practical Case studies?



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An analysis of the theoretical model studies and the practice oriented case studies identified four categories being crucial for the implementation of a viable WASH concept in health facilities



- Know what you need
- Select the appropriate solution
- **Ensure sustainable** operation (finances, staff, maintenance)
- Educate all stakeholders

Assessment of the initital situation

- Determining of HF-specific requirements
- Stakeholder mapping

Needs assessment



Category "Needs assessment"

Needs assessment is the **first activity** to do in order to **understand the situation** and to **constitute a baseline** of the existing situation

- The assessment needs to consider health facility-specific requirements
 - Highly frequented by people that are potential carriers of communicable diseases
 - Accumulation of infectious and hazardous waste products (infectious body fluids and excreta, organs, syringes, blood stained tissue, ...)
 - Specific requirements due to limited mobility of patients or particular needs for hygiene and privacy
- The assessment has to be done in **participatory manner**
- The assessment has to consider **political**, **economic**, **sociologic**, **technical**, **and environmental** issues

Burning issues

- Clear terms of references have to be elaborated
- Clear methodology has to be adopted
- Approach has to be pragmatic ans systematic
- Take into account existing data/studies
- Make results of the survey accessible to public (reports, maps)
- Consider using new technologies for the collection of data
- Present results to stakeholders in order to create ownership



Category "WASH solutions"

WASH solutions in health facilities start from a clean water supply and end with an adequate wastewater management. To ensure the success of the health center, software components hold together the hardware

- Selection of technologies based on needs assessment.
 Take into account existing infrastructure, specific needs in HF and cultural context.
- A health facility is **no place for experiments**. Use only established, reliable technologies
- Ensure **supply chain** for spare parts and consumables
- HF staff needs to model values regarding hygiene practices
- Align technology selection with **standards and norms**

Burning issues

- Ownership by the government
- How to ensure sustainablitity
- Development of link between HF and communities
- Gender
- Financing of hardware
- Involvement of private sector

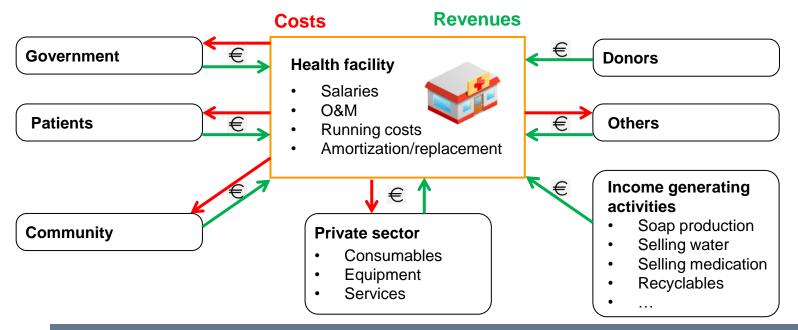


Category "Business plan"

- A clear analysis of the financial flows is crucial
- Initial investments are hard to mobilise and even harder to maintain
- Capacity to manage business plans are lacking and therefore need to be trained/educated
- WASH is often not integrated into overall business plan of the health facility
- Business plan needs to integrate human resource planning and clear assignment of tasks

Burning issues

- Monitoring of income use
- Contingency planning
- Public audit
- Enhance transparency
- Advocacy for government funding

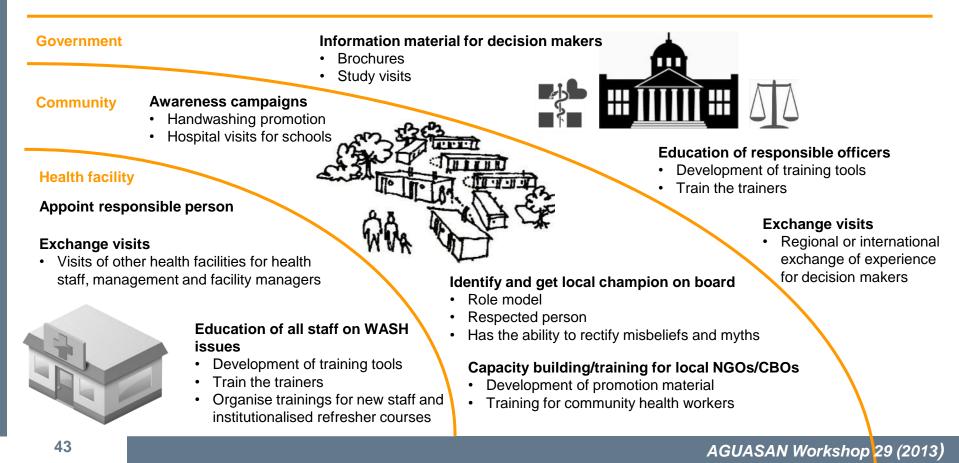


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Category "Capacity building and Education"

- Capacity building needs to happen on every organizational level. Be it within the health facility (facility manager, health staff, management) or on official level (ministries, municipality, community leaders)
- Specific guidelines/manuals/modules for the respective organizational level have to be developed or adapted
- Clear allocation of responsibilities and open communication of these
- Development of management plans in order to secure institutional memory in case of personnel fluctuations





Conclusions



Summary

- An e-discussion and the 1-week AGUASAN workshop with international WASH- and Healthpractitioners tackled the topic WASH in health facilities in the development context.
- Three thematic inputs («Wash and health», «Minimum requirements», «WASH in HF a Ministry of Health perspective») provided the participants during the workshop with background information
- The participants defined nine areas of practical action and identified the four most relevant categories
 - Needs assessment
 - WASH solutions
 - Business plan
 - Capacity building & Education
- Practical actions for the five case studies (Mali, Benin/Burkina Faso, Uzbekistan, Pakistan, Burundi) were developed in group works and next steps identified
- An excursion to the regional hospital of Thun emphasized the importance of a complementary embedment of WASH into the management plan of the the whole hospital.
- The further development of the discussed case studies will be followed up in an e-discussion beginning of 2014

Key findings

- Minimum standards on WASH in HF are available but with gaps on software issues and not known enough
- A sound analysis of the current situation and the assessment of specific needs helps to assign priorities for interventions
- Health facilities are not a place for WASH-experiments. Use approved and established technologies in order to guarantee O&M and to enhance acceptance of the newly introduced technologies and work flows
- Money flows need to be analysed and optimized for cost reduction and income generation
- Health facilities are a key place for WASH education, reaching staff, patients and visitors.
- Include a strategy and a budget for communication in the planning in order to influence public health policy

Sustainability of WASH interventions in health facilities depends on:

- the choice of the right technology/means
- the involvement of trained and motivated people
- taking into consideration all aspects (financial, technical, environmental, institutional, social) in the form of a management plan

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Bridge the gaps

WAS