

Water, sanitation and hygiene in health care facilities – urgent needs and actions

Global Meeting
17-18 March 2015
Geneva, Switzerland

Meeting Report

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Abbreviations

EMRO	Eastern Mediterranean Regional Office
EURO	Europe Regional Office
GAPPD	Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea
GLAAS	Global Analysis and Assessment of Sanitation and Drinking-Water
HMIS	Health Management Information System
IPC	Infection prevention control
JMP	Joint Monitoring Programme for Water Supply and Sanitation
MDG	Millennium Development Goal
MOH	Ministry of Health
SDG	Sustainable Development Goal
SEARO	South-East Asia Regional Office
UHC	Universal Health Coverage
UNICEF	United Nations Children’s Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WPRO	Western Pacific Regional Office
WSP	Water safety plan

1. Summary and key outcomes

On the 17th and 18th March 2015 in Geneva, Switzerland, the World Health Organization (WHO) in collaboration with the United Nations Children's Fund (UNICEF) hosted a global meeting on Water, Sanitation and Hygiene (WASH) in health care facilities. This report documents the meeting discussions and outcomes.

The meeting brought together approximately 60 policy-makers, WHO and UNICEF technical staff, WASH and public health experts and implementers to discuss key actions to strengthen policies, monitoring, implementation and advocacy. A total of nine Ministries of Health were represented from Chad, Ethiopia, Ghana, India, Mali, Mongolia, Sierra Leone, Vietnam and Zambia and five of the six WHO Regions (AFRO, EMRO, EURO, SEARO, WPRO). In addition, there was participation from key health areas within WHO including cholera, emergencies, health financing, infection prevention and control, maternal and child health, and neglected tropical diseases.

The latest global situation on water, sanitation and hygiene in health care facilities in 54 low- and middle-income countries was presented as documented in a WHO/UNICEF review¹. Services are lacking and many facilities have no water, sanitation or hygiene services at all (38%, 19% and 35%, respectively). Country presentations highlighted national needs and solutions and discussions focused on how to work within major health initiatives and among partners. The meeting agreed on a framework and content for a global action plan framework, the basis for which originated during a WHO/UNICEF global strategic meeting hosted by the Spanish Government in March 2014.

The following summarizes three main areas of discussion: important issues, recommendations and next steps/commitments.

Important issues

- **Limited WASH services in health care facilities require urgent action.**
A substantial proportion of facilities have no WASH services and when reliability, functionality and safety are considered services drop by as much as 50%.
- **More comprehensive monitoring of services and by geographic is needed.**
Based on the global review, data was available for only 54, 36 and 35 low and middle income countries for water, sanitation and hygiene, respectively. Countries are most represented in Africa while those in Asia are least represented. Understanding the extent of the coverage and knowing where to prioritize activities is critical for effective results.
- **Large inequities exist at the facility, national and regional level.**
While WASH services may exist within a facility; certain areas, such as the delivery room, may completely lack services. At the national level, smaller more rural facilities are much less likely to have services and within Regions there can be huge disparities (e.g. EURO has some of the best and worst serviced facilities). Large refugee populations in some regions

¹ WHO/UNICEF, 2015. *Water, sanitation and hygiene in health care facilities. Status in low- and middle-income countries and way forward*. World Health Organization, Geneva.
http://www.who.int/water_sanitation_health/publications/wash-health-care-facilities/en/

(e.g. EMRO) place additional strain on existing health systems and WASH services as well as outbreaks (e.g. the current Ebola outbreak in West Africa).

- **WASH and infection prevention and control (IPC) are closely linked**

Several country presentations (e.g. Ethiopia, Ghana, India) highlighted the importance of working within IPC programmes as WASH is an essential input into achieving recommended IPC measures and protecting the safety of staff and patients. The global Clean Care is Safer Care programme provides a platform for advocating for such integration.

- **The Health Sector should and must take lead in improving services.**

All major initiatives to improve global health depend on basic WASH services. Improving and sustaining WASH services is not merely an infrastructure issue, but requires dedicated, trained staff, adequate financial resources and regular operation and maintenance. WASH in health care facilities is fundamental to strong and resilient health systems and achieving Universal Health Coverage and improvements must be driven by the Health Sector and included within health financing/costing plans and management systems. The WASH Sector can serve to provide a catalytic effect and contribute to technical training, design and costing.

- **Coordinated action within existing health efforts is needed to maximize efforts.**

The global goal of achieving universal access to WASH in health care facilities requires partners to work collaboratively so as not to duplicate efforts and to ensure that all components (water, sanitation and hygiene) are sufficiently addressed within facility based risk management plans. The health-focused post-2015 sustainable development goals present an opportunity to act further on WASH while the water-focused goal may strengthen monitoring of services. Sustained political will and advocacy can help generate action and improvements.

Recommendations

- **The definition of WASH should be inclusive and based on WHO standards.**

As detailed in the WHO standards, the definition of WASH in health care facilities should include availability of on-site safe, sufficient water, adequate numbers of improved, accessible sanitation facilities for men and women, safe hygiene practices (e.g. handwashing), hygiene promotion to patients and caregivers and safe management and disposal of health care waste.

- **Countries should adopt minimum WASH standards; WHO standards should be updated/revised as needed.**

Several countries presented work on adopting and implementing standards using the current WHO recommendations. Longer-term work should include popularizing and updating these standards to reflect a range of facilities and emerging technologies and practices.

- **Indicators should be harmonized and monitoring efforts expanded.**

A core and expanded set of indicators should be developed for use in national health monitoring systems and national/global assessments. The WHO/UNICEF Joint Monitoring Programme, which currently monitors water and sanitation at the household level for the

MDGs will, in the future, will work with existing health monitoring efforts to better strengthen indicators and use such data to systematically report on WASH coverage in health care facilities. Furthermore, data is lacking in many regions (AMRO, SEARO, WPRO) and thus additional and expanded monitoring and data sharing is required.

- **Facility assessment and risk management tools should be shared/improved.**

A range of facility assessment tools exist, and their application has highlighted important knowledge gaps. In addition, further work is needed in developing and implementing risk-based improvement plans which prioritize and specify actions using the Water Safety Plan approach, but including more comprehensive WASH (see definition above).

- **Document regional and country examples of successful strategies and approaches for improving WASH in health care facilities.**

Documenting country examples and sharing lessons learned and tools used to make facility improvements presents an opportunity for governments and partners to learn and adapt practices to their own country/setting. In addition, much can be gleaned from the WASH in schools effort on effectively engaging in intersectoral work. Facility staff have an important role to play in maintaining high WASH standards and should be included in improvement plans.

- **The global action plan should provide a roadmap, with progressive milestones linked to sustainable development goals, and articulate responsibilities of the Health and WASH sector.**

The finalization and implementation of the global action plan should be led by the Health Sector and clearly identify the advantages of engaging and improving WASH in health care facilities for different areas of health work (e.g. WASH is an essential element for improving quality/safety and experience of care during time of child birth). The Plan should clearly define the role of the WASH sector (e.g. technical expertise, advocacy) and provide a means to drive commitments through existing Health and WASH structures (e.g. Sanitation and Water for All).

Commitments and Next Steps

A number of commitments were made at the meeting and are organized globally, regionally and nationally below. While these commitments are important, they require further articulation and specifying what the range of partners (Government, NGOs, academics, WHO and UNICEF) will achieve and the financial and human resources required to do so. In addition, there are still gaps, especially regarding concrete leadership from the health sector and securing financial and human resources to improve coverage. As the action plan is finalized and implemented efforts will be made to address these gaps.

Global

- **Establish an informal working group to provide strategic advice on next steps.**

WHO and UNICEF will establish and facilitate an informal working group composed of approximately 60% Health and 40% WASH, including donor and country representatives. The group will provide input on strategic areas of work, such as finalizing the action plan,

harmonizing monitoring and inclusion of WASH in key areas of health work including infection prevention and control training/implementation and quality of care standards during the time of delivery. The group will report back periodically to the wider community of stakeholders on milestones.

- **Create a community of practice.**

WHO and UNICEF will work with partners to establish a community of practice to share information, host webinars on key topics of interest, such as monitoring and facility-based improvements, and provide a platform for engaging in discussions on what works and what doesn't at the national level.

- **Developing core and expanded list of indicators for use in monitoring efforts.**

The WHO/UNICEF Joint Monitoring Programme will develop a list of core and expanded indicators, using those first discussed in the online consultation in March 2015 (see Appendix 3) as the starting point. Piloting of the indicators will occur in the upcoming assessments including the Service Availability and Readiness Assessment (SARA) and within existing health system monitoring platforms.

- **UNICEF to document lessons learned from WASH in Schools effort.**

UNICEF will assess, document and share lessons learned from working with the education sector in improving WASH in schools.

- **WaterAid to continue advocacy efforts including a side-event at the 2015 World Health Assembly.**

Health is a major strategic priority for WaterAid and they will continue to advocate for WASH in health care facilities to be central to all relevant health priorities and accountability frameworks including the Global Strategy for Women and Children's health, Universal Health Coverage and Every Newborn Action Plan.

- **WASH donors to engage with health counterparts on support**

Representatives from development assistance in the UK, the United States, Spain and the World Bank all agreed to engage with their health counterparts on advocacy and to ensure that health programming and support addresses WASH in health care facilities at the national level.

- **Researchers to engage in dialogue, share tools and collaborate more with health counterparts**

Academics from Emory University, the London School of Hygiene and Tropical Medicine, the Water Institute at University of North Carolina Chapel Hill, Eawag Swiss Technical Institute all agreed to share assessment/research tools and engage in dialogue amongst each other and their health counterparts on priority evidence gaps and research activities.

Regional

- **WHO Regions to advance work through specific activities and areas**

The EURO region committed to working through the Water and Health Protocol and with health systems colleagues to advance work; WPRO and SEARO to sensitize those working on universal health coverage and AFRO to strengthen activities with emergency and recovery work, especially in the Ebola affected countries.

National

- **Governments to take leadership in advocating for WASH in health care facilities**

Ethiopia and Zambia agreed to serve as early adopters, committing themselves to both immediate and longer-term WASH improvements, increasing human and financial resources at the facility-level and advocating for WASH within existing health efforts, especially infection prevention control and child and maternal health.

2. Background

2.1 Global status

In low- and middle-income countries, WASH services in many health care facilities are absent. According to a 2015 WHO and UNICEF report concerning data from 54 countries, representing 66,101 facilities, 38% of health care facilities do not have an improved water source, 19% do not have improved sanitation and 35% do not have water and soap for handwashing². This lack of services compromises the ability to provide safe and quality care and places both those providing and those seeking care at considerable and preventable risk. In response these needs, WHO and UNICEF convened a global strategic meeting to share the latest data, highlight national solutions on addressing key gaps and strategize on effective measures for improving services.

2.2 Basis of the meeting and objectives

Initial discussions on this topic took place during a global strategic meeting hosted by the Spanish Government and facilitated by WHO and UNICEF in April 2014. At that meeting a draft action plan was produced. It focused on four main areas of work: national policies, targets and standards, monitoring, implementation and advocacy. In order to assess progress, share national solutions and current research efforts, and advance a global action plan WHO and UNICEF convened a second global meeting on WASH in health care facilities on 17-18 March 2015.

The specific objectives of the two-day meeting were to:

- Present global data on access, monitoring and policies on WASH in health facilities

² WHO/UNICEF, 2015. Water, sanitation and hygiene in health care facilities: status in low- and middle-income countries and way forward. http://www.who.int/water_sanitation_health/publications/wash-health-care-facilities/en/

- Share regional and country examples of successful strategies and approaches for improving WASH in health care facilities
- Strategize, through a global action plan, on how to address these current gaps by developing practical, workable solutions in collaboration with key health areas

Appendices to this report include: meeting agenda (Appendix 1), list of participants (Appendix 2), summary of online consultation of indicators for monitoring WASH in health care facilities (Appendix 3), and draft action plan (Appendix 4).

3. Technical presentations and discussions

The first day and beginning of the second consisted of a number of technical presentations on themes relating to understanding and addressing the lack of WASH in health care facilities. These included: 1) Global status on WASH in health care facilities, and regional challenges and solutions, 2) WASH within major health initiatives 3) Existing monitoring initiatives, country examples of policies and standards and 4) Knowledge gaps and assessment tools.

3.1 Opening the meeting and setting the scene

Dr Maria Neira, Director of the Department of Public Health, Environmental and Social Determinants of Health, and Dr Edward Kelley, Director of the Department of Service Delivery and Safety (WHO) provided opening remarks. Dr Neira stressed the importance of coordinated action and dialogue with other initiatives, for example maternal and child health efforts and energy and climate change. She noted that the global efforts to improve energy in health care facilities presented an opportunity to provide whole-facility solutions, fundamental to improving services and care. Dr. Neira finished by urging participants to refuse to “settle” for anything less than comprehensive WASH services in all health care facilities. Dr Kelley emphasized the importance of WASH in delivering safe care and preventing infections, drawing on lessons learned from Ebola. He also underlined the need to address the high level of intra-country variability in WASH, providing examples from Ebola affected countries where as few as 13% (Sierra Leone) to 19% (Guinea) of health care facilities had any sanitation services according to recent assessments³. Finally he emphasized the importance of addressing WASH within health systems work to ensure sustainability and ownership of the provision of services.

3.2 Understanding the problem

Mr. Ryan Cronk (Water Institute at the University of North Carolina), co-author of the WHO and UNICEF report on the status WASH in health care facilities, presented a summary of report findings¹. The report presents data from 54 low- and middle-income countries and shows that 38% of facilities lack access to water, 19% lack access to sanitation and 35% do not have water for soap and handwashing. Mr Cronk acknowledged some limitations of the data, for example sufficiency of water quantity, water quality and latrine facilities for staff and patients separated by gender was not available. When such factors were considered in specific countries, coverage dropped by nearly 50%. Safe management and disposal of health care waste was also problematic with only 58% of countries having such systems, with the lowest coverage in SEARO (44%). Mr. Cronk stated that

³ World Health Organization. WASH Mission Reports for ERA Country Reports. Geneva, Switzerland: 2015.

additional effort is needed to expand indicators to assess quality and functionality of services and to ensure comparability among assessment and monitoring efforts.

Dr Mathias Thembo (Ministry of Health, Zambia) presented a selection of photos to illustrate the problems of working without adequate WASH services in national hospitals in Zambia. He shared an example of a national pilot of a low-cost intervention providing simple handwashing facilities to government health care facilities. The handwashing facility which consist of a simple covered bucket with a tap and bar of soap, cost USD 20, provide the means to wash hands in priority areas such as labour wards and post-natal care areas. Maintenance and sustainability of such services has been challenging and must be incorporated into future health strategies.

Dr Ed Kelley finished the session by talking about the need for prevention and patient safety plans to be holistic, rather than focusing on area (e.g. handwashing). While previously there has been a tendency to focus on pilots in only a few districts or facilities, the WASH agenda needs to build comprehensive goals into the long-term development plans of health ministries.

3.3 Regional challenges and situations

During this session, WHO regional representatives presented updates on WASH efforts in their regions, challenges faced and support required. All regions were represented apart from PAHO, which was unable to attend.

Dr Magaran Bagayoko, AFRO

The AFRO regional update was presented within the context of Ebola. In Africa, efforts to address WASH should begin in the community where most infection starts. The Ebola experience has highlighted the need to mainstream WASH within the framework of infection prevention control (IPC), including health care waste management. In Liberia, many health care facilities were closed because of Ebola resulting in great difficulties managing non-Ebola cases. Once facilities were reopened, 11 priority facilities were assessed using the WHO minimum standards⁴. It was found that none of the health care facilities surveyed in Monrovia met the minimum criteria and that only 52% of health care facilities had handwashing facilities. The critical issue for AFRO is to make sure that standards are enforced at the health care facility level and that additional WASH infrastructure is built and maintained.

Mr Raki Zghondi, EMRO

The EMRO Region contains three categories of countries (low, middle and high income countries) with different socio-economic conditions and the largest number of refugees anywhere in the world. Data from the WHO-led 2013/2014 GLAAS survey in the EMRO Region indicates that 36% of the 11 surveyed countries have plans on sanitation in health care facilities being fully implemented and regularly reviewed, 45% had plans on drinking-water in health care facilities, and only 20% had hygiene plans in the region. In addition, many healthcare facilities within the region do not adhere

⁴ WHO, 2008. Essential Environmental Health Standards in Health Care. World Health Organization, Geneva.

to the WHO essential environmental health standards for health care facilities (WHO, 2008). EMRO asked for more support in conducting national WASH assessments in health care facilities in its 22 countries, and in developing national policies, strategies and plans on WASH in healthcare facilities (e.g. water safety plans in healthcare facilities) as well as national standards and mechanism to verify compliance with those national standards. Also, EMRO asked for the development of training materials as well as the organization of training and awareness raising activities on WASH in healthcare facilities including healthcare waste management. There is also a need to consider WASH in health system planning, monitoring and financing and to strengthen collaboration and coordination between the WASH and health sectors in the EMRO countries.

Mr Oliver Schmoll, EURO

EURO comprises of countries that have large income range (e.g. 1st on the UNDP ranking to 133rd, Norway and Tajikistan, respectively). EURO is the only region where WHO has not undertaken any systematic work on WASH in health care facilities, nor have there been any systematic assessments of WASH conditions or policies and programmes. For the majority of settings, WASH infrastructure exists but with limited support for ongoing maintenance which is particularly problematic for post-Soviet countries. Following initial discussions with the UN Economic Commission for Europe, member states will be advised to consider WASH in health care facilities as a priority theme for the 2017-2019 programme of work, the outcome of which will be confirmed by the end of 2015. EURO needs to integrate WASH into other health systems initiatives (e.g. health systems, health governance) and improve collaborative working with the Health Sector generally.

Ms Payden, SEARO

Most health care facilities within SEARO region have not done any systematic WASH assessments. In the few countries that have, WASH was inadequate, and government-run facilities particularly poor. Ms Payden reported that WASH assessments have been conducted in hospitals in India, Timor-Leste and Bhutan and that water safety plans (WSPs) have been piloted in four health care facilities in Maharashtra, India (two hospitals and two primary health care centers). SEARO is currently developing a tool for implementing WSPs in health care facilities and has incorporated WASH indicators into the patient safety strategy. SEARO has also forged a partnership with UNICEF, WHO, WaterAid and WPRO to support countries to improve WASH in health care facilities, resulting in an advocacy briefing paper to raise awareness with regional Ministries of Health. The main challenge within SEARO is a lack of communication between health ministries and WASH technical service providers. There are scarce resources to maintain and operate facilities and WASH indicators are not included in any of the region's health management information systems. Priority areas for the region are to undertake assessments in remaining countries, develop country-specific WASH standards and policies.

Mr Alexander von Hildebrand, WPRO

An estimated 75% of WPRO countries have specific policies, standards and targets for WASH in health care facilities but in only 40% of countries are these are implemented. Climate vulnerability is a major issue in the region. Health care services need to be resilient to climate change and a key element of this is to have adequate, functioning WASH services in all facilities. Across the region, there is still a lot to be done to reach coherence between core activities of governments and what

WHO considers most important, in particular concerning environmental health issues. Furthermore, WASH is often considered a non-health service and thus there is insufficient engagement with the Health Sector. Four directors in WPRO (Communicable diseases, Health security and emergencies, Non-communicable disease and health through the life-course, Health sector development) agreed in principle to integrate at least one WASH indicator to assess the performance of health service delivery towards reaching universal health coverage. Nine countries from WPRO and six from SEARO have worked together to implement WSPs at the community level over the last 10 years. This work has had a positive impact on policies and standards, and improved understanding of how to protect waters sources, resulting in 35 million people having access to safe drinking-water. WSPs are now being developed on a pilot basis to improve WASH service delivery at the health facility level. A more holistic approach is needed across the region, broadening work beyond WASH in health care facilities, using the Safe Hospital Index and aiming at 'SMART environmentally friendly facilities' (as has been done in the Caribbean), to support countries achieve universal health coverage by 2030.

Ms Lizette Burgers (UNICEF) highlighted how the Regional updates highlighted the complexity of WASH in health care facilities. A clear definition of what is included with WASH is needed as countries may work to different definitions of WASH and use different standards. The Regions face a range of obstacles in providing WASH (e.g. displaced persons, disease outbreaks and climate vulnerability) so it is important that WASH be considered within the wider social, political and environmental context and in both emergency and non-emergency settings.

3.4 Addressing WASH within major health efforts

During this session, representatives from WHO Health departments gave short updates on the links between WASH and their respective health areas, including a summary of major activities, future plans and entry points for improving WASH in health care facilities.

Dr Dominique Legros, Cholera

WASH interventions and IPC measures are particularly important in cholera control to ensure that health care facilities are not a source of infection for patients and visitors, and that cases can be safely managed. Health care facilities also serve as an important model for WASH behaviors (e.g. handwashing) in cholera hot spot communities. WASH infrastructure needs are high for cholera and patients require an average of 50 litres of water per day. Three priority areas for cholera are to: 1) align messages between WASH and IPC in health care facilities, 2) target high risk, endemic areas and 3) link delivery of hygiene behavior change messaging and WASH services in health care facilities and communities with cholera vaccine campaigns.

Dr Benedetta Allegranzi, Infection Prevention and Control (IPC)

The Ebola outbreak has emphasized the need for having infrastructure in place to cope with the demands of disease outbreaks and IPC. Services (particularly patient safety and IPC), need to be better coordinated and integrated. It has been easier to implement IPC measures in Ebola treatment units (ETUs), when health care workers are anxious about their safety. A challenge now exists to look beyond Ebola and implement IPC measures. The *Clean Care, Safer Care* initiative has served as a platform for different areas of work, although limited finances have restricted action. The

initiative uses a patient-centered approach, and has shown changes in clinical practice in relation to IPC. The global campaign of hand hygiene has been successful and strategies have been developed to combat anti-microbial resistance.

Dr Carolyn Maclennan, Maternal, newborn, child and adolescent health

Essential environmental health standards recommend 100 litres of water per intervention in a maternity unit⁵ and women do not want to deliver at health care facilities where there are no WASH services. WASH is an integral part of interventions for maternal and child health and is linked to a number of global initiatives. WASH interventions alone could eliminate nearly half a million child deaths due to pneumonia and diarrhoea by 2025⁶. Three of the 15 interventions of WHO/UNICEF's integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD) are WASH-related (improved water source, improved hand washing and better sanitation). The WHO/UNICEF Every Newborn Action Plan (2014) aims to end preventable newborn deaths by 2035 and the second intervention to end preventable maternal mortality focuses on the inter-partum period. Dr Maclennan ended the presentation by underlining the need for better indicators that countries can work to improve MCH.

Mr Dorjsuren Bayarsaikhan, Health financing

Poor WASH increases health care-related infections which carry a heavy financial burden. Investing in WASH reduces the amount health systems have to spend to treat these conditions. Health financing has been discussed for inclusion in universal health care (UHC) but merely investing more funds will be insufficient - funds should be used efficiently and equitably. Operational budgets are often lacking, leaving health care facilities unable to maintain and repair WASH infrastructure. In many low-income countries, women are dissuaded from using health care facilities because of poor WASH, forcing them to seek care in private clinics which carries a heavy financial burden on the care-seeker as such services often are more expensive and without any reimbursement. Public facilities need better investment to maintain adequate WASH so patients obtain a higher quality of care at a lower cost.

Dr Anthony Solomon, Neglected tropical diseases (NTDs)

Neglected tropical diseases tend to be found in the most deprived rural populations and are responsible for a significant burden of morbidity. Populations in areas where NTDs are endemic tend to have insufficient access to health care facilities and limited access to WASH, both in communities and health care facilities. Most of the interventions to sustainably change the prevalence of NTDs need to be delivered at community level. However, targeting health care facilities in NTD-endemic areas for WASH improvements is likely to have two major advantages: (1) such health care facilities are likely to serve the most in need, and improving them will enhance equity; and (2) availability of WASH services in health care facilities is critical to allow health care workers to model behaviours important to NTD control, such as safe disposal of human faeces.

⁵ WHO, 2008. Essential Environmental Health Standards in Health Care. World Health Organization, Geneva.

⁶ Lancet, 2013. Child Pneumonia and Diarrhoea Series, Executive Summary, <http://www.thelancet.com/series/childhood-pneumonia-and-diarrhoea>

Dr Hyo Jeong Kim, Emergencies

There are three main areas of work in emergencies and WASH has a role to play in all three areas. The three areas include 1) disaster risk reduction, 2) response to on-going emergencies and 3) recovery from emergencies. Within disaster risk reduction, the Hospital Safety Index (developed by PAHO following the 1985 Mexican earthquake) has been expanded globally. The tool assesses various aspects of a hospital including WASH facilities and functions which are critical for a hospital to be able to function in disaster situations. A similar initiative to this includes the SMART hospital programme which addresses the “greenness” of hospitals along with their safety in disaster. The “green” part of the SMART hospital initiative allows the hospital to be relatively self-sufficient for some of the critical elements, such as energy. In emergency responses, the challenge is to ensure that minimum standards are met. The responsibilities for ensuring safe and sufficient water availability in health care facilities lie with the health sector/cluster in disasters. A health care facility assessment tool has been developed and used in the Ebola response. Recovery requires additional post-disaster WASH needs assessments and subsequent means to strengthen the WASH elements to be more resilient.

Mr Bruce Gordon (WHO HQ) thanked WHO colleagues for beginning a dialogue on WASH in health care facilities. Mr Gordon stated that identifying who within the health sector is ultimately responsible for WASH and identifying realistic targets and accountability mechanisms should be a priority. There is not one discrete intervention for WASH so finding sustainable solutions will be difficult. Dr Guy Howard (DFID) encouraged participants to reflect on ways to translate the problem into a health care and health services issue. Commitment to finding sustainable solutions will be challenging but this session highlighted that the involvement of the health sector will be fundamental to achieving this.

3.5 Policies and standards – leveraging political will to improve services

This session provided examples of national policies and standards and methods for improving services. Examples were provided from three countries: Vietnam, Mongolia and India.

Dr Nguyen Thi Lieng Huong, Ministry of Health, Vietnam

There are no monitoring or surveillance systems for hospitals and other large-scale health care facilities in Vietnam and therefore currently no data available on the coverage of WASH nationwide. However, a national programme on rural water supply and sanitation which covers water and sanitation in community health clinics has collected data from 10,000 community health clinics. Better quantitative and qualitative monitoring indicators are needed to assess the remaining 12,517 health care facilities across the country. Existing national regulations include construction standards for health care facilities (which do not include any guidance or indicators for WASH monitoring) and occupational hygiene standards for all work-places, which covers health care facilities. National guidelines and indicators should be regulated.

Dr Oyan Bayar, Ministry of Health and Social Welfare, Mongolia

Mongolia has a harsh climate with extremely cold winters and poor infrastructure in rural and remote areas with large inequalities in access between rural and urban areas. Approximately, 85% of

urban areas have access to improved drinking water supply and 53% access to good sanitation facilities compared to 53% and 29% in rural areas respectively. Additional technical assistance is needed to cope with the cold climate. Following a baseline survey in 2005, essential standards for WASH in health care facilities were developed and a water safety plan initiative is now underway. Mongolia has a national programme on environmental health, a national strategy and an action plan on health care waste management (2009-2013) and a national programme for sanitation improvement. The development of national standards shows political will to improve WASH services although WASH remains a low priority among government donors.

Dr Deepak Saxena, Public Health Foundation of India, India

Dr Saxena described a situational analysis from India called 'WASH & CLEAN', which includes a toolbox for capturing levels and determinants of cleanliness on maternity wards. Photo-elicitation is used which is particularly successful with illiterate and semi-literate participants and marginalised groups. Microbiological assessments showed that visibly clean services were not microbiologically sterile and pathogenic bacteria were found on maternity beds, mops and buckets. Better IPC measures, which include trained sufficient staff, are needed. WASH & CLEAN is in the public domain and Dr Saxena urged participants to critique the tools to help improve it.

The three tools provided a useful opportunity for participants to hear novel methods of assessment and examples of lessons learned. The cost implications of providing WASH across different climates and settings were discussed, and the need to increase political will to ensure sufficient budgets are allocated. Dr Fiona Gore closed the session by highlighting the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) which found that only 25% of 86 countries responding to the survey reported having a fully implemented plan or policy for drinking-water and sanitation in health care facilities. Dr Gore stressed the need to turn political will into action and implementation to improve this situation.

3.6 Monitoring WASH at the global and national level

This session consisted of presentations on monitoring at the global level, at the national level, and on indicators for monitoring energy in health care facilities.

Dr Rick Johnston, Water, Sanitation, Hygiene and Health WHO, (on behalf of Ms Claire Preaud, WHO)

Dr Johnston gave a brief overview of WHO's Service Availability and Readiness Assessment (SARA). SARA is a standard health facility assessment tool measuring the physical presence of services and the capacity to deliver those services. It covers three main domains: 1) Service availability such as health personnel and service utilization, 2) General service readiness reflecting the overall capacity to provide basic services at minimum standards and 3) Specific service readiness to provide interventions in key program areas such as family planning, malaria, tuberculosis and routine child immunization. The average time to complete SARA is six weeks and should ideally be conducted two-three months ahead of a country's national planning cycle to inform work streams. The data collected enables countries to track progress over time in strengthening health systems. To date, SARA has been conducted in 12 countries, with 12 countries in the implementation stage and a further 12 identified for planning. WHO and UNICEF are

working on further harmonizing indicators and developing a core and expanded set. A summary of the online consultation held to begin this process is included in Appendix 4.

Dr Gayle Martin, Service Delivery Indicator Program (SDI), World Bank

Dr Gayle Martin presented new findings from the SDI surveys and an overview of data needed to improve WASH matrixes within countries. Currently, there are two types of data collected in facility surveys: 1) survey methodology data, usually on quality where objectivity is key, and 2) data collected through routine/administrative data (HMIS) which are not currently available at the required quality, these data are usually on input availability (e.g. availability of infrastructure, equipment, drugs etc.). Dr Martin recommended that reliance on HMIS data should be reduced, moving towards facility surveys. Selected HMIS data should be collected for validation purposes only. National averages are of limited use therefore sub-national disaggregation that coincides with administrative boundaries and allows district/regional managers to set goals for decision-making and accountability is needed. Better data on quality with higher levels of specificity will inform intervention priorities. Country-specific data is available on the SDI website.

Ms Michaela Pfeiffer, Interventions for a Healthy Environment, WHO

This presentation looked at monitoring energy and its links with WASH. *Sustainable Energy for All* seeks to mobilize action in support of three-interlined objectives to be achieved by 2030: 1) ensuring universal access to modern energy services, 2) doubling the global rate of improvement in energy efficiency and 3) doubling the sharing of renewable energy in the global energy mix. Energy is a determinant of quality of care and needs to be made more central to health systems policy and planning as energy poverty in health care facilities is a significant barrier to the attainment of health-related MDGs. Of 11 countries with nationally representative datasets, 1 in 4 health care facilities had no access to electricity and many of the countries with the least access to energy are also those with the highest burden of maternal and child mortality. A technical consultation on energy access in health care facilities will be held later in March 2015 to discuss monitoring indicators, agree on a conceptual framework for linking energy access to health services delivery and identify knowledge and research gaps.

The three presentations reinforced the need for harmonized indicators for monitoring WASH and an integrated approach to data collection (at present, Niger is the only country to use SDI and SARA together in a modular approach). Drawing on lessons learned from UNICEF's WASH in School and understanding how information systems can be used in monitoring efforts were two suggestions to improve monitoring efforts.

3.7 Knowledge gaps

The session on knowledge gaps highlighted tools used to assess functionality and appropriateness of WASH facilities as well as understanding among health workers of cleaning practices and delivery of hygiene messages to patients. In addition, gaps on tracking disease attributable to poor hygiene were noted.

Ms Suzanne Cross, Soapbox Collaborative

Ms Cross presented an update from the Soapbox Collaborative, an initiative to improve quality of care, focusing on the provision of clean safe care at birth in resource poor settings and shared three knowledge gaps: 1) training of “cleaners” (orderlies, domestics, etc.), 2) environmental microbiology and 3) lack of data on sepsis. Firstly, the practices of staff working in facilities must be consistent with safe IPC procedures: poor hand hygiene of health care workers exposes mothers and newborns to infection risk. Better training, particularly of cleaners, is needed but taking into account literacy levels and time demands of staff is challenging. Microbiological assessments conducted in India, Bangladesh and Zanzibar showed mismatches between visible and microbiological cleanliness. In other words, surfaces that looked clean actually had a high concentration of pathogenic bacteria. In low-income settings, laboratory capacity is often weak thus there is heavy reliance on visible cleanliness. Broadening and strengthening facility laboratory capacity and simplifying environmental microbiology techniques could have significant benefits for routine monitoring and supervision of cleaning and hygiene across health systems and facilities. Lastly, the lack of data on sepsis prevents effective monitoring and evaluation of interventions. Data on newborn and maternal sepsis should be captured by routine health information systems and discussed at the facility level.

Ms Petra Kohler, Eawag

Ms Kohler presented a summary of work in India and Uganda, focusing on WASH infrastructure needs and priorities for women and girls. The presentation described methodological procedures and outcomes, and highlighted similarities and differences in WASH between the two field sites, with a focus on solid waste management and menstrual hygiene matters. Assessments should include gender-specific infrastructure indicators, for example private place for washing hands, private parts and clothes; drying of re-usable menstrual health material; and safe disposal of used menstrual hygiene material.

Dr Christine Moe, Center for Global Safe Water, Emory University

This presentation described three WASH assessments tools: 1) a baseline assessment tool, 2) WASH conditions scorecard and 3) a sustainability metric. Dr Moe highlighted the complexity of water use in health care facilities, and that assessments must be able to capture this adequately. The baseline assessment tool has been used in Rwanda, Cambodia and Uganda and is currently being digitized for electronic use. The WASH scorecard is being developed for completion by Q3 2015. Using a standardized digital platform, the scorecard is a rapid way to indicate the level of WASH infrastructure and resources (high/moderate/low) or progress toward indicators. Lastly, the sustainability metric is an annual assessment tool which includes a digital survey, observations and water quality testing.

The assessment tools generated great interest. It was agreed that environmental microbiology is a major knowledge gap for which better tools in use low-resource settings are needed. While much of the meeting had focused on water thus far, Ms Merri Weinger asked that sanitation efforts do not get forgotten and that proper maintenance of institution sanitation is essential to prevent open defecation. Mr Oliver Cummings closed the session saying that the big challenge is to enable the

health sector to cope with infrastructure needs but that positive change could be induced by better financing and accountability.

3.8 Facility level assessments and improvements

This session provided three examples from Ethiopia, Zambia and Sierra Leone of facility level assessments.

Dr Yakob Ahmed Seman, Ministry of Health, Ethiopia

Dr Seman described the Clean and Safe Hospital Initiative (CASH), which is operating in 150 health facilities nationwide (predominately hospitals) in Ethiopia. Facilities must adopt four principles: 1) Clean care is safer care, 2) Cleanliness is more an attitude than structure, 3) Health facilities should be healing places and 4) Cleanliness is everybody's responsibility. CASH is governed nationwide through an executive committee of Ministers, a project team and audit team. Despite the challenge of shifting staff attitudes, the project has shown success: implementation of national minimum Infection Prevention and Patient Safety standards has improved from 54% to 71%. Dr Seman attributed CASH's success to the establishment of effective governance structures at all levels, intersectoral collaboration between water, electric and other professional associations, sharing of lessons learned, mobilization of sufficient funds, partnering with the private sector and sustained advocacy by political leaders.

Dr Mathias Thembo, Ministry of Health, and Ms Doreen Sianjani, Ministry of Community Development, Mother and Child Health, Zambia

Dr Thembo presented an overview of a programme in eight rural health facilities to assess the use of drinking-water treatment and handwashing stations and evaluate their impact on patient knowledge and practices. The programme has four elements, 1) provision of water stations, 2) water treatment, 3) handwashing and 4) health worker training. A structured assessment form at baseline and four months was used to monitor progress. To date, the programme has shown improvements in water storage and treatment practices in facilities, and patient ability to demonstrate proper hand washing. However, there have been challenges in providing stations to remote areas, maintaining donor support and communication between different central, provincial and regional levels. While the intervention has enabled a rapid response to the problem and is relatively inexpensive, it does not provide a long-term solution. Multi-sectoral capacity strengthening and an implementation plan between Ministries of Health and local government are required to improve WASH infrastructure.

Ms Sianjani summarized two additional initiatives from Zambia, the standardization of a 'WASH in Health' package which contains simplified assessment guidelines for WASH and IPC and minimum standards and secondly a programme to provide WASH to vulnerable facilities. The first phase of the programme, to implement a WASH package in 4 facilities and conduct a simplified assessment in an additional 18 facilities, is due to be completed in September 2015. The second phase, to roll out the package in a further 55 facilities will be completed in December 2017.

Dr Ansumana Sillah, Ministry of Health, Sierra Leone

Dr Sillah began by stating that Sierra Leone is unusual in being water-rich but having poor access to improved drinking water (52% nationally) and use of adequate sanitation (34% nationally). He emphasised the importance of efficient and effective planning using 'SMART' objectives (specific,

measurable, achievable, realistic, timely) to plan implement, monitor and evaluate WASH in health care facilities. This process begins with a facility-level assessment tool to assess readiness of facilities to provide basic and emergency obstetric and neonatal care. Facility Improvements Teams use a traffic light system to score facilities on seven enablers of quality care (Water & sanitation, electricity, referrals, blood storage and laboratory, equipment, staffing and drugs & supplies). A call to action is needed to provide a well/developed health information management system

The success of CASH in collaborating was admired during the discussion. Dr Seman acknowledged that collaboration was not easy, but obtaining buy-in from the Deputy Prime Minister had been instrumental in championing the initiative. Ms Yael Velleman finished the session by summarizing the assessments into categories, by type (baseline needs assessment to develop improvement plans versus routine tools for evaluation purposes), and by methodology (audits and scorecards versus participatory assessments). Although in-depth assessments are not practical on a large scale, they are extremely useful to identify challenges and service gap areas for Ministries of Health to set priorities, to show political will and enable behaviour change of staff and importantly to show that positive changes are achievable.

3.9 Financing and human resources

Mr Fabrice Fotso (UNICEF) led a panel discussion on financing and human resource issues from the perspective of donors and government. The panel members were asked to consider how to ensure sustainability, equity and accountability of funding; mechanisms for health financing; criteria and indicators to identify where money should go; and how to give facilities a voice in deciding funding needs. The panel members were Ms Merri Weinger (USAID), Dr Guy Howard (DFID), Mr Martín Remón (AECID), Dr Franklin Diza (MoH Philippines), Mr Mamadou Diallo (WaterAid Mali) and Ms Gloria Kummi (MoH Ghana).

Panel members explained a number of different models of WASH financing, for example at the national, regional or district level. In the Philippines, local government carries responsibility for WASH through regional clusters, whereas in Ghana financing happens at all three levels. Health financing of WASH is often fragmented, inadequately funded and inequitable thus Dr. Weinger advised that WASH should be better integrated into health systems financing. DFID is increasingly trying to integrate WASH, health and nutrition together in many countries in order to build capacity collaboratively across all sectors.

Donors are often focused on quick fixes and security issues in fragile contexts, rather than long-term infrastructure investments, for example in Mali. Investments should help countries to improve their own capacity and reform the WASH sector not merely implement infrastructure, for example digging wells. Additional investment in training health care professionals and facility staff about the importance of WASH should be considered. Where countries are dependent on donors, they lack autonomy of resource-allocation and may also have limited budget absorption capacity. Mali for example, receives 80% of health funding from external sources in 2007-2014 yet its average absorption capacity was only 58%. Better indicators and resource allocation criteria are needed to establish funding needs and maintain equity. Improved auditing is needed to provide accountability.

Funds should also be allocated for advocacy and sensitization of ministries to increase understanding of WASH and its importance.

The ethical side of ensuring WASH services, regardless of facility ability to pay was raised. WASH infrastructure is expensive to implement and maintain. Dr Christine Moe (Emory) offered an example from Uganda where water sources at a health centre were cut off by municipal services after failure of payment. Working with municipalities and giving greater autonomy to local communities may help regular cash flow and prevent such problems.

Human resource needs vary considerably according to the size of the health care facility. In the Philippines, the Ministry of Health has implemented a new classification system with specific guidelines and standards for each type of facility to determine needs. DFID has been working on developing human resources of clinical and auxiliary staff as Dr. Howard said it was important to consider the role of all staff members in improving WASH.

Panel members reinforced the message that integration and coordination of WASH with other health sectors is essential. Accountability for WASH can lie with multiple sectors and ministries so better coordination of human resources is needed. Mr Diallo shared the Mali model where the Ministries of Water, of Sanitation, and of Health and Hygiene share responsibility for WASH. He stated that such institutional arrangements can lead to poor decision-making. Involving the private sector is also an option, as illustrated by the example of CASH in Ethiopian.

Mr. Fotso (UNICEF) closed the discussions by stressing that challenges for WASH in health care facilities are at all levels (global, national and facility) and across different sectors. However, he highlighted, as several individuals had stressed, that the Health sector should take the lead role as the primary institution concern. Efficient mobilization, inter-sectoral collaboration and application of best practices are needed to achieve optimal results.

4. Group work: drafting the Action Plan

Participants were divided into four groups to discuss five strategic objective (SO) of the Draft Action Plan. The groups were: 1) National policies and standards/ coverage targets, 2) Improving and maintaining services, 3) Monitoring and operational research and 4) Advocacy and leadership. After group work, the key themes were discussed in plenary along with the overall purpose, scope and next steps on finalizing the action plan.

Purpose

The Action Plan should provide a roadmap to enable partners to move forward in a common direction to achieve the SDGs (UHC, Maternal/Child health and Water/Sanitation). An indicator or indicator measurement on UHC which explicitly includes WASH may be developed. Goals should be written against milestones (e.g. 1, 2 and 5 years) to ensure that progress towards those goals can be measured.

Scope

The Action Plan should identify the broad issues it will cover (using the WHO/UNICEF report and WHO standards to frame the issues). Within the broader issues, specific plans will be developed and implemented at the national level. Strategies to implement these plans should build on lessons learned from other initiatives, for example UNICEF's WASH in Schools. The Action Plan should have realistic aims. While the ultimate aim is to cover all facilities, a ladder approach should be taken, focusing on public facilities first. The Action Plan ought to build upon World Health Assembly Resolutions, including recent ones on WASH (2011) and Climate Change (2012) as well as those linked to key health issues including child and maternal health, cholera and infection prevention and control.

Roles and responsibilities

The Action Plan must include a detailed strategy outlining the involvement of both the WASH and Health sectors and how they can work together. It must clearly articulate roles and responsibilities of each stakeholder and time bound targets for action.

The Health Sector should take the lead in driving the agenda forward. The Health sector should be supported in this commitment and be provided with appropriate platform(s) to do so, for example Sanitation and Water for All (SWA). A clear articulation of the problem and the impact that better WASH can have across different health areas is required to illustrate incentives for engagement. The WASH sector may provide technical expertise and advocacy to the Health Sector to implement the Action Plan effectively.

Joint roles

How Health and WASH can support each other in this work should be clearly stated, including opportunities for dialogue and information sharing. The Action Plan should focus on collaboration between sectors.

Audience

The audience of the Action Plan includes the following:

- Principle (Member States)
- UN and development agencies, including WHO regional and country offices
- WASH Sector
- Health Sector

Commitments and way forward

Following presentations by the four groups, Mr Bruce Gordon (WHO HQ) moderated the plenary discussion. The specific commitments are summarized at the beginning of this report. WHO will work with UNICEF and all interested partners to follow-up on commitments and periodically report back to all stakeholders on progress.

5. Closing remarks and next steps

In closing, Mr Bruce Gordon and Dr Maggie Montgomery (WHO HQ) and Mr Fabrice Fotso (UNICEF), thanked the participants for their contributions to the meeting. Moving forward, the

priorities are to generate more comprehensive data on coverage and key gaps, strongly advocate for WASH in health care facilities at all levels and especially by Member States and to establish a global community of practice. The specific recommendations and commitments are detailed at the beginning of the report. All of these will feed into the draft action plan, which requires finalization and leadership from the health sector. This includes specifying the activities, roles and responsibilities with key stakeholders over the coming months to ensure a robust action plan that guides efforts and also tracks progress. While the needs are great and urgent, the discussions and commitments made at the meeting demonstrated there is strong will and interest among a wide group of stakeholders to ensure that all facilities in every setting have WASH services in order to provide safe, quality and people-centered care.

Appendix 1: Agenda
Water, Sanitation and Hygiene in Health Care Facilities - Urgent needs and action
Geneva, Switzerland
17-18 March 2015

Objectives

1. Present global data on access, monitoring and policies on WASH in health facilities
2. Share regional and country examples of successful strategies and approaches for improving WASH in health care facilities
3. Strategize, through a global action plan, on how to address these current gaps by developing practical, workable solutions in collaboration with key health areas

Expected outcomes

1. Agreed Action Plan framework to improve WASH in health care facilities
2. Compilation of commitments from governments, international organizations, NGOs, academics and donors for the Action Plan
3. Meeting report for public dissemination

Tuesday 17 March 2015		Speaker/ Moderator
09h00-09h15	Opening remarks	Maria Neira, Director PHE ⁷ WHO Edward Kelley, Director SDS ⁸ WHO
09h15-09h30	Meeting objectives and introduction of action plan framework	Maggie Montgomery, WHO
09h30-10h15	Session 1: Understanding the problem	
	<ul style="list-style-type: none"> • Birthing in unsafe WASH environments in Tanzania (3 min) • Working without WASH in national hospitals in Zambia (10 min) • Global status of WASH conditions in health care facilities (10 min) 	WaterAid Video Mathias Thembo, MoH Zambia Ryan Cronk, University of North Carolina, Chapel Hill <i>Maria Neira, WHO (moderator)</i>
10h15-10h45	<i>Coffee Break</i>	
10h45-12h00	Session 2: Regional challenges and solutions	
	<ul style="list-style-type: none"> • Panel discussion with verbal updates from Regions 1. highlighting key challenges, 2. solutions, and 3. resource and knowledge gaps 	WHO PHE Regional Focal Points: Magharan Bagayoko (AFRO) Raki Zghondi (EMRO) Oliver Schmoll (EURO) Payden (SEARO) Alexander Von Hilderbrand (WPRO) <i>Lizette Burgers, UNICEF (Moderator)</i>
12h00-13h15	Session 3: Addressing WASH within major health efforts	Dominique Legros, WHO (Cholera) Benedetta Allegranzi, WHO (IPC) ⁹

⁷ PHE: Public Health, Environment and Social Determinants of Health

⁸ SDS: Service Delivery and Safety

⁹ IPC: Infection Prevention and Control

	<ul style="list-style-type: none"> Panel discussion with verbal updates from health areas on 1. Links between health area and WASH in HCF, 2. Major activities and future plans, 3. Entry points for improving WASH in HCF 	Carolyn MacLennan, WHO (MCH) ¹⁰ Anthony Solomon, WHO (NTD) ¹¹ Dorjsuren Bayarsaikhan, WHO (Health financing) Kim Hyo Jeong, WHO (Emergencies) Bruce Gordon, WHO (moderator)
13h15-14h15	Lunch	
14h15-15h00	Session 4: Policies and Standards – Leveraging political will to improve services <ul style="list-style-type: none"> Vietnam (10min) Mongolia (10min) India (10) Discussion 	Nguyen Huong, MoH Vietnam Oyun Bayar, MoH Mongolia Deepak Saxena, MoH India Fiona Gore, WHO (moderator)
15h00-15h15	Coffee Break	
15h15-16h15	Session 5: Monitoring WASH at the global & national level <ul style="list-style-type: none"> Overview of Service Availability and Readiness Assessment (SARA) and WASH elements (10min) Service Delivery Indicators (SDI): Inter- and intra-country inequalities in water and sanitation in HCFs (10min) Monitoring energy and links with WASH (10min) Discussion 	Rick Johnston, WHO Gayle Martin, World Bank Michaela Pfeiffer, WHO Rick Johnston, WHO (moderator)
16h15-17h00	Session 6: Knowledge gaps <ul style="list-style-type: none"> Understanding drivers for improving WASH in facilities (10min) WASH in the context of maternal health and menstrual hygiene (10min) WASH assessment tools and sustainability indicators (10min) Discussion 	Suzanne Cross, Soapbox Collaborative Petra Kohler, Eawag, Switzerland Christine Moe, Emory University Oliver Cumming, London School of Hygiene and Tropical Medicine (moderator)
17h00-17h15	Conclusion Day 1	Fabrice Fotso, UNICEF
17h15-17h30	Announcement of report	Bruce Gordon, WHO Maggie Montgomery, WHO Yael Velleman, WaterAid UK Lizette Burgers, UNICEF
17h30-18h30	Reception	All

¹⁰ MCH: Maternal, Newborn, Child and Adolescent Health

¹¹ NTD: Neglected Tropical Diseases

Wednesday 18 March 2015

09h00-9h45	Session 7: Facility level assessments and improvements <ul style="list-style-type: none">Ethiopia: Clean and Safe Hospital Initiative (10min)Zambia: Immediate facility-initiated improvements (10min)Sierra Leone: Assessing readiness of facilities (10min)Discussion	Yakob Seman Ahmed, MoH Ethiopia Mathais Thembo/Doreen Sianjani, MoH Zambia Ansumana Sillah, MoH Sierra Leone <i>Yael Velleman, WaterAid (moderator)</i>
09h45-10h30	Session 8: Financing and Human Resources <ul style="list-style-type: none">Government and donor panel discussion (USAID, DFID, AECID, Philippines, Mali, Ghana) <p>What are the key financing and human resource needs? How are governments, donors, NGOs addressing these? What are the priority actions moving forward?</p>	Merri Weinger, USAID Guy Howard, DFID Martín Remón, AECID Franklin Diza, MoH Philippines Mamadou Diallo, WaterAid Mali Gloria Kummi, MoH Ghana <i>Fabrice Fotso UNICEF (moderator)</i>
10h30-10h45	<i>Coffee Break</i>	
10h45-11h30	Session 8: Drafting the Action Plan: scope, strategic objectives and expected outcomes Plenary discussion	<i>Maggie Montgomery, WHO (moderator)</i>
11h30-12h30	Session 8 continued: Group work on Action Plan elements/strategic objectives	See group worksheet for specifics
12h30-13h30	<i>Lunch</i>	
13h30-14h30	Session 8 continued; Group discussions	See group worksheet for specifics
14h30-15h15	Session 9: Putting it all together <ul style="list-style-type: none">Feedback from each of the four groups; 3 main areas of activity, how, and with whom (each group 5 min, followed by discussion)	<i>Bruce Gordon WHO (moderator)</i>
15h15-15h30	<i>Coffee Break</i>	
15h30-16h45	Session 11: Commitments and way forward <ul style="list-style-type: none">Leadership, advocacy and accountabilityHarnessing existing commitment mechanisms; e.g. Sanitation and Water For AllNext steps with Governments, WHO and UNICEF, NGOs, academics and donors	<i>Bruce Gordon, WHO (moderator)</i>
16h45-17h00	Wrap-up and next steps	Fabrice Fotso, UNICEF/ Maggie Montgomery, WHO

Appendix 2: Meeting participants

Name	Organisation	Country
Lizette Burgers	UNICEF HQ (WASH)	USA
Fabrice Fotso	UNICEF West Africa Region	Senegal
Alain Phe	UNICEF WASH Chief, Zambia	Zambia
Kiwe Sebunya	UNICEF WASH Chief, Tanzania	Tanzania
Maria Neria	WHO HQ-Director PHE	Switzerland
Bruce Gordon	WHO HQ-Coordinator WSH	Switzerland
Maggie Montgomery	WHO HQ Settings	Switzerland
Rick Johnston	WHO HQ JMP	Switzerland
Fiona Gore	WHO HQ GLAAS	Switzerland
Kate Medlicott	WHO HQ Sanitation	Switzerland
Sophie Boisson	WHO HQ Sanitation	Switzerland
Michaela Pfeiffer	WHO HQ IHE	Switzerland
Ed Kelley	WHO HQ, Director HIS/SDS	Switzerland
Bernadette Daelmans	WHO HQ, Acting Director MCA	Switzerland
Carolyn MacLennan	WHO HQ MCA	Switzerland
Anthony Solomon	WHO HQ NTD	Switzerland
Benedetta Allegranzi	WHO HQ IPC	Switzerland
Dominique Legros	WHO HQ PED	Switzerland
Dorjsuren Bayarsaikhan	WHO HQ HFP	Switzerland
Hyo Jeong Kim	WHO HQ ERM	Switzerland
Oliver Schmoll	WHO EURO	Germany
Alexander Von Hildebrand	WHO WPRO	Philippines
Magaran Bagayoko	WHO AFRO	Congo
Payden	WHO SEARO	India
Raki Zghondi	WHO EMRO	Jordan
Akosua Kwakye	WHO Ghana	Ghana

Waltaji Terfa	WHO Ethiopia	Ethiopia
Gabit Ismailov	WHO Vietnam	Vietnam
Boubacar Maïga	Consultant, WHO	Mali
Vanya Delgermaa	WHO Country Office	Mongolia
Ansumana R. M. Sillah	Ministry of Health and Sanitation	Sierra Leone
Arabella Hayter	Consultant, WHO	UK
Yael Velleman	WaterAid UK	UK
Alison Macintyre	WaterAid Australia	AU
Mamadou Diallo	WaterAid Mali	Mali
Amanda Marlin	Water Supply and Sanitation Collaborative Council	Switzerland
Guy Howard	UK AID	UK
Merri Weinger	USAID	USA
Ryan Cronk	The Water Institute at University of North Carolina	USA
Oliver Cumming	London School of Hygiene & Tropical Medicine	UK
Christine Moe	Center for Global Safe Water, Emory University	USA
Joanne McGriff	Emory University	USA
Janell A Routh	CDC, Waterborne Diseases Prevention	USA
Gayle Martin	World Bank	USA
Suzanne Cross	The Soapbox Collaborative	UK
Oyun Bayar	Ministry of Health and Sports	Mongolia
Nguyen Thi Lien Huong	Health Environment Management Agency	Vietnam
Franklin C Diza	Disease Prevention and Control Bureau	Philippines
Yakob Seman Ahmed	Ministry of Health in Addis Ababa	Ethiopia
Petra Kohler	EAWAG	Switzerland
Mathais Tembo	Ministry of Health	Zambia
Doreen Sianjani	Ministry of Community Development	Zambia
Deepak B Saxena	Public Health Foundation	India
Gloria Ntow Kummi	Ghana Health Service	Ghana
Modoka Saji	UNOG-OHCHR	Switzerland

Françoise Naissem Belemel	Ministère de la Santé Publique	Chad
Samuel Renggli	EAWAG/SANDEC	Switzerland
Gaoussou Keita	Chief of the Division of Public Hygiene and Safety	Mali
Martín Remón	Spanish Permanent Representative	Spain
Miguel Casado Gómez	International Cooperation for Development	Spain
Ritu Prashad	IRHA	Geneva

Appendix 3: Summary of online consultation, 4 March 2015

Indicators for monitoring water, sanitation and hygiene (WASH) in health care facilities

The following document provides a summary of an online consultation convened by WHO and UNICEF in advance of the international meeting: *Water, sanitation and hygiene in health care facilities-urgent needs and action* (March 17-18th 2015). The webinar brought together thirty relevant stakeholders (policy-makers, WHO and UNICEF technical staff, WASH and public health experts and implementers) to discuss indicators for monitoring water, sanitation and hygiene in health care facilities. The objectives of the consultation were to:

- determine which indicators are priorities for discussion at the international meeting
- identify key gaps and strategize on effective measures for improving services and the indicators needed to measure them
- share country case studies of using indicators, their strengths and limitations

In advance of the online discussion, a list of proposed core indicators was circulated and the public was invited to offer suggested revisions. Three types of indicators were discussed: a small set of core WASH questions for broad national surveys, a list of expanded WASH questions for more detailed less frequent assessments and risk-based tools for facility assessments and ongoing improvements.

Core and expanded questions

At present, a number of different survey instruments exist which need harmonizing. A set of core questions that can be reported systematically to enable country comparisons is needed. Water has many uses in health care facilities, which makes it difficult to distill into a small number of questions. For global purposes, the challenge is to identify a minimal, or core set of indicators that map against the essential elements in WHO normative guidelines¹², and that can be collected with reasonable effort. An expanded set of indicators, with greater scope and flexibility should also be planned, which would allow full (or nearly full) monitoring of normative guidelines. Highlighting an example from Haiti, Ryan Cronk (UNC) emphasized the limitations that survey teams face when collecting such data. In order to produce accurate and useful data, efforts must be made to validate and periodically review indicators.

Instruments must be adapted to measure use, quality and functionality (not just access) and be suitable for use in a range of facilities which cater for different users. Health care facilities need to have constant availability of water and existing core questions do not accurately capture this. Yael Valleman (WaterAid UK) suggested including more detailed assessment of water availability, for example whether water is available every day/24hrs, every day/not 24hrs or not every day. Many health care facilities face water shortages at certain points of the year and these shortages need to be recognized; an indicator which recognizes seasonal and daily shortages is necessary.

Additional suggestions for core questions included adding indicators for the use of sanitation facilities (not just their number), and water quality (for example water testing for drinking). Participants also highlighted the need to disaggregate indicators by time, by location, by type of user and by type of use. These suggestions are beyond the scope of core questions and should be included in the expanded list.

Current indicators describe facilities rather than the populations they serve; attempting to count the number of users is difficult and may not be feasible. Although it would be useful to capture data about populations, it was agreed that, monitoring efforts should concentrate on the adequacy of facilities, rather than on

¹² WHO, 2008. *Essential environmental health standards in health care*.

http://www.who.int/water_sanitation_health/hygiene/settings/ehs_hc/en/

population coverage. That information would help facility improvement initiatives. Given there are very few data currently available, monitoring efforts should remain focused on basic indicators.

Facility assessment tools

Maggie Montgomery (WHO) asked webinar participants to consider what information is needed to develop risk-management plans and interventions at the facility level. Christine Moe (Emory) emphasized the importance of capturing water usage information in risk assessments. She described how physicians frequently do not know where the water they use in medical equipment comes from because facility staff manage medical equipment. Facility staff need to be trained properly and provided with adequate materials to ensure safe WASH practices. Including a measure of water quality for different water uses is important.

Pankaj Mathur (India) described a comprehensive assessment tool developed and used in Rajasthan, India, which focuses on four key components (water supply, excreta disposal, waste management and vector control) and is used to identify priorities for improvement plans. The intervention is targeted at high-risk facilities and wards, and has focused on access to WASH in obstetric and neonatal wards, resulting in improvements in key WASH indicators and reduced maternal mortality. Webinar participants agreed that birthing environments and neonatal care areas should be priorities in making facility improvements.

There was a great deal of interest in the Rajasthan assessment tool, highlighting the need for concrete examples of WASH risk assessments, and the value of networking and sharing experiences. WHO agreed to provide a platform for this kind of exchange.

WASH in schools

Murat Sahin (UNICEF) presented a summary of WASH in schools, focusing on three elements: normative guidelines (developed jointly with UNICEF and WHO), a monitoring package and advocacy materials. UNICEF conducted a review of Education, Monitoring and Information Systems (EMIS) from 54 countries, extracting common elements, and scoring them against a target of 13 core indicators. The work found that data collected are not necessarily analyzed and reported. This supports GLAAS's findings that WASH policies may refer to WASH in schools and health care facilities, but do not track data about coverage or use it for decision-making.

Conclusions

The core indicator list needs to be refined and improved; unfortunately, it is difficult to include disaggregation at this level of detail thus there is limited possibility for expanding the scope of the core questions. More detailed questions and indicators, which are practical to implement in a survey, need to be developed to form an expanded list.

Consideration of how both the core and expanded lists could be used by existing assessments and national monitoring frameworks such as Health Management Information Systems (HMIS), drawing lessons learned from UNICEF's WASH in schools, would be worthwhile. This work highlights the importance of agreeing clear definitions and standards which go beyond functionality. Building on this experience, a WASH in health care facilities set of monitoring tools could be developed which addressed the three levels of interest: (1) core monitoring questions, (2) expanded monitoring questions, and (3) facility-based risk assessment and management plans.

Proposed core questions: Water access and sanitation

Note: The SARA questions listed below are recent revisions which have not yet been integrated into the survey. They are based on the recommendations in the forthcoming WHO/UNICEF report *Water, sanitation*

and hygiene in health care facilities: status in low and middle income countries and way forward which will be released 17 March 2015. The full SARA questionnaire can be accessed at: http://www.who.int/healthinfo/systems/sara_introduction/en/.

The SARA questionnaire does include more specifics on infection prevention and control (IPC) aspects, including IPC management plans, the details of which are not listed below but can be found in the above link.

1. What is the most commonly used source of water for the facility at this time? (SARA)

Note: Observe that water is available from the source or in the facility on the day of the visit

- | | |
|--------------------------------|---------------------------|
| a) No water source | i) unprotected spring |
| b) piped into facility | j) rainwater |
| c) piped onto facility grounds | k) bottled water |
| d) public tap/standpipe | l) cart w/small tank/drum |
| e) tube well/borehole | m) tanker truck |
| f) protected dug well | n) surface water |
| g) unprotected dug well | o) other (specify) |
| h) protected spring | p) don't know |

2. Is water available from this source on facility premises? (SARA)

- a) Yes, inside the facility
- b) Yes, within the ground of the facility
- c) No, outside the facility grounds

3. Is the water treated in any of the following ways to make it safe to drink? (JMP)

- a) Boil
- b) Add bleach/chlorine
- c) Strain through a cloth
- d) Use a water filter
- e) Solar disinfection
- f) Let it stand and settle
- g) Other (specify)
- h) Don't know

4. Is there routinely a time of year when the facility has a severe shortage or lack of water? (SPA)

- a) Yes
- b) No

5. How many toilets (latrines) are on premises for: (SARA)

	Present and functioning (n)	Present and not functioning and/or not accessible (n)	Not present (n)
Staff-male			
Staff-female			
Staff-mixed			
Patients/visitors-male			
Patients/visitors-female			
Patients/visitors-mixed			
Disabled*			

Instructions: Indicate number of toilets for each category and OBSERVE if toilet is functioning and accessible-unlocked or key available upon request.

Disabled refers to a facility that has specific features to allow for use by individuals with reduced mobility (e.g. in wheelchair)

What type of toilet (latrine) is available for use by patients? (SDI)

- a) No functioning toilet
- b) Bush
- c) Flush toilet
- d) Flush toilet (but no water)
- e) VIP latrine
- f) Covered pit latrine (no slab)
- g) Covered pit latrine (w/ slab)
- h) Uncovered pit latrine no slab
- i) Uncovered pit latrine w/ slab
- j) Composting toilet
- k) Other (specify)

Are the following resources/supplies used for infection control in each of the following areas? **(SARA)**

	Obstetrics & Newborn area			HIV service area			Surgical services area			Outpatient areas		
	Observed	Reported not seen	Not available	Observed	Reported not seen	Not available	Observed	Reported not seen	Not available	Observed	Reported not seen	Not available
Clean, running water												
Hand-washing soap/liquid soap												
Alcohol based hand rub												
Disposable latex gloves												
Waste receptacle												
Sharps container												
Environmental disinfectant												
Disposable syringes with disposable needles												
Auto-disable syringes												
Waste receptacle (pedal bin) with lid & plastic bin liner												
Other waste receptacle												
Instructions posted visibly on WASH procedures (e.g. posters)												

Appendix 4: Draft Action Plan

Water, Sanitation and Hygiene (WASH) in Health Care Facilities

Vision

To ensure that every health care facility, in every setting, has sufficient and functioning water and sanitation services in order to provide quality and safe care to all patients.

Basis for WASH interventions

The WHO document *Essential Environmental Health Standards in Health Care* describes essential environmental health standards for health care in low-resource settings and provides the basis for improving WASH services (WHO, 2008). It also describes methods for supporting the development and implementation of national government policies. The standards cover: water quality, water quantity, water facilities and access to water, excreta disposal, wastewater treatment and disposal, health-care waste disposal as well as other environmental issues, including protection from disease vectors.

In order to achieve this vision, leadership is needed from the Health Sector to acknowledge the gravity of the problem and ensure that existing mechanisms from financing infrastructure and human resources, to delivering specific health services, to implementing infection prevention and control plans include WASH as an important and costed element of greater health aims. The following diagram illustrates the key aspects of improving WASH in health care facilities.

In addition to improving services, there must be accountability at every level, from the facility level to the national and global arena. This necessitates monitoring and facility audits as well as the engagement of civil society to support and ensure human rights and universal health coverage are upheld.

Strategic Objectives

Improving WASH services in health care facilities involves much more than simply digging wells or installing latrines. It necessitates comprehensive planning and national standards, allocation of sufficient human and financial resources, implementing facility-based assessment and management tools, conducting monitoring and providing leadership and advocacy. Each of these constitutes a strategic objective (SO) and is described in further detail below. The five SOs was proposed ahead of the meeting. The meeting participant then proposed additional points that were important to address within these and are included as boxed text after each SO. The informal working group will develop these ideas further.

SO 1. Establish and implement national policies and standards for water, sanitation and hygiene in health care facilities.

The establishment and enforcement of national policies and standards for WASH in health care facilities provides an important foundation for improving services. WHO *Essential Environmental Standards in Health Care* (2008) serve as a basis for establishing national standards and there are several examples of governments (e.g. Mongolia, Laos, Vietnam) which have recently adapted these to their own contexts and needs. The standards cover: water quality, water quantity, water facilities and access to water, excreta disposal, wastewater treatment and disposal, health-care waste disposal as well as other environmental issues.

- Encourage countries to adopt and implement the WHO Environmental Health standards and consider *how* to do it
- Work on human resource development in line with sector reform
- Encourage convergence of various policies related to WASH
- Link emergency responses with routine services

- Address supply and demand and engage with private sector on supply chain logistics
- Involve other ministries in planning

SO 2. Establish national coverage targets for water, sanitation and hygiene services in health care facilities¹³.

Targets are important for catalysing political will and prioritizing resource allocations. According to GLAAS data¹⁴ over half (52%) of countries (n=94) do not have targets for hygiene in health care facilities and over a third do not have targets for sanitation (35%) or water (44%). Proposals for the Sustainable Development Goals include a target to achieve universal access to basic drinking water, sanitation and hygiene for households, schools and health care facilities, by 2030. This global target may support national target setting which may benefit from a “laddered approach” which recognizes incremental improvements.

- Aim for more equitable coverage targets between facilities/districts/regions
- Collect consistent data across regions
- Include targets for: human resources, finances, risk management plans.
- Targets should be cross-sectional
- Provide a clear definition of WASH versus environmental health in health care facilities

SO 3. Increase human and financial resources for improving and maintaining WASH infrastructure and delivering hygiene behaviour change messaging to patients.

Improving and maintaining WASH infrastructure requires adequate funding and existing mechanisms, such as National Health Accounts, ought to be used to channel such funding. In addition, sufficient numbers of trained staff at the health care facility are fundamental to improving and maintaining WASH services and ensuring risk management plans are conducted and implemented. Training on WASH should be closely developed and delivered in tandem with training on infection prevention and control. Staff and patients also need education on how to properly use WASH facilities and the benefits of doing so. In addition, training health care providers on how and when to effectively deliver hygiene messaging on items such as handwashing is important and can translate to improved practices at home as well.

- Improve sanitation facilities (suitable, easy to maintain and affordable facilities)
- Develop impact measurement
- Design SOPs (WHO, National level)
- Address gaps in supplies
- Include strategic objectives on operation and maintenance
- Develop training materials for hospital cleaners and health care workers: training for ALL
- Address budget absorption capacity and lack of budget for operations and management
- Improve governance structures, for example inter-ministerial committees and teams including at the facility level with IPC committees
- Use performance-based financing for health care (incentives and recognition of good performance vs. sanctions/enforcement)
- Anticipate potential problems in service provision, for example withholding of municipal water supplies due to cost

¹³ Countries would be encouraged to use a “ladder” approach to prioritize improvements over time with the eventual aim of providing services in all health care facilities.

¹⁴ WHO (2014). UN-Water global analysis and assessment of sanitation and drinking-water (GLAAS) 2014 report. Investing in water and sanitation: increasing access, reducing in inequalities. Geneva: World Health Organization. http://www.who.int/water_sanitation_health/publications/glaas_report_2014/en/

SO 4. Strengthen monitoring, evidence and operational research on WASH in health care facilities.

Improving and monitoring WASH services require strong and consistent monitoring mechanisms to measure progress and direct efforts where needs are greatest. Monitoring is required at the global and national level where harmonized indicators can be used within existing mechanisms such as Health Management and Information Systems (HMIS) and Service Ability and Readiness Assessment (SARA). A set of core and expanded indicators needs to be developed for such surveys.

At the facility level, WASH service improvements would benefit from comprehensive, facility-based risk assessments using approaches similar to those used for Water Safety Plans but with a more comprehensive view to include sanitation, hygiene and health care waste. Such plans can help to identify both immediate, inexpensive measures that those working at health care facilities can undertake and longer-term major infrastructure improvements.

Operational research is needed for informing effective implementation and further understanding the links between WASH services in health care facilities and health outcomes. Specific areas requiring further study include: assessing costs and benefits of investments, understanding the most effective measures for implementing facility based risk management plans, drivers of hygiene behaviour change in facilities and among patients, and optimizing WASH hardware that is easy to use, environmentally friendly, and appropriate to the setting.

- Use a scorecard for monitoring facilities, as used in Sierra Leone
- Engage healthcare workers and staff in assessments to encourage ownership
- Indicators should be able to capture variability of access, between and within facilities; existence of WASH functionality, accessibility, seasonality, consistency; quantity & quality
- Consider user needs, e.g. how information is useful for different user groups
- Better microbiological monitoring, to reduce sepsis at health care facilities (compare perceived cleanliness vs. microbial cleanliness)
- Create joint indicators for WASH and maternal and newborn mortality
- Measure handwashing compliance (before and after patients)
- Consider use of self-reported vs. survey and observation data
- Use purpose-specific facility assessment tools (in depth assessment for planning vs. routine M&E)
- Design a metric for sustainability
- Links to sustainable Energy for All framework (link to electricity – monitoring, research)
- Measure healthcare acquired infection (HCAI) levels and the percentage related to WASH
- Include sepsis indicators in HMIS
- Need a functional and effective rapid risk management tool
- Provide technical expertise for construction of WASH in health care facilities (extra support needed in cold climates)

SO 5. Strengthen leadership and advocacy for universal WASH in health care facilities.

Leadership is needed from the health sector and cross-sectorial collaboration with those working on water, sanitation, hygiene and the environment to achieve universal access to WASH in health care facilities. Realizing this goal will also require commitments from governments, international and local organizations and donors. It also necessitates the active engagement of civil society to ensure that the services are provided meet the needs of all individuals, in all settings. This includes mechanisms for the public to voice their concerns over the safety and functionality of facilities and a system for ensuring such concerns are recognized and acted upon.

- Develop compliance mechanisms
- Frame the issues and solutions for a wide variety of audiences

- Use health care facilities as “role models” of healthy behaviours (e.g. hygiene)
- Advocate for prioritisation of WASH by donors and national governments
- Improve internal integration within WHO
- Include WASH in health care facilities in the SDG target indicators
- Grow a Community of Practice/platform and network for WASH in health care facilities
- Linkage/using needs assessments to bring about change
- Advocate for WASH in health care facilities to be a health issue
- Learn how health systems can induce change
- Brief World Bank health division on WASH in health care facilities
- Determine who is responsible for regulating and enforcing standards and practices, perhaps an independent body