ACHIEVING SDG 6 AND SAFE WATER FOR ALL

A focus on water treatment and WASH in health care facilities

Meeting report

Accra, Ghana

16-18 October 2018

1. Background

The Government of Ghana, the World Health Organization (WHO), and the Embassy of the Kingdom of the Netherlands, Ghana, convened a half-day international High Level Meeting followed by two, one-day sequential technical workshops on water quality, with a specific focus on water treatment (HWT) and water, sanitation and hygiene (WASH) in health care facilities (HCF). The high level meeting provided an opportunity to highlight and discuss new tools, data and approaches for addressing Sustainable Development Goal (SDG) 6 on safe water and sanitation and technical workshops to explore specific challenges, approaches and solutions for improving water quality in households and health care facilities. The meeting was attended by approximately 60 participants from five countries (Ethiopia, Ghana, Liberia, Tanzania and Zambia) with the majority of participants from the host country. Participants included national and district officials, WHO WASH country focal points, WHO Headquarters and WHO Regional Office for Africa staff as well as national water quality experts, implementers of HWTS, HWT manufacturers, water policy makers and selected partners, including the United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), IRC and WaterAid. The agenda and participant list are included in Annexes 1 and 2.

2. Objectives

The overall objective of the high level meeting was to highlight priorities and successful country and regional approaches and platforms to achieve the water-related targets under SDG 6. The meeting provided a platform for the Government of Ghana as well as other African countries (Ethiopia, Liberia, Tanzania and Zambia) to elaborate their commitments to improve water quality for all, under SDG 6. During the meeting, UN, NGO, donor and academic partners, were asked to support Governments in strengthening systems for improving water quality, including use of proven HWT technologies for limited and specific purposes (i.e. cholera prevention).

Specific objectives of the two technical workshops included:

For the HWT technical workshop, to:

- present Round II results, and strategize how to link results with complementary evaluations to better inform product procurement / selection, including in emergency contexts
- provide an update on national capacity building efforts, reflect on lessons learned and discuss how to scale up water quality testing efforts as part of wider SDG 6 monitoring;
- provide a platform to discuss product selection, especially for targeted uses such as in cholera hot spot areas, for pregnant mothers and infants and in emergencies, generally.

For the WASH in HCF technical workshop, to:

- present the global plan of work and response to the UN Secretary Generals Global Call for Action on WASH in Health Care Facilities;
- discuss national efforts on WASH in HCF, including target setting, standards strengthening and implementation, and monitoring;
- present success and challenges in improving WASH in facilities as part of broader work on improving quality of care for mothers and newborns and safe health care waste management; and
- explore water quality concerns and optimal treatment options in health care facilities.

3. High level meeting

3.1 Summary of discussions

The high level meeting featured interventions from the Ghana WHO Representative, UNICEF Chief of WASH, the Kingdom of Netherlands' Ambassador to Ghana, Minister of Sanitation and Water Resources, the Chief Director, Ministry of Health Ghana, Coordinator of the Water, Sanitation, Hygiene and Health Unit, WHO/HQ, Tanzania, Liberia, Zambia and WHO Ethiopia. In addition, the meeting included the launch of three new products: the new WHO WASH water, sanitation and hygiene strategy (2018-2025), a new

agreement between the Dutch Government and WHO and the Round II Report of the WHO International Scheme to Evaluate Household Water Treatment Technologies (the "Scheme") (see section 4.1). The WHO WASH strategy provides, for the first time, a framework for stimulating sustainable and incremental improvements on WASH services to promote and protect health. The new WHO-Dutch agreement will provide important resources for implementing the strategy, supporting countries in achieving SDG 6 and improving health.

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) published baseline figures for SDG 6.1 (water safety) in 2017. The report highlighted that many low and middle-income countries are still a long way from achieving safely managed supplies, but that change and improvements are possible. The focus on safely managed services within SDG 6 places greater priority on health aspects of WASH and calls upon Ministries of Health to take a bigger role in managing, monitoring and programming for WASH. Leadership and effective multi-sectoral collaboration will be critical to achieve progress.

Water Safety Planning (WSP) is gaining traction throughout the African region (AFR) and is being used to address the needs of the most vulnerable, improving the climate resilience of water systems and ensuring water safety up to the point of consumption. Policies, strategies and guidelines on water safety do exist, but implementation at the sub-national and local level is often weak and WSP processes and support are often not included in budgets. Strong regulations with clear roles and responsibilities of the different entities involved are important for ensuring standards are met. Users can also play an important role, monitoring how and where funds are spent and providing feedback on the quality of services provided. However, mechanisms for involving users are frequently lacking. The district and community level need a greater understanding of what safely managed services are and the target setting and tracking necessary to make improvements to hold leaders to account. More information is needed regarding who should bear the cost of water quality testing and regulation, what information consumers should be provided with regarding the safety of their water supplies and how national WASH policies should be implemented on the ground. There is strong demand for safe water and nearly everyone is willing to pay for safer water. The high demand for sachet water in Ghana, even though it is significantly more expensive than piped water was provided as an example of willingness to pay. Because consumer confidence in the quality of safety of piped water quality is often low, many resort to purchasing more expensive bottled water and sachet water.

4. Technical Workshop 1: Focus on household water treatment

4.1 Water treatment: technology evaluations

The workshop began with an overview of the WHO Framework for Safe Drinking-water, which underpins the core recommendations of the WHO Guidelines for Drinking-water quality[1]. The Framework comprises three core elements in the management of drinking-water safety:

- health-based targets, based on evaluation of health concerns;
- risk-based, systematic approach to managing water quality (commonly referred to as water safety planning);and
- independent surveillance that verifies that the aforementioned elements are operating properly.

This was followed by a brief presentation on the results of Rounds I and II of the WHO International Scheme to Evaluate Household Water Treatment Technologies (the Scheme). To date, WHO has tested 30 products under the Scheme: 10 in Round I and 20 in Round II - many of which incorporate new, innovative treatment approaches. The Scheme serves as an important resource for governments and partners in selecting household water treatment products that protect health. The highlights from the presentation were:

- Results are available for 22 products, and of these, 18 products meet WHO performance criteria, including two of the most commonly procured products in emergencies/waterborne disease outbreaks.
- HWT product performance varies, and there are four products that fail to meet performance criteria. In some cases this is due to poor manufacturing quality; with some products showing variations in performance between product lots. In addition, performance claims are often overstated, with manufacturer testing often conducted under 'ideal' conditions, that do not reflect real use conditions.
- Results also highlight that several factors influence the chlorine demand (and efficacy of chlorination) in natural waters. One of these factors natural organic matter. The implications of these findings go beyond laboratory testing of chlorine products, and highlight the need to strengthen chlorination among implementers. In particular, dosing ought to be site specific and may need to be regularly adjusted in order to meet a target chlorine residual of > 0.2 mg/l at point of consumption or > 0.5 mg/l during outbreak situations.

Discussions ensuing from these presentations emphasised the need for comprehensive, health-based regulations on HWT performance, user awareness and access to HWT products that protect health. In Ethiopia it is difficult for consumers to access products, even though there is a great need for HWT as piped water outside urban areas is not common and even piped water may not be safe. Agencies need national regulations to approve and test products against health targets and WHO-tested products ought to be fast tracked as part of this process. The Ethiopian draft HWT regulations may serve as a model for other countries. The final results of Round II will be published in Q2 2019 and testing for Round III is scheduled for mid-2019[2]. A technical brief on chlorination will also be published.

4.2 Strengthening national evaluations, regulation and implementation of HWT, and broader water quality management

The second session of the day was on ways to strengthen national evaluation, regulation and implementation of HWT, and strengthening broader aspects of water quality management, including surveillance, monitoring and regulation. The session comprised a short group exercise understanding how to apply WHO criteria in HWT selection and two "quick fire" panels. The first panel on the role of national

[1]WHO (2017) Guidelines for Drinking-water Quality, Fourth edition incorporating the first addendum. Geneva: World Health Organization. http://www.who.int/water_sanitation_health/publications/drinking-water-quality-guidelines-4-including-1st-addendum/en/

[2]More information on the WHO Scheme can be found at http://www.who.int/water_sanitation_health/water-quality/household/scheme-household-water-treatment/en/.

laboratories, capacity and links with surveillance included inputs from the Aquaya Institute, KWR Watercycle Research Institute/TU Delft and the Ghana Standards Authority.

The second panel discussed links between national standards, HWTS, outbreaks and successful business models for HWTS, with participation from the Government of Zambia, and IRC Ethiopia. The session generated a lot of discussion and debate on regulation, coordination across various levels of government (national/sub-national) and sectors (water, health etc.) and accountability, including:

- **Coordination**: In general, water quality monitoring and surveillance has not been translated into action at the district level with many districts still unclear on what should be done, how to do it and where the budget should come from. Many countries have two separate systems (centralized and decentralized) for monitoring which further complicates the problem. In Ghana, the importance of WSPs is largely recognized by central government, but less so by local government and there is limited water quality monitoring and surveillance in rural areas.
- **Consumer trust, accountability and regulation:** There is widespread distrust of the quality of tap water in Ghana and the other countries represented at the meeting. Discussions highlighted that the local utility, Ghana Water Company needs to improve consumer confidence and systematically implement WSPs, including better independent regulation and surveillance. In addition, the roles of the testing and review authorities (e.g. the Ghana Food & Drugs Authority, Ghana Standards Authority, Public Utilities Regulatory Commission in Ghana) are in some cases overlapping with multiple laboratories, for example, testing water quality and no clear incentive or mandate for utilities to undergo third party testing. Countries agreed to strengthen regulations on HWT and more generally regulatory frameworks for water safety.

5. Technical workshop 2: WASH in health care facilities

5.1 Global and regional overview of WASH in HCF

The WASH in HCF global initiative is led by WHO and UNICEF and includes measurable targets, common principles and a focus on a set of practical actions that countries can take at the national and facility-level to advance progress (referred to as the "8 practical actions"). The recent Call to Action on WASH in Health Care Facilities by the UN Secretary General (March 2018) calls for universal and sustainable access to safe drinking water, sanitation and hygiene in all health care facilities. In the call to action, all UN agencies, Member States and partners are asked to do more, do smarter and invest in this critical component for health and wellbeing. Recently the United Republic of Tanzania submitted a draft resolution on WASH in HCF which will be presented at the WHO Executive Board in January 2019[3]. The resolution calls on member states to develop national roadmaps and targets on WASH in HCF, to monitoring WASH in HCF as part of wider health systems monitoring and to embed WASH into heath programming and funding mechanisms.

The JMP is currently preparing a the global SDG baseline report for WASH in HCF, to be released in April 2019 synthesising data from more than 400 assessments and 125 countries. The report uses the global indicators for WASH in health care facilities which are derived from the WHO standards, and cover drinking water, sanitation, health care waste, hand hygiene and cleaning. For more information visit: www.washdata.org.

In the African Region, there is an increasing focus on the need to improve the quality of health services to reduce mortality, not merely to provide access. Universal Health Coverage is a major flagship programme in the region which is an excellent entry point for WASH in HCF.

[3] The draft resolution was unanimously "approved" by the WHO Executive Board in January 2019 and will now be discussed by all Member States at the World Health Assembly in 2019. The resolution is being co-sponsored by 11 Member States.

5.2 National level activities and suggestions for accelerating progress

The Governments of Ghana, Liberia and Zambia, and WHO Ethiopia each gave short presentations on work their respective countries are doing on WASH in HCF. Countries are working on integrating aspects of WASH in HCF into quality of care initiatives and health management information systems monitoring, yet there are still big gaps in leadership, budgeting and monitoring. Participants also noted that in Ghana, Environmental Health officers may be underutilized as they are not always employed under the Ministry of Health (they may be under local government). As such, they are not seen as core staff of the health sector, so their ability to support efforts may be limited. Generally, across all countries, greater clarity of the roles and responsibilities of Ministries of Health, Water, local government and partners is needed to improve coordination. It was suggested that following this workshop, all countries should host a national roundtable(s) to brief key health and WASH leaders on WASH in HCF activities.

Including WASH indicators into national health management information systems (HMIS) is an important process to improve accountability and help encourage ministries of health to pay more attention to the issue of WASH in HCF. In Ghana, the process of updating the HMIS has begun and should be finalised. Ethiopia included a handful of indicators on WASH in HCF into their HMIS earlier in 2018. National costed strategies are important to identify needs, gaps and a process for addressing them. Ghana has drafted a strategy, Tanzania is working on theirs and is encouraged to finalise it.

Ethiopia continues to implement the national Clean and Safe Health Facility (CASH) initiative which began in 2014 and works to improve training, infrastructure and incentives around WASH and infection prevention and control. CASH was launched by the Deputy Prime Minister and has been successful in part due to its high-level leadership and political backing. The Government must continue to provide leadership and support a regular funding mechanism to ensure progress is maintained.

In **Ghana**, the Ministry of Health, with Ghana Health Services, has made progress on WASH in HCF, but these efforts (and supporting policies) do not adequately involve other sectors. There was agreement that the Ministry of Health should reach out to the Ministry of Sanitation and Water Resources for technical inputs, to coordinate interventions and approaches and should package and monitor the work within the national quality initiative. A national road map for sustainability is needed. A draft national costed strategy on WASH in HCF has been developed and it is hoped this will help clarify roles and further embed WASH in HCF in national efforts on quality, child and maternal health and antimicrobial resistance (AMR).

In **Liberia**, joint mentoring of WASH and Infection Prevention control (IPC), which was established as part of Ebola recovery and the health security agenda, has been facilitated through county health teams which has helped facilities improve their practices and understanding of consequences of poor WASH, without a large capital investment. A lot can be done even with few resources, i.e. “do what you can with what you have”. Collaboration and communication, passion, effective leadership and creation of an enabling environment, monitoring and supervision can all help to make progress.

Tanzania is the proposing country for a resolution on WASH in HCF, which has been accepted for discussion at the Executive Board in Geneva in January 2019. Earlier in 2018, a set of national standards on WASH in HCF were published. Work is needed to operationalize these, through development of a national action plan. Health care waste management remains a challenge, and a national waste management catalogue will be finalized and published shortly.

Zambia stated that it is essential the health facility is intrinsically motivated to change and that nationally you need governance, not government. At the facility level, managers do not necessarily see WASH as a top priority even though they may care about improving health outcomes. Framing WASH as an essential part of health systems strengthening may help to encourage facility managers to take action.

WHO agreed to continue to provide technical support for countries to implement of the practical actions for WASH in HCF () and explore the need for, and provide training on topics such as WASH FIT, HWT evaluation and water quality testing. There is widespread interest in, and support for, the proposed resolution on WASH in HCF. Tanzania will follow-up with an active small group to lead further drafting and improvements on the proposed text.

6. Conclusions and next steps

Key commitments included countries hosting national roundtables to brief key health and WASH leaders on WASH in HCF and exploring the possibility of supporting Zambia and Tanzania to back the proposed resolution on WASH in HCF. WHO will provide training on WASH FIT and more general technical support for countries to implement components of the national package of WASH in HCF (leadership, assessments and target setting, standards, facility improvements and community engagement). Regarding HWT, countries agreed to review, improve and publish regulations on HWT and more generally regulatory frameworks for water safety, HWT evaluation and water quality testing.

The high level meeting provided an opportunity to highlight and discuss new tools, data and approaches for addressing SDG 6 on safe water and sanitation. Attainment of SDG6 is a huge challenge and will require considerable energy and resources, strong accountability and monitoring however progress is being made.

Annex 1: Agenda

Day 1, Tuesday 16 October: High level discussion water safety and SDG 6 Chaired by the Honourable Deputy Minister of Health, Ghana		
13:00 – 13:30	**Arrival and registration of participants**	
13:30 – 14:15	***Session 1: Strategies to improve water safety and improve health*** **Moderator:** *Jacob Acquah Andoh, GHS*	
13:30 – 14:00	Welcome and Opening remarks WHO Representative UNICEF Representative Netherlands Embassy	Honourable Minister of Sanitation and Water Resources, Ghana Dr Owen Kaluwa, WHO Ghana Anne-Claire Dufay, UNICEF Ghana Ambassador Ron Strikker
14:00 – 14:15	Meeting objectives and expectations	Maggie Montgomery, WHO
14:15 – 14:30	Launch of WASH strategy and Round II report	Bruce Gordon, WHO Honourable Minister of Sanitation and Water Resources, Ghana
14:30 – 14:45	Innovation, Water Safety and Accountability	Janet Arthur, Netherlands Embassy
14:45 – 15:15	*Discussion* Chairman's remarks	Honourable Deputy Minister of Health
15:15 – 15:45	*Tea/coffee and group photo*	
15:45 – 17:15	***Session 2: Safely managed drinking-water: implications for policy, practice and leaving no one behind*** **Moderator:** *Veronica Ayi-Bonte, IRC Ghana*	
15:45 – 16:15	Water safety and SDG 6.1: status of safely managed drinking-water	Rick Johnston, WHO *15 min presentation followed by Q&A*
16:15 – 17:00	*Part A: Country leadership and triggers for safer water and better health* - Importance of safe water for better health in Ghana - Improving health security through WASH in Liberia *Part B: Comprehensive approaches for water safety* - National SDG target setting for safe water basic and higher levels of service - Role of civil society and empowering local actors - Household water treatment and lab strengthening - Improving water safety and lives of mothers and children	*5 min rapid interventions* Ernest Aseidu, MoH Ghana Jefferson Dahnlo, MoH Liberia Kwabena Asare Gyasi-Duku, MSWR Ghana Abdul-Nashiru Mohammed, WaterAid Gertjan Medema, KWR/Delft David Duncan, UNICEF Ghana
17:00 – 17:20	*Discussion*	Plenary
17:20 – 17:30	Summary and close	Veronica Ayi-Bonte, IRC Ghana
17:30 – 19:00	**Cocktail**	**All, Labadi Beach Hotel**

Day 2, Wednesday 17 October: Focus on Household Water Treatment		
08:30 – 09:00	**Registration**	
09:00 – 09:20	Introductions Meeting objectives and Expectations	Waltaji Terfa, WHO

09:20 – 10:30	**Session 1: Water treatment: Technology evaluation** ***Moderator:*** *Rick Johnston, WHO*	
09:20 – 09:40	Overview of the WHO Framework for Safe Drinking-water, key principles in risk-based approaches to water safety, application to household water treatment	Bruce Gordon and Maggie Montgomery, WHO
09:40 – 10:00	Rounds I and II of Scheme: lessons learned and future direction	Batsi Majuru, WHO
10:00 – 10:30	Discussion	Plenary
10:30 – 11:00	*Coffee / tea*	
11:00 – 13:00	**Session 2: Strengthening national evaluations, regulation and implementation of HWT** ***Moderator:*** *Maggie Montgomery, WHO*	
11:00 – 11:45	*Group exercise*: Applying WHO criteria in HWT selection	Nikki Beetsch, WHO (30 min group activity + 15 min feedback)
11.45 – 12:00	Developing a regulatory framework for HWT	Hailiemichael Syum, Food, Medicine and Health Care Administration and Control Authority, Ethiopia
12:00 – 13:00	*Quick fire panels:* *Part A:* National laboratory roles, capacity and links with surveillance *Part B:* Links with sustainable safe water-national standards, HWTS and outbreaks, successful business models for HWTS	AJ Karon, Aquaya Institute; Gertjan Medema, KWR/Delft; Genevieve Baah-Mante, GSA Ghana Kenneth Nyundu, Govt Zambia; Yussif Abdul Antenna; Lemessa Mekonta IRC *(3 min interventions followed by discussion)*
13:00 – 14:00	*Lunch*	
14:00 – 14:30	*Demo*: Rapid water quality testing and discussion on experiences in Sub-Saharan Africa	Tobias Barnard, University of Johannesburg; Rick Johnston, WHO
14:30 – 17:00	**Session 3: Supporting elements for safely managed water: national targets, standards, surveillance, laboratories, water safety planning, effective HWTS** ***Moderator:*** *Kweku Quansah, MSWR*	
14:30 – 16:15	*Group work:* See attached worksheet	Country groups
16:00 – 16:15	*Working coffee break*	
16:15 – 17:00	Feedback from groups and discussion	
17:00 – 17:15	**Summary and close of Day 2**	
17:30 -	**Informal networking and discussions at hotel bar**	

Day 3, Thursday 18 October: Improving WASH in health care facilities		
09:00 – 10:30	**Session 4: WASH in health care facilities: Global overview and current status** ***Moderator:*** *Abdul-Nashiru Mohammed, WaterAid*	
09:00 – 09:15	*Morning brain teaser* What matters most for improving WASH in HCF?	Small group activity
09:15 – 09:30	Responding to the UN Secretary General's global call to action & national package	Maggie Montgomery, WHO

09:30 – 09:45	Global WASH in HCF monitoring and update on baseline estimates	Rick Johnston, WHO
09:45 – 10:00	*Rapid update:* Key regional efforts to improve and integrate infection prevention and control and WASH in HCF	Nino Dayanghirang and Guy Mbayo, WHO
10:00 – 10:30	*Discussion*: Reactions and reflections for future work at global, national and sub-national level.	Plenary
10:30 – 10:45	*Coffee / tea*	
10:45 – 13:00	**Session 5: Defining the national package of work through a health systems lens** ***Moderator:*** *Yakubu Habib, Emory University*	
10:45 – 11:00	Health systems approach to improving WASH in health care facilities	Gilbert Buckle, Ghana
11:00 – 11:15	Improving WASH in HCF as part of wider quality of care efforts in Ghana	Director ICD/Ghana Health Services, Ghana
11:15 – 11:30	Clean and Safe Health Facility initiative and future challenges in Ethiopia	Fisseha Mulualem, Federal Ministry of Health, Ethiopia
11:30 – 11:45	Strengthening WASH and infection prevention and control through mentorship in Liberia	Jefferson Dahnlo, Ministry of Health, Liberia and Morris Gono, Ministry of Water
11:45 – 12:15	*Discussion*	Plenary
12:15 – 13:00	*Panel:* Systems change, sustainability and embedding efforts in health	Leticia Ackun, UNICEF; Veronica Ayi-Bonte IRC; Abdul-Nashiru Mohammed, WaterAid; Janean Davis, USAID; Khalid Massa, Government of Tanzania; Abena Nakawa, UNDP *(3 min interventions followed by discussion)*
13:00 – 14:00	*Lunch*	
14:00 – 15:45	**Session 6: Sustaining and driving change** ***Moderator****: Samuel Amoako-Mensah, UNICEF*	
14:00 – 14:30	WASH FIT in a nutshell: what, where, results?	Arabella Hayter, WHO
14:30 – 16:00	*Group work* Actions to drive change at national, sub-national and community level	Divide into country groups; refer to worksheet
15:45 – 16:00	*Working coffee break*	
16:00 – 17:00	**Session 7: Next steps** ***Moderator:*** *Bruce Gordon, WHO*	
16:00 – 16:30	Feedback from groups	Nominated individuals from groups
16:30 – 16:50	Country commitments & next steps	Plenary
16:50 – 17:00	Closing remarks	Chief Director, MoH Ghana and Chief Director MSWR
17:00	**Workshop concludes**	

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