Briefing paper: Pandemic Preparedness, Public Health and Water, Sanitation and Hygiene (WASH) for Office of United Nations High Commissioner on Human Rights (OHCHR) enquiry on good practices linked to WASH

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Introduction

Water, Sanitation and Hygiene (WASH) are important aspects of pandemic preparedness (WHO, 2020a) and critical to a public health approach (WHO, 2018). In this short briefing we note how we can learn from West African countries' experiences with the Ebola epidemic (2014-16) to prepare and implement WASH in areas the Global South where we expect the COVID-19 pandemic to be especially challenging, such as in places of high urban density and refugee camps. The WASH agenda was a critical aspect of Ebola infection control, prevention and ensuring preparedness.

Learning from the past to prepare

The West African countries of Guinea, Liberia and Sierra Leone have much to teach in terms of how they implemented WASH (See, Richards et al., 2015; Niederberger et al. 2016; Carter et al., 2017; Mallow et al., 2018; Czerniewska & White, 2020). During the Ebola epidemic, hand-washing was a part of public health promotion and community awareness raising; and access to soap and water viewed as a priority to prevent a pandemic (Richards et al. 2015, Carter et al. 2017). In some of the poorest countries in the world, they had to ensure water would act as disinfectant if no soap was present and that it was accessible as well as thinking of culturally sensitive methods by which to replace washing practices that were risky, such as washing dead bodies before burial (Richards et al., 2015). In a predominantly Muslim country, some religious practices, like washing before prayers were already acting to promote hand washing, but there was still an enormous burden on local communities that did not always have access to safe and clean water.

Local communities, local challenges and international collaborations

It is critical to work with local people and their communities as early as possible, as they are best placed to understand their WASH needs in terms of infrastructure, resources but also socio-cultural behaviour and norms. Challenges related to WASH in times of pandemics or disasters are often linked to infection prevention and control measures as well as being correlated to sustaining human health and wellbeing. It is important to assess vulnerabilities and risks of the populations and plan accordingly and ensure capacity building and empowerment of those communities. In terms of a virus like COVID-19, there will be increased needs of water, sanitation (taking into account if the virus lives in water or excrement) and extra hygiene measures such as hand-washing. Similarly, we know that

certain sections of the population are at increased risk and will need to have specific measures in place, as well as may have additional needs in terms of WASH.

Water

- Scaling up of availability of water and water treatment in areas where water may not be safe nor accessible.
- Ensuring that drinking water is safe to drink and becomes more accessible to those rural areas who may only have a drinking pump, or bore hole if those resources can become depleted.
- Think about levels of disinfectant and water that would be needed in public spaces, homes and high-risk areas like hospitals.
- Ensure portability of water through water trucks, tanks, jerricans and portable buckets (with taps) in public spaces to ensure hand-washing. Think about levels of chlorination or use of filters to ensure that water acts as disinfectant if there is no access to soap.
- If water is not available ensure accessibility and affordability of alternatives like hand-sanitiser. Give guidance around other alternatives that people can use in context of poverty and limited resources.
- Make washing hands or disinfection in a high-risk or high-contact area, a condition of entry to that space, like a school, hospital, or government building.
- High-risk areas like hospitals will require more water for disinfection, laundry, PPE, care and other services.
- Understand the role of water in cultural practices and where there might be a need of alternatives to prevent infection, for example, washing the body in burial practices.
- Understand which gender is responsible for what cultural practice and if they might be at risk.
- Be clear about when people should use water and when they do not. Think about handwashing and sanitation messages and when and who is responsible for that messaging at a state, local, community, village, family and individual level.

Sanitation

- Scale up accessibility of latrines and pit latrines as well as septic tanks if people do not have access to flushing toilets and piped water.
- Ensure messaging about safe waste disposal, containment and collections of refuse. Think of messaging in rural and urban areas and the differing needs people may have when sanitation is not available. For example, can buckets be used for excreta of people who are ill and if transport resources are needed or sewage system needs updating or minor works.

- Ensure waste disposal management system and consider disinfection with water if an urban area becomes high risk to reduce infection.
- Pit latrines were used for waste from infectious patients. This is kept separate from drinking water and sources where people could get into contact from water like rivers, lakes and ground water sources.
- Understand the role of migration in trade, role guest-workers, movement at border areas and so on and ensure that sanitation is understood in that context like planning for increases or decreases of needs of sanitation.
- Consider hiring and training of sanitation workers, outreach workers and making soap/bleach/chlorine more readily available and free. Do ensure messaging is clear to prevent other health issues from occurring through the use of such harsh chemicals.
- Consider how water that has been used will be disposed of? What considerations need to be in place to protect groundwater?

Hygiene

- Clear, socio-culturally sensitive and accessible community messaging crafted by communities themselves which used social media, television, phones and outreach workers so that everyone was informed. This included all sectors of society, ages, genders, disabilities, languages and faiths and was tailored to them. If the government is not trusted, in addition, use trusted figures and work with them to relate hygiene messages in a way that people understand. For example, faith leaders encouraged Muslims to continue prayers and washing practices at home and prayers could be heard through loud speakers from the mosques, television, radios and so on.
- Physical distancing measures that included how people eat out (e.g. together in groups in close proximity) and in (e.g. rice from the same bowl), kinship networks (large extended families that could be polygamous), leisure activities, transport, formal and informal employment, religious and other social activities where people are in close proximity to each other.
- Think about public health messages around hygiene that do not contribute to stigma, fear, violence or make certain sectors of the population more vulnerable than they already are. Equity and socio-cultural sensitivity are needed in explaining why certain people may be at risk, what quarantining is and when people should absolutely go to a hospital. Think about messaging after people leave hospital too and let the general public know when it is safe to come into contact with people who have recovered.
- Ensure people understand how to keep safe if they have caring responsibilities for children, elderly people or those who may be disabled or ill. This is predominantly the female gender and inclusive of children. They will need careful social messaging about this role, how to protect themselves and encouragement to go to hospital or bring people to hospital if they fall ill. Consider the impact of poverty and power on ability to pay for transport to health facilities and ensure that health outreach teams go to people in slums or rural areas. Ensure there is a clear gender-sensitive message about how caretakers can access hygiene resources and keep themselves safe, or ensure regular outreach through health and social care teams. Ensure messaging is

inclusive of disability organisations and persons with disabilities to ensure accessibility and inclusion.

- While families do not have access to a patient when they are ill – think of ways of keeping them informed and allow them a way to say good-bye if their relative is dying. Burial teams took over burial practices to reduce contact with dead bodies that can still be infectious but they worked with local communities to ensure dignified burial rituals. Do include social distancing measures but allow loved ones to pay their respects, inform people their loved ones will be treated with dignity, keep a record of where they will be buried and allow relatives to undertake important rites such as prayers from a safe distance. Do ensure that burial workers do not experience stigma by giving a clear explanation of how important their work is and how they keep themselves safe from infection.
- Consider the need for resources for hygiene measures and plan ahead in terms of for example, PPE in hospitals or gloves for sanitation workers. Consider preparedness for key workers, people who may be at risk and industries that need to keep functioning during an epidemic and ensure prioritisation of PPE to those services and sectors.

Future preparedness

As the COVID-19 pandemic spreads to the Global South, infection control measures have to be put in place and WASH will become an important aspect of pandemic preparedness. We have past resources available, that we can learn from and adapt, to implement in areas where we expect public health responses to COVID-19 be challenging. The planning for adequate WASH and short, medium and long-term use are critical, as well as investigations of what other alternative technologies could be used. Simultaneously, there is a greater need for developing emergency responses through capacity building, so that coordinated intervention decisions can be taken effectively at the right time. Pandemics such as COVID-19 reinforce the agenda for intensification of efforts towards reaching the critical United Nations (UN) Sustainable Development Goals (SDG) targets related to WASH. This will enable low-income and fragile countries to face such challenges more effectively and ensure populations can also access a better quality of life post-pandemic.

References

Carter, S. E., Dietrich, L. M., & Minor, O. M. (2017). Mainstreaming gender in WASH: lessons learned from Oxfam's experience of Ebola. *Gender & Development*, *25*(2), 205-220.

Czerniewska, A., & White, S. (2020). Hygiene programming during outbreaks: a qualitative case study of the humanitarian response during the Ebola outbreak in Liberia. *BMC public health*, *20*(1), 154.

Mallow, M., Gary, L., Jeng, T., Bongomin Jr, B., Aschkenasy, M. T., Wallis, P., ... & Levine, A. C. (2018). WASH activities at two Ebola treatment units in Sierra Leone. *PloS one*, *13*(5).

Niederberger, E., Ferron, S., & O'Reilly, M. (2016). Guide to Community Engagement in WaSH: A practitioners' guide, based on lessons from Ebola. OXFAM.

Richards, P., Amara, J., Ferme, M. C., Kamara, P., Mokuwa, E., Sheriff, A. I., ... & Voors, M. (2015). Social pathways for Ebola virus disease in rural Sierra Leone, and some implications for containment. *PLoS neglected tropical diseases*, *9*(4).

World Health Organization (WHO) (2020a). *Water, sanitation, hygiene and waste management for COVID-19: technical brief, 03 March 2020* (No. WHO/2019-NcOV/IPC_WASH/2020.1). World Health Organization.

World Health Organization (WHO) (2020b). *Getting your workplace ready for COVID-19: How COVID-19 spreads, 19 March 2020* (No. WHO/2019-nCov/workplace/2020.2). Geneva: WHO.

World Health Organization (WHO) (2018) *Guidelines on Sanitation and Health*. Geneva: WHO.