

IFMSA Policy Document

Water, Sanitation and Hygiene

Proposed by Team of Officials

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Policy Statement

Introduction:

Efficient and available access to safe water, sanitation and hygiene is so vital for human health that it is considered a human right. WASH is not only a prerequisite of better health, but its effects also contribute to social wellbeing, environmental health, and even education. Demands for WASH are increasing as it occupied the sixth SDG (SDG6: safe water and sanitation) whose ultimate goal is to ensure availability of sanitary water and hygiene measures to all populations. Until now nearly two billion people live without safely managed water and unless several multisectoral efforts are adopted, this number will increase leading to more devastating effects in a vicious cycle with many factors like poverty, low education, gender inequality, and health status. Thus, different efforts and milestones must be taken towards the ultimate goal of the SDG6 to ensure better health for all.

IFMSA position:

The IFMSA calls for urgent action and mobilisation of resources towards solving the global WASH challenge alongside the inequalities stemming from it. The role of WASH in global health is significant, therefore addressing the existing needs is a pressing issue that needs attention from communities and institutions all around the globe. We believe in the intersection of WASH and health, and as an organisation representing medical students from all around the world, we need to dedicate our efforts towards reducing the disparities in our scope.

Call to Action:

Therefore, the IFMSA calls for:

Governments

- Develop the infrastructure for the sustainable implementation of WASH measures including but not limited to the presence of constructed and improved water systems.
- Support and allow multisectoral collaboration to design and develop effective WASH mechanisms
- Develop WASH monitoring and evaluation mechanisms

Relevant UN agencies

- Mobilize Resources for the provision of technical and financial support to strengthen infrastructure related to WASH in all countries
- Maintain assistance for advocacy efforts that effectively contribute to WASH services
- Offer capacity building opportunities to train current and future healthcare workers on adapting to health challenges imposed by lack of WASH.
- Develop innovative policies that guide professionals around the world towards an inclusive agenda that diminishes inequalities.
- Support local, national, regional and international impactful initiatives which advance access to WASH alongside the implementation of thorough research and data collection to provide them with the adequate resources.
- Provide technical support towards the implementation of decisions and recommendations in the latest UN water conference

Private Sector:

- Provide technical and financial support to projects working on providing needed facilities and infrastructure in regard to WASH
- Implement effective WASH strategies in their organisations, sectors and institutions.

Non-governmental organizations

- Boost communal efforts through raising social awareness and solidifying societal solidarity on the right of access to WASH
- Ensure human and financial resources are mobilized towards finding inventive low-cost solutions according to the needs of their communities in regard to the access to WASH
- Collaborate with governmental bodies to develop efficacious strategies that provide WASH for marginalised residents.
- Establish platforms for knowledge and experience sharing on communal sanitation and water facilities.
- Initiate campaigns that raise awareness about WASH to help address the problem as societal issue tackling households all over the globe
- Provide an assistance to the government through conducting WASH-related situational analyses and needs assessments on the community level

Healthcare facilities:

- Ensure WASH policies are established and implemented inside the healthcare facilities
- Ensure proper public knowledge about WASH related communicable and noncommunicable diseases that prevail in each region and how to avoid them.
- Establish and monitor training programs for health care providers to increase their knowledge and practice capacity on WASH
- Maintain regular fund for monitoring and development of WASH services in healthcare facilities.

Universities and educational institutions:

- Include WASH modules including but not limited to basic and advanced hygiene measures, WASH and health effects, proper use of water in WASH measures, and menstrual hygiene in curricula.
- Encourage research initiatives about WASH and its effect and support evidence generation
- Ensure that WASH infrastructure and services are well developed in all universities, schools and educational institutions
- Introduce WASH practices in medical interventions in the medical curriculum and to highlight it in postgraduate training and education

IFMSA national member organizations and medical students:

- Coordinate different campaigns and projects regarding WASH to increase target audience's awareness with the focus on including but not limited to public health, mental health, social wellbeing, and education effects
- Develop the capacity of the IFMSA members on WASH and the possible advocacy tools to ensure efficient use of such tools to promote the WASH practices.
- Celebrate international Days related to WASH concept (ex: Water Day, Hand washing day, Hygiene Day) through a series of activities and campaigns

Position Paper

Background information:

Access to safe water, sanitation and hygiene is a global health issue affecting individuals all around the globe. 2.2 billion people worldwide still suffer from lack of access to drinking water, and around half of the population do not have safe sanitation within their reach. These are alarming numbers, indicating a worldwide crisis affecting a basic human right, the human right to water and sanitation. In accordance with SDG 6, Clean Water and Sanitation, ensuring availability and management of water and sanitation for communities around the world has become a priority as part of the 2030 Global Agenda. Further steps need to be taken from influential stakeholders to reach the set targets, as the barriers are numerous and the damage is already felt across multiple sectors such as for example that in 2020, around 25% of people lacked safely managed drinking water in their homes and nearly 50% of the world's population lacked safely managed sanitation. [1] This threatens the lives of billions around the world in a considerable manner, as their quality of life is massively affected. What may be considered a simple task in the life of many, is turned into an everyday challenge putting their well-being and health at risk. (2)

Adequate hygiene and sanitation are essential for the maintenance of providing proper healthcare and the sustenance of efficient health interventions. It is estimated that access to WASH has the potential to reduce global disease burden by 10%. (3) This highlights how efforts made to reduce WASH disparities are also efforts towards providing equitable healthcare for all. The impact of WASH on key health and social outcomes is non-negligible: increased spread of infectious diseases, aggravation of diarrheal illnesses, nutritional scarcity, intensification of neglected tropical diseases and higher rates of mother and infant mortality. According to a study conducted by the World Bank in 2016, hygiene promotion is identified as the most cost-effective health intervention. Intersection between health and WASH is prominent, and the fundamentality of competent infrastructure and facilities to deliver satisfactory healthcare is indispensable. [4]

Discussion:

1. Introduction to WASH

Water, sanitation, and hygiene (WASH) are essential for human health, well-being, and the prevention and control of infectious diseases. Safe and sufficient WASH is a prerequisite for health and contributes to livelihoods, school attendance, and dignity, helping to create resilient communities living in healthy environments. (5)

WASH services play a crucial role in the prevention and control of infectious diseases, such as cholera, Ebola, and COVID-19. Adequate sanitation is essential for childhood survival and development, improving children's education, increasing productivity, and building resilience in the face of disease and disaster. WASH in health-care facilities helps reduce the risk of infection and improves prevention and control during outbreaks like cholera, Ebola, COVID-19, and other infectious diseases. (6)

Evidence suggests that improving service levels towards safely managed drinking water or sanitation can dramatically improve health by reducing diarrheal disease deaths. (5) For example, during the COVID-19 pandemic, safely managed WASH services and good hygiene practices have served as barriers to human-to-human transmission of the virus in homes, communities, health care facilities, schools, and other public spaces. (7) However, poor WASH conditions still account for 842,000 diarrheal deaths every year and constrain effective prevention and management of other diseases, including malnutrition, neglected tropical diseases (NTDs), and cholera. (5)

Access to safe water, hygiene, and sanitation is an absolute human right to maintain human dignity and prosperity. WASH is a critical step towards achieving other human rights as stated in Article I.1 that "The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights". The duty-bearers in all countries should ensure that a human rights-based approach (HRBA) is taken into consideration while working on Water, Hygiene, and sanitation services to ensure that everyone can access enough, safe, physically accessible, and affordable water for personal and work use, in addition to ensuring that everyone can reach safe, hygienic, secure, and socially and culturally acceptable sanitation in all aspects of their life. (8,9)

2. Impact of WASH on health

Good hygiene is essential in breaking the infectious cycle of infectious diseases that leads to more healthy lives. Lack of appropriate WASH facilitations lead to the death of over 700 children under 5 years everyday of diarrheal diseases, in addition to becoming nearly 20 times more likely to die of these diseases than to die of conflict itself in areas of conflict. An essential aspect in preventing infectious disease spread is maintaining WASH in health care facilities and improving prevention and control. This is crucial especially in outbreaks like Ebola, cholera, COVID-19, and other infectious diseases. However, in terms of healthcare facilities, still 1 in 4 of them lack basic water services. (10)

The same applies for tropical diseases, where better hygiene and sanitation is associated with lower percentage of infections such as trachomatous infection. Many tropical infections spread by shedding the eggs through urine and faeces into the water, which is further used by people in unsanitary ways, thus there is a strong linkage between tropical infectious diseases and sanitation and hygiene measures. However, still 2 billion people lack access to safe and sanitary drinking water in their home and 3.6 billion people don't have access to sanitation measures in their home, while people who practise basic sanitation are 1.9 billion and people who practise open defecation reach 494 million. (11)

Sanitation effects on health also extend to include non-communicable diseases. Some water transmitted helminth and parasites cause certain types of cancer like liver and colon cancer in their late stages. In addition to cancer, these organisms can also cause diabetes, portal hypertension, cardiomyopathy, kidney diseases, and asthma. These organisms include *Toxocara*, *Schistosoma*, and *Trypanosoma cruzi*. (12)

Some NCDs like cancer and skin diseases are also caused by the high arsenic levels in unsanitary water and it's estimated to affect 226 million people in more than 100 countries. In addition, inadequate WASH can also impact mental health. The struggle of finding a source of sanitary water, the process of traveling for water, and the infectious diseases that result from polluted water all develop a state of stressed mental status. Also, deaths resulting from these infections, or any consequences of inadequate WASH contribute to developing a threatened mental health status. These stressful events can eventually end up causing mental health disorders like anxiety, depression, and post-traumatic stress syndrome. (13)

Moreover, WASH can also impact social well-being as it is fundamental to improve people's standards of living. These standards include, better physical health, environment protection, better education, saving time, dignity, and equity. Lower access to WASH and poor measures are associated with poor and vulnerable populations. Thus, improving WASH is essential to reduce poverty, and support social wellbeing. (14) Also, the effect of sanitation and hygiene lack can extend to affect prosperity and sustainable development. Examples include student girls facing threatened education due to lack of access to private and decent sanitation infrastructure in their educational facilities, where for example between 15% and 25% of girls in West Africa missed school due to menstruation in 2018 and 2019, in absence of adequate

and proper sanitation infrastructure in their schools. Furthermore, for adults and workers, illness due to sanitation deficiency may lead them to miss their work and eventually lead them to financial peril, all which can lead to overwhelming health systems and fall in the productivity levels which affect the entire economics of a country. (11).

3. Relevance to Public Health

Water, sanitation, and hygiene (WASH) are essential elements for public health. Access to clean water, basic toilets, and good hygiene practices are fundamental rights that contribute to the well-being of individuals and communities. However, there are still significant challenges in achieving universal access to WASH services worldwide, where still 2.2 billion people lack access to safe drinking water globally, more than half of the global population does not have access to safe sanitation and three billion people do not have access to handwashing facilities with soap. (6)

In detail,

- **Water:** Access to clean water is crucial for maintaining health, nutrition, education, and overall well-being. Lack of clean water can lead to various waterborne diseases and have a significant impact on children's lives.
- **Sanitation:** Adequate sanitation is essential for childhood survival and development. It improves children's education, increases productivity, and builds resilience in the face of disease and disaster. Lack of proper sanitation facilities can lead to the spread of diseases and have severe consequences for public health.
- **Hygiene:** Good hygiene practices, such as handwashing, are vital for preventing the spread of infectious diseases and maintaining overall health. Hygiene promotion is a cost-effective health intervention that can save lives and reduce the disease burden. (6)

In addition, during emergencies, such as natural disasters or conflicts, ensuring WASH services is crucial to prevent public health emergencies. Adequate WASH services must be prepared to support affected communities and reduce the risk of disease outbreaks and in order to make WASH systems sustainable, resilient, and accountable, it is essential to have strong national policies, financial systems, and monitoring mechanisms. These measures contribute to the long-term improvement of WASH services. (6)

It is important to note that achieving universal access to safe drinking water, sanitation, and hygiene is a complex task that requires collaboration between governments, organisations, and communities. It involves addressing various challenges such as infrastructure development, policy implementation, behaviour change, and financial sustainability. (15)

4. WASH at community level

Water, sanitation, and hygiene (WASH) at the community level are essential for improving the overall well-being and health of individuals and communities. Safe drinking water, proper sanitation facilities, and good hygiene practices are crucial for preventing diseases, improving living standards, promoting equality, and supporting socio economic development. (5)

To understand the status of WASH services, it is important to distinguish between different levels of service access and population practices. The UN has established indicators to monitor the progress of WASH targets. For drinking water, the focus is on safely managed drinking water services, which means having access to an improved drinking water source that is located on the premises, available when needed, and free of fecal and chemical contamination. For sanitation, the focus is on safely managed sanitation services, which includes safe onsite isolation, extraction, conveyance, treatment, and disposal or reuse of human waste. Additionally, having a handwashing facility with soap and water is also considered

a key aspect of safely managed sanitation services. (5,14)

There are several approaches and interventions that can be implemented to improve WASH at the community level. Some examples include Community-Led Total Sanitation (CLTS) which is an approach that focuses on community empowerment and behaviour change. It aims to create an open defecation-free community by triggering a collective sense of stigma about open defecation. This approach relies on community members to take collective action to build and use toilets. It emphasises the importance of community ownership and sustainability. Another example is the Results-Based Approaches such as output-based aid (OBA), results-based financing (RBF), pay-for-performance (P4P), program for results (PforR), and conditional cash transfer (CCT), link financial incentives to achieving specific outcomes. These approaches provide incentives for service providers and communities to improve access to and use of WASH services. However, they also have limitations and challenges, such as the need for robust monitoring and evaluation systems and potential unintended consequences. Last but not least, institutional settings, such as schools, health facilities, prisons, refugee camps, and public markets, play a crucial role in WASH. Poor management of water and sanitation in these settings can pose high risks and lead to higher rates of diarrheal disease and gastrointestinal infections. Improving access to improved drinking water and sanitation facilities, as well as promoting proper hand hygiene, is particularly important in institutional settings. (14)

Implementing WASH interventions at the community level requires collaboration and coordination among various stakeholders, including governments, non-governmental organisations, community leaders, and individuals. It is important to consider the specific context, cultural norms, and social dynamics of the community when designing and implementing interventions. Additionally, monitoring, evaluation, and continuous learning are essential for ensuring the effectiveness and sustainability of WASH interventions. (14,16)

Active participation, inclusion, and education of communities, as well as community-level initiatives, are the cornerstone of establishing healthy hygiene and sanitation practices and ensuring access to safe water, as communities have different needs based on cultural, geographical, and other social determinants. Interventions to improve access to safe water and sanitation should be cross-cutting and take these factors into consideration at a community level. Multi-disciplinary approaches that transverse the community, and promote ownership, awareness, and active participation in the maintenance of these approaches for WASH should be developed. Unilateral decisions taken at a central or national level may fail to impact certain communities if there is a lack of knowledge, participation, or enthusiasm; or if these decisions fail to address the unique needs and settings of different communities. (17)

A community approach must be ensured in all education and awareness efforts made to promote WASH. Beyond community-level interventions, promoting community-led initiatives have proven to be effective in several countries. This could include working with community leaders and representatives. Collaborating with communities in the design and programs of interventions can promote wider acceptance. It is equally important to use resources (both, human resources and others) in the community to drive positive change. For example, within sanitation and good hygiene practices, the women of the community can play an important role in furthering awareness and implementation. (18)

5. WASH at health facilities level

Water, sanitation, and hygiene (WASH) services are crucial for healthcare facilities to provide quality care and prevent the spread of infections. However, many health care facilities around the world lack basic WASH services, which puts patients, healthcare workers, and the wider community at risk. According to the WHO/UNICEF JMP report, about 1 in 8 health care facilities globally has no water service, and 1 in 5 has no sanitation service. This means that close to 900 million people lack access to water in health care

facilities, and more than 1.5 billion people lack access to sanitation facilities. Additionally, many health centres lack basic facilities for hand hygiene and safe disposal of healthcare waste. (19)

The availability of clean water in health facilities is critical for providing quality healthcare. Safe water is needed for various purposes such as drinking, cooking, hand hygiene, cleaning rooms and equipment, and laundry. Without water, a healthcare facility cannot function properly. However, around 1 in 4 health care facilities do not have basic water services, impacting around 2 billion people. Furthermore, 1 in 8 health care facilities have no water service at all, impacting around 894 million people. (19)

Proper sanitation, including toilets and waste disposal, is essential in health care facilities to prevent the spread of diseases. Sanitation services in health care facilities improve the health, welfare, and dignity of patients and staff. However, around 1 in 5 health care facilities lack a sanitation service, meaning that 1.5 billion people are going to health centres without access to toilets. Inadequate sanitation can lead to the spread of diseases instead of preventing them. Proper management of excreta is particularly important to ensure that faecal pathogens do not contaminate the health care facility environment or surrounding areas. (19)

Hand hygiene is a crucial aspect of infection prevention and control in health care facilities. Effective hand hygiene helps reduce the spread of healthcare-associated infections and antimicrobial resistance. Healthcare workers are the primary target for hand hygiene improvement, but visitors to health care facilities can also spread pathogens on their hands. It is important for health care facilities to provide handwashing facilities with soap and water at toilets used by patients and other visitors. However, globally, 1 out of 6 health care facilities lack hand hygiene facilities and soap and water at toilets. (19)

Infectious and hazardous waste in health care facilities must be managed appropriately to prevent unsafe exposure to healthcare workers, patients, visitors, waste handlers, and the public. About 85% of waste produced in health care facilities is not hazardous and can be disposed of along with general solid waste. However, the remaining 15% is infectious, chemically hazardous, or radioactive and requires special management to prevent injuries and infections. Used needles and other sharp materials are considered the most hazardous category of health care waste. (19)

To improve WASH services in health care facilities, global efforts are being made to attain universal basic WASH coverage by 2030. The World Health Organisation (WHO), UNICEF, and the global WASH sector are working together to address the gaps in water, sanitation, and hygiene in health care facilities. Achieving universal basic WASH coverage will contribute to public health development goals and reduce the risks of preventable infections among health care facility staff, patients, and the wider community. (20)

6. Disparities and vulnerabilities in relation to WASH

Access to safe water, sanitation and hygiene is essential for human health, hence the consensus for global action on reducing disparities has grown over the past years. Inequalities in WASH are present in most countries of the world which leads to growing challenges and complications felt by various communities around the globe. (21) Notable disparities in socio-economic level and characteristics are linked to differences in WASH quality. The burden is increased for historically marginalised groups, such as women, indigenous peoples, and people with disabilities. This burden poses a grave threat to fundamental health and threatens access to healthcare. (22)

6.1 Refugees and Migrants

Across refugee locations and across nations, there are significant disparities in WASH access indicators across all measures. (23) All refugee camps might benefit from better access to menstrual health supplies, basic sanitation, and sanitation privacy. Accessing services for WASH is difficult for many refugees. However, there is little information available on WASH availability for populations of refugees, especially menstrual health care. Therefore, the true consequences of the discrepancies might be

concealed, increasing the risk of sickness and death for refugee communities who are already at risk. (24)

6.2 Disabilities

It is estimated that around 1.3 billion people around the globe are subject to significant disability, which counts for 16% of the population. (25) This number is increasing by the day due to the health inequities faced by disabled people, from structural factors to higher risk of disease incidence, they face unjust conditions that arise from non-inclusive methods adapted to face health challenges. People with disabilities are more likely to suffer from lack of WASH due to disability discrimination and the clear gap in assistive technologies, which causes them further health complications, hence amplifying their disability. (26) The adoption of inclusive WASH methods is much needed within the global context to solve the existent health disparities. This can only be done through engagement of disabled individuals in decision-making while providing adequate information, raising awareness to tackle the stigma they face, effectively working on the accessibility of WASH facilities and their inclusion in WASH related policies and documents. (27)

6.3 Age

In 2019, there were around 703 million individuals aged 65 years or over in the world, with this number expected to rise to 1.5 billion in 2050.(28) Ageing is associated with an increase in health complications and age is considered to be the most important social determinant of health, which reflects its importance on access to WASH.(29) Due to a multitude of health-related needs like nutrition, mental health, communicable and non-communicable diseases, the elderly face more barriers and therefore are in need of more adaptable facilities. Their inclusion in WASH programmes is essential to develop holistic facilities that are considerate of the needs of the community and implementation must be mindful of the disparities they face. (30)

6.4 Income

Despite a relative increase in access to WASH in LMIC from 2000 to 2017, these countries have the highest numbers of individuals with no access to basic sanitation services. (31) The poor, whether in rural or urban areas, are more likely to suffer from the consequences of poor WASH facilities and the impact of the inequalities. The widest gaps between basic and safely managed sanitation services for urban populations were observed in regions that are associated with lower levels of income, like Latin America and North Africa. (32) The effect of socio- economic status on WASH is quite evident, with notable differences in levels of safe sanitation specifically in slums, where 42% of the urban population in developing countries reside. (33,34)

6.5 Gender

Women and girls are more likely to be affected by lack of WASH services and experience an increased risk of violence: sexual, psychosocial and sociocultural. In less developed countries, women and children are responsible for water fetching which puts them at a higher risk of health complications due to the hardship of the task or by the spread of water contact diseases. (35)

WASH is essential to tackling menstrual poverty caused by lack of access to sanitary products, WASH facilities, dignity and education about menstruation. Menstruation comes with a multitude of challenges: the expense of sanitary products; lack of/dirty water for bathing and washing of menstrual materials; inadequate waste disposal facilities; lack of access to underwear and lack of privacy for changing menstrual materials. Inadequate WASH facilities at school also contribute to school absenteeism. (36)

Those who do not conform to a fixed gender may experience violence and abuse when using gender segregated WASH facilities especially in shared facilities. This could result in increased stress and anxiety and could result in leaving school or place of work. LGBTQIA+ individuals are particularly at risk in emergency situations such as conflict or natural disaster, when WASH sources are scarce as they are often

overlooked due to the lack of intersectionality in initiatives. (37)

7. Role of Youth and medical students in ensuring access to WASH

The role of youth and medical students in ensuring access to safe water, sanitation, and hygiene (WASH) is significant. For example, youth and medical students can act as advocates for WASH issues, educating their peers, families, and communities about the importance of safe water, sanitation, and hygiene practices. They can organise events, workshops, and campaigns to raise awareness on WASH-related issues and the need for improved access to these services. In addition, young people can play a crucial role in changing attitudes and behaviours towards WASH. They can lead by example, practising safe hygiene habits such as handwashing with soap and water, using clean toilets, and promoting waste management practices. By demonstrating these behaviours, they can inspire others to follow suit. Moreover, youth and medical students can volunteer or intern with organisations working on WASH projects, such as UNICEF, WHO, or local NGOs. They can contribute their skills and knowledge to support WASH initiatives, such as constructing and maintaining water and sanitation facilities, providing education and training on hygiene practices, and participating in research and policy development related to WASH. Last but not least, young people can also help monitor and report on the status of WASH services in their communities, schools, and healthcare facilities. They can collect data, analyze trends, and identify gaps in access to WASH services, which can be used to inform decision-making and improve WASH provision, where they can engage in advocacy efforts to influence policymaking related to WASH. They can lobby for increased investments in WASH infrastructure, education, and research, as well as for the inclusion of WASH in school curricula and healthcare programs. (38).

Starting off awareness and education about WASH from an early age creates generations that are aware of the limitations around them so they can become change leaders within their communities. Meaningful youth engagement is key to solving WASH disparities, as it helps maintain the stream of innovative solutions, helps keep implementation up-to-date and aids them in building the future they want for themselves. (39)

8. WASH in medical curriculum

Incorporating water, sanitation, and hygiene (WASH) into medical curricula is crucial for promoting public health and preventing the spread of diseases, as medical professionals need to be equipped with the knowledge and skills to address WASH-related issues in various settings, including health care facilities, schools, and communities. Examples include incorporating WASH concepts into foundational courses that cover public health, epidemiology, and environmental health, which can help students understand the importance of WASH in maintaining health and preventing disease transmission, in addition to providing elective courses that specifically address WASH topics, such as water and sanitation, hygiene behavior, and infectious disease control that can help students gain in-depth knowledge of WASH-related issues and their impact on public health. In addition, it is important to encourage students to engage in WASH-related research and practicum projects both domestically and internationally, which would help apply various methodological disciplines and methods to address WASH issues in real-world contexts. (40)

In addition, it is crucial to train students on the importance of basic water services, sanitation, and hygiene in health care facilities to provide safe and quality care. This can help them understand the role of WASH in preventing health care-associated infections and antimicrobial resistance. (19) Also, it is important to teach students about the role of WASH in preventing and protecting human health during infectious disease outbreaks, including COVID-19. This can help them understand the importance of investing in core public health infrastructure, including water and sanitation systems, to mitigate the spread of diseases. (7)

9. WASH and Post-Pandemic Recovery

The COVID-19 pandemic has put a new spotlight on ensuring access to safe water, sanitation and hygiene. During the pandemic, it was clear that access to safe water and good hygiene and sanitation practices are an integral part of prevention of the COVID-19 infection. (7) At the same time, the economic destruction caused by the pandemic threatened the availability of safe water for several geographic regions and communities. Establishing safe WASH services as a major control measure for the pandemic proved a challenge for several LMICs. (41)

The pandemic has highlighted how crucial it is to establish and maintain access to safe WASH services, not only to mitigate spread of infections during pandemics and health emergencies, but also to ensure that such outbreaks don't occur in the first place. Furthermore, the COVID-19 pandemic has had a significant effect on the ongoing efforts for providing safe WASH. Due to economic disruptions, several efforts have staggered. In LMICs, it was estimated that 0.13% to 1% of the gross regional product (GRP) would be needed to achieve SDG 6 targets of universal access to WASH service by 2020. (42) This is significantly disrupted due to the pandemic requiring large, sudden funds. The finances being diverted due to the pandemic, away from efforts for safe WASH services by both governments and other organisations, must be recuperated to ensure the efforts are on track. This is especially required for countries with vulnerable populations and humanitarian crises. (43)

Water, sanitation, and hygiene (WASH) are crucial aspects of public health, especially during infectious disease outbreaks like the COVID-19 pandemic. Investing in WASH infrastructure, including water and sanitation systems, is a cost-effective strategy for increasing pandemic preparedness, particularly in resource-constrained settings. During the pandemic, good WASH practices serve as barriers to human-to-human transmission of the virus in various settings such as homes, communities, healthcare facilities, schools, and public spaces. Frequent and proper hand hygiene is one of the most important measures to prevent infection with the COVID-19 virus. In terms of post pandemic recovery, safely managed WASH services are critical during the recovery phase of a disease outbreak to mitigate secondary impacts on community livelihoods and wellbeing. Disruptions to supply chains, inability to pay bills, and panic-buying can negatively impact the continuity and quality of water and sanitation services. Additionally, affected households may struggle to access and pay for WASH services and products, and schools and workplaces may face challenges in maintaining effective hygiene protocols. In addition, safely managing WASH services and promoting good hygiene practices not only prevent the spread of COVID-19 but also help prevent other infectious diseases that cause millions of deaths each year. (7)

In the context of post-pandemic recovery, it is essential to prioritise water, sanitation, and hygiene for several reasons. Firstly, access to clean water and proper sanitation in healthcare facilities is crucial for infection prevention and control. Globally, one in four healthcare facilities does not have clean water on site, and half of all hospitals and clinics in the poorest countries lack clean water. Ensuring that every healthcare facility has clean water and the ability to maintain hygiene practices is essential for robust pandemic preparedness and response. (44) Secondly, investing in WASH infrastructure and promoting good hygiene practices can help reduce the risk of infectious diseases, not only during the current pandemic but also in future outbreaks. Access to clean water, proper sanitation, and handwashing facilities are fundamental for preventing the spread of diseases and protecting public health. (45)

Last but not least, in order to achieve universal access to water, sanitation, and hygiene, debt relief and new funding are necessary. Several advocates have mentioned that G20 leaders have the opportunity to

make a difference by committing to comprehensive debt relief and providing new funding for WASH services in the poorest countries, where an investment of \$1.2 billion would be enough to ensure that every healthcare facility in these countries has the necessary water and sanitation facilities. Such figure has been a highlighted figure in the call to action from Global WaterAid to the G7 and G20 leaders, in order to start the universal access to WASH in healthcare facilities in least developed countries (LDCs). In addition, investing in WASH services has long-term economic benefits. According to the World Health organisation, such an investment would take just one year to pay for itself and produce savings for every dollar invested thereafter. It also helps limit the growing threat of antimicrobial resistance and prevents millions of avoidable deaths through infections and diseases. (44)(46) On the other hand, for example, according to the UN World Water Development Report 2021, it is estimated that in order to achieve universal access to safe drinking water and sanitation in 140 low- and middle-income countries, this would cost about USD 114 billion on annual basis. These different figures show different amounts of investment, but still highlighting the absolute importance of ensuring adequate financing for WASH. (47)

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