## EPISODE 29. DON'T WASH AWAY HYGIENE FOR HEALTH

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Garry Aslanyan [00:00:08] Hello and welcome to the Global Health Matters Podcast. I'm your host, Garry Aslanyan. In this episode, we will be exploring the topic of water, sanitation and hygiene. In this day and age, where we have more technological and scientific advances than ever before, there are still 1.8 billion people globally who do not have the basic luxury of running water at home. In addition, 3.4 billion people do not have access to sanitation. Not only are households affected, but so are health facilities. The lack of safe water and sanitation leads to the transmission of disease and the increase of antimicrobial resistance. In this episode, my guests and I will examine the health, economic and social impact of inadequate water, sanitation and hygiene. For this discussion, I'm joined by Annie Msosa, the advocacy advisor for WaterAid in Malawi. I'm also joined by David Wheeler, the executive director of the Reckitt Global Hygiene Institute in the United States. Hi, David. Hello, Annie. Welcome to the show.

**David Wheeler** [00:01:37] Hello, Garry. Great to be here.

Annie Msosa [00:01:39] Hello, Garry. Thank you for having us.

**Garry Aslanyan** [00:01:42] Okay, let's get started. I'm going to start by mentioning that I'll be using the term WASH when I refer to water, sanitation and hygiene. And this term is an umbrella term that covers many public health issues. So, Annie I'm going to start with you. You are based in Malawi, but you are also very active in global advocacy. How is WASH perceived as a health issue, both locally and internationally?

Annie Msosa [00:02:07] So what you see is generally you see that there is an acknowledgment that WASH is important and that it impacts on people's health. So when you look at issues to do with infections, even looking at, for example, during COVID-19 when we were all talking about washing hands. So there's that acknowledgment. And if you look at a lot of health strategies and documents, this is something that you will see mentioned as important for health. However, where you see gaps when it now comes to providing the financing to make the services available, that's where the biggest gap is, both locally and internationally.

**Garry Aslanyan** [00:02:50] You really painted a picture of the actual effects that are very powerful. David, a recent UNICEF-WHO report highlighted the need for a 3-6-fold increase in the current rates of progress if the SDG targets are to be achieved by 2030. What are the areas that need the most attention?

David Wheeler [00:03:12] What is an incredibly challenging area to work in, not the least of which reason is that hygiene is so difficult to build on and to create new habits and new behaviours. Hygiene is obviously a critical foundation for health. It promotes growth and wellbeing, it significantly reduces the economic, societal and personal cost of illness. However, RGHI has really invested in enhancing the research opportunities available in this space because we feel like the path through hygiene is the path to building better economic investment cases and building better measures of results for the investments in water, sanitation and then the hygiene programmes that then deliver on the promise of having access to water and sanitation.

**Garry Aslanyan** [00:04:06] And Annie, in Malawi, how are the health of communities affected due to the inadequate WASH? Do you have some stories you can share from your own experiences?

Annie Msosa [00:04:17] Sure. I can speak to specific examples earlier this year, and some of you might have already heard, Malawi was struggling for many months with cholera. I live in a village, and there was a space of three weeks where almost every day there was a funeral of somebody who had died from cholera. And the basic issue was not having access to safe water, communities not having the information that they need in terms of how they should take care of that water and also, later on it became an issue of access to cholera vaccines as well, because there wasn't enough of it to be able to deliver to the communities and also to deliver it safely. And so you find that at household level, people die, children get diarrheal diseases and they are affected because if you have young children in the early years and they are getting diarrhoea because they are constantly eating food that is contaminated with faecal matter because they were not able to wash their hands with soap properly, their gut is affected. They cannot absorb the nutrients they need to absorb. So even if you give them all the nutritious food they need, their body will not be able to draw out the nutrients in the same manner as somebody who has not been affected in that way. I have visited health care facilities in Malawi where the toilet is full, where the water is not there all the time. And these are places where people come when they are sick. And they are coming there because it's meant to be a place of safety, but you find that the very places that are supposed to shelter them from disease become breeding grounds for disease and women are forced to go and do their business in the bush because the facilities are not available. And women will sometimes even delay coming to the health care facility to give birth because they do not want to subject themselves to this environment where there isn't adequate water, sanitation and hygiene. And all this has implications in terms of maternal mortality, in terms of infections that women get, the length of stay that people spend in hospitals. And when you're looking at all this, there's a lot of money that governments are spending in response to the effects of this lack of WASH and our health system is constantly overburdened with disease and failing to cope, and a lot of it is coming from communities not having access to water, sanitation and hygiene and then when they come to the health care facilities, they are not also assured of a safe environment where they can be treated and go back home without adding another disease to the disease that they had come with when they came to the health care facility.

**Garry Aslanyan** [00:06:50] Thanks for that, Annie, because you really painted a picture of the actual effects that was very powerful. David, from what we just heard, I also read that in a recent UNICEF-WHO report, highlighting the need for a 3-6-fold increase in progress if the WASH SDG targets are to be achieved by 2030. What are the areas that need to be having more action?

David Wheeler [00:07:19] I think the investments necessary to bring water, sanitation and hygiene up to slopes, and into a position where they can meet the SDG goals, is going to require a lot of investment across the board. One of the challenges is looking at how the investments improve people's wellbeing and looking at how best to solve the challenges and make sure we're investing in the next best investment in terms of moving from: we have clean water and then: Are we getting the clean water into the health care facilities? Are we getting clean water into the villages? And looking at how we're providing sanitation facilities, but then are those sanitation facilities being emptied? And this kind of comes under the category of systems strengthening and RGHI is working closely with a couple of teams to better understand what systems strengthening means to hygiene, but I think in general, systems strengthening is a focus and we need to understand how to create investments that make the whole system work so that the hygiene interventions that are working towards preventing mothers from transmitting diarrheal disease during weaning, which is a research project we're working on in Bangladesh, or we've funded in Bangladesh, we want all of those interventions to be able to work within a system that's supporting the local communities and supporting the health care facilities so that they can achieve the health outcomes and the promises of WASH investment.

**Garry Aslanyan** [00:08:58] Annie, what are your ideas about this in terms of how we can get to the targets we have?

Annie Msosa [00:09:04] It depends on how you're looking at the issue, because at the moment it can look like all this is taking a lot of money for us to get there, but then how much money are we losing right now because we're not taking any action. So I think that there is a need to look at this problem differently, and to be able to determine what is the investment that we need to make now that is going to save us a lot of lives, that is going to save us a lot of money that we are going to spend having to treat diseases that we would have prevented in the first place. So, for example, just looking at some of the problems like WASH in health care facilities. For countries that are most affected, that have low incomes, all that's needed is \$9.6 billion over the next eight years. Now, when you look at it, that's \$0.60 per person per year. And then when you look at the saving that that will bring; every dollar will bring back in terms of returns on investment of \$16. Now, if you look at that, and that's one of the strongest returns on investment on health and it has impact across so many different issues. So I think that there's also the need to look at this problem differently and look at what we're losing and therefore when we look at what needs to be spent, it will no longer look like a huge amount because we are already paying for the lack of WASH. We are already spending because of the lack of WASH, and it's just a question of us making the choice of what do we want to spend on? Do we want to spend on perpetually treating the symptoms of the lack of WASH, or do we want to invest in sustainable WASH that is going to make sure that those symptoms they go away forever and therefore we no longer have to continue spending? Whichever choice we make, we are spending, and we are spending a lot of money because of the lack of WASH, we just need to make a choice on which one is most important. And I would say let's spend on the prevention and that will help us to save in the longer term, both in terms of lives, but also economically. We can use that money to invest in other things that bring positive benefits to our lives.

**Garry Aslanyan** [00:11:20] So, just another highlight as well, and we'll come back to this financing issue shortly, Annie, but you already touched upon the gender aspect of WASH and the same report I just quoted says that seven out of ten girls are responsible for fetching water daily. What are the impacts of this inadequate drinking water and sanitation on women?

Annie Msosa [00:11:49] I would say this: the impacts are huge. Huge first in the sense of just the sheer millions, I think it's 77 million days that women are losing, just because of time spent going to fetch water. And it's girls and it's women and we have lived it. And in countries like Malawi, it's not even just girls, it's everyone. I have to go fetch water because my water supply is not always there. So just the sheer amount of time that is spent by women and girls is a huge impact on their livelihoods and also the free time for them to be productive and even their mental health as well. Now, I want to paint a picture of a pregnant woman. If there is no access to sanitation, she doesn't have access to a toilet, this can result in worm infestations and this will lead to anaemia while she is pregnant, and that will affect both her health but also the health of her unborn child. If she has to go for kilometres to go fetch water while she's pregnant, that has got a physical impact on her body. It can cause life threatening disabilities, it can cause spinal injuries, hernias, genital prolapse and it can also increase cases of spontaneous abortion to pregnant women. Let's also recognize that a lot of times it is people that are living in poverty that also do not have access to water, sanitation and hygiene, which means they are not just suffering from the lack of water, they also do not have adequate food, they also have other issues. And therefore, this woman who already does not have adequate nutrition, or is struggling to get that, has to spend a lot of energy walking, and therefore her health and the health of her child is also affected. And then if I go to the hospital, I already talked about what happens within that space. If I am giving birth, in some countries they will give women antibiotics before they are even sick because they are anticipating that they will get infections. And that is just a sign to show that there is a recognition that there is an issue, this is not a safe place and we need to make it safe, but the action is not happening. So that also has an effect,

even in terms of antibiotic resistance; you're prescribing antibiotics before people have even gotten sick, and that also affects the health of women. And the other side of this is also health care workers - nurses, midwives, our community health care workers - because these are at the frontline of the health service. Ninety percent (90%) of frontline health care workers are women. And what does this mean? It means that they are significantly exposed to this issue. They cannot do their job properly and it's a frustrating thing. It brings mental health issues because you want to help but people are dying because you did not have all the tools, basic tools that you need for you to deliver a quality service to your patients. I have visited health care facilities earlier this year in Ntchisi and I was talking to a nurse, and at this particular health care facility, WaterAid had provided some improvements in terms of water, sanitation and hygiene, but also done some behaviour change, promotion and training, and you could see the pride of the health care workers just for them to be able to say "this place is clean now". And the nurses were actually saying, "we no longer have sepsis cases here. The cases that are finding us are now coming from the community". And you could see the sheer sense of relief, and you can also see the impact that that must have had on their mental health when, instead of delivering safely, babies were getting sick because the situation was just not clean because there wasn't enough water, sanitation and hygiene, or the practices around infection prevention were not up to standard.

**Garry Aslanyan** [00:15:33] Thanks, Annie. David, I know you've mentioned some of the research that you've supported with the focus on the impact of WASH on women. Do you have an example of how some of the countries have dealt with this as well through your work?

David Wheeler [00:15:49] We've funded several research programmes that are really focused in on the impact of hygiene in women. The first one I mentioned earlier was this study that we funded in Bangladesh looking at women who are going through the weaning process, make porridge in the morning, and then teaching them that they need to reheat the porridge during the day so that it doesn't become contaminated with bacteria during the course of the day and then result in diarrheal disease infection in their children. During this really important time around weaning, we have work going on in Bangladesh and in several other countries in sub-Saharan Africa. We think it's really important to better understand the menstrual practices through the Menstrual Practices Needs Scale, which has been deployed by one of our fellows, Julie Hannigan, and using that data to then really understand both how we could improve those practices or bring better solutions to those populations and also understand its impacts on educational attainment, clinical wellbeing, mental health, and all the other ways that good hygiene practices can improve people's lives and the outcomes of populations. In addition, the challenges around birthing suites and cleanliness and hygiene, teaching that kind of habit and behaviour change, looking at those systems and making sure the nurses in those facilities are supported by all of the different elements that are necessary to maintain and codify those habits is something that we're really interested in, and we've built in significant waiting into our calls for research so that looking into women's health, looking into inequity gaps and better understanding how the systems are supporting good improvements and making sure those improvements in hygiene will last is something that's really important for us because we think it's the ability for a small group in Malawi that has a hygienic delivery room to then transfer those habits to other hospitals and have other hospitals support that intervention and maintain that intervention over the long term that's going to improve health in a measurable way.

**Garry Aslanyan** [00:18:08] Annie, do you have other strategies that you could share, that maybe from your experience in Malawi, that target women that has improved WASH?

**Annie Msosa** [00:18:17] So WaterAid has been doing a lot of work around hygiene promotion, both within the community and in health care facilities, and some of those interventions have focused on maternal health, some of those interventions have been linked with nutrition in different communities. There's different elements to this. The first one is really investing in understanding the needs of the

women. What is it that they need when they come to the health care facilities? What are the gaps that they're seeing when they're within their communities? So that they're really part of the process in terms of making decisions around what services are needed, but also what role they can play in ensuring that those things happen. So we have been working with women's groups, women that are promoting selfmotherhood, we have been working with citizens forums that also include women, we have been working with girls groups in schools to try and promote their agency to change the issues, but also to ensure that they are part of the process and they are also part of the process in terms of sustainability of whatever services are being provided and they can be able to hold the bearers to account. And as a result of this, we have seen a lot of changes, like in terms of, first of all, the designs and how they take of the different needs of the women, the cultural dynamics around things like what happens with the placenta and whether or not a woman is comfortable for that to be disposed of at the health care facility. We've seen a lot of targeting around what hap pens around the health care facilities I was talking about earlier, working with cleaners, working with nurses, working with midwives to make sure that they become champions. And so there's been a lot of behaviour change campaigns working with communities and creating champions and also kind of increasing standards around what hygiene should be expected at a health care facility and making communities aware of the sort of standard that should be there and also supporting them to engage with like the offices of the Ombudsman when things are not going right or to even be able to meet with the hospital management when they think seeing that the WASH situation is not going the way that it should. And we've seen a lot of positive results. We've seen increased uptake of services in some of the health care facilities. We've seen even reduced infections, health care facilities reporting that the infection rates have reduced and we've seen an increased uptake of women coming to the health care facilities to access services and doing that earlier. So involving them right through the process and treating them as experts in their own needs and also making sure that they are taking part in everything and their needs are being met in whatever designs are there is really, really critical and also promoting their agencies so that when NGOs are not there, when they're dealing with the government, they know what they need to do, they know who they need to engage and they are aware of their power and they are part of the decision-making around what happens. And it brings a sense of pride when things change within the community in that way.

**Garry Aslanyan** [00:21:14] Quickly going back to this issue of financing and WASH, Annie you brought up earlier, David, what evidence is available that supports a case for investment in WASH activities?

David Wheeler [00:21:28] Annie has made a good case. In the reported literature, there's lots of evidence that investing in hygiene, investing in these WASH interventions, have reasonable paybacks and residual payback periods, we spend a lot of money trying to determine the health impacts and disease burdens that are alleviated through WASH investment. And to some extent, maybe we need to move away from a direct sort of dollar value cost benefit analysis and look at something more along quality or quality of life measures, and this is an area that RGHI is actually actively investing in and looking at how do we better measure the impacts of WASH investment through the adoption of hygiene habits or better health outcomes, but not necessarily driving those all the way to a dollar value? And in doing so, I think we can better engage with the government and agency partners that are involved in many of these projects, but also looking at how to make the science more accessible and use the data that's being collected by aid organizations like WaterAid at the local level and get that into the conversation around. We have lots of evidence being generated at the local level that isn't getting into the policy discussion and isn't influencing investment decisions in the way it should. So how RGHI can create better forms or better platforms for gathering that data, improving the collection and dissemination of that data in order to support, maybe a less economically rigorous investment case, but a more wellsupported with wealth of data and localized data and looking at scalability and practical implementation more than just straight dollar values.

**Garry Aslanyan** [00:23:16] Annie, you have mentioned to me before we recorded this episode that WASH is not viewed as a critical health investment area by the global health community sometimes. Could you tell us more about how this plays out at a country level?

Annie Msosa [00:23:32] So the health investment tends to be disease focused and WASH is not a disease, even though it impacts on so many diseases. There's even evidence, like there was a Lancet report that talked about the global burden of disease and diarrheal diseases were listed as among the top five contributing towards disability adjusted life years. Now one would expect that for something in the top five, it should also be top five in terms of getting the money, but you find that that does not happen. WaterAid did a research and we talked to different donors that are providing funding for health, and you find that, for example, the issue of WASH in health care facilities, they don't even track it. They don't even know how much money they are giving towards this issue to begin with. At the same time, some of the donors would say there's a focus on, we want you to tell us that it's directly linked to the disease. That if you do this, you're going to avert this many deaths. But it's interesting that in 2019, 1.4 million people died as a result of lack of WASH. And this is a WHO report that's looking at the burden of disease from WASH. And then one wonders in terms of this, is that not a strong enough link to warrant investment? Some donors say no WASH is a technical issue and therefore it's not something that they look at, that it needs the political attention and drive to really prioritize it and make sure that it is being funded. So how this results at country level is sometimes you will find that even where WASH has been put in programmes like, for example, you have WASH in the AMR National Action Plan in Malawi, but when you look at the money that is coming, it is looking at surveillance for antimicrobial resistance, it's not addressing the WASH bits of the money. So you find that because of that lack of prioritization, you find that then the WASH doesn't get into the investment case or where it is in the investment case, when they need to cut money, that's among the first things that will go and not get the money. So what happens then, the situation perpetuates where you still have lack of access to WASH. But the bigger issue of the focus on disease and not the focus on quality of care and resilient and strong health systems that will be able to cope with whatever other issues will come as a result of climate and other bits. So because WASH is not a disease, it tends to be dropped from health programmes.

Garry Aslanyan [00:26:09] I understand. David, did you want to add anything to this point?

David Wheeler [00:26:13] Annie said it very well. The only thing I would add is that we're moving towards more and more market based models where we want sanitation systems and water systems to be able to issue bonds and raise money in commercial markets and without building the habits and the long term sustainability of the utilization of these infrastructure builds and then building and having the community understand the value of this infrastructure and why it should be maintained and how it should be used long term, it's going to be very difficult to get communities to fund the ongoing maintenance and the bond payments; the tax burden associated with having access to water and access to sanitation delivered through these economic models. And so being able to create behaviour change methods and interventions that result in long term habit formation that give you 20 year timelines for fundraising mechanisms is really important if these more community-supported models are going to be able to show results 20 years from now.

**Garry Aslanyan** [00:27:21] It's hard to believe or to think that in this day and age we live in, 2.2 billion people do not have access to safe drinking water and 3.4 million people do not have access to safely managed sanitation. Both you and Annie particularly previously described WASH as a little issue with potential for really big impact if we do it right. Thus, I have a final question to you both. What recommendations would you have for global health audiences, those who listen to this podcast, on how they can think about WASH differently with greater solidarity? Annie, you first and then David.

Annie Msosa [00:28:04] Okay, thanks Garry. So just a small correction: WASH is not a little issue. There's a whole SDG around it. That means it's a big issue and an issue that needs to be tackled at the global level. So my first aspect is to stop treating WASH as a little issue because it is not. And, that governments are spending on WASH, like I said earlier. They are spending more right now on treating the effects of the lack of it. But we need them to spend more on actually sorting it out. So it's not acceptable that today half of the world's health care facilities do not have access to adequate hygiene. They cannot offer the safety that patients need and they are not able to cope with the rising health crisis that the climate crisis is also bringing. WASH is fundamental to health. It is a no regrets investment and a first line of defense against infectious diseases. It therefore is critical for protecting health, both at home and in health care facilities. It should therefore be a critical part of health service delivery and be prioritized both in terms of programming and funding. Without this, we will continue to lose money. At the moment, healthcare-acquired infections are 20 times higher in developing countries than in the developed world, and yet 70% of these can be averted just by improving water, sanitation and hygiene and infection prevention practices. We need to do health service differently. We need to focus on prevention and we need to focus on quality and safe health care service. WASH is at the foundation of that. We can no longer allow health care facilities to continue to operate without water, sanitation and hygiene. We can no longer allow communities to continue to suffer because of the lack of water, sanitation and hygiene. This is a big issue that governments and donors and the private sector need to come together and offer permanent solutions in our generation. Thank you.

## Garry Aslanyan [00:30:12] David?

David Wheeler [00:30:13] Again, using comprehensive knowledge of the situation on the ground in Malawi and the general state of WASH in sub-Saharan Africa and LMICs is really shown by her answer. I think from the standpoint of a research funder, what we're looking for is to build more collaboration across the NGOs, the charitable organizations and the academic community to answer a lot of the questions that are coming up that seem to be roadblocks to implement programmes or to achieve better funding levels or to start programmes and secure additional funding for WASH-based interventions. And that includes our investments in looking at how do we build a quality for hygiene or how do we build more measures in the hygiene field, like in the Menstrual Health Practices index, but it also is bringing people together, we're putting on the Global Hygiene Symposium where we're going to bring together academics and practitioners from a lot of different fields and a lot of different geographic areas to look at those challenges on the ground and how can we mobilize academic research to answer some of those questions? If the donors want to know what specific pathogens we're working to prevent transmission of within these health care facilities, if we're trying to measure how many people don't go to the hospital because the health care facilities have significant hospital acquired infection challenges, how do we put together the research programmes that are going to answer these questions in a way that can allow us to build better hygiene habit adoption programmes, better health practices programmes or health practices habits within communities, such that we can achieve the promise of WASH. Annie is right in that 1.9 million people dying for lack of soap, for lack of understanding, food safe practices, for lack of access to reliable water and sanitation, seems like a minimum standard that we should be working towards. And so in building our research programme, we're really looking to help the programme practitioners on the ground build bridges between the various constituencies in this space, such that we can create integrated and complete pictures that are really compelling investment cases for more programmes on the ground and in countries, helping people achieve better lives through WASH and better health.

**Garry Aslanyan** [00:32:51] David, Annie, thanks for joining me today and good luck with all of your work on this very important issue.

Annie Msosa [00:32:58] Thank you very much, Garry, for the opportunity.

**David Wheeler** [00:33:00] Yes, thank you very, very much, Garry, and good luck in the future, Annie.

Annie Msosa [00:33:05] And you too.

**Garry Aslanyan** [00:33:08] WASH is a big issue that requires government commitment and global solidarity if the Sustainable Development Goal 6 is to be achieved. It is not a sideline to health care delivery, but it needs to be seen and supported as an integral component of it. Annie calls for a shift from disease focused investments to investments that can avert disease. David believes that research and adequate data will aid in developing an economically sound investment case that can guide practical policy implementation. Before I finish today, let's hear from another one of our listeners.

**Debra Jackson** [00:33:52] Hello, I'm Professor Debra Jackson, Takeda Chair in Global Child Health at the London School of Hygiene and Tropical Medicine and co-Director of the Center for Maternal, Adolescent, Reproductive and Child Health. I love listening to the Global Health Matters podcast. I have worked in global health for almost 30 years, and it's a busy academic. Global Health Matters helps me keep up with the latest discussions of the day. One of my hobbies is history, so I'm particularly excited about Season 3, which focuses on global health history, because I believe history, culture and context are so key to the work we do in public health. So thank you, Garry and all the team at Global Health Matters for your wonderful programme.

**Garry Aslanyan** [00:34:33] Debra, thank you for your positive message. I am particularly pleased that you find listening to the podcast a way to keep up with pertinent developments in global health. And it's great to hear how much you enjoyed our recent episodes on history.

**Garry Aslanyan** [00:34:47] To learn more about the topic discussed in this episode, visit our episode web page where you will find additional readings, show notes and translations. Don't forget to get in touch with us via social media, email, or by sharing a voice message with your reflections on this episode.

**Elisabetta Dessi** [00:35:07] Global Health Matters is produced by TDR, a research programme based at the World Health Organization. Garry Aslanyan is the host and the Executive Producer. Lindi van Niekerk, Maki Kitamura and Obadiah George are content and technical producers. The podcast editing, dissemination, web and social media designs are made possible through the work of Chris Coze, Elisabetta Dessi, Izabela Suder-Dayao and Chembe Collaborative. The goal of Global Health Matters is to produce a forum for sharing perspectives on key issues affecting global health. Send us your comments and suggestions by email or voice message to <a href="mailto:TDRpod@who.int">TDRpod@who.int</a>, and be sure to download and subscribe wherever you get your podcasts. Thank you for listening.