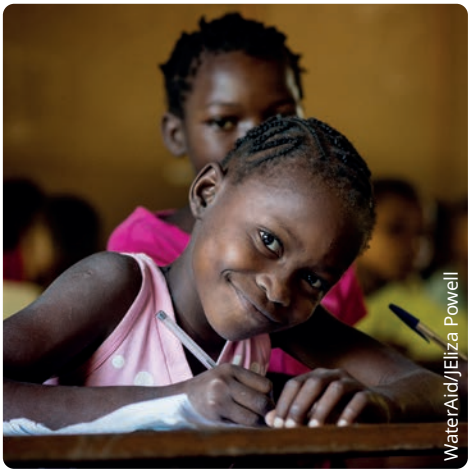
Removing barriers to the practice of hygiene in Southern Africa

Summary of formative research findings in five countries

May 2020


WaterAid/Chileshe Chanda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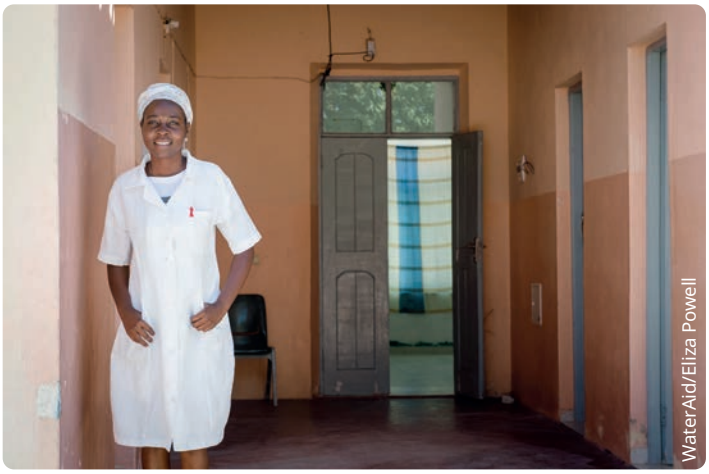
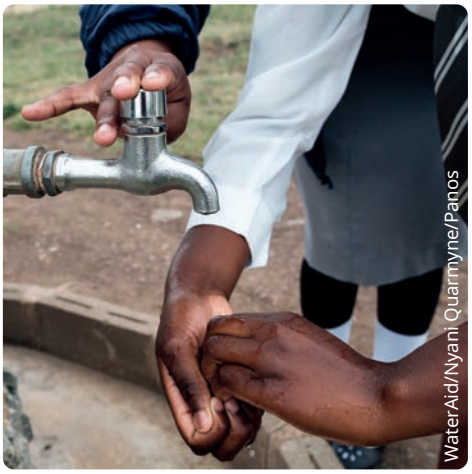


▲ Ernesta Culpa, Maternity Nurse, 25, stands outside the wards at the Matibane Health Centre in Chicoma Village, Mossuril District, Nampula Province, Mozambique.

Cover photographs
Main image: Molia Abdallah, 47, washing hands at the water kiosk in Chicoma, Mozambique.
Right: Beatriz (left), 9, sits in class with her friend Belita, 10, at the primary school in Nacoto Village, Mossuril District, Nampula Province, Mozambique.
Bottom: Soap dish with small bar of soap on the side, in the delivery room at Simulemba Health Centre, Malawi.

Key hygiene behaviours

The practice of good hygiene is central to the achievement of the clean water and sanitation sustainable development goal – along with additional key development goals, including health, nutrition and education. As the 2020 coronavirus pandemic highlights, hygiene is also a vital first line of defence against health crises.



▲ Tandzile's hands are seen at a handwashing station.

Key hygiene behaviours considered include:

Handwashing with soap

Handwashing with soap (HWWS) in the community as well as in healthcare settings as a key behaviour for effective infection prevention and control (IPC).

Latrine use

Use of latrines by everyone, at all times – avoiding open defecation (OD) and urination.

Food hygiene

Ensuring the safety of food in the home by hygienic preparation, storage and reheating of leftovers.

Drinking water treatment and storage

Safe storage and protection of drinking water in the home to prevent post-collection contamination.

Healthcare waste management

To protect healthcare workers (HCWs), waste handlers, patients and their families, and the community from infections, toxic effects and injuries.

Without good hygiene practices, such as HWWS, food hygiene, disposal of human waste, water treatment and menstrual hygiene management (MHM), the benefits of other poverty reduction strategies will be undermined, and human rights will be compromised.

Between 2018–2019, formative research was carried out by WaterAid in five countries (Madagascar, Malawi, Mozambique, eSwatini and Zambia) in Southern Africa to examine the motivational drivers and barriers to hygiene across urban and rural communities, schools and healthcare facilities (HCFs).

This summary presents a combined analysis of the findings of formative research by WaterAid – identifying common barriers and pathways to change, and motivations that have the highest potential to be relevant, efficient, effective, impactful and sustainable.

Key recommendations in brief

Working with partners including the private sector

From the formative research findings for HWWS and drinking water treatment and storage (DWTS), it is clear that there needs to be a repositioning of soap and chlorine as 'everyday essentials' or 'good hygiene items', rather than luxury or limited-use products. The private sector could be a powerful partner at regional level to help shift this perception.

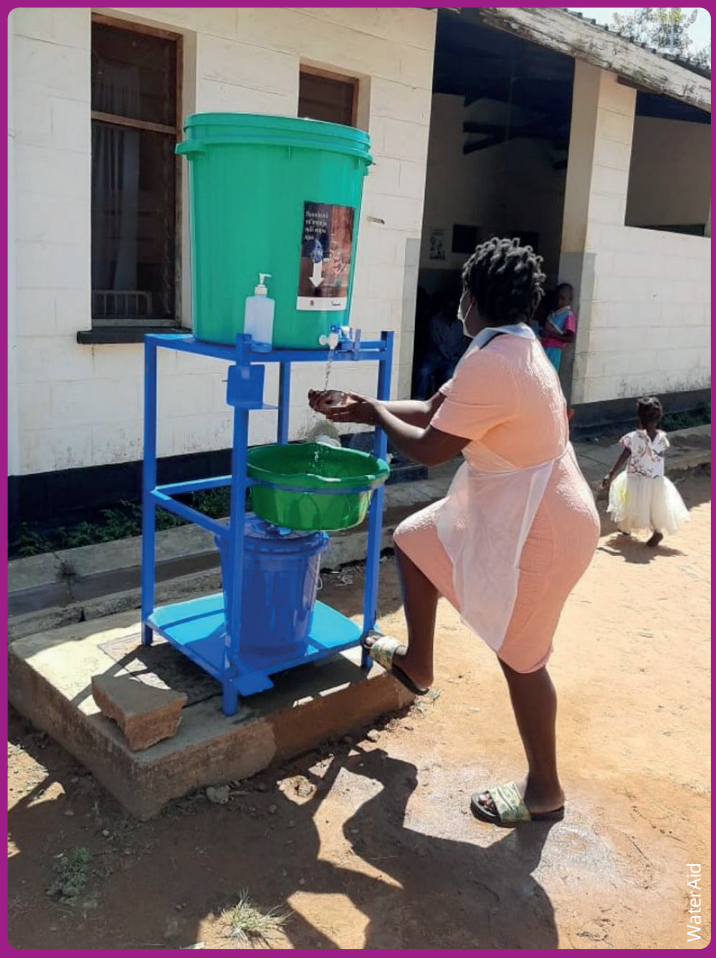
Addressing HCW hand hygiene

Hand hygiene is a cornerstone of healthcare IPC and crucial for protecting against the spread of infectious diseases, such as COVID-19. Partnership among health sector stakeholders is needed to take collaborative actions that address both the physical barriers and behavioural motivations to good hygiene by health workers identified in the formative research.

Convening cross-sector collaboration, joint planning and target-setting for hygiene

Donors and water, sanitation and hygiene (WASH) agencies need to use their convening power and partnerships with regional influencers, such as the Southern African Development Community (SADC), to engage in cross-sector collaboration for hygiene.

This should include joint planning and target-setting for HWWS, food hygiene, DWTS and latrine-use, as critical elements of health, nutrition and education outcomes.



▲ Handwashing facility installed at Benga Health Centre in Nkhotakota, Malawi as an emergency response to prevent the spread of COVID-19.

Sharing the formative research findings

The findings of WaterAid's formative research provide insight and understanding into the barriers and drivers of hygiene practice in the region. Sharing these findings with a wide audience at different levels – via national and sub-national coordination groups, or through targeted advocacy communications – will support evidence-based decision making in behaviour change programming. This is particularly crucial now, in the planning response to COVID-19, and the rebuilding of disease-resilient societies.

2 HWWS in the community

Behavioural targets: the problem

- HWWS does not happen at critical times, many key moments are missed.
- Handwashing is carried out with water only – soap is considered expensive and reserved for laundry and bathing.

In Malawi, 88% people leaving a latrine washed their hands, but only 25% used soap.

In Zambia, HWWS happened at less than 10% of opportunities.

The barriers to HWWS

There are physical barriers to HWWS, including a lack of handwashing facilities (HWF), or existing facilities not being located where they are needed. Soap and water availability also negatively impacts the practice of good hand hygiene, as soap is an expensive commodity and therefore not always available at the HWF.

Socially, there are no structures in place to support HWWS, with very little community or family expectation noted for hand hygiene.

The drivers of HWWS

All five studies found there to be a good level of **awareness** about why and when HWWS is important. The construction of HWF in approximately 50% of households also indicates that there is an **intention** to wash hands.

Several motivations for washing hands were identified, ranging from **disgust** at having something dirty or disease-causing on your hands, to the desire to **nurture** children to keep them safe and healthy, to **affiliation** and the wish to be judged positively by peers.

▲ Vahia Nurdine, 20, happy to have clean water, washes hands from the borehole that was put up in Mucocorone Village, Mossuril District, Nampula Province, Mozambiaque.

HWWS in healthcare facilities

Behavioural targets: the problem

- Despite HWWS being a key behaviour in IPC, healthcare workers (HCW) who are in contact with patients miss more than half of critical handwashing points when observed.

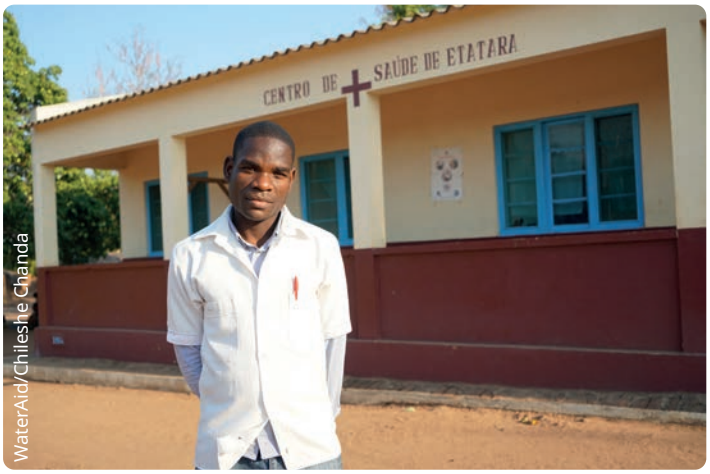
34–50% of healthcare workers did not wash hands when performing an aseptic technique.

The barriers to HWWS in HCFs

The biggest physical barrier to HWWS practice is the absence of HWFs where they are needed, i.e. in the room where patient contact takes place. Supply of soap or hand rub as an alternative is erratic, often meaning they are not available at the handwashing point.

Social barriers to HWWS also links to the health staff workload, which is often very high, leading to pressure to get on with the job without 'wasting time' on handwashing.

▼ Estevao Manuel Davido, 27, standing in front at Etatara Health Center, Cuamba District, Niassa Province, Mozambique.



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The drivers of HWWS in HCFs

As expected in a healthcare setting, all studies note a high level of HCW **knowledge** on hand hygiene and a belief that HWWS is the most effective method of IPC.

The stated motives for HCWs to wash hands with soap are generally in line with their IPC training – to prevent the spread of disease or infection from one patient to another.

HWWS is also motivated by **disgust** and the desire to avoid potentially contaminating patients, along with whether they are judged to be 'safe' influences if the HCW washes their hands.

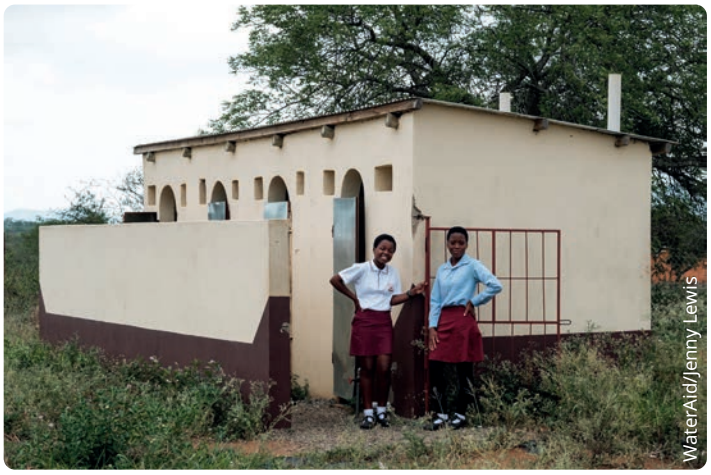
HWWS can be triggered using unconscious **behavioural cues**. In Malawi, the study found that having a HWF in the ward increased the frequency of HWWS practice. Visual cues in the form of posters strategically placed as reminders to wash hands can also be effective.

More than 50% of HCWs did not wash hands before or after examining a patient.

Latrine use – by everyone, at all times

Behavioural targets: the problem

- OD persists even where there is quite high latrine coverage in place, especially when people are away from the home.
- Children's faeces are not dealt with hygienically.
- About half of existing latrines are not kept in a hygienic state.



The barriers to latrine use

Despite high access to latrine infrastructure, there are physical and social barriers that limit their consistent use. People may have a latrine at home, but there are no facilities available when in the fields, at the market, or out collecting water.

Construction quality impacts hygiene behaviour: poorly constructed latrines, which lack privacy, are often not used and local construction methods – such as using mud floors – also make existing latrines difficult to keep clean.

33–77% of children in studies practice OD, but caregivers only dispose of children's faeces in a latrine 50% of the time.

The drivers of latrine use

By-laws and **sanctions** established at local level, with penalties such as fines and livestock confiscation for non-compliance, are found to motivate construction and use of latrines. In addition, participation in previous activities including community-led total sanitation (CLTS) trigger community awareness, leading to a high level of **knowledge** on the importance of having a latrine.

Intrinsic motivations that drive latrine use include **disgust** at having faeces in the environment and potentially transmitting disease. Other motivational drivers include the desire for **affiliation**, approval from the community and the **status** conferred by having a latrine.

Identified **behavioural cues** for not using a latrine, for example a dirty or smelly latrine triggering a preference for OD, could be reversed to trigger latrine use behaviour.

Inclusivity

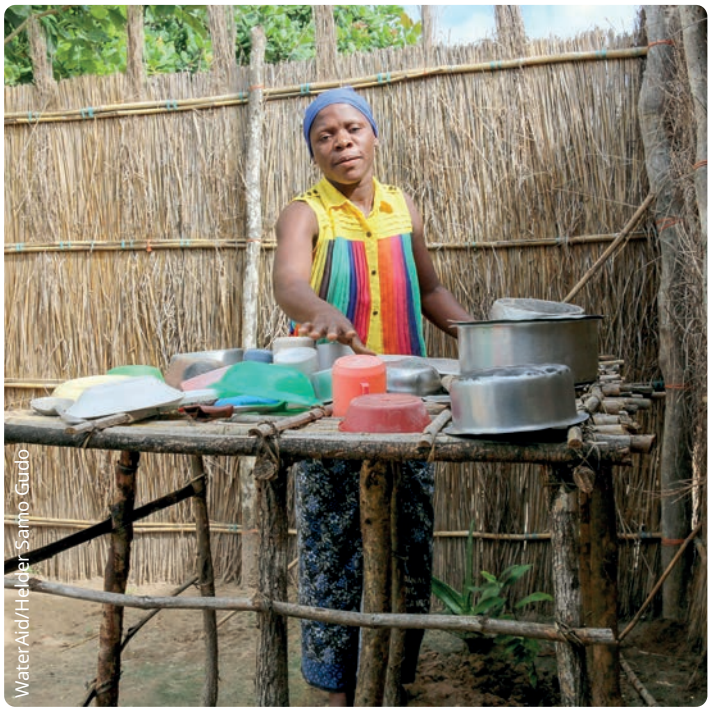
Young children, the elderly and people with disabilities experience physical and economic barriers to latrine use that need to be specifically addressed.

In Madagascar, approximately 30% of people reported practicing OD even though 83% have a latrine at home.

4 Food hygiene

Behavioural targets: the problem

- Kitchen utensils are not hygienically cleaned and stored; 43–63% of households did not wash utensils with soap.
- Left-over food is not properly covered, which allows flies and other insects to access it during storage.
- After storage, leftover food is not effectively reheated to a sufficiently high temperature to kill pathogens.



▲ Carita Hassane, showing the dish rack that she built as a result of the hygiene practice sensitisation done at the Namatinde community, Namatinde Community, Mossuril District, Nampula Province, Mozambique.

The barriers to good food hygiene

As with HWWS, the main barrier to keeping utensils clean is that soap is considered a luxury item, prioritised for laundry and bathing only. Households also do not have the equipment for food hygiene, such as dish racks or containers with tightly fitting lids, and fuel for reheating food is an expensive commodity.

The domestic workload of mothers is very high – their time can be a barrier to proper food hygiene.

The drivers of good food hygiene practice

Although the studies found that **knowledge** on food hygiene is high, observations found that good practice is often over-reported. **Disgust** at using unwashed plates or catching diseases is a key driver of food hygiene behaviour.

Nurture, **affiliation** and **status** are also important, although nurture and affiliation can also demotivate good practice – for example, if a child does not like hot food then it will be warmed slightly, but not thoroughly reheated.

Invited and uninvited animals

Formative research findings for both latrine use and food hygiene found that pests and domestic animals transport pathogens from faeces to living spaces and food preparation areas.

In addition to transporting human faeces, the faeces of domestic animals in the environment can be a reservoir for pathogens including campylobacter, non-typhoid salmonella, cryptosporidium and toxoplasmosis.

DWTS in the home

Behavioural targets: the problem

- In all five countries studied, at least some water for drinking is collected from an unprotected source.
- Safe collection and storage of drinking water is not practiced. Containers used do not prevent post-collection contamination and are not kept clean.
- Treatment of collected drinking water is limited.

In as high as 81% of cases, water is stored uncovered and water storage vessels are visibly dirty.

The barriers to DWTS behaviour

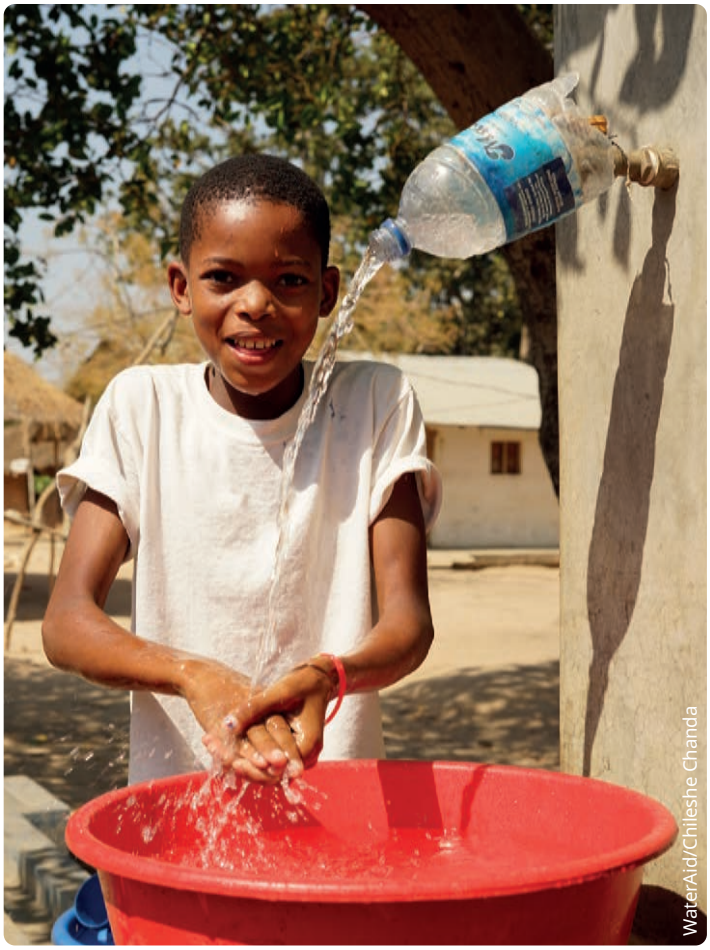
Even where clean and protected water infrastructure exists, there are barriers to consistent use – including time, distance, queues and relative cost. Household ownership of appropriate containers with lids are the main physical barriers to safe collection and storage of drinking water.

Effective treatment of water post-collection is not consistent, with the main barriers being cited as the costs associated with treatment by chlorination or fuel for boiling – and that chlorination product supply is not always available at community level.

The drivers of good DWTS practice

There is a good level of **knowledge** about the importance of safe water sources, and the link between water quality and diarrhoeal disease in most countries. However, knowledge seems to focus on the quality of source water rather than the protection of stored water from post-collection contamination.

The key motivational driver of water hygiene is the **fear** of disease, although this is temporal, with water treatment increasing in times of higher perceived threat – for example, during cholera outbreaks.

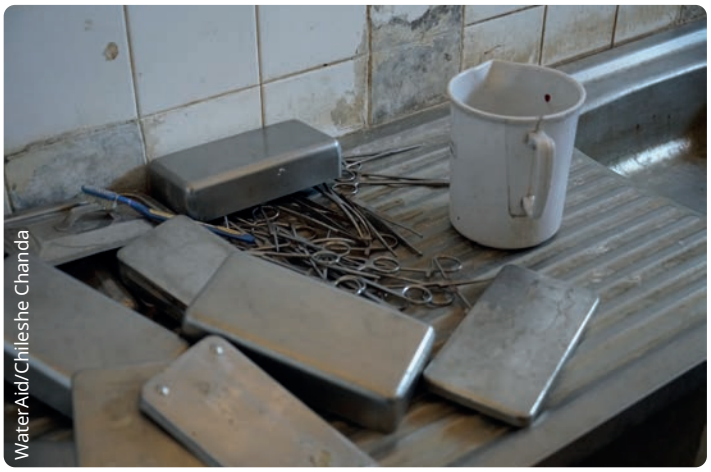


▲ Jelsio Quioma washing her hands at a water kiosk in Ampivine Village, Mossuril District, Mozambique.

Healthcare waste management

Behavioural targets: the problem

- Waste from HCFs is not safely disposed of in a way that protects the workers, patients and communities from infections, toxins and injuries.
- Cleaning staff are not protected from exposure to health facility waste.



▲ Utensils washed with unclean water and stored for use on the next patient at Etatara Health Center, Cuamba District, Niassa Province, Mozambique.

The barriers to healthcare waste management behaviour

Segregation of hazardous waste is limited by the availability of materials, such as clearly labelled bins and equipment such as wheelbarrows, bins and mops. Workers do not have the correct personal protection equipment (PPE).

Proper waste treatment and disposal should ensure a complete separation of hazardous material from the health workers, the community and the environment. All studies identified HCFs in which incinerators are not functioning, or fuel for operation is not available. This results in infectious waste being disposed of in the refuse pit and burnt, or burnt in an open field with no perimeter fence to protect it from animal and human contact.

Local beliefs around childbirth and handling of the placenta may also present a barrier to hygienic disposal in some cultures.

The drivers of good healthcare waste management practice

The key motivations for HCF cleaners to practice good hygiene are **disgust** at the thought of handling waste that could make them sick, or the **fear** of being injured whilst doing their job – these motivate the staff to wear PPE, including heavy duty gloves and protective shoes.

There is also a motivation related to **affiliation** and a sense of duty to keep others safe by doing their job properly.

Poorly contained waste is a danger to the community

Where healthcare waste is not effectively contained, either by incineration or in a sealed pit, the risk of exposure to pathogens, contaminated material or injury to surrounding communities is high. The formative research found that ill-contained waste is accessed by pests (such as flies and insects), by wild or domestic animals, and even by humans scavenging for materials.

7 Recommendations

Governments

1. Promote improved monitoring for hand hygiene – robust data is a cornerstone of planning and financing.
2. Publish and benchmark hand hygiene report cards for health administrative areas. The reports should combine access to facilities with hand hygiene behaviour audits in various settings.
3. Remove water treatment barriers, such as supply of chlorination products at local level, incentivising health partners and the private sector to develop supply chains for water treatment that can be carried through to the village level.
4. Remove barriers to private sector participation and motivate them to find solutions for poorer rural communities.
5. Initiate collaborative action with departments responsible for markets and public spaces to address OD with suitable and sustainable solutions.
6. Include food hygiene in routine monitoring or periodic surveys and ensure findings are prioritised. Promote joint health, nutrition and WASH planning and target setting for food hygiene.
7. Include targets for hygiene at HCF level and practice of staff in healthcare strategic and sector reviews.

Community level

1. Leverage the current awareness brought about by the COVID-19 pandemic on the importance of handwashing, for longer term and holistic hygiene behaviour change.
2. Reposition soap as a necessity for family protection and food hygiene, rather than a luxury item.
3. Address caregiver behaviour and the hygienic disposal of child faeces.

Donors and development partners

1. The COVID-19 pandemic opens new opportunities to channel financial allocations that target long-term HWWS behaviour change.
2. Convene and facilitate partnerships with regional influencers, such as SADC, to engage in cross-sector collaboration for hygiene. Securing joint planning and target-setting for HWWS, food hygiene, DWTS and latrine-use, as critical elements of health, development and regional integration.
3. Work with governments to address the physical barriers to safe HCF waste management behaviour.

HCF level

1. Health sector actors must prioritise support in enabling hand hygiene amongst HCWs and to address behavioural barriers in health facilities. For example, by improving access to water and soap at HCFs.
2. Include hand hygiene audit tools as part of HCW performance targets and publish HCF hand hygiene reports.
3. Ensure basic standard training for all HCWs and auxiliary staff on waste segregation, hazardous waste disposal and environmental cleaning.
4. Promote improved monitoring for waste management in HCFs – robust data is a cornerstone of planning and financing.

Conclusion

▲ Simphiwe, 18, and Thobile, 17, at a handwashing station provided by WaterAid at Mpolonjeni High School in Mpolonjeni, Lubombo Province, eSwatini.

Poor hygiene practices are a major contributor to the spread of several endemic and epidemic diseases, including COVID-19.

The region of Southern Africa continues to report recurrent cholera, typhoid and hepatitis E outbreaks – and further still, four of the countries in the region are considered to have endemic trachoma.

Improving hygiene practices with long term multi-sectoral behaviour change programmes is a key strategy for controlling several high health burden diseases, including COVID-19.

A holistic approach to financing, coordination, leadership and monitoring of hygiene by governments across Southern Africa is essential to implement and promote good hygiene practices that help improve quality of life, prevent diseases and save lives.

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WaterAid is an international not-for-profit, determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation. Only by tackling these three essentials in ways that last can people change their lives for good.

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