ACKNOWLEDGEMENTS

The authors would like to thank USAID/Washington and USAID/Mozambique for their support of this work. We would also like to acknowledge the support of UNICEF and Aid for the Development of People for People for planning and conducting focus group discussions and key informant interviews, as well the contributions of representatives from other implementing partners who participated in interviews and stakeholder meetings. This research required the approval and support of the Government of Mozambique’s National Directorate for Water Supply and Sanitation (DNAAS) as well as the support and participation of district health and WASH officials—for which we are thankful. We appreciate the contributions of the many research subjects involved. Lastly, we appreciate technical reviews from Morris Israel (Tetra Tech) and USAID.

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Prepared for the United States Agency for International Development by the Water, Sanitation, and Hygiene Partnerships and Learning for Sustainability (WASHPaLS) project, Task Order number AID-OAA-TO-16-00016 of the Water and Development Indefinite Delivery Indefinite Quantity Contract (WADI), contract number AID-OAA-I-14-00068.

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ACRONYMS AND ABBREVIATIONS

ADPP  Aid for the Development of People for People
APE  Agente Polivalente Elementar (Multi-purpose community agent/activist)
CDCS  Country Development and Cooperation Strategy
CLTS/SANTOLIC  Community-Led Total Sanitation/Saneamento Total Liderado pela Comunidade
COM-B  Capability, Opportunity, and Motivation for Behavior
DNAAS  Direcção Nacional de Abastecimento de Água e Saneamento (National Directorate for Water Supply and Sanitation)
DPOHRH  Direcção Provincial de Obras Públicas, Habitação e Recursos Hídricos (Provincial Directorate of Public Works, Housing and Water Resources)
ERP  Elephant Rider Path
FGD  Focus Group Discussion
INAS  Instituto Nacional da Acção Social (National Institute of Social Action)
KII  Key Informant Interview
MHM  Menstrual Hygiene Management
MZN  Mozambican metical
NGO  Nongovernmental Organization
OD/ODF  Open Defecation/Open Defecation Free
OMM  Organizacao Mulher Mocambicana (Organization of Mozambican Women)
PASD  Programa de Acção Social Directa (Direct Social Action Program)
PASP  Programa de Acção Social Productiva (Productive Social Action Program)
PAUS  Programa de Apoio às Unidades Sociais (Social Assistance Services)
PES  Participação e Educação Comunitária (Community Participation and Education)
PHAST  Participatory Hygiene and Sanitation Transformation
PRONASAR  Programa Nacional de Abastecimento de Água e Saneamento Rural (National Rural Water Supply and Sanitation Program)
PSSB  Programa de Subsídio Social Básico (Basic Social Subsidy Program)
SBC  Social and Behavior Change
SBCC  Social and Behavior Change Communication
SCIP  USAID/Mozambique Strengthening Communities through Integrated Programming Project
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDPI</td>
<td><em>Serviço Distrital de Planeamento e infraestrutura</em> (District Planning and Infrastructure Services)</td>
</tr>
<tr>
<td>SDSMAS</td>
<td>District Service of Health and Social Affairs</td>
</tr>
<tr>
<td>SNV HH4A</td>
<td>SNV’s Hand Hygiene for All Project</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>WASH</td>
<td>Water, Sanitation, and Hygiene</td>
</tr>
<tr>
<td>WASHPaLS</td>
<td>Water, Sanitation and Hygiene Partnerships and Learning for Sustainability</td>
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</tbody>
</table>
EXECUTIVE SUMMARY

Global evidence suggests deeply embedded structural and behavioral determinants, including restrictive norms and inequalities related to gender, sustain poor sanitation and hygiene conditions. However, not enough is known about the specific dynamics that drive sanitation and hygiene behaviors in Mozambique. The United States Agency for International Development (USAID) completed a participatory assessment in February 2019, identifying the need for further research to design robust, evidence-based hygiene behavior change programs, particularly those which address gender-related determinants. In response, the USAID Water, Sanitation, and Hygiene Partnerships and Learning for Sustainability (WASHPaLS) Project conducted formative research on gender, sanitation, and hygiene in the Nampula and Zambezia provinces of Mozambique.

The objective of the research was to identify barriers and motivations for select sanitation and hygiene behaviors, namely, latrine construction and use, safe disposal of child feces, handwashing, and menstrual hygiene management (MHM), and to develop practical recommendations for gender-transformative water, sanitation, and hygiene (WASH) programming.

The following questions guided the formative research:

1. What are the barriers and motivations for select sanitation and hygiene behaviors?
2. How do gendered social norms and gender relations influence sanitation and hygiene behaviors and related outcomes?
3. For latrine construction, what are the processes and roles that men and women play in household decision-making? How do gender norms influence these decisions?
4. What are the implications of COVID-19 on these behaviors?

Following a desk review and consultations with representatives of WASH implementing partners, the team developed a mixed qualitative research design comprised of focus group discussions (FGDs) and key informant interviews (KIIs). The team conducted 39 FGDs with 433 participants (239 women; 194 men), and 22 KIIs (4 women; 18 men) with community leaders and activists, district WASH officers who implement Community-led Total Sanitation (CLTS) and Participatory Hygiene and Sanitation Transformation (PHAST) work within the government offices of District Planning and Infrastructure Services (SDPI), and representatives from organizations working on Community Participation and Education (PEC). Data collection occurred in nine communities: 5 rural communities and 4 peri-urban communities. The research design called for approximately half of the rural communities to still practice open defecation (OD) and the others to be classified by implementing partners as open defecation free (ODF). In reality, researchers observed little difference between ODF and OD communities. Many OD communities were not yet 'declared' or certified as ODF, but had participated in extensive mobilization activities preparing for ODF. On the other hand, many ODF communities could no longer be considered as such because of reversion to OD practices or flawed original certification. The team analyzed the data together, mapping the findings into a participatory analysis template that included behavioral determinants from the Elephant Rider Path (ERP) and the SaniFOAM frameworks. Following data collection, the team held a stakeholders’ meeting to share preliminary findings from the data analysis and solicit recommendations for future programming.

Key research findings include:

- **There is widespread awareness of ideal sanitation and hygiene behaviors.** In all communities—with the exception of the one truly OD community—most participants reported knowing the reasons for latrine construction and use, and how and why to dispose of child feces...
safely. Most respondents also reported practicing these behaviors. However, with respect to handwashing, even though most people knew when and how to wash their hands, they only reported doing so after defecating, before cooking, before and after eating food, and not at other critical moments.

- **Women are active participants in the decision-making process and rely on community support to advocate for latrine construction, yet it is men who decide ultimately to construct a latrine or not.** Influenced by their peers (see below) and guided by social expectations regarding latrine ownership, women initiated discussions and encouraged their husbands to build latrines. Participants reported that husbands were the key decision-makers regarding latrine construction as they were the heads of households and principally responsible for building the latrine. Women, however, felt as though they were able to sway their husbands by enlisting the support of community members and leaders and even the police, as reported in Zambezia.

- **Women face social pressure to own latrines and not practice open defecation.** Women reported a heightened sense of disapproval from women peers for not owning a latrine, particularly if they were not able to offer a latrine to a visitor or had to ask a neighbor to use their latrine. They also shared feeling a greater sense of shame at being seen openly defecating.

- **Women named markedly more wide-ranging benefits to building and using latrines than men.** Motivations for latrine ownership included privacy, safety, and convenience. Having one’s own latrine meant not having to go to the forest for open defecation and risk being seen by a neighbor, particularly a man. Women also reported fearing animal encounters (e.g., snake bites) and in Zambezia reported feeling vulnerable to assault while being far from one’s home to defecate. Women reported that having their own latrines was more convenient than asking a neighbor to use theirs or go to the forest to openly defecate. Participants also reported that open defecation was not feasible in peri-urban areas due to the proximity of other houses and lack of space. Women also reported that latrines afforded convenience for disposing of child feces.

- **Gendered roles and responsibilities place the onus for disposing of infant and child feces on women.** Mothers typically cleaned the cloth diapers used by children aged one or younger, picked up the feces left by children who defecated in the household yard, and trained children older than age four or five to use the latrine independently. Men and older children reported occasionally helping when mothers were busy cooking or were away from the home.

- **Having little access to water and affordable soap reinforces traditional ways of handwashing, which are not ideal for hand hygiene.** Particularly in Nampula, where the visited communities were experiencing a multi-year drought, water scarcity and lack of money to buy soap (due to drought-related crop failure and poverty) were key barriers to handwashing. Households often used ash as a substitute for soap and prioritized using soap for bathing and washing clothes. Households reported using a communal bowl to dip hands in water without soap as the most common method for handwashing in Nampula. Although this method enabled water reuse, critical in drought conditions, it is not acceptable for hand hygiene. Interviewees in Zambezia used running water more frequently for handwashing, by pouring clean, unused water over one’s hands from a communal bowl using a jar/jug or a tippy tap.

- **Women most often use methods they learned through traditional initiation rites to manage their periods.** Knowledge of and access to disposable menstrual products was low, especially amongst women and girls in rural communities. Most women, particularly older women, reported using methods they learned as a part of initiation rites into adulthood. They most often used the traditional Mozambican cloth, *capulana*, to absorb blood during menstruation. They typically tied it in the traditional way around the waist or tucked it into underwear. Younger women
principally used underwear. Using *capulanas* causes a great deal of discomfort and restricts women’s mobility. Women also felt restricted to their households due to taboos regarding laundering of used *capulanas* at others’ homes. Participants reported that menstrual products and blood must be kept from the sight of children and husbands so as not to embarrass them or be disrespectful. Accordingly, women washed menstrual products in the privacy of the bathhouse (a second structure, similar to the latrine in shape, height, and construction materials, used for bathing, menstrual hygiene, and sometimes urination) or in the woods. While menstruating, women do not salt food, sleep in the same bed as their husbands, or have intercourse, and Muslim women do not go to the mosque.

- **COVID-19 had limited impact on sanitation and hygiene behaviors and related gender considerations.** Although knowledge related to handwashing increased due to public health messaging around COVID-19, there were few other impacts of COVID-19 on sanitation and hygiene in the selected communities. In Nampula, concerns due to a multi-year drought and resulting poverty and food insecurity were more salient than any disruptions or changes brought about by COVID-19.

These findings from the FGDs and KIIIs are largely consistent with those identified through the desk review and a stakeholders’ meeting the team conducted during the first phase of the research in October-December 2019.

Based on the research findings, the team proposes the following recommendations for future programming for each of the five sanitation and hygiene behaviors (with latrine construction and use grouped together):

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latrine Construction and Use</td>
<td>1. Use what we know about people’s prioritization of safety issues, pride/shame around not having a latrine, having to ask to use a neighbor’s latrine, and not having one for guests, particularly for women (who are more likely to be home more and be responsible for household sanitation and hygiene), to help motivate construction and use of latrines. Any strategies around this should use positive framing to emphasize pride, safety, and privacy rather than shame, danger, and indignity to avoid further stigmatization, especially for women.</td>
</tr>
<tr>
<td></td>
<td>2. Engage men to understand the value of women’s full participation in latrine construction decisions (e.g., benefits for the entire family, consideration of guest, children, safety, etc.) Introduce couple communication and negotiation to advocate allocation of household resources for latrine construction. Use training and social and behavior change communication (SBCC) to reduce stigma for women who wish to learn about latrine construction and purchase materials and contract labor.</td>
</tr>
<tr>
<td></td>
<td>3. Include elements in sanitation programs, such as CLTS, that promote and support households headed by women or comprised of elderly people who are less likely to construct latrines in the absence of a “strong man.” This approach should be coupled with financial assistance and development of local construction options (i.e., masons, neighbors).</td>
</tr>
<tr>
<td></td>
<td>4. Develop, if needed, and promote sanitation options that better meet challenging terrains (sandy, rocky soil).</td>
</tr>
</tbody>
</table>
### Behavior Recommendations

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe Disposal of Child Feces</td>
<td>5. <strong>Employ strategies to engage men in child disposal and engage men more generally as co-caregivers.</strong>  &lt;br&gt;6. <strong>Reinforce existing positive practices of immediate safe disposal of infants’ feces.</strong></td>
</tr>
<tr>
<td>Handwashing</td>
<td>7. <strong>Build on existing positive handwashing practice at critical times to modify harmful and ineffective elements of these current practices, to encourage more hygienic handwashing. Discourage the reuse of water in washing hands and promote the practice of pouring water from a pitcher into a communal catch bowl rather than dipping into bowl. Given water scarcity, encourage use of grey water for activities such as home gardens. Promote more handwashing for children.</strong>  &lt;br&gt;8. <strong>Include strategies in future programming that prioritize the use of soap for handwashing (in addition to bathing and washing clothes).</strong></td>
</tr>
<tr>
<td>Menstrual Hygiene Management</td>
<td>9. <strong>Broaden access to menstrual management products other than capulanas, such as reusable and disposable products, complemented by provisions for appropriate disposal. Efforts to increase access should engage the local private sector to ensure supply chains, affordable price points, high quality products, and demand creation/market-based supply.</strong>  &lt;br&gt;10. <strong>Encourage more hygienic adaptations of traditional MHM practices, such as using more comfortable, clean, and hygienic cloth, cleaning and storing cloth, and how passing down traditional knowledge related to menstruation can include hygiene messaging.</strong>  &lt;br&gt;11. <strong>Support advocacy and policy dialogue efforts to create a better enabling environment for MHM policies, to create access and affordability of products, among other benefits.</strong>  &lt;br&gt;12. <strong>Increase knowledge regarding menstruation and MHM, primarily for women and girls, coupled with efforts to shift norms and minimize taboos related to MHM.</strong></td>
</tr>
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</table>

Finally, we present a few overarching recommendations for general programmatic and procurement activities that reinforce the need for gender-integrated approaches to WASH programming:

1. Ensure WASH and health projects integrate gender into project assessment baselines and other research to maximize learning and efficiency.
2. Ensure that project monitoring, evaluation, and learning is gender-integrated to better capture gender issues that may drive sanitation and hygiene behaviors.
3. Ensure that WASH and health projects use best practices for gender-integrated SBCC.
4. Integrate best practices for gender-equitable relationships into procurements and projects.
1.0 INTRODUCTION

Global evidence suggests that deeply embedded structural and behavioral determinants, including restrictive norms and inequalities related to gender, sustain poor sanitation and hygiene conditions. Yet not enough is known about how these determinants drive sanitation and hygiene behaviors in Mozambique. In February 2019 USAID completed a participatory assessment identifying the need for further research to design robust, evidence-based hygiene behavior change programs, particularly those addressing gender-related determinants. In response, the USAID Water, Sanitation and Hygiene Partnerships and Learning for Sustainability (WASHPaLS) project conducted formative research in the Nampula and Zambezia provinces of Mozambique to better understand the relationships between behavioral determinants, gender, and sanitation and hygiene behaviors to build an evidence base for future programming. The objective of this research was to identify barriers and motivations for select sanitation and hygiene behaviors, namely, latrine construction and use, safe disposal of child feces, handwashing, and menstrual hygiene management (MHM) and to develop practical recommendations for gender-transformative water, sanitation, and hygiene (WASH) programming.1

1.1 GENDER AND WASH IN MOZAMBIQUE

Nearly 50 percent of the population in Mozambique lacks access to clean drinking water, over 70 percent lacks access to basic sanitation facilities, and 88 percent lacks access to hygiene services (WHO & UNICEF, 2019). In comparison to other African countries with similar income levels, Mozambique experienced fewer advances in access to improved water and sanitation services from 2010-2015 (World Bank Group, 2018). Conditions are particularly dire among certain populations, including rural residents and people in the bottom two wealth quintiles (World Bank Group, 2018).

Gender inequality in Mozambique is acute. In 2018, the country ranked 138 out of 160 countries on the United Nations Development Programme (UNDP) Gender Equality Index and had a score of 0.904 on the Gender Development Index (a ratio of the female to male Human Development Index), which places it in the next-to-lowest category of gender equality (UNDP, 2018). According to the Mozambique Gender Assessment for the Country Development and Cooperation Strategy (CDCS) (USAID/Mozambique, 2019), “traditional gender norms play out in households and at the community level that position men as the head of the household and institute gendered hierarchies for who can speak in decision-making.” The vast majority of Mozambican women (90 percent) work in agriculture, mostly as subsistence farmers or on family-owned plots (JICA, 2015). Almost half of the country’s young women are married before they turn 18, including 14 percent who are married before age 15 (Haneef & Tembe, 2019). In Mozambique, intimate partner violence affects at least one in every five women in her lifetime (UN Women, 2019).

Gender inequality and social norms—particularly those norms that guide household division of labor and decision-making—heavily influence daily WASH-related interactions and behaviors. Mothers are typically responsible for most household chores, including water collection and childcare (USAID/Mozambique, 2019). According to USAID’s Mozambique gender assessment, “women and girls are often responsible for water collection and spend a significant portion of their day fetching water for their household” (USAID/Mozambique, 2019). In rural areas, 88 percent of households rely on adult women as their primary water gatherers (Graham et al., 2016). In urban areas, inadequate sanitation offered by

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1 Gender transformative WASH programming addresses the norms and behaviors of men, women, and gender minorities that perpetuate inequitable uptake and impact of WASH services. Gender-transformative strategies work by fostering critical examination of gender norms, engaging gatekeepers to promote gender-equitable values and expectations, and strengthening or creating WASH services that support gender equality.
traditional facilities leads to psychosocial stress, especially for women who are often afraid to use toilets at night when they may be at risk of physical or sexual assault (Shiras et al., 2018; Shiras and Dreibelbis, 2018). Shared sanitation facilities offer some reprieve from sanitation-related stressors, such as greater privacy and less embarrassment (compared to those using traditional pit latrines), but women still experience stress associated with maintaining and cleaning shared toilets (Shiras et al., 2018). As a result, women and girls in Mozambique disproportionately face challenges related to water and sanitation with consequences across their life course (UNICEF, 2018).

While there is global evidence on how to improve WASH outcomes, such as promoting latrine construction and use, there is a need to generate evidence specific to the Mozambican context. This formative research aims to fill some of these gaps and also gaps in knowledge regarding decision-making for sanitation products and services and on select sanitation and hygiene behaviors (latrine construction and use, handwashing, safe disposal of child feces, and MHM). The team conducted this research using a gender lens to identify gender-related issues affecting WASH; the gender lens also is beneficial in recognizing opportunities and challenges for gender-integrated and gender-transformative programming.

This report summarizes work that the team carried out between 2019-2021. It begins with a presentation of the research questions guiding the study and the methodology used to conduct the research. Section 3 presents findings from research that the team conducted during February-March 2021 for each of the five selected sanitation and hygiene behaviors, highlighting the barriers and motivations for these behaviors as well as gender considerations for each. For each behavior, we also briefly point out the differences, if any, when comparing findings of the 2021 field work with those of the 2019 desk review and stakeholder consultations. The report concludes with recommendations, drawn from all phases of our study, for future programming and research.
2.0 RESEARCH QUESTIONS AND METHODS

2.1 RESEARCH QUESTIONS

This formative research sought to identify barriers and motivations for five sanitation and hygiene behaviors: latrine construction, latrine use, handwashing, safe disposal of child feces, and MHM. Four research questions guided the research:

1. What are the barriers and motivations for the following sanitation and hygiene behaviors?
   a) Latrine construction
   b) Latrine use
   c) Safe disposal of child feces
   d) Handwashing
   e) MHM

2. How do gendered social norms and gender relations influence sanitation and hygiene behaviors and related outcomes?

3. What are the processes and roles that men and women play in household decision-making around latrine construction? How do gendered social norms influence household decision-making about latrine construction?

4. What are the implications of COVID-19 on these behaviors?

2.2 RESEARCH METHODS

From October to December 2019, the research team conducted a desk review, a set of KIIIs, and a stakeholders' meeting to gather information on the select sanitation and hygiene behaviors, specifically on their behavioral determinants and gender-related considerations. Findings from these initial investigations (Appendix I: Desk Review Findings) informed development of the protocol for focus group discussions and key informant interviews (Appendix II: Field Research Protocol).

Following an extended pandemic-related hiatus, the WASHPaLS team began the data collection phase with a four-day training (February 2-5, 2021) for the research team in Nampula. In light of pandemic-related travel restrictions, the Team Lead and Senior Gender Research Specialist led the training, with virtual support from the WASHPaLS home office team. The four-day training consisted of three days of in-person sessions, during which the team learned about the study objectives, study protocol, and the technical foundations of WASH, behavior change, and gender-related considerations. The training also covered best practices in qualitative research and practiced facilitating and documenting FGDs under observation. The training culminated with a one-day pilot test/practice of the study tools in a community near Nampula City. The researchers then split into two groups: one for Nampula Province and one for Zambezia Province.

2.3 STUDY LOCATIONS

In preparation for data collection, the Home Office Team and two Senior Research Specialists solicited the support of Aid for the Development of People for People (ADPP) and the United Nations Children's Fund (UNICEF) to identify districts and communities in Nampula and Zambezia provinces to include in the study. The team considered geographic variability when selecting districts and communities,
choosing one coastal district in Nampula (Nacala-Porto) and one inland district (Meconta). In Zambezia, both districts were in the mountainous region of the province (Gurue and Milange). In each province, the team selected four communities: one rural community which still practiced open defecation (OD); one rural community that was open defecation free (ODF), as established by national standards; and two peri-urban communities. Despite their attempts to choose both OD and ODF areas, researchers observed little difference in defecation practices between the communities. In response, the team chose an additional community in Zambezia (Sianimbeu) which did not have a history of community-led total sanitation (CLTS) activities and still widely practiced OD.

In the inception report, the team recommended selecting one peri-urban community that was of the religious majority of the province and the other that the religious minority predominantly inhabited. However, consultations with the Senior Research Specialists revealed that asking about religious affiliation was too sensitive and could potentially lead to unintended consequences. As a result, the team chose two peri-urban communities without regard for their religious composition. Table 1 presents communities that were selected for data collection.

Table 1. Characteristics of Participating Communities, by Province and District

<table>
<thead>
<tr>
<th>Province – District</th>
<th>Community</th>
<th>Rural vs. Peri-urban</th>
<th>OD vs. ODF</th>
<th>Predominant Religious Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nampula – Nacala-Porto</td>
<td>Chivato</td>
<td>Peri-urban</td>
<td>N/A</td>
<td>Muslim</td>
</tr>
<tr>
<td></td>
<td>Namessica</td>
<td>Rural</td>
<td>Designated OD&lt;sup&gt;2&lt;/sup&gt;; Observed Rural ODF&lt;sup&gt;3&lt;/sup&gt;; (most of the households had latrines, but there was no official declaration)</td>
<td>Muslim</td>
</tr>
<tr>
<td>Nampula – Meconta</td>
<td>Neimara</td>
<td>Designated peri-urban&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Observed Rural ODF</td>
<td>Christian</td>
</tr>
<tr>
<td></td>
<td>Varieque</td>
<td>Rural</td>
<td>OD</td>
<td>Christian</td>
</tr>
<tr>
<td>Zambezia – Gurue</td>
<td>Metovolas/Magigi</td>
<td>Rural</td>
<td>ODF (Declared 2020)</td>
<td>Christian</td>
</tr>
<tr>
<td></td>
<td>Bairro Novo</td>
<td>Peri-urban</td>
<td>N/A</td>
<td>Christian</td>
</tr>
<tr>
<td>Zambezia – Milange</td>
<td>Waua</td>
<td>Rural</td>
<td>OD CLTS occurred but not yet achieved ODF</td>
<td>Christian</td>
</tr>
</tbody>
</table>

---

<sup>2</sup> Designated by implementing partners as OD or ODF.

<sup>3</sup> Researchers observed that most households had latrines; high degree of latrine ownership also reported by participants.

<sup>4</sup> Designated by implementing partners as peri-urban.
2.4 DATA COLLECTION

Data collection occurred between February 8 and March 5, 2021. The team conducted 39 FGDs with 433 participants (239 women; 194 men), and 22 KIIs (4 women; 18 men) with community leaders and activists, district WASH officers who implement CLTS and Participatory Hygiene and Sanitation Transformation (PHAST) work within the government offices of District Planning and Infrastructure Services (SDPI), and representatives from organizations working on Community Participation and Education (PEC) (Table 2 and Table 3).

For the FGDs, the team used a semi-structured guide that incorporated a vignette approach in which, in response to facilitator prompts, participants described a typical woman in their community, what she did during her day and what she might do regarding the select sanitation and hygiene behaviors (Appendix II: Field Research Protocol). The team opted for this approach to reduce social desirability bias amongst the participants and to elicit information about behavioral patterns, including barriers and motivations for these behaviors in participating communities. Because the team did not submit the study protocol for ethical review and approval, they never inquired about informants’ actual practices; instead, they asked hypothetical questions about “people like you,” “people in your community,” or the “typical woman.”

The KII guide included questions to elicit information about sanitation and hygiene behaviors as well as on past or ongoing programs for social and behavior change (SBC) related to these behaviors (Appendix II: Field Research Protocol). A woman facilitator led both KIIs and FGDs, accompanied by a woman notetaker who took detailed notes by hand that she later typed up and the team further processed.

Table 2. Total Number of FGDs and KIIs by Province, District, and Community

<table>
<thead>
<tr>
<th>Province - District</th>
<th>Community</th>
<th>Number of FGDs</th>
<th>Number of KIIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nampula - Nacala-Porto</td>
<td>Chivato</td>
<td>5 FGDs</td>
<td>4 KIIs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• District Service of Health and Social Affairs (SDSMAS) Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community Agente Polivalente Elementar (APE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community water and sanitation committee representative</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community Leader</td>
</tr>
<tr>
<td>Namessica</td>
<td>5 FGDs</td>
<td>• 3 women; 2 men</td>
<td>5 KIIs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community Activist</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community Leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community water and sanitation committee representative</td>
</tr>
<tr>
<td>Province - District</td>
<td>Community</td>
<td>Number of FGDs</td>
<td>Number of KIIs</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 FGDs</td>
<td>1 KII:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• Community Traditional Midwife</td>
</tr>
<tr>
<td>Nampula - Meconta</td>
<td>Neimara</td>
<td>5 FGDs</td>
<td>3 KIIs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• Community Leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• SDPI Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• SDPI Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• CLTS Promoter under SNV HH4A Project (2017-2019)</td>
</tr>
<tr>
<td></td>
<td>Varieque</td>
<td>5 FGDs</td>
<td>1 KII:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• Community Leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• SDPI Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• CLTS Promoter under SNV HH4A Project (2017-2019)</td>
</tr>
<tr>
<td>Sub-total for Nampula</td>
<td></td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Metovolas/Magigi</td>
<td>5 FGDs</td>
<td>2 KIIs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• SDPI Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• PEC Supervisor</td>
</tr>
<tr>
<td></td>
<td>Bairro Novo</td>
<td>5 FGDs</td>
<td>2 KII:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• WASH Committee Leaders</td>
</tr>
<tr>
<td></td>
<td>Waua</td>
<td>5 FGDs</td>
<td>3 KIIs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3 women; 2 men</td>
<td>• SDPI Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• PEC Supervisor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Organizacao Mulher Mocambicana (OMM)</td>
</tr>
<tr>
<td></td>
<td>Bairro 3 de Fevereiro</td>
<td>2 FGDs</td>
<td>2 KII:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 woman; 1 man</td>
<td>• WASH Committee Leaders</td>
</tr>
<tr>
<td></td>
<td>Sianimbeu</td>
<td>2 FGDs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 woman; 1 man</td>
<td></td>
</tr>
<tr>
<td>Sub-total for Zambezia</td>
<td></td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>39</td>
<td>22</td>
</tr>
</tbody>
</table>

**Table 3. FGD and KII Women and Men Participants by Province, District, and Community**

<table>
<thead>
<tr>
<th>Province - District</th>
<th>Community</th>
<th>Women FGD participants</th>
<th>Men FGD participants</th>
<th>Women KII participants</th>
<th>Men KII participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nampula - Nacala-Porto</td>
<td>Chivato</td>
<td>30</td>
<td>21</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Namessica</td>
<td>26</td>
<td>20</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Nampula - Meconta</td>
<td>Neimara</td>
<td>30</td>
<td>20</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Varieque</td>
<td>19</td>
<td>28</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Following each day of data collection, the provincial teams met to complete a daily debrief template and discuss highlights and notes from the day. Provincial team leads shared these templates with home office team members who provided substantial virtual support and met twice a week with each provincial team. In addition to providing quality control, the home office team reviewed all notes daily, providing feedback and additional probes for clarification, as needed.

**COVID-19 Risk Mitigation**

During training of field staff, data collection, and the participatory analysis, the team adhered to risk mitigation protocols for COVID-19, which are noted in the inception report. These strategies ensured that none of the team members had been exposed to COVID-19 nor were exhibiting any symptoms of COVID-19 prior to participating in team events. They also ensured the provision and donning of masks for the research team and participants and the maintaining of proper distance when conducting discussions, interviews, or meetings.

### 2.5 DATA ANALYSIS

Following five weeks of data collection, the Mozambique-based team reconvened from March 15-19, 2021 in Maputo for one week of participatory analysis. This group included the Team Lead, Senior WASH Research Specialist, and the two facilitators for the Nampula and Zambezia teams. Due to continued travel restrictions, home office staff participated virtually. The purpose of the participatory analysis was to address the research questions and to identify:

- behavioral determinants for each of the five behaviors;
- gendered considerations for decision-making related to latrine construction;
- gendered social norms and gender relations, as determinants of the five behaviors;
- common themes across the communities and provinces;
- contextual differences between provinces, communities, and rural vs. peri-urban settings; and
- the implications of COVID-19 on the select sanitation and hygiene behaviors, as well as the effects on household decision-making, resource allocation, gendered roles and responsibilities, and motivations for handwashing.

<table>
<thead>
<tr>
<th>Province - District</th>
<th>Community</th>
<th>Women FGD participants</th>
<th>Men FGD participants</th>
<th>Women KII participants</th>
<th>Men KII participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zambezia - Gurue</td>
<td>Metovolas/Magigi</td>
<td>29</td>
<td>22</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Bairo Novo</td>
<td>36</td>
<td>32</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Zambezia - Milange</td>
<td>Waua</td>
<td>30</td>
<td>20</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Bairo 3 de Fevereiro</td>
<td>30</td>
<td>20</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Sianimbeu</td>
<td>9</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>239</strong></td>
<td><strong>194</strong></td>
<td><strong>4</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>
Reviewing notes from across the nine communities, the team documented key findings on sticky notes, with different colors for findings from OD, ODF, and peri-urban communities. The team then arranged these sticky notes on flip charts that organized the data by determinant and gender-related considerations (see participatory analysis template in Appendix II: Field Research Protocol). They also documented the frequency with which findings were repeated using a star-based coding system. One star signified that the finding surfaced just one or two times; two stars meant that a finding came up at least three times; and three stars meant that the finding was mentioned by many, most, or all of the participants.

The Mozambique-based team organized these findings prior to meeting with home office staff, who then reviewed the findings daily and provided input to guide further analysis. At the end of the participatory analysis process, the Mozambique team typed findings into the participatory analysis template—one template per behavior per province—in Portuguese and later the information into English via Google Translate. Portuguese versions of these participatory analysis templates along with the notes from the discussions and interviews (also in Portuguese) served as the final dataset for the activity (available upon request). Appendix III: Participatory Analysis Template provides more concise versions of the completed participatory analysis templates in English.

The behavioral determinants listed within the participatory analysis template were based on the Elephant Rider Path (ERP) framework, which includes WASH-specific determinants derived from the SaniFOAM framework (Devine, 2009) as well as other behavioral determinants from the Capability, Opportunity, and Motivation for Behavior (COM-B) model (Michie, et al., 2011). The ERP framework (Heath & Heath, 2010) starts from a simple premise: the decision to engage in any behavior is often a competition between intuitions and emotions (the Elephant) and rational, logical reasons (the Rider). Completing the picture is the larger, external context within which a behavior takes place (the Path). The Path describes all the variables that are outside of an individual’s control and that determine which direction the Elephant and Rider take. Table 4 illustrates how the determinants fit according to the ERP framework. Using the ERP framework helps to analyze the most influential determinants of behavior and to plan behavior-focused interventions that target the factors most likely to affect change.

### Table 4. Behavioral Determinants According to the Elephant Rider Path Framework

<table>
<thead>
<tr>
<th>ELEPHANT</th>
<th>RIDER</th>
<th>PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beliefs/attitudes:</strong> An individual's understanding and perceptions of products and services, of behaviors themselves, and of those who engage in them</td>
<td><strong>Knowledge:</strong> Factual information acquired through learning and/or experience</td>
<td><strong>Access/availability:</strong> One’s ability to obtain or retrieve products and services as influenced by cost, availability, supply, transportation, geography, socioeconomic characteristics. Can also be influenced by cultural and gender norms.</td>
</tr>
<tr>
<td><strong>Values:</strong> Important and enduring ideas shared by the members of a community about what is good or desirable and what is not</td>
<td><strong>Self-efficacy:</strong> One’s perception of their own ability to engage in a behavior and bring about a desired result</td>
<td><strong>Product attributes:</strong> Characteristics that define a sanitation or hygiene product or service (size, color, quality)</td>
</tr>
<tr>
<td><strong>Affordability:</strong> One’s ability to pay for a product or service or to engage in a behavior</td>
<td><strong>Social support:</strong> Physical and emotional comfort given to individuals by family, community</td>
<td><strong>Path:</strong> Structural</td>
</tr>
<tr>
<td><strong>ELEPHANT</strong></td>
<td><strong>RIDER</strong></td>
<td><strong>PATH</strong></td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td><em>Emotional/physical/social drivers:</em> Internal thoughts and feelings that motivate behavior</td>
<td><em>Roles and decisions:</em> The cognitive process resulting in a course of action, dictating who within a family or community does certain tasks or assumes particular responsibilities</td>
<td><em>Social norms:</em> Rules, most often unwritten, based on widely shared beliefs, that govern what individuals in a group or society perceive to be acceptable behavior</td>
</tr>
<tr>
<td><em>Willingness to pay:</em> How much individuals are interested in paying and for what benefit</td>
<td><em>Competing priorities:</em> Competing demands for household expenditures given limited resources</td>
<td><em>Sanctions:</em> Consequences for not adhering to or complying with particular behaviors</td>
</tr>
<tr>
<td><em>Intention:</em> An individual’s plan on whether or not to engage in a certain behavior</td>
<td><em>Roles and decisions:</em> Competing demands for household expenditures given limited resources</td>
<td><em>Habits:</em> A behavior that one performs routinely and subconsciously</td>
</tr>
<tr>
<td><em>Social norms:</em> Rules, most often unwritten, based on widely shared beliefs, that govern what individuals in a group or society perceive to be acceptable behavior</td>
<td><em>Sanctions:</em> Consequences for not adhering to or complying with particular behaviors</td>
<td><em>Friction for undesirable behaviors:</em> Physical or psychological obstacles which make it more difficult to perform undesirable behaviors and consciously or unconsciously guide actors to improved practices.</td>
</tr>
</tbody>
</table>

*Source: Devine, 2009, Michie et al., 2011.*
3.0 FINDINGS FROM FOCUS GROUPS AND KEY INFORMANT INTERVIEWS

We organized the findings into two sections. First, we describe the context of the nine communities by providing findings based on the vignette exercise completed within the focus groups. Second, we describe findings for each of the WASH behaviors across all communities in Nampula and Zambezia.

3.1 FINDINGS RELATED TO VIGNETTE EXERCISE

3.1.1 EXAMPLES OF A “TYPICAL WOMAN” AND HOUSEHOLD

To set the stage for the focus group questions asking about “people in your community,” facilitators guided participants to shape a vignette protagonist, naming her and providing details about her immediate life. Participants described a typical woman in their community as: married, in her twenties or thirties, having between one and seven children, and living with her husband, children, and relatives (mostly nephews, but sometimes siblings, a mother, or grandmother):

“Elisa is a 35-year-old married woman, with six children and she only lives with her children and husband” (Men’s FGD, Guide 3, Rural OD, Varieque, Nampula).

“Neyma is 28 years old, married and has two children. She lives with her husband, children, and her nephew” (Women’s FGD, Guide 2, Peri-urban OD, Bairro Novo, Zambezia).

In Zambezia, her typical age was 25 and she had three children; in Nampula, the protagonist tended to be older and have more children. Chivato in Nampula differed notably from other communities, as the majority of the men and women participants in the FGDs described the protagonist as a single or separated woman living with her children:

“Pinthe is 28 years old, a mother of 2 children. She has no latrine, she is not married, she is a single mother. She lives only with her children” (Men’s FGD, Guide 3, Peri-urban ODF, Chivato, Nampula).

The type of house in which the protagonist lived differed between provinces. Participants described houses in Nampula as being made of wood or adobe blocks and covered with grass. In Zambezia, they described houses as being covered with grass but with walls made of burnt blocks and a floor made of clay. Additionally, most houses described in Zambezia had a designated place to put garbage as well as a tippy-tap near the latrine, neither of which were mentioned in Nampula.

In both provinces, FGD participants in most communities described the protagonist as having a latrine and a bathhouse (a secondary structure similar to the latrine in shape, height, and construction materials, that is used for bathing, menstrual hygiene, and sometimes urination), even in OD communities. However, in the rural, OD community of Sianimbeu in Zambezia and in the ODF, peri-urban community of Chivato in Nampula, participants described the protagonist as not having a latrine and using neighbor’s latrine or the field to defecate. In Chivato, not having a latrine was directly associated with not having a man at home, as supported by women in one FGD:

“Halima is 35 years old. She is not married and is a mother of three children. She only lives with her children and does not have a latrine because she has no husband and does not see who can help her to build” (Women’s FGD, Guide 3, Peri-urban ODF, Chivato, Nampula).

In most communities, participants described a typical day in the protagonist’s life as starting at four in the morning. The protagonist would clean herself, wash dishes from the previous day, go to the water
point to collect water and then go to the machamba (field) where she grows food products and where she would retrieve firewood to use for cooking. Her day would continue with cooking lunch, looking after her children, and sometimes looking for seafood, in coastal areas, when no vegetables were available. Participants in Nampula noted that children also help with cleaning the yard, cooking, and fetching water. They noted that fetching water took a long time due to the distance between the water points and the houses, as well as the breakdown of hand pumps. One FGD participant in Varieque, Nampula, described this process as follows:

“Elisa wakes up at 4 am (…) when her children stay at home, they are the ones who fetch water from the existing unprotected well, because on the days that Elisa goes to the well, she can’t go to the field anymore. If she leaves at 7 am she can only come back around 1 pm or even 3 pm, there is a lack of water in the community and the distance from home to the hand pump is very long” (Men’s FGD, Guide 3, Rural OD, Varieque, Nampula).

Rarely did FGD participants mention that the protagonist had time for leisure, except for a FGD with men in Bairro Novo, a peri-urban community in Zambezia. There, male FGD participants described the protagonist as having time to chat with her friends after finishing most of her tasks and before preparing dinner as described below:

“After lunch, she rests a little and goes to fetch water for the bathroom and to wash dishes. Then she goes to talk to her friends for twenty-five minutes and comes back to prepare dinner at 3:30 pm” (Men’s FGD, Guide 2, Peri-urban ODF, Bairo Novo – Zona B, Zambezia).

3.1.2 BUDGET PRIORITIES FOR A TYPICAL HOUSEHOLD

FGD participants described household budget priorities as: securing food, improving the structure of the house, buying agricultural tools and clothes, and building an improved latrine. According to male FGD participants in Metovolas, Zambezia, most households produce the majority of food they consume in the machambas. Their main budgetary priorities were building an improved latrine, buying clothes for their children, building or improving upon their houses, including purchasing sheets of zinc for their homes. Others mentioned purchases such as a bicycle, additional tools to use in the machambas, and furniture. Similarly, in Chivato, Nampula, female participants viewed food as the main priority followed by improving the house with zinc sheets for roofs, buying clothes for the adults and the children: “First, if she had money, she would buy food for the house, then she would think about other arrangements in the house, like building a latrine, buying dishes, etc.” (Women’s FGD, Guide 1, Peri-urban ODF, Chivato, Nampula).

In both provinces, men held the decision-making power behind these decisions, though on occasion, women held the decision-making power, especially when single or separated. Sometimes, couples shared decision making: “(…) the extra money must be spent on the decision of both, after sitting between (agreeing) them but the final decision of what they can buy is almost always the man’s” (Men’s FGD, Guide 1, Rural ODF, Metovolas, Zambezia).

3.1.3 WASH CONDITIONS IN THE COMMUNITIES

While OD communities selected for the study were not officially ‘declared’ or certified ODF, many communities had been exposed to several WASH and health programs to move them towards attaining ODF status. Moreover, many ODF certified communities would no longer qualify as such, either due to “slippage,” reversion to OD, or flawed original certification, according to KIIs (e.g., SDPI technicians and PEC officers). As such, knowledge of ideal sanitation and hygiene behaviors and reported compliance with these behavioral norms were very high in the eight communities that had been exposed to WASH and health messaging through past and ongoing programs. In Sianimbeu, Zambezia, the only community that was truly OD and that had not received any WASH or health programming (including CLTS, or
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Saneamento Total Liderado pela Comunidade [SANTOLIC] in Portuguese), the research team observed key differences in sanitation and hygiene behaviors, noted in following section. However, participants reported few other differences in sanitation and hygiene behaviors in other communities when comparing within or between provinces.

3.2 FINDINGS BY HYGIENE BEHAVIOR

In this section, we share the findings organized by the five behaviors of interest: latrine construction, latrine use, handwashing, child feces disposal, and MHM. We start the discussion of each behavior with a summary of the findings, which is followed by a narrative presentation of findings subdivided by elephant, rider, and path, and tagged with the behavioral determinants in bold. Each section only includes behavioral determinants reported by participants, excluding determinants from the framework in Table 4 that were not mentioned in the discussions or interviews. We summarize the gender-related findings in each section, and tag any gender-related findings appearing in the main text outside the gender considerations sub-section.

The findings from the FGDs and KIIs conducted in the nine communities in Nampula and Zambezia in February–March 2021 were largely consistent with themes the team identified through the desk review, KIIs, and stakeholder meeting (see Appendix I: Desk Review Findings) in October-December 2019. Each behavior-specific section ends with a sub-section that briefly describes the areas of agreement and discordance between the two research phases (i.e., 2019 and 2021) (the findings are juxtaposed in greater detail in Appendix I: Desk Review Findings). The team considered all findings to develop the recommendations presented in Section 4.

3.2.1 BEHAVIOR I: LATRINE CONSTRUCTION

The reported behavioral determinants for latrine construction are summarized in Table 5 and described in greater detail below.

Table 5. Summary Table of Determinants by ERP: Latrine Construction

<table>
<thead>
<tr>
<th>ELEPHANT</th>
<th>RIDER</th>
<th>PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beliefs/attitudes:</strong> Respondents considered latrine ownership to be good; building and/or having latrines was the socially acceptable behavior. They viewed those who did not own latrines as unhygienic, lazy, or stubborn.</td>
<td><strong>Knowledge:</strong> Most people were able to cite the health and hygiene reasons to build and own latrines. High levels of knowledge were linked to past and ongoing WASH and health programs. School-going children also knew about the reasons for latrine ownership and encouraged their parents. People seemed to know how to construct latrines and did not need additional</td>
<td><strong>Access/Availability:</strong> Materials to construct traditional latrines were readily available in the forest/bush. <strong>Product attributes:</strong> Traditional latrines built of local materials (bamboo, grasses, and homemade bricks [in Zambezia]) were most common. These lacked roofs</td>
</tr>
<tr>
<td><strong>Values:</strong> In Nampula (Nacala-Porto), stakeholders linked the</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5 During focus group discussions, the team asked participants about typical conditions within the community (rather than individual experiences), including about latrine ownership.
<table>
<thead>
<tr>
<th>ELEPHANT</th>
<th>Rider</th>
<th>Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional/Intuitive</td>
<td>Rational/Logical</td>
<td>Structural</td>
</tr>
</tbody>
</table>

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High prevalence of Muslim households to the high prevalence of latrines, associating valuing hygiene, safety, and privacy while defecating/urinating (especially for women) with latrine ownership.

**Emotional/physical/social drivers:** Participants commonly cited shame in not owning a latrine. Shame in not owning a latrine was more pronounced for women.

**Willingness to pay:** In Zambezia, women reported prioritizing latrine construction, demonstrated by using their funds earned from selling farm products for the task.

**Competing priorities:** In Nampula, people cited purchasing food and/or other household items (e.g., dishes) as competing priorities for latrine construction.

Training or assistance of others (e.g., masons). In Nampula, respondents did express a desire for improved latrines with concrete slabs; however, they do not know how much they cost nor how to go about building them.

**Self-efficacy:** Only men (not elderly men) were seen as having the ability to dig the pits for latrines and cut bamboo for the superstructure. Women did not report being able to build latrines; however, they could hire someone else to do so.

**Affordability:** Household members used local materials to build latrines; thus, affordability was not seen as a key barrier.

**Social Support:** Women received support (and peer pressure) from friends to encourage their husbands to build latrines. They also solicited support from other community members, leaders, and even the police to pressure husbands to build latrines.

**Roles and Decisions:** Men were responsible for building a latrine, namely digging the pit and cutting the bamboo. Women could support them by cutting grasses and preparing food for any men helping with construction. Regarding the decision to construct latrines, women often started the discussions and encouraged their husbands, but husbands made the final decisions (in Nampula the decision was a joint one) as the household head with the knowledge of and responsibility for latrine construction. Women did and were often constructed as short structures (in Zambezia). It was quite common to have an accompanying bath house, which was used for MHM and often urination.

**Social norms:** In all communities except Sianimbeu there were strong norms promoting latrine ownership and sanctioning those who did not own latrines.

**Sanctions:** Community members, leaders, and police put pressure on non-owners. In Zambezia, non-compliant households who refused to build latrines received threats of expulsion from the community. No additional social disapproval was directed towards female headed households or households comprised of elderly persons as they were not perceived as being able to build latrines without having a man in the house.
Gender Considerations

- More women prioritized latrines as compared to men in both Nampula and Zambezia, sometimes using their own funds to pay for latrine construction; however, in Nampula, women reported that costs associated with latrine construction competed with other household purchases like food and dishes. Even then, women supported latrine construction.

- Women were more motivated to have a latrine of their own because latrines afforded privacy, convenience, safety, and conferred a sense of pride, particularly as women were seen as responsible for WASH conditions within their households. They felt peer pressure to own latrines and lobbied their husbands to build latrines.

- Husbands ultimately made the decision to construct latrines, given their status as heads of the households and the ones physically building the latrines. Women’s role was to cut grasses for the superstructure and provide food for the men building the latrines.

Participants reported that owning latrines was the socially acceptable behavior (beliefs), likely linked to past or ongoing WASH and health programs. Furthermore, they perceived people who did not own latrines as unhygienic, lazy, or stubborn (attitudes):

“(...) sometimes they shame [them] by calling them unhygienic until they build it. People who do not have latrines are those who are stubborn and lazy” (Women’s FGD, Rural OD, Guide 3, Varieque, Nampula).

“Not having a latrine here in the community is not good because in addition to being badly spoken, one person is frowned upon by everyone saying that [our] community is all dirty, they defecate in any way, even defecate on the roads” (Men’s FGD, Guide 3, Rural OD, Varieque, Nampula).

Participants also reported that having one’s own latrine was more convenient than trekking out to the bush for OD (especially in the rainy season when paths were slippery or muddy) or requesting the permission of a neighbor to use their latrine, a request that also elicited shame, especially for women who were more often at home and thus more likely to require use of their neighbor’s latrine (emotional, social, physical drivers, gender). Another source of shame associated with non-ownership of latrines was in not being able to offer use of a latrine to visitors: “It’s good to have a latrine (...) to not feel ashamed when guests come to visit and also to protect yourself from cholera (Women’s FGD, Peri-urban OD, Guide 3, Bairro 3 de Fevereiro, Zambezia) (emotional, social, physical drivers).

In Nacala-Porto district, Nampula, despite the absence of CLTS programs intending to move communities towards ODF status, there was a high degree of latrine ownership reported by participants, particularly in the peri-urban community of Chivato. In addition to linking it to a lack of
“It is part of the culture and religion of the area, that households build a latrine, justified by the preference for not using toilet paper after defecating, as cleaning should be done with water” (KII District Administrator, KII Guide, Nacala-Porto, Nampula).

Participants noted that community members gained knowledge relating to latrine ownership and construction from past and ongoing WASH and health SBCC programs implemented by non-governmental organizations (NGOs) and government ministries. For example, participants in the community Namessica discussed what they learned from the USAID/Mozambique Strengthening Communities through Integrated Programming (SCIP) project that provided, among other interventions, financial incentives for latrine construction in Nampula and Zambezia: “(…) we got the information with the SCIP project that came to sensitize the community, the project brought a policy in the community that everyone needed to build latrines and bath houses (…)” (Men’s FGD, Guide 2, Rural OD, Namessica, Nampula). Children also learned about need for latrine ownership through WASH and health programs implemented in schools; with this knowledge, they returned home and reportedly encouraged their parents to build latrines. In addition to SCIP, USAID/Mozambique’s Transform Nutrition is an ongoing SBC project operating in Nampula, aiming to change behaviors related to nutrition and WASH. Another source of knowledge cited in Nampula was the APE, a volunteer from the community whose job it is to mobilize communities and promote behavior change relating to WASH and health.

After the programs were implemented, participants reported that community leaders promoted latrine ownership through coercion (further detail in the Path section) or through incentives. As described in the KII with Milange District SDPI in Zambezia, government officials or community leaders who serve as government representatives promise communities a water source once all households have latrines: “The biggest challenge is to sensitize people to build a latrine. The new policy is to tell people first to build latrines and then they can have a water source” (KII SPDI, KII Guide, Milange, Zambezia).

Participants viewed latrine construction as affordable and feasible, given that latrines are built from locally available and free materials and most households had a man who was considered capable of doing the work (affordability, gender). However, there was little knowledge about constructing improved latrines, particularly regarding the costs associated with constructing a latrine with a concrete slab or how to go about doing so.

Most households only had one latrine that could be used by all household members regardless of gender (gender); latrines could also be used by neighbors whose households lacked a latrine, particularly in peri-urban areas where there was no space for OD.

Participants reported that households without latrines tended to be those headed by women or comprised of elderly people. FGD and KII participants noted that the reasons these households lacked a latrine was because they did not have a “strong man” to build it (roles and decisions, self-efficacy, gender). Community leaders interviewed in Nampula proposed that households could hire someone to build latrines, incurring on average a cost of 50-600 MZN (April 2021 equivalent to USD 0.70-8.00) and using funds disbursed by the government as support for elderly persons: “Elderly people who benefit from

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6 Mozambique has four key social support programs: Programa de Subsídio Social Básico (PSSB) (Basic Social Subsidy Program in English), a food voucher and in-kind transfer program called the (PASD) (Direct Social Action Program in English), a
While it was not common practice to hire a mason or other skilled individual to build latrines, respondents reported soliciting the assistance of community members because more hands were needed to build latrines. Participants responded that neighbors who helped build latrines expected compensation in return for their work; the cost of their assistance, however, was much less than what a mason charged.

Path Structural

Due to past experiences with WASH and health programs that provided subsidies for latrine construction, people expected to receive some form of compensation or incentive to build latrines for their own households, as reported by community leaders in Nacala-Porto, Nampula:

“The (WASH) project brought an approach that those who build and use a latrine would receive prizes, like a bicycle or other things, but, in the end, the project did not give any. It was just their policy to motivate us” (KII Community Activist, KII Guide, Rural OD, Namessica, Nampula).

In Zambezia, community members, leaders, and the police placed immense pressure, including threats of expulsion, on households that continued to resist latrine construction (sanctions): “If the husband complains or rejects the idea of building a latrine, the neighbourhood secretary can get involved if they disagree” (Men’s FGD, Guide 2, Peri-urban OD, Bairro 3 de Fevereiro, Zambezia). Although women-headed households and those comprised of elderly persons were the least likely to have latrines, they did not experience any additional social disapproval, likely because they had a socially acceptable reason to not have a latrine (i.e., the absence of a man to build the latrine) (gender).

In every community—except Sianimbeu, where households did not own latrines—participants reported that most households had traditional latrines constructed from locally available materials (product attributes). In Nampula, people constructed latrines from readily available materials such as sticks, bamboo, and grasses. In Zambezia, households also used sticks, bamboo, or grasses, as well as raw or burned homemade bricks (access/availability). Some households purchased plastic to line the traditionally constructed slab, constituted from sand, clay, grass, and sticks. In both provinces, latrines typically lacked roofs, providing little protection from the elements. In Zambezia, latrines were short structures affording privacy only when squatting. Also, in terms of privacy, some latrines in both provinces had doors while others only had three walls. Women FGD participants in Zambezia expressed a preference for doors on latrines, citing privacy as a more salient concern (gender). Improved latrines were uncommon in both provinces; however, in Nampula, people expressed a preference for concrete slabs due to greater durability (product attributes).

“In the community, we build latrines with bamboo and grass and (they) don’t last long. (They) only last one year with rain, because they are not resistant, but if there was a cement store to buy and build improved latrines, that would last a long time” (KII Community Leader, Peri-urban OD, Neimara, Nampula).

Public works program called the Programa de Acção Social Productiva (PASP) (Productive Social Action Program in English), and a set of institutional care services for vulnerable adults, elderly people, and children without a home through the Programa de Apoio às Unidades Sociais (PAUS) (Social Assistance Program). For PSSB and PASD, local authorities identify households in need. The monthly cash subsidies are minimal and can vary between 540 MZN for one person and 1000 MZN for a household. Because the amount is so small, it is normally used to buy food that people cannot produce in their machambas. For more information, go to: http://www.ipc-undp.org/pub/eng/WP173_Mozambique_s_socials_protection_system_an_overview_of_the_basic_social_subsidy_progamma_the_direct_social_action_programme.pdf.
Respondents in both rural and peri-urban communities reported that most households have a bathhouse: “The latrine was made just for defecating. The bathhouse can answer the needs of a woman and that’s where we shower” (Women’s FGD, Guide 1, Peri-urban OD, Bairro 3 de Fevereiro, Zambezia) (gender).

Some women respondents mentioned the challenges of digging latrine pits in rocky soils and of potential pit collapse when dug in sandy soils (gender). Despite frequent seasonal rains and flooding, participants rarely mentioned latrine flooding or overflows. In Zambezia, this may have been due to the geographic location of the participating communities, which were in mountainous regions where latrine collapse was not commonly reported. In Nampula, there was some mention of latrine collapse, but only when the team probed further. In Varieque, Nampula, the PEC promoter, community leaders, and some FGD participants mentioned latrine collapse due to rain. Some households reported rebuilding the latrine immediately after this occurs, while others noted that they would only rebuild after the end of the rainy season. In fact, the PEC promoter mentioned that in Neimara, Nampula, waiting to re-build latrines until after the rainy season could have been one of the reasons why this community was not declared ODF since it was after the completion of SNV’s Hand Hygiene for All (HH4A) project:

“Many communities in the district were not declared ODF, because some families did not build latrines, other communities were not declared ODF because the project was already coming to an end and there were no more visits by technicians in the communities” (KII HH4A, KII Guide, Project Promoter, Meconta, Nampula).

Gender Considerations

More women prioritized latrines compared to men in both Nampula and Zambezia. In Zambezia, women reported supporting latrine construction by using their own funds obtained from selling items grown on their farms. In Nampula, although women reported that costs associated with latrine construction posed competing priorities with other household purchases like food and dishes, they still prioritized latrines. For the reasons noted previously—privacy, safety, convenience—women were more motivated to have a latrine of their own. Additionally, because women are considered responsible for WASH conditions in the household (including fetching water, keeping the house clean, etc.), they felt
a greater sense of shame not owning a latrine and pride in having one. Pressure from their peers compounded the shame associated with non-ownership, prompting women to lobby their husbands to build latrines. In Zambezia, women exerted pressure on their husbands by soliciting the support of community members, leaders, and even the police to force them to build one. This reported practice has the potential of leading to unintended consequences, specifically violence perpetrated by shamed and pressured husbands against their wives; however, none of the participants reported such violence occurring.

In both provinces, husbands ultimately made the decision to construct a latrine or not, given their status as heads of the households and the ones physically building the latrines (with the knowledge of how to do so, acquired from neighbors, relatives, and WASH interventions). Both women and men participants reported viewing latrine construction as the role of men, who were strong enough to dig in the rocky and sandy soil and to cut down the bamboo used for the latrine superstructures. It was the woman’s responsibility to cut grasses for the superstructure, remove sand from the pit, and prepare food for those involved in constructing the latrines. The KIIIs and stakeholders’ meeting with WASH implementing partners in 2019 revealed that women’s lack of participation in decision-making around the design of latrines can affect how useful they find them, particularly when considering gender differences around privacy, security, and menstrual hygiene needs.

3.2.2 BEHAVIOR II: LATRINE USE

FGD participants identified latrine ownership as a key determinant of latrine use in all communities except Sianimbeu, where latrine ownership did not exist. Indeed, most participants reported using latrines and preferring to do so rather than openly defecating. Participants reported that community members who did not own latrines used their neighbors’ latrines, particularly in peri-urban areas, or openly defecated in rural areas. In contrast, key informants consulted in 2019 attributed low levels of latrine use to persisting social and community norms and preferences for OD as well as the smell of latrines, difficulties in maintenance, additional need for cleaning, and the ease of OD due to wide open spaces in rural areas. Table 6 below describes the following considerations for latrine use shared by FGD participants and key informants in 2021:

<table>
<thead>
<tr>
<th>ELEPHANT</th>
<th>RIDER</th>
<th>PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beliefs/attitudes:</strong> Latrine use was the socially acceptable behavior. People viewed OD as unhygienic. Everyone was allowed to use the latrine, regardless of gender or intra-family relationship.</td>
<td><strong>Knowledge:</strong> Most people could cite the health and hygiene reasons for latrine use. High levels of knowledge by FGD and KII participants were linked to past and ongoing WASH and health programs.</td>
<td><strong>Social norms/sanctions:</strong> Social norms sanctioned those that openly defecated.</td>
</tr>
<tr>
<td><strong>Values:</strong> Amongst Muslim communities in Nampula (Nacala-Porto), they expected women to use latrines for greater privacy and modesty.</td>
<td><strong>Roles and Decisions:</strong> In both women and men’s FGDs, participants reported that cleaning and maintaining the latrine were the responsibility of</td>
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Emotional/physical/social drivers: Women in particular, felt greater shame in having to OD (or having to ask to use the neighbors’ latrine). Participants expressed disgust with fecal matter in the open. They also cited safety—avoiding animal encounters or interpersonal violence—as a reason for latrine use.

Gender Considerations

- Women’s concerns around privacy, modesty, and safety drove their desires to use latrines and avoid OD.
- In both women and men’s FGDs, participants reported that cleaning and maintaining the latrine were the responsibility of all family members, including men.

FGD participants cited privacy and modesty while defecating as a key reason for latrine use, particularly women in the FGDs in Nampula (gender). Additionally, women experienced greater shame in openly defecating as they worried about being seen by others, particularly men (gender). Safety was another consideration, again particularly for women but also for men (gender). Both women and men participants reported fear of snake bites and animal encounters. In Zambezia only, there was a fear of assault, especially for women but also for men (gender). In Neimara, Nampula, one participant said that they preferred to openly defecate because they did not want their feces to mix with that of others; this is a traditional belief that is considered outdated. This belief was shared by the SDPI technician in Meconta.

In all communities except Sianimbeu, knowledge regarding the need for latrine ownership and use was very high. Nearly all participants stated the same reasons for why having and using a latrine is important, citing health and hygiene reasons as well as social norms regarding latrine ownership. Participants linked a lack of latrines and OD with greater risk of diseases such as cholera, diarrhea, and malaria, amongst others. They associated openly defecating in the machamba with plants being contaminated with fecal matter and spreading disease when consumed. Similarly, defecating outdoors during the rainy season meant that fecal matter could flow into wells or other sources of drinking water, making people sick. There was some discordance on whether it was appropriate to defecate in rivers with some reporting
As noted previously, being able to access latrines, principally owning one’s own latrine or using one’s neighbor’s latrine were key determinants of latrine use. Participants also reported that social norms sanctioned those who openly defecated in their communities, attributing these social norms to WASH and health programs.

**Gender Considerations**

Women’s concerns around privacy and safety drove their desires to use latrines and avoid OD. In both women’s and men’s FGDs, participants reported that cleaning and maintaining the latrine were the responsibility of all family members, including men. The 2019 research found that some communities have strict norms restricting men and women from using the same latrine; one key informant noted that some communities build a separate latrine for women to use during pregnancy – these findings did not arise in the 2021 research.

### 3.2.3 BEHAVIOR III: SAFE DISPOSAL OF CHILD FECES

Depending on the age of the child, participants described varying practices for disposing of child feces disposal. Children between the ages of nine months to one year wear cloth diapers made of old *capulanas* or from cotton cloth. Mothers washed diapers during the day, with soiled diapers stored in a bucket or basin overnight. They dumped feces into the latrine or buried it, and they poured water from washing the diapers into the latrine or into a hole dug in the ground. Although FGD participants reported diaper use, children who accompanied their mothers to the discussions were not wearing diapers, only skirts or shorts. Older children aged one to three or four years, typically defecated in the household yard. Their feces were left exposed and unattended until mothers were able to dispose of them. Children over age three or four tended to use the latrine on their own. At nighttime, if needed, all children were reported to defecate in the yard rather than using the latrine. Participants cited the following behavioral determinants for safe disposal of child feces:

**Table 7. Summary Table of Determinants by ERP: Safe Disposal of Child Feces**

<table>
<thead>
<tr>
<th><strong>ELEPHANT</strong> Emotional/Intuitive</th>
<th><strong>RIDER</strong> Rational/Logical</th>
<th><strong>PATH</strong> Structural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beliefs/attitudes:</strong> Participants thought of child feces as unhygienic and did not want to have the child feces in their yards.</td>
<td><strong>Knowledge:</strong> People associated child feces with diseases like diarrhea and cholera. They sought to remove them child feces quickly from the yard to prevent chickens and dogs from consuming them. Consumption of child feces by chickens was thought to contaminate the</td>
<td><strong>Access/availability:</strong> Readily available, old <em>capulanas</em> were used as diapers. Disposable diapers were only mentioned in peri-urban communities. Water scarcity was not mentioned as a challenge for washing diapers (although it was for washing menstrual cloths and for handwashing). Having household</td>
</tr>
<tr>
<td><strong>Emotional/physical/social drivers:</strong> Participants viewed with disgust, in the same way</td>
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that they view adult's feces. People also felt shame if visitors or neighbors saw child feces in their households or yard. There was the fear of falling into the latrine for younger children (under age four or five years).

**Competing priorities:**
Women, who were primarily responsible for child feces disposal, were sometimes too busy to deal with immediately, leading to reported delays in cleaning up the feces, principally those deposited in the yard. Household chores like cooking or responsibilities at the *machamba* kept women busy.

chickens for future household consumption.

**Self-efficacy:** Children older than four or five typically used latrines unaccompanied. Younger children could not (or were not allowed) to use latrines unaccompanied.

**Affordability:** Affordability was not an issue because most people used old *capulanas* as diapers. No “enabling products” available.

**Social Support:**
Husbands/fathers and older siblings occasionally helped dispose of with child feces disposal when mothers were busy or not at home.

**Roles and Decisions:** It was primarily the role/responsibility of mothers to deal with child feces disposal, including the washing of diapers and removing feces from the yard. They were the ones also responsible for introducing children to latrine use.

latrines made child feces disposal much easier.

**Product Attributes:** Old *capulanas* or cotton diapers were typically used as diapers.

**Social norms:** It was unacceptable for child feces to be left lying around the yard for extended periods.

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**Gender Considerations**

- No gender-related differences for common disposal practices of girls’ or boys’ feces
- Mothers were responsible for dealing with disposal and for teaching children to use latrines
- Men and other siblings helped if the mother was away from home or busy with other tasks.

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Just as with adult’s feces, most people viewed child feces with *disgust* and as unhygienic (*emotional, social, physical driver*). Only in Chivato, Nampula did participants emphasize the difference in smell...
between a breastfed, nine-month old’s feces and a solid-food-eating three-year old’s feces: “A nine-month old child is not the same as a three-year old, because a three-year old can at least go to the latrine and the smell of feces of the three-year old is different from the nine-month-old” (Women’s FGD, ODF Peri-urban, Chivato, Nampula). As a result, the three-year old was expected to use the latrine, while it was considered acceptable to use diapers for a nine-month-old or to have them defecate in the household yard.

A key reason why one- to four-year-old children defecated in the yard was because mothers reported fearing that they might fall into latrines and that they required supervision, which took mothers away from household duties (competing priorities, gender). Though participants reported that it was acceptable for children this age to defecate in the household yard, typically, feces were removed right away. They did not want visitors or neighbors to see their yards littered with children’s feces. Not only did they fear social disapproval (shame), but they also did not want household animals (i.e., chickens, dogs) consuming the feces and/or children playing with the feces. Mothers reported delaying dealing with the feces if they were occupied with other tasks such as cooking. In these cases, the feces might remain until the task is done so as not to risk burning the food or displeasing husbands who are waiting for their meal (competing priorities, gender). Some men, on the other hand, reported wanting women to dispose of child feces before finishing their other tasks:

“...” (Men’s FGD, ODF Peri-urban, Chivato, Nampula).

Community members linked child feces with the risk of disease, with the same sense of risk as for adult’s feces (knowledge). Participants viewed immediate removal of child feces from the household yard as critical for keeping chickens and dogs from consuming the feces and noted that chickens that had ingested child feces were contaminated and could spread disease. This knowledge was linked to WASH and health programs with a specific attribution to government programs in which women were encouraged to participate as primary caregivers (roles and decisions, gender). Mothers were usually responsible for the disposal of feces, as well as teaching children to use latrines (roles and decisions, gender). Male participants were also aware of practices related to the disposal of child feces; however, beyond reinforcing latrine use (social support) when observing an older child openly defecating and assisting when mothers were busy or away from the home, disposing of child feces was not cited as a man’s role and responsibility (roles and decisions, gender):

“The mother is the one who cleans the child or sometimes with the help of an adult child at home or even with the help of the father. At night when the child defecates, the mother takes off the diaper or shorts and puts in a bowl to wash the next day” (Women’s FGD, Peri-urban OD, Neimara, Nampula).

“When a nine-month-old child wants to defecate, the mother [squats down] and puts the child between [her legs] to allow the child to defecate, removing the feces with a hoe and throwing in the latrine and then cleaning the child with water. Mothers are the one who clean the child and sometimes the child’s father helps but most of the time the mother is the one who cleans” (Men’s FGD, Rural OD, Varieque, Nampula).

Children older than three years old reportedly used the latrines because they were able to do so unattended (self-efficacy).
Mothers reported using readily available, old capulanas as diapers (accessibility/availability). Very few households apart from those in peri-urban areas reported using disposable diapers. Participants did not report knowledge or use of other products like child potties. Ownership of latrines made disposal of child feces and washing infant diapers much easier, as reported by mothers (access/availability, gender). If the household lacked a latrine, they typically buried fecal matter, as it was unacceptable to leave feces lying around (social norms).

**Gender Considerations**

Participants did not report gender-related differences for disposing of girls’ and boys’ feces. Typically, mothers were responsible for dealing with child feces disposal (roles) and for teaching children to using latrines, as previously mentioned. However, participants reported receiving limited support from fathers and other siblings if mothers were away from the home (e.g., in the machamba) or busy with other tasks (social support). Most men said that they offer to help when at home or not busy. Some women also mentioned that men also help, but it was not an obligation, as this task was assumed to be the mothers’ responsibility.

### 3.2.4 BEHAVIOR IV: HANDWASHING

In both Nampula and Zambezia, participants reported washing their hands in a communal bowl or basin. The bowl is filled with water that is typically not replaced until it is visibly dirty. Guests are given a fresh bowl of water in which to wash their hands. Within a family, the husband was reported to wash his hands first, followed by the mother, and then the children: “We wash our hands in the same basin, but first the husband, followed by the wife and finally the children and if the water is dirty, we spill it and change the water to clean water” (Women’s, Guide 3, Rural OD, Varieque, Nampula) (gender). Although participants knew that washing hands with running water was the recommended hygiene behavior, they described using the communal bowl and simulating running water by using a cup or mug to pour water over their hands. In Zambezia, they practiced pouring clean, unused water from a communal bowl over one’s hands more than immersing hands in reused water. In addition to using the communal bowl, other methods for handwashing used in Zambezia were tippy taps (which they reported break down over time) or carrying water in a jug or glass that was then poured over one’s hands. Participants reported the following determinants to guide handwashing behavior:

**Table 8. Summary Table of Determinants by ERP: Handwashing**

| **Beliefs/attitudes:** Washing children’s hands was viewed to be a waste of water. | **Knowledge:** People could report the critical moments for washing hands and the reasons for handwashing (i.e., disease prevention). However, they did not always report washing hands at those times, particularly not in Nampula. In Sianimbeu, people believed that... | **Access/availability:** Access to water was an issue and hands were only washed at some of the critical times during water shortages (reported in Nampula). Ash or native plants were used to clean hands rather than soap |
Competing priorities: Money used for soap could also be used for purchasing other household goods like food or dishes.

Washing hands with water only was enough to prevent disease.

Affordability: Households purchased soap but prioritized its use for bathing and washing clothes rather than handwashing. Some households saw soap as unaffordable and as something that did not last.

Social Support: Children washed their hands only when supervised by their mothers.

Roles and Decisions: Women prioritized the purchase of soap more than men because they were seen as responsible for maintaining household hygiene. They did not need husbands’ permission to do so. Women and girls were also responsible for fetching water.

Gender Considerations

- Women prioritized purchasing soap because they were seen as responsible for maintaining household hygiene. They could purchase it without needing their husbands’ permission.
- Women and girls were responsible for fetching water, which can be very time consuming for some communities.

In three communities in Nampula (Chivato, Neimara, and Varieque), although participants reported knowing the critical times for washing hands, they also noted that people perceived washing children’s hands as a waste of water and washed their hands seldomly (beliefs/attitudes). In Muslim communities, hygiene and handwashing were valued as part of spiritual cleanliness and religious ablution (values):

“In relation to handwashing, it is done when people are going to eat, after defecating and when they are going to say prayers. Mothers also wash their hands when they wash children’s diapers, when they take care of the clothes used during menstruation. Hands are washed with soap and water and few people use ash” (KII APE, KII Guide, Peri-urban ODF, Chivato, Nampula).
Participants reported washing their hands with only water or water and ash rather than using soap, which households purchased but prioritized for other uses such as bathing and washing clothes (competing priorities).

As with the other sanitation and hygiene behaviors, participants had a high level of knowledge of the reasons for handwashing (i.e., disease prevention); they knew to wash hands with both soap and water. Only in Sianimbeu, Zambezia, did participants report that it was enough to wash hands with just water for disease prevention and that neither soap nor ash were needed to properly clean hands. In Zambezia, they could report all the critical moments for handwashing and reported doing so before and after eating, after using the latrine or taking care of their child feces, and prior to preparing meals or feeding children. However, in both provinces, children washed their hands only before and after eating and not after defecating, and only when supervised and supported by their mothers (social support, gender).

“Handwashing is done before and after eating, after defecating, when cooking when going to pray, but not everyone does it, especially children. Hunger can influence children’s handwashing, because if children are very hungry, they can forget that they have to wash their hands and go straight to the food. A basin is used to wash hands and a mug is used to pour running water” (KII Community Leader, Peri-urban ODF, Chivato, Nampula).

Participants cited affordability of soap as an issue; however, women prioritized the purchase of soap more than men (gender) (see gender section below for further detail).

In times of water shortage, participants reported only washing their hands at critical moments (e.g., after defecating and before and after eating (access/availability)). Participants cited access to water as a key issue, particularly in Nampula where a multi-year drought was ongoing. Some people reported perceiving soap as unaffordable and did not purchase it because it would get used up and would not last. In Nampula, people reported using readily available, native plants, such as cashew leaves, for handwashing instead of soap: “(…) if we don’t have soap, we can use Matakhu (Leaves) of cashew tree and then take ash to the area where we wash the menstrual cloths” (Women’s FGD, Guide 3, Rural OD, Namessica, Nampula).

In Zambezia, participants explained that when they did not wash their hands after defecating, it was because they did not own a latrine, and often open defecation was done somewhere without access to water or soap.

Gender Considerations

Participants reported that women prioritized purchasing soap because they were seen as responsible for maintaining household hygiene (roles and decisions, gender). They were able to do so without the permission of their husbands. It was also the responsibility of women and girls to fetch water, which participants in communities like Varieque, Nampula, reported takes a very long time because nearby water points were often broken (access, roles, gender).

3.2.5 BEHAVIOR V: MENSTRUAL HYGIENE MANAGEMENT

In the FGDs, women reported practicing traditional ways of managing menstruation, using capulanas as menstrual products. Social expectations and norms dictated that they managed their periods privately.
and with restrictions to daily activities. Table 9 summarizes the behavioral determinants for MHM reported by participants with more detailed descriptions below:

<table>
<thead>
<tr>
<th>ELEPHANT</th>
<th>Rider</th>
<th>PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beliefs/attitudes/values:</strong> Women experienced restricted mobility while menstruating because they did not feel comfortable managing their periods outside of the home, especially washing their cloths in someone else’s home. Muslim women were not permitted to attend Mosque while menstruating.</td>
<td><strong>Knowledge:</strong> Girls learned how to tie traditional menstrual cloths as part of the initiation rites. Many women preferred this method. Only women in peri-urban areas knew of disposable pads but did not report using them.</td>
<td><strong>Access/availability:</strong> Old <em>capulanas</em> are readily available for use. No/few commercial products recognized or available. Access to water for washing menstrual cloths was reported as an issue; however, women managed to get water even in times of water shortage. Bathhouses were used more than latrines to privately wash menstrual cloths.</td>
</tr>
<tr>
<td><strong>Knowledge:</strong> Girls learned how to tie traditional menstrual cloths as part of the initiation rites. Many women preferred this method. Only women in peri-urban areas knew of disposable pads but did not report using them.</td>
<td><strong>Self-efficacy:</strong> People reported that access to water for washing menstrual cloths was an issue; however, women managed to get water, working hard to do so especially in times of water shortage.</td>
<td><strong>Product attributes:</strong> Old <em>capulanas</em> used as menstrual products. Participants reported the traditional method of securing them can be quite uncomfortable and that they can cause pain or discomfort while wearing them, which limits the mobility of menstruating women. Younger women used a modified method using <em>capulanas</em> folded and tucked into underwear, called <em>nakapa</em> or <em>muthithis</em>.</td>
</tr>
<tr>
<td><strong>Affordability:</strong> Affordability not an issue because old <em>capulanas</em> were readily available and affordable.</td>
<td><strong>Affordability:</strong> Affordability not an issue because old <em>capulanas</em> were readily available and affordable.</td>
<td><strong>Social norms/sanctions:</strong> Menstruation had to be managed privately. It is a taboo topic that cannot even be discussed between mothers and daughters until girls are old enough to participate in initiation rites. Children couldn’t see menstrual blood (at the risk of embarrassment to the woman) nor husbands (risking disrespect or disease). Menstrual cloths had to be hidden as well. Menstruating women experienced several restrictions in terms of daily activities; they could not salt food, serve elders, sleep in</td>
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<tr>
<td><strong>Social support/roles and decisions:</strong> Women learned to manage their periods through traditional initiation rites led by older women trained to impart this knowledge.</td>
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</tr>
</tbody>
</table>
Gender Considerations

• [Integrated through sections above.]

Women avoided extended travel while menstruating because they did not want to have to wash their menstrual cloths in someone else’s home (beliefs, attitudes, values). Furthermore, Muslim women were not allowed to attend the mosque while menstruating (values).

Generally, women reported using old capulanas to collect menstrual blood, which were widely available and considered affordable. Only a few women in peri-urban communities were aware of disposable pads or other reusable menstrual products (knowledge). Given how private menstruation is and the taboos related to talking about it with children, young girls only learned to use capulanas to manage their menstruation as part of traditional initiation rites. Until they became old enough, menstruation was a taboo subject, even between mothers and daughters. When they reach the appropriate age, young women are taught by older women how to properly fold and secure capulanas to avoid leakage (knowledge, social support, roles and decisions). The older women who lead these initiation rites are trained to teach young women about menstruation and expectations for women. Younger women in Nampula reported using a revised version of this method by tucking folded capulanas into their underwear (which was not typically worn by older women). In Zambezia, the same method was used, with some women using traditional undergarments called mughoda. In Nampula, these are called nakapa or muthithis. Both women and men reported awareness of the menstrual management methods:

“For Elisa to absorb her period she uses nakapa which is a string that is torn from the capulana itself and the capulana folds up and sits in front of the vagina and it runs behind her butt and tightens around her waist to fix it well and not run the risk of falling” (Men’s FGD, Guide 3, Rural OD, Varieque, Nampula).

“To absorb her menstruation, she uses nakapa which is a rope made from capulana that she uses to tie on her waist and folds another cloth which goes from front to the back, between her legs and she ties the rope and the cloth around her waist very tight” (Women’s FGD, Guide 3, Rural OD, Varieque, Nampula).

Although water scarcity was an issue in many communities, especially in Nampula, women reported resorting to any means to obtain water to wash capulanas used as menstrual products (self-efficacy).
“When women are menstruating, we take three showers a day and always wash the menstrual cloths. After washing, the cloths are dried on a bush [out of sight]. We use capulana cloths which are not difficult to obtain” (Women’s FGD, Guide 3, Rural OD, Sianimbeu, Zambezia).

Capulanas were readily available for use as menstrual products (access/availability). Women washed soiled capulanas privately in the separate bathhouse structure that was either adjacent to or adjoining the latrine. If they did not have a bathhouse, women washed menstrual cloths in the forest in private. In Nampula, households lacking latrines also lacked bathhouses; however, in Sianimbeu, Zambezia, even though houses lacked latrines, they had bathhouses (access/availability). In addition to women using them for washing menstrual cloths, both women and men used the bathhouse for bathing and for urination. Participants reported disposing of the water used for washing menstrual cloths in either the latrine or in a hole in the ground if the household lacked a latrine. Participants reported water scarcity as an issue for washing menstrual cloths (access/availability).

Women experienced restricted mobility while menstruating. In addition to the pain associated with menstrual cramps and bleeding, women explained that they stayed at home and kept relatively sedentary because it was uncomfortable to wear muthithis (a traditional undergarment) and use capulanas, as both chafed from too much movement (product attributes): “When we are menstruating, we cannot travel or walk long distance because those muthithis cripple and bother” (Women’s FGD, Guide 2, Namessica, Nacala-Porto, Nampula). Women reported avoiding extended travel.

In both provinces, participants indicated strong social norms related to menstruation and menstrual blood, often resulting in harmful taboos and stigmatization. Participants explained, for example, that when capulanas are used as menstrual products, they cannot be seen or touched by anyone other than the women who use them. If children were to see them, it may cause embarrassment to the menstruating woman, and if a husband sees them, it may be considered disrespectful. Accordingly, women reported washing menstrual products in the privacy of a bathhouse or in the woods (if the household lacked a bathhouse). They hung menstrual cloths to dry somewhere out of sight, such as in the bathhouse, bedroom, or under another cloth.

“Women wash the menstrual cloths in the bathroom and the water is poured into the latrine; then they are dried inside the room so that children can’t see. Husbands can see since they share the same room” (Men’s FGD, Guide 3, Rural OD, Waua, Zambezia).

“When menstruating, women wash their menstrual cloths and fold them very well and keep them in their personal space so that the husband cannot move [the menstrual cloths] and if he moves [them], it will be a big problem that can even reach the leaders saying that the husband wants to hurt the wife or even wants to kill her” (Men’s, FGD, Guide 3, Rural OD, Varieque, Nampula).

In addition to having to manage their menstruation privately, menstruating women faced restrictions on their daily activities. For example, participants reported that when a woman menstruates, she is not able to do things like salt food, cover pots of cooking food, or serve elders. She is also required to sleep in a separate bed and abstain from having sex with her husband (at the risk of causing him a hernia or causing them both ill-health). Menstruating women often let their husbands know that they were menstruating by putting a red colored cloth on the bed, which is replaced by a white cloth at the end of their cycle.
3.3 IMPLICATIONS OF COVID-19

Amongst the nine communities participating in this study, participants did not frequently mention concerns relating to COVID-19. In Nampula, a multiyear drought accompanied by food insecurity was more pressing. When asked, participants reported that they experienced no issues related to COVID-19 and latrine construction. Latrines in their communities were constructed prior to the start of the pandemic or were constructed during the pandemic using local materials, the availability of which was not affected by global or national supply chain disruptions. On a positive note, participants also reported receiving more messages about handwashing on the radio and other channels in connection with COVID-19 prevention: “(…) we now wash our hands frequently because of this COVID pandemic, because of the information we received that we should wash our hands always” (Men’s FGD, Guide 3, Rural OD, Varieque, Nampula). (Another study conducted by WASHPaLS specifically looking at the implications of COVID-19 on the WASH sector provides greater insights, including greater attention to handwashing during the pandemic, and is available here.)
4.0 RECOMMENDATIONS

This research identifies the multiple and interconnected drivers of sanitation and hygiene behaviors, many of which are rooted in structural- and institutional-level factors (relating to the “Path” part of the ERP framework). Other determinants operate on a more individual level affecting how people feel (“Elephant”) or think (“Rider”) about behaviors and resulting outcomes. Together, these findings set the stage for the recommendations.

This section:

• presents recommendations and operational guidance for each behavior; and
• offers several overarching recommendations and critical elements for gender integration to drive hygiene and sanitation behavior change in future WASH and health programming.

Appendix V: Finding-Linked Recommendations maps the full set of findings to each recommendation, organized by hygiene behaviors (latrine construction and use, safe disposal of, handwashing, and MHM). It summarizes findings from FGDs, KIIs, the desk review, and stakeholder consultations from 2019 and 2021. For each set of findings, the table presents a corresponding recommendation and operational guidance. The final column contains tags to the ERP framework. Figure 2 provides a snapshot of Appendix V to illustrate how we organized findings, the corresponding finding-linked recommendation, its operational recommendations, and tags.

Figure 2. Snapshot of Findings, Recommendations, and Tags in Appendix V

<table>
<thead>
<tr>
<th>Findings from FGDs and KIIs</th>
<th>Findings from Desk Review, KIIs, and Stakeholder Consultation in 2019</th>
<th>Recommendation</th>
<th>Operational Recommendation(s)</th>
<th>Tags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents considered latrine ownership to be good; building, having and using latrines was the socially acceptable behavior. They viewed those who did not own latrines as unhygienic, lazy, or stubborn. Participants commonly cited shame in not owning a latrine. Shame in not owning a latrine and engaging in OOD (or having to ask to use a neighbor’s latrine) was more pronounced for women.</td>
<td>Hobessa has launched a campaign to appeal to social pride (or stigma) by marking clean and well-maintained latrines with a flag. There has been no research into whether or how this intervention might affect women differently than men. Several organizations have reported success in menstrual hygiene initiatives as a starting point for discussions about latrine use and other hygienic behaviors.</td>
<td>Use what we know about people’s prioritization of safety issues, pride/shame around not having a latrine, having to ask to use a neighbor’s latrine, or not having one for guests, particularly for women (who are more likely to be home more and be responsible for household sanitation and hygiene), to help motivate construction and use of latrines. Any strategies around this should use positive framing to emphasize pride, safety, and privacy rather than shame, danger and indignity to avoid further stigmatization, especially for women.</td>
<td>• Incorporate positive behavior change strategies in sanitation and health programs (CLTS, market-based sanitation, etc.) around the benefits of having and using a latrine like safety, pride, and privacy. o Target both men and women with messaging and channels used, and best practice for gender-integrated SBCC. o Ensure that latrine coverage programs do not capitalize on the greater shame for non-ownership of latrines reported by women. o Avoid messaging that creates even greater shame for women to openly defecate. • Conduct trainings and or community sessions so that men understand the value of women’s full participation in latrine construction decisions (e.g., benefits for the whole family, consideration of guests, children). o Ensure that stigmatizing technology choice, construction, cleaning and maintenance all include women’s input, to: • maximize use by all members of the family. • minimize burden on women (such as from water-fetching, unsafe sitting, technology less suited for women and children, technology that requires more cleaning, etc.).</td>
<td>Gender Elephant: emotional, social, physical drivers, values &amp; beliefs</td>
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<tr>
<td>Women participants expressed that privacy, safety, and convenience were key reasons to own and use latrines.</td>
<td>One informant said that women face more stigma related to their open defecation than men do (S. Mucavele, personal communication, December 20, 2019). It is unclear why women face greater social disapproval relating to open defecation; however, the disapproval is likely rooted in different social expectations for women regarding defecation, privacy, cleanliness, etc. Women and girls have privacy concerns related to menstrual hygiene, and security concerns about using a latrine in an unsafe, unlit or remote location.</td>
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<tr>
<td>Women received support (and peer pressure) from friends to encourage their husbands to build latrines. They also solicited support from other community members, leaders, and even the police to pressure husbands to build latrines.</td>
<td>Some communities have strict norms restricting men and women from using the same latrine. One respondent noted that some communities build a separate latrine for women to use during pregnancy.</td>
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<tr>
<td>In Zambeza, women reported greater prioritization of latrines by prioritizing the use of their own funds, from selling products from their farms, for latrine construction.</td>
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4.1 LATRINE CONSTRUCTION AND USE

We present recommendations and operational guidance for latrine construction and use together because their gendered and behavioral determinants, and subsequently the recommendations, are closely linked.
RECOMMENDATION 1

Use what we know about people’s prioritization of safety issues, pride/shame around not having a latrine, having to ask to use a neighbor’s latrine, or not having one for guests, particularly for women (who are likely to be home more and be responsible for household sanitation and hygiene), to help motivate construction and use of latrines. Any strategies around this should use positive framing to emphasize pride, safety, and privacy rather than shame, danger, and indignity to avoid further stigmatization, especially for women.

- Incorporate positive behavior change strategies in sanitation and health programs (CLTS, market-based sanitation, etc.) around the benefits of having and using a latrine, such as safety, pride, and privacy.
  - Target both men and women with messaging and channels used, and best practice for gender-integrated social and behavior change communication (SBCC).
  - Ensure that latrine coverage programs do not capitalize on the shame reported by women linked to not owning a latrine and avoid messaging that creates even greater shame for women using OD.

RECOMMENDATION 2

Engage men to understand the value of women’s full participation in latrine construction decisions (e.g., benefits for the entire family, consideration of guest, children, safety, etc.). Introduce couple communication and negotiation to advocate allocation of household resources for latrine construction. Use training and SBC to reduce stigma for women who wish to learn about latrine construction and to purchase materials and contract labor.

- Conduct trainings and or community sessions so that men understand the value of women’s full participation in latrine construction decisions (e.g., benefits for the whole family, consideration of guests, children, accessibility).

- Ensure that siting, technology choice, construction, cleaning, and maintenance all include women’s input, to maximize use by all members of the family, and minimize burden on women related to water-fetching, unsafe siting, technology less suited for women and children, technology that requires more cleaning, etc.

- Use SBCC to shift attitudes and behavior to reduce gendered stigma around who can build a latrine (carefully messaged so as not to add additional burden/shame to a population already overburdened).

- In the case of entrenched patriarchal gender norms that are a significant barrier to women’s participation in latrine decision-making, consider a social norms change intervention to shift community norms and facilitate more equitable decision-making and resource allocation.
RECOMMENDATION 3

Include elements in sanitation programs, such as CLTS, that promote and support households headed by women or comprised of elderly people that are less likely to construct latrines in the absence of a “strong man.” This approach should include financial assistance and local construction options for those who are unable to construct latrines even with assistance in those circumstances, as well as SBCC to dispel stigma for women seeking latrine materials/labor.

- Provide financial support for latrine construction for women-headed households and elderly households, such as targeted, market-compatible7 subsidies.

- In cases where women heads of households would like to learn more about latrine construction and/or purchase materials and hire labor (which are seen as a man’s domain):
  - As in Recommendation 2, use SBCC to shift attitudes and behavior around who can build a latrine (carefully messaged so as not to add additional burden/shame to a population already overburdened).
  - Strengthen female-headed households’ technical knowledge of latrine construction, materials, and hiring through targeted workshops (with childcare available) or other activities as add-ons to sanitation programming or as stand-alone pieces. Conduct brief needs assessment first to understand which skills/knowledge to focus on.

- Consider other community initiatives to help women-headed households and the elderly construct latrines when they cannot construct them themselves.
  - Build on existing practices of hiring neighbors or masons.
  - For the elderly, explore how and whether to make the practice of using the government support checks to build latrines more systematic.

RECOMMENDATION 4

Promote solutions in sanitation programs that better meet the challenging terrains (sandy, rocky soil) into sanitation programs.

- Assess if households can construct these latrine designs themselves, or if professional competencies are required. Build demand for these latrine designs through appropriate channels (outreach and/or market-based).

- Given that the rough terrain seems differentially prohibitive to women, explore technologies that might allow women to participate more fully in construction.

- Balance using local materials for affordability and sustainability with other materials that may be much more durable.

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7 Market-compatible: Fulfilled by a local enterprise
4.2 SAFE DISPOSAL OF CHILD FECES

RECOMMENDATION 5

Employ strategies to engage men in child feces disposal and engage men more generally as co-caregivers.

- Ensure strategies for child feces disposal that primarily target women but also engage men through additional education, messaging, images, and changing norms. See Recommendation 15.

- Incorporate elements of positive fatherhood programming in WASH and health programming to shift norms around caregiving and encourage fathers to become more equitable and supportive partners, as well as agents of change towards gender equality.

RECOMMENDATION 6

Reinforce existing positive practices of immediate safe disposal of infants’ feces.

- Explore the use of enabling technologies and parenting skills to encourage early introduction of latrine use, e.g., accompanying young child to the latrine and waiting with them; putting a rope for the child to hold on or providing other supports if fear of falling in drop hole; teach squatting sideways (both feet on one pad) for greater feeling of security. (Men can play a role here).

4.3 HANDWASHING

RECOMMENDATION 7

Build on existing positive practice of handwashing at critical times to modify harmful and ineffective elements of these current practices to encourage more hygienic handwashing. Discourage the reuse of water in washing hands and promote the practice of pouring water from a pitcher into a communal catch bowl rather than dipping into bowl. Given water scarcity, encourage use of grey water for activities such as home gardens. Promote more handwashing among children.

- Conduct rapid inquiry to identify existing household containers that can serve as pitchers for pouring water. Create a job aid (perhaps a short video for promoters’ cell phones) to demonstrate the modified practice.

- Ensure that all strategies to increase hand hygiene take into account that requirements for more water will likely increase the water fetching burden for women and girls and employ strategies to mitigate and avoid this additional burden.

- Use SBC methods such as the glitter game to demonstrate the need to wash children’s hands.

RECOMMENDATION 8

Include strategies in future programming that prioritize using soap for handwashing (in addition to bathing and washing clothes).

- Include use of soap, ash, or home-made liquid soap solution to encourage improved handwashing practice and address the perceived barrier of lack of soap availability.
**RECOMMENDATION 8**

- Promote using small pieces of soap, no longer useful for clothes washing or dishwashing, for use in handwashing or liquid soap-making.
- Provide need-based vouchers for soap to ease the financial barriers to buying soap.
- In SBCC around soap and proper handwashing, include education on intrahousehold negotiation/decision-making to reinforce women’s prioritization of soap as essential for the household, and ensure that soap is used for handwashing.

**4.4 MENSTRUAL HYGIENE MANAGEMENT**

**RECOMMENDATION 9**

Broaden access to menstrual management products other than *capulanas*, such as reusable and disposable products, complemented by provisions for appropriate disposal. Efforts to increase access should engage the local private sector to ensure supply chains, affordable price points, high quality products, and demand creation/market-based supply.

- From existing studies and during gender assessments and other baseline project research, understand barriers to use of reusables and disposables (affordability, willingness to pay, whether this is considered a worthwhile expenditure by household head, distribution, norms such as with using insertables, stigma, entrenched traditional practices, lack of soap or water for cleaning, lack of private space for cleaning, drying etc.) and address these barriers during program implementation.
- Introduce more modern reusable menstrual materials in target areas through partnerships with organizations already working on MHM in Mozambique (e.g., BeGirl).
- Introduce disposable menstrual materials.
- Provide education on the use and care of reusable products and the use and disposal of disposable MHM materials.
- Explore other product options:
  - Work with schools, health clinics and workplaces to distribute low-cost MHM products in conjunction with education about adequate MHM;
  - Disseminate ‘do it yourself’ improved menstrual pad designs to USAID implementing partners to incorporate into outreach work; and
  - Tap into networks for sewing improved menstrual pads, which have been incorporated into school-based and income-generating initiatives throughout the region.
- Work with private sector suppliers of menstrual products, as well as entrepreneurs and sales agents to market and sell disposables and reusables at affordable (and potentially subsidized) prices in target areas.
  - Several private sector companies market reusable menstrual products in Mozambique and conducted formative research and market analysis in both Nampula and Zambezia. Future
RECOMMENDATION 9

- Strategy can work toward coordinating demand creation/market-based supply of menstrual products by partnering with organizations like BeGirl and Wamina.

• Engage local manufacturers of disposable and reusable products and ensure the product standards.

RECOMMENDATION 10

Encourage more hygienic adaptations of traditional MHM practices, such as using more comfortable, clean, and hygienic cloth, cleaning and storing the cloth, and how traditional knowledge sharing related to menstruation can include hygiene messaging.

• Educate women and girls on the proper use of traditional materials, including recommendation on the types of cloth that can be used, and hygienic use, cleaning, and storage of such products.

• Work with older women, who transmit such knowledge to girls when they first get their periods, to raise their awareness about proper hygiene and care with traditional cloth and reusables so that they pass along this information.

• Build on traditional use of bathhouses in Zambezia to promote and reinforce best practices with washing and hygienic care of reusable menstrual products in a private setting where women feel comfortable.

RECOMMENDATION 11

Support advocacy and policy dialogue efforts to create a better enabling environment for MHM policies to create access to affordable products, among other benefits.

• In collaboration with existing local efforts, facilitate a national steering committee on MHM to advance national and pillar-specific policies on MHM (pillars include schools, communities, and workplaces).
  
  – Examples of national-level policies that may benefit from advocacy and technical inputs of a steering committee: National MHM Policy (see Kenya’s recently released policy for an example), review of locally available products and import taxes that could potentially inhibit local manufacturing of reusable and disposable products, clarification of which governmental entities should participate in MHM-specific policies moving forward (Ministry of Health, Ministry of Education, Ministry of Labor, etc.), and collaboration to increase engagement, reusable and disposable product standards, etc.

  – Examples of pillar-specific policies may include: national workplace policy guidance note/framework, provision of pads in schools for adolescents, review of tax structures and advocacy to remove luxury (and other) taxes on products and raw materials to increase community access in local kiosks and pharmacies, etc.

• Work with private sector and government to establish minimum standards for reusable MHM products.
RECOMMENDATION 12

Increase knowledge regarding menstruation and MHM, primarily for women and girls, coupled with efforts to shift norms and minimize taboos relating to MHM.

- Develop SBCC education materials on the physiology, health, and hygiene of MHM.
- Using these SBCC materials, carry out education sessions on the physiology, health, and hygiene of MHM.
- Consider sessions and materials targeting boys and men.
- Work with schools, clinics, and workplaces to disseminate SBCC materials and educate people about proper MHM.
- Develop strategies and materials that target behaviors and social norms that stigmatize menstruation. These materials should include best practices to shift restrictive social norms around menstruation (e.g., who can see MHM materials, restrictions on activities for menstruating women, etc.).

4.5 OVERARCHING RECOMMENDATIONS

In compliance with USAID policies and regulations, all new procurements and projects should implement best practices to reduce gender inequality and promote women’s empowerment. Findings and recommendations in this report address gender inequalities that may affect sanitation and hygiene behaviors. We identified several overarching recommendations related to sanitation and hygiene behaviors and recommend the following for all relevant projects and procurements:

RECOMMENDATION 13

Ensure WASH and health projects integrate gender into project assessment baselines and other research to maximize learning and efficiency.

- At sanitation project startup, include a gender assessment to verify findings of this formative research and explore gendered norms, attitudes, behaviors and knowledge around WASH: https://www.globalwaters.org/sites/default/files/usaidf_water_gender_tech_brief_5_508_2.pdf
- Integrate gender into all project baseline instruments and research instruments and methodologies to understand in more depth the barriers and enablers for hygiene behaviors (see above).

RECOMMENDATION 14

Ensure that project monitoring, evaluation, and learning is gender-integrated to better capture gender issues that may drive sanitation and hygiene behaviors.

- Include global and Mission gender indicators, gender-sensitive indicators, sex- and age-disaggregated data anytime people are counted.
- When possible, monitor actual/reported use of latrines (and not just by report of household head), rather than extrapolating coverage numbers. Projects often assume coverage equals use and this may not be true, especially for women, children, and other vulnerable groups. If there is
**RECOMMENDATION 14**

differential use, utilize qualitative methods to find out why certain household members are not using the latrine, or not using it consistently to troubleshoot solutions for those.

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**RECOMMENDATION 15**

Ensure that WASH and health projects use best practices for gender-integrated SBCC.


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**RECOMMENDATION 16**

Integrate best practices for gender-equitable relationships into procurements and projects.

- Build on existing best practices for engaging men as caregivers, equitable partners, and agents of change to shift unequitable gender norms.

- Integrate elements of couple communication programs (there are many examples in sexual and reproductive health programming) for couples to negotiate and prioritize household finances for latrine construction, soap, MHM products, etc.

- Target community leaders and other influential persons to promote gender-equitable norms and behaviors.
5.0 LIMITATIONS

The team conducted this formative research study in nine communities in two provinces of Mozambique, with the specific aim of developing recommendations for future programming there. As such, generalizability of the findings is limited. Additionally, the team selected communities purposively with the assistance of WASH implementing partners (ADPP and UNICEF) to identify rural communities adjoining peri-urban communities. Although the rural communities were intended to represent communities in which there were fewer latrines and more OD and communities that were ODF, in reality, many of the OD communities had been exposed to WASH and health programs and had greater latrine ownership and lower rates of OD than anticipated. Residents of these “OD” communities also reported being aware of and practicing some of the ideal sanitation and hygiene behaviors included in this study. Selection of more remote, truly OD communities such as Sianimbeu, would have provided a starker contrast to the ODF communities. Though information was collected in Sianimbeu to demonstrate contrasting data, findings were limited as the team was able to conduct only two FGDs rather than four or five in this additional community.

Further, this study was designed to elicit information on barriers, motivations, and gender considerations for select sanitation and hygiene behaviors. The study tools also solicited information about common practices amongst community members. As such, the team was able to obtain reported information on typical behaviors without the opportunity to ask about participants’ own behaviors or observe actual behaviors. Lastly, in a group setting such as an FGD, “group think” or the likelihood for participants to echo the same responses is high; it can be challenging for a participant to report on non-ideal behaviors when the rest of the group is responding otherwise.

Finally, the study was delayed and affected by the COVID-19 pandemic. One consequence was that the home office team was unable to provide in-person training and support to the teams in Mozambique. The team had to make logistical modifications while collecting data (e.g., reducing the number of FGD participants and conducting the FGDs in large enough spaces). Some participants also reported that the wearing of masks during discussions and interviews felt “strange” and did not allow them to build as much trust and rapport with the team. Lastly, due to ongoing travel restrictions, the final stakeholders’ meeting was held in a virtual format, which the team considered a potential limitation; however, the engagement and interest of over 40 participants during a two-hour session demonstrated otherwise.
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This desk review identifies gendered and behavioral determinants of selected sanitation and hygiene behaviors. Evidence is drawn largely from peer-reviewed and grey literature globally, as there is little in existing literature that specifically addresses selected sanitation and hygiene behaviors in Mozambique. This is a critical gap which the formative research seeks to fill partially while focusing on topics identified as critical by USAID Mozambique and WASH stakeholders in Mozambique.

LATRINE CONSTRUCTION AND USE

Access to improved sanitation in Mozambique is lower than in other African countries and access levels stagnated since 2010 (World Bank Group, 2018). In Mozambique, 27 percent of households still engage in open defecation nationally with a higher percentage in rural areas (38 percent) compared to only eight percent in urban areas (WHO & UNICEF, 2019). Reductions in open defecation in rural areas occurred mainly amongst those in the top 60 percent of the wealth distribution (World Bank Group, 2018). Access to improved sanitation continues to be low amongst female-headed households and individuals lacking primary education (World Bank Group, 2018). At the macro-level, increased funding and political commitment is needed to make progress on the sanitation ladder (World Bank Group, 2018). Additionally, more research is needed to identify behavioral determinants of latrine construction and use, as not enough is known about its key drivers in the Mozambican context.

Global Evidence

Global evidence suggests that most individuals know about the benefits of latrine ownership and use (O’Connell, 2014). Particularly in communities that have been exposed to community-led total sanitation (CLTS) programs, most people prefer to use latrines rather than engage in open defecation (O’Connell, 2014). In many countries, latrine ownership is associated with a number of positive family values: being clean, health conscious, good parents, and welcoming hosts (O’Connell, 2014). There is also a sense of pride associated with owning a latrine and competition amongst households to build latrines, creating social pressure for and associating social status with latrine construction (Lawrence et al., 2016; O’Connell, 2014). People believe that latrines are safer and more convenient, particularly for women who otherwise risk gender-based violence or animal encounters, and for their children left unsupervised when their mothers leave for open defecation (Alemu et al., 2017; O’Connell, 2014). Latrines also afford a sense of privacy, comfort, and dignity, especially in communities that experienced CLTS triggering and associated disgust and shame with open defecation (Alemu et al., 2017; O’Connell, 2014). CLTS programs catalyzed changes in social norms related to open defecation (O’Connell, 2014), especially for women, for whom open defecation is considered particularly shameful in certain situations (Alemu et al., 2017). In addition to creating social expectations about latrine use, CLTS programs also leveraged the power of social networks to reinforce these expectations; village leaders, sanitation groups, and even children pressure families to construct and use latrines (Alemu et al., 2018; Lawrence et al., 2016). Although these programs were effective in targeting beliefs, attitudes, and emotional and social drivers, they fell short in addressing affordability and self-efficacy in latrine construction (O’Connell, 2014).

A key inhibitor to latrine construction is perceived and actual affordability. Poorer, marginalized households in several sub-Saharan African countries—Ethiopia, Ghana, Malawi, Tanzania, and Zambia— are unable to afford sanitation hardware and the costs associated with constructing latrines (Alemu et al., 2017, 2018; Kema et al., 2012; Keraita et al., 2013; Lawrence et al., 2016; Sara & Graham, 2014; Slekiene & Mosler, 2018). Open defecators overestimate the cost of latrines, perceiving that latrine construction and maintenance are beyond reach; thus, they have low perceived self-efficacy for latrine adoption (O’Connell, 2014). In Ethiopia, people who built latrines were better-off compared to non-adopters who were typically part of lower-income, older-age, and female-headed households (Alemu et
Similarly, in India, households that switched to using latrines were richer and better educated and had already invested in other household improvements (Coffey et al., 2017). Latrine construction often takes lower priority than other household expenses such as school fees, food, transport, and healthcare; they are built only when additional resources are available and when it is considered a worthwhile household expenditure (O’Connell, 2014). In addition to affordability, another challenge is that households have insufficient knowledge about how to build the latrines; and although people may know how to build pit latrines, they often do not know masons who can construct improved latrines (O’Connell, 2014). Poorer households may also not own their house or land, which is an access-related deterrent to latrine construction (O’Connell, 2014).

**Product attributes**

People want to own and use high-quality latrines (Garn et al., 2017; O’Connell, 2014). In Ethiopia, having a clean latrine with a protected door and superstructure increased consistent use (Alemu et al., 2018). In rural Odisha, India, latrines built by nongovernmental organizations (NGOs) contracted by the government under the Nirmal Bharat Abhiya program qualified as finished, but lacked roofs, doors, adequate walls, and access to water, which meant they went unused (Routray et al., 2015). A functioning latrine is an important determinant of latrine use (O’Connell, 2014), as people stop using latrines when latrines collapse or become full (Alemu et al., 2018). Households that have latrines collapse due to poor construction are often dissatisfied and less likely to rebuild them (Alemu et al., 2017, 2018).

**Evidence from Mozambique**

A common fear among households who resist latrine construction is that they will collapse in areas where heavy rains are common or where there is poor soil stability common (O’Connell, 2014; Slekiene & Mosler, 2018). In cases where latrines collapsed, such as in Nampula, Mozambique following heavy rains in 2015, the households that rebuilt latrines were those with more educated family members situated in areas with rocky soil and in communities with greater social cohesion and those that felt less vulnerable to diarrhea, perceived greater health risk for other community members resulting from one’s own open defecation, and households that estimated a greater number of latrine owners amongst their neighbors (Mosler et al., 2018). Households in communities triggered by CLTS were also more likely to rebuild, because CLTS programs targeted many social and psychosocial factors (e.g., social cohesion and perceived vulnerability to diarrhea) (Mosler et al., 2018). Because latrine collapse and past experiences with latrine construction and use are key determinants of future latrine construction and use (Alemu et al., 2017), understanding how to promote rebuilding is critical, particularly in geographies that experience common latrine collapse.

**DECISION-MAKING RELATING TO LATRINE CONSTRUCTION**

**Global Evidence**

In studies that quantitatively assessed which members of a household make household-level sanitation decisions, women appear to have little say. In rural Odisha, India, male members in 80 percent of households made decisions about the construction of household latrines; in 11 percent, men and women made the decision jointly and women made the decision in only nine percent of households (Routray et al., 2017). That study added a further decision-making factor regarding confidence (elsewhere often termed “self-efficacy”), noting that females had negative perceptions of their own abilities to make proper decisions due to their confinement in households.

There is some competing evidence on whether women, if they have decision-making power, are more likely than men to engage in sanitation construction activities. In India, women who made decisions over latrine construction were no more likely to build them than men (Routray et al., 2017). However, another study in Kenya, using Demographic and Health Survey (DHS) data, found a higher probability of
owning a latrine in households where women were more involved in household spending on healthcare (Hirai et al., 2016). Adjacent to the WASH space, one study showed that women’s decision-making autonomy is positively associated with primary school enrollment for girls, but not for boys (Luz & Agadjanian, 2015).

**Evidence from Mozambique**

In Mozambique, women’s decision-making power is limited by cultural norms in rural areas. It is customary, for example, that a woman goes to her in-laws, rather than her husband, to discuss topics pertaining to the household (Tvedten et al., 2010). It is also likely that there is information asymmetry between women and men. The public spaces in which men and women receive information are highly gender segregated. Men spend considerably more time outside the household in public settings with denser and more diverse social networks; as a result, they’re often exposed to a greater range of information. Men’s social interactions tend to be both gender specific and gender exclusive, further restricting the spread of information (Agadjanian, 2002). Additionally, low literacy rates limit women’s ability to access and learn new information. This may be particularly challenging in Mozambique, where female literacy rates (50.3 percent in 2017) lag far behind those of males (72.7 percent in 2017) (UNESCO Institute for Statistics [UIS], n.d.). The divide is starker in rural areas, where last available data from 2010 showed only 25.5 percent of women are literate, compared to 59.8 percent of men. (Ministério da Saúde [MISAU] et al., 2010). The female literacy rate in Mozambique is far below those documented in surrounding countries, including Tanzania (73.1 percent in 2015), Zimbabwe (88.3 percent in 2014), Zambia (83.1 percent in 2016), and Malawi (55.2 percent in 2015) (UIS, n.d.).

**HANDWASHING**

**Global Evidence**

Identifying and addressing both individual-level emotional and psychosocial factors, such as disgust, and community-level factors—particularly social norms about handwashing—may be more effective in shifting handwashing behavior. Furthermore, it is imperative to address environmental factors such as availability of water and soap. An examination of handwashing determinants in Burundi found that physical context (“the path”, under the ERP framework) explained only 13 percent of the variance in reported handwashing frequency; the addition of variables such as self-efficacy (considered “the elephant” under ERP) to the regression model resulted in 41 percent increase in explained variance in handwashing frequency (Seimetz et al., 2017; Seimetz, Mosler, et al., 2016). An eleven-country review paper found that psychological determinants, particularly disgust, nurture, comfort, and a desire for higher social status were stronger predictors than “rational” health beliefs (such as believing that handwashing prevents disease) commonly used in health messaging (Curtis et al., 2009).

**Emotional drivers** like status, disgust, and fear play a substantial role in handwashing behavior. On the positive side, individuals desire to be admired and respected in areas where handwashing with soap is a mark of status. Programs such as the Handwashing Initiative in Vietnam promoted handwashing as a behavior practiced by “good mothers” (Chase & Do, 2012). People also want to avoid being labeled as “dirty;” this fear may be particularly true following CLTS triggering or similar campaigns (Biran et al., 2014). Disgust sometimes predicts handwashing behavior. Disgust at not washing hands is positively associated with engaging in handwashing behavior in Haiti (Contzen & Mosler, 2013), Zimbabwe (Friedrich et al., 2018), and Ethiopia (Contzen et al., 2015), but not in rural Burundi (Seimetz et al., 2017) or in Ghana (Scott et al., 2007).

**Beliefs and attitudes** regarding handwashing appear to be highly culturally determined, with little consistency across studies. In Kenya, for example, clean hands are perceived as attractive (Aunger et al., 2010), yet people (and more particularly women) who are diligent about handwashing may also be
regarded as positioning themselves “above” their neighbors and peers (Curtis et al., 2009). Beliefs about the severity of illness and how handwashing might prevent illness operate in opposite ways depending on context. Perceptions of the severity of illness, for example, are associated with greater handwashing behavior in Haiti (Contzen & Mosler, 2013) and India (Biran et al., 2014). Conversely, greater perceived severity of illness is also correlated with a lower likelihood of having a handwashing station in Senegal (World Bank, 2012)—although in the latter case it may be that mothers felt more of a perceived risk because they lacked a handwashing station. Fear is only a driver of behavior in the case of epidemics such as cholera (Contzen & Mosler, 2013; Curtis et al., 2009).

Social norms around handwashing operate in complex ways. In numerous handwashing interventions, being affiliated with a group and joining in with what others are doing is a key motivator of handwashing behavior (Biran et al., 2014; Hoekstra et al., 2009; Leontsini & Winch, 2014). Failure to establish sufficient motivation to participate in what others are doing—i.e., the creation of new norms—is sometimes cited as a cause for the failure of interventions. More specifically, descriptive norms, such as the number of people within the community or family who regularly wash hands, are relatively consistently associated with greater handwashing behavior in various contexts, including Ethiopia (Contzen et al., 2015), Haiti (Contzen & Mosler, 2013), and Senegal (World Bank, 2012). Injunctive norms, such as those in which people close to an individual approve or disapprove of a behavior, are also important motivators of handwashing behavior (Contzen et al., 2015).

Handwashing as habit is one of the strongest predictors of hand-washing behavior. Habit has been associated with increased handwashing in Kenya (Aunger et al., 2010) and Senegal (World Bank, 2012). However, other research suggests that habit is a stronger predictor of handwashing when formed at a young age, and that improper habits (i.e., handwashing only with water) can be hard to break (Curtis et al., 2009). In order to break improper habits, Neal et al. recommend a six-pronged approach to create disruptive and “sticky change” in handwashing behaviors. Three of the principles in the six-pronged approach correspond closely with the environment component of the ERP framework: ensuring a supportive environment, leveraging context by piggybacking on old behavior, and eliminating choice, steps, and perceived effort (David Neal et al., 2015). Similar to habit, other factors that influence handwashing behavior are intention (Seimetz, Kumar, et al., 2016), commitment (Contzen et al., 2015), and planning (Contzen & Mosler, 2013) to wash hands – variables which may also help to form new handwashing habits.

Knowledge of handwashing benefits plays an unclear role. In general, knowledge is regarded as necessary but not sufficient to influence handwashing behavior (Yu et al., 2017). A 2017 systematic review showed that sanitation- and hygiene-based messaging aimed at increasing knowledge and improving skills showed only temporary benefits on handwashing behavior (De Buck et al., 2017). Part of the reason why these benefits are temporary is that knowledge seems to be context dependent. For example, in Bangladesh, knowledge of the importance of handwashing was mostly restricted to the period following defecation and did not extend to before eating, while serving food, or while handling infants (Rabbi & Dey, 2013). Enhancing knowledge about germs without linking it to something with plausible and immediate value for mothers is unlikely to lead to higher levels of handwashing (Curtis et al., 2009). This is likely because increasing knowledge without improving self-efficacy often leads to psychological defense mechanisms, avoidance, or reactance (Cho & Witte, 2005). Untangling the strength of knowledge and perception of risk as determinants of handwashing behavior is challenging, given that when knowledge of germs spreading throughout a household’s food and water increases, perception of risk of not washing also increases.

Evidence from Mozambique

More than half of households in Mozambique do not have handwashing facilities on their premises, while one third have handwashing facilities that lack water and soap. Only 12 percent of households have
access to basic hygiene facilities with soap and water available (WHO & UNICEF, 2019). The more readily individuals can access water, the more likely they are to wash their hands with soap and water (Contzen & Mosler, 2015; Rabbi & Dey, 2013). Yet, the baseline study of a handwashing program in Vietnam found that although more than 80 percent of households had a place for handwashing with water and soap available, only 47 percent of caregivers reported washing hands with soap after using the toilet (Chase & Do, 2010). Access to facilities, water, and soap is only one of many enabling factors for handwashing. Psychosocial factors such as emotional drivers (nurture [the desire for a happy, thriving child], disgust) and social norms also play a critical role in influencing handwashing behavior (Curtis et al., 2009).

SAFE DISPOSAL OF CHILD FECES

Evidence from Mozambique

The most recent data on safe disposal of child feces in Mozambique suggest that more than half of households practice unsafe disposal of feces of their youngest child under the age of three years (Child Feces Disposal in Mozambique, 2014). These data emerge from 2011 and require updating, as does the body of evidence on what works in promoting the safe disposal of child feces. A recent global review examining the effectiveness of safe child feces disposal interventions identified only eight studies, none of which were implemented in Mozambique (Morita et al., 2016). We also did not find any observational studies examining safe disposal of child feces disposal practices in Mozambique.

When children are younger, caregivers may be more likely to improperly dispose of their feces. The stools of infants are perceived as less harmful because they are smaller, smell less, and contain less visual food residues (Aluko et al., 2017; Brown et al., 2013). Although global evidence suggests that child feces disposal practices may change as children get older (Management of Child Feces: Current Disposal Practices, 2015), data in Mozambique suggest that disposal practices are invariant to age (Child Feces Disposal in Mozambique, 2014) (see Figure I-1). In Mozambique, the proportion of children using latrines is small even at the age of two years, when children are more mobile and reportedly more likely to use them (Miller-Petrie et al., 2016).

Access to water and latrines

A key determinant of safe disposal of child feces is household access to water and sanitation: the highest levels of unsafe child feces disposal occur in households that also practice open defecation (Management of Child Feces: Current Disposal Practices, 2015). In Mozambique, 83 percent of the households practicing open defecation reported unsafe disposal of child feces (Child Feces Disposal in Mozambique, 2014). How long a household has a latrine with adults consistently using them also influences how likely the household is to report disposing of child feces safely (Freeman et al., 2016). Access to water and soap are also needed for cleaning children and handwashing (Brown et al., 2013; Management of Child Feces: Current Disposal Practices, 2015). However, access to latrines, water, and soap are necessary but not sufficient conditions for safe disposal of child feces; even amongst those with sanitation facilities (unimproved, shared, or improved), approximately a third of households did not safely dispose of child feces (Child Feces Disposal in Mozambique, 2014).
Figure I-1. Child Feces Disposal Practices, by Age

Product attributes

Latrines are not designed for use by small children and are not typically used by them (Brown et al., 2013). It is challenging for children under five years to use “non-child friendly facilities” (with adult-size footpads and dropholes and no grab-bars; often dark and smelly) even in households that have improved sanitation (Aluko et al., 2017; Miller-Petrie et al., 2016). Parents worry that without supervision or assistance, young children may fall into the latrines and injure themselves (Hussain et al., 2017). Child potties were perceived as a safe, convenient, and socially desirable way to deal with child feces (Hussain et al., 2017; Miller-Petrie et al., 2016).

Gendered division of labor within the household places the burden of childcare on mothers and makes it challenging for women to take on another set of tasks and responsibilities relating to safe child feces disposal (Hussain et al., 2017). Time spent collecting water puts further pressure on women’s time. In Mozambique, over 1.5 million women are estimated to spend 30 minutes or greater per day collecting water, behind only Nigeria and Ethiopia (Graham et al., 2016). Although other household members may support the caregiver in helping their younger siblings defecate, dispose of the feces, and clean the toilet, fathers were rarely involved (Hussain et al., 2017). Mothers reported that potty-training a child was a time-consuming task, although others reported that it saved time because it consolidated the feces and potties with stable bases and allowed caregivers to leave their children unattended while they engaged in other tasks (Hussain et al., 2017). Supporting the caregiver and offering options that reduce the burden of work may be one way to promote safe disposal of child feces.

MENSTRUAL HYGIENE MANAGEMENT

Global Evidence

Women and girls’ abilities to manage their periods depends on having knowledge of menstruation and what to do when menstruating; self-efficacy and self-confidence to enact the steps required to manage one’s period; access to safe, hygienic, and absorbent menstrual products and supplies such as underwear (product attributes); and access to safe, clean, and private spaces equipped with water and soap to change, wash, and/or dispose of products and to wash and bathe oneself; and a supportive environment that enables women and girls to manage their periods without stigma or embarrassment (social norms) (Patkar, 2011; Sommer & Caruso, 2015; Sommer, Chandraratna, Cavill, Mahon, &
Evidence from Mozambique

While there is little research on MHM in Mozambique, disaster relief and recovery programs find that women and girls in Mozambique lack most if not all of these conditions for adequate MHM under normal circumstances and particularly so in post-cyclone settings (CARE, 2019; Haneef and Tembe, 2019; UNFPA, 2020). Even in areas not affected by natural disasters, girls’ inability to manage their periods has implications for their participation in daily life: menstruating girls often miss school, report not being able to participate fully in school activities including sports when on their periods, and have difficulty concentrating in school (Anderson, 2020). Schools often lack the infrastructure to allow for adequate MHM (e.g., sex-segregated toilets with doors and locks, water, and waste bins) (Morgan, Bowling, Bartram, and Keyser, 2017).

FINDINGS FROM KEY INFORMANT INTERVIEWS AND STAKEHOLDER CONSULTATION

In December 2019, the Iris Group team held a three-hour stakeholder consultation and conducted in-depth interviews with nine representatives of the WASH sector in Mozambique to gather input on the study’s focus areas. In light of limited WASH behavior research specific to Mozambique published in the peer-reviewed literature or available in the grey literature, these findings were instrumental in assessing the applicability of global research in the Mozambican context, as well as in narrowing the scope, refining the research questions, and determining the optimal timeline for research activities.

Detailed findings organized by behavioral factors under investigation follow in subsequent sections. Key, cross-cutting findings include:

- There are significant gaps in understanding determinants of WASH behaviors in Mozambique. The impact of gender on these behaviors has never been comprehensively studied.

- While cyclone-affected provinces such as Sofala have critical WASH needs, WASH-related infrastructure and decision-making in these communities is still in flux, raising validity concerns about any study findings from the province. As a result, stakeholders recommended leaving Sofala out of the formative research.

- Stakeholders agreed that gender norms and power dynamics heavily influence household decision-making and responsibilities regarding latrine construction, child feces disposal, and connections to water systems.

- Stakeholders also highlighted gender-specific needs that can affect women’s and girls’ experiences of latrine use, such as privacy, safety, and menstrual hygiene.

The stakeholder consultation brought together key informants in addition to select additional participants from USAID Mozambique for a three-hour facilitated discussion. During the consultation, the Iris team solicited feedback on any available literature regarding WASH behavioral determinants and gender as well as their observations about whether findings are applicable to households and communities in Mozambique. We noted areas of group consensus and disagreement related to the factors that influence WASH behaviors. Participants also graphed the influence of gender on WASH behaviors and decision-making using the socio-ecological model (McLeroy et al., 1988), which includes nested levels, to better understand its effects at the individual, household, community, and policy levels.

In addition, the team also conducted hour-long semi-structured key informant interviews with respondents in the Mozambican WASH and gender sectors. The questions explored respondents’
experiences and perspectives around the key research questions to gain better understanding of household- and community-level determinants of WASH behaviors. In some cases, interviewees provided additional research and programmatic materials to further inform the development of our study.

SANITATION AND HYGIENE BEHAVIORS

Latrine Construction and Use

Stakeholders and informants described largely successful initial efforts in Mozambique to encourage latrine use with CLTS interventions, yet many of these communities abandon these efforts due to a lack of ongoing support and follow up leading to latrine disrepair. Stakeholders assert that community members often have high knowledge about hygienic behaviors, but don’t continue them because community norms have not changed. For example, while people may understand the advantages of latrine use, people may prefer open defecation because of the smell of latrines, difficulties in maintenance, and additional need for cleaning, which is often seen as women’s responsibility. Dispersed living arrangements in many rural areas diffuse social pressure fomented in approaches like CLTS and encourage open defecation as an alternative to smelly, low-quality, or collapsing latrines.

As noted above, women’s lack of participation in decision-making around the design of latrines can affect how useful they find them, particularly when considering gender differences in privacy, security, and menstrual hygiene needs. Stakeholders and informants reported that not much is known about roles and responsibilities in latrine maintenance and cleaning and how these affect use, especially with community latrines.

Helvetas has launched a campaign to appeal to social pride (or stigma) by marking clean and well-kept latrines with a flag. There has been no research into whether or how this intervention might affect women differently than men. Several organizations report success in menstrual hygiene initiatives as a starting point for discussions about latrine use and other hygienic behaviors.

Decision-making relating to latrine construction

Household- and community-level decision-making on latrine construction is predominantly controlled by men in Mozambique due to societal norms about control of household income and leadership. Focus groups conducted by SNV found that male heads of households make the decisions about using household resources for latrine construction, and typically are the ones that access materials and labor for construction (A. Grumbley, personal communication, December 10, 2019).

At the same time, women and girls are disproportionately affected by access to these products and services, according to stakeholders and key informants. One informant said that women face more stigma related to their open defecation than men do (S. Mucavel, personal communication, December 20, 2019). It is unclear why women face greater social disapproval relating to open defecation; however, the disapproval is likely rooted in different social expectations for women regarding defecation, privacy, cleanliness, etc. Women and girls have privacy concerns related to menstrual hygiene, and security concerns about using a latrine in an unsecure, unlit or remote location.

The gendered disconnect between demand and control creates the potential for household and community dissonance in decisions on WASH products and services. As one informant said, women head of households can face harassment or stigma in seeking materials and labor for latrine construction because these tasks typically fall within the purview of men and women occupying these roles are scorned for not having husbands who take care of these responsibilities (M. Salome, personal communication, December 10, 2019). Stakeholders commented that women do not receive the same information as their male peers, rendering informed decision-making a challenge. Latrines that are
constructed without meaningful input from women may lack security, privacy, or adequate facilities for MHM.

Respondents also noted the lack of evidence about gender-related differences in priorities and needs among women and men. No studies in Mozambique have examined whether women’s preferences regarding household and community expenditures would vary substantially from those of men. There is also a lack of evidence around the extent to which women may influence men’s decisions related to location, privacy, and security of latrines.

Informants described some limited attempts to address gender in WASH decision-making. The most notable example of gender integration at the community level is the encouragement of women’s participation on water committees. With support from DFID, the national rural water supply and sanitation program (PRONASAR) tracks women’s representation on and leadership positions within water committees. Respondents described many challenges to women’s power on these committees, including low literacy and husbands’ opposition to women’s participation. One informant said that communities select women who are not outspoken for water committees so that they will not challenge the status quo (S. Mucavel, personal communication, December 20, 2019).

A recent intervention by SNV (My Latrine, My Pride) focuses on positive masculinity by encouraging men as household decision-makers to invest in latrine construction to improve conditions for their families and communities (A. Grumbley, personal communication, December 10, 2019). HOPEM, an organization that works on male engagement has a “Man in the Kitchen” activity, which gives men the chance to experience the challenges of cooking for the family, including fetching water.

Other factors cited by stakeholders that affect household decision-making around latrine construction include:

- While projects encouraged use of local building materials for sustainability and affordability, such materials tend to be less durable, leading to latrine disrepair and rebuilding fatigue.
- Households have many competing investments, often including repair or rebuilding of homes damaged in severe weather, which may take higher priority.
- Some communities have strict norms restricting men and women from using the same latrine. One respondent noted that some communities build a separate latrine for women to use during pregnancy.
- Marketing of latrines is difficult because communities report that they cannot afford the initial investment in improved latrines, even in installments.

**Handwashing**

In rural communities, lack of access to water and soap (or ash as a substitute) is an issue, despite relatively high knowledge about the need for handwashing, according to stakeholders. Moreover, informants report that handwashing knowledge is situational; it is much higher at some junctures (such as after defection) than for others (such as prior to food preparation). Efforts to promote handwashing through use of “tippy taps” faced challenges when the containers for water broke, were stolen, or repurposed. Stakeholders agreed that promoting the norm of handwashing is more important than giving a community a specific method (such as creating a tippy tap) for handwashing because installing handwashing stations were seen as insufficient for catalyzing behavior change, partially due to their propensity to break, be stolen, or repurposed.

Stakeholders said that Mozambican traditions support handwashing prior to eating, with ceremonial passing of a bowl of water before a meal, but noted that this was not a hygienic practice given the...
shared water basin and re-use of the same water. However, informants noted this tradition may be an entry point to reinforce social norms around handwashing. Muslim communities have important norms around washing behaviors that should be explored and understood before any handwashing interventions are implemented in these areas.

**Safe Disposal of Child Feces**

Stakeholders and informants affirmed that responsibility for managing and disposing of child feces falls to women and girls (as older siblings/cousins). However, they note that there are no specific studies of traditions or norms around child feces disposal, and the practices girls or young women learn when beginning to care for children. Stakeholders agreed that, as elsewhere in the world, child feces are perceived by household members as not being as dangerous in terms of disease transmission.

According to stakeholders, in Mozambique, child potties are not accessible or affordable, and while cloth diapers are often used, they come with their own challenges in terms of safe disposal practices. Latrines are not built for young children and are correctly seen as unsafe for them.

Most organizations we spoke with do not have programming that focuses on child feces disposal. UNICEF has a larger initiative called Baby Wash, which encourages caregivers to wash their hands after feces disposal (C. Isac Mulanga, personal communication, December 13, 2019). HOPEM, a male engagement organization, encourages men as caregivers, including engagement in diaper changing (A. Cumbi, personal communication, December 18, 2019).

**Contextual Factors**

Stakeholders and informants also described important contextual factors that can affect any future interventions on WASH behaviors and gender:

- The Ministry of Public Works developed a gender strategy two years ago, but it was not approved and disseminated.

- District-level WASH officials are not trained on the importance of inclusion, and several informants believe they are resistant to the idea that gender inequality exists. One informant from a gender organization said that in some cases district officials discouraged them from conducting activities on gender in their areas (A. Cumbi, personal communication, December 18, 2019). Another informant said that local officials need to be trained in governmental responsibilities in terms of WASH, as well as the environmental, social, and economic impact of poor sanitation and hygiene (S. Mucavel, personal communication, December 20, 2019).

- WASH interventions in Mozambique tended to focus on infrastructure over SBC interventions. The government tried to remedy this by including indicators measuring SBC (L. Rudge, personal communication, December 11, 2019).

- Informants agreed that while implementing organizations included gender as a cross-cutting theme of their work, no groups were known for their gender focus in WASH in Mozambique.

**REFERENCES**


JICA. (2015). *JICA Gender Report 2015*. JICA. http://gwweb.jica.go.jp/km/FSubject1501.nsf/3b8a2d403517ae4549256f2d002e1dce/8d7eed7ece30a45c49257f8001b0402/$FILE/ATTWBTEO.pdf%2E8%8B%A1%8E%AA%9E%78%89%88%202014.pdf


APPENDIX II: FIELD RESEARCH PROTOCOL

The teams will vary the topics covered in focus groups and with key informants to enable the teams to allow for in-depth discussions in each group, while maintaining a breadth of focus across the study. There are three FGD guides with the following topics:

<table>
<thead>
<tr>
<th>Tools</th>
<th>Topics</th>
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<tbody>
<tr>
<td>FGD Guide #1</td>
<td>Typical day, time use, budget priorities and latrine construction, COVID-19</td>
</tr>
<tr>
<td>FGD Guide #2</td>
<td>Typical day, latrine construction &amp; use/defecation practices, MHM, COVID-19</td>
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<tr>
<td>FGD Guide #3</td>
<td>Typical day, latrine use/defecation practices, handwashing, safe disposal of child feces, COVID-19</td>
</tr>
<tr>
<td>KII guide</td>
<td>Latrine construction and use/defecation practices, safe disposal of child feces, handwashing, COVID-19</td>
</tr>
</tbody>
</table>

The guides include directions to the facilitators and guidance for probing (in italics). All three guides also include sections that are appropriate for communities where participants report that the typical household has a toilet and those where they do not.
FOCUS GROUP DISCUSSION GUIDE #1

Typical day, time use, budget priorities and latrine construction

I. Introduction

Begin with greetings, introductions, and thanks to the community leaders and participants.

This study is being conducted by Iris Group on behalf of USAID to understand the concerns about sanitation and hygiene in your community. We also want to learn about how the community has been coping with the effects of the COVID-19 pandemic, particularly as it relates to sanitation and hygiene. We will use what we learn from this study to address these issues and to make sure people in Mozambique have what they need to live better and healthier lives.

The things we want to talk about include some topics people don’t usually discuss, like urinating and defecating. We know this may feel personal or uncomfortable, but we want to encourage you to be as open as possible about these topics.

First, we want to decide together as a group what terms to use when talking about urinating and defecating. There are the words you would use with a health worker, but those might not be the same words you would use with a friend, or with a child, or with your partner. What are some other words used in your community when talking about urinating?

Now let’s do the same thing for defecation. What are some other words used in your community when talking about defecating?

Thank you again for sharing. For today’s discussion, we’re going to use the words XXX and XXX [INSERT WORDS USED BY PARTICIPANTS]. Is that ok with everyone?

So that this feels as comfortable as possible, we won’t ever ask you about your own personal experience, and we encourage you to NOT share personal information. We will remind you in case anyone forgets during our discussion. We hope you will talk about “what it’s like” here in your community, and in typical households without revealing personal details.

We will get the most out of this discussion if everyone is able to contribute their thoughts. In every group, there are people who tend to talk more and people who tend to talk less. We are going to try to make sure that everyone gets to contribute to the discussion, and we would appreciate your help.

II. Typical Day & Time Use

We would like to learn from you by creating a story with you. Let’s begin by imagining a typical woman from a community like yours.

Draw or show picture of woman in capulana.

Let’s imagine this woman is from a community like yours. What should we call her? Let’s make sure it’s not a name of someone in this community, so we don’t think about that specific person while we talk.

Prompt if needed that this is how the ‘story scenario’ goes… you’ll ask them questions that will help to create the character …

Once they come up with a name (for the sake of example, we will use Maria for this script):

Keeping in mind that Maria is like typical women in your community, how old should we make Maria? Is she married? How many children do you think she has? Who else lives in the household? What does her house look like? Does it have a latrine?
If they give an answer that doesn’t seem typical for a woman in the community, gently confirm with them that it is typical for a woman there. Please write down the participants’ responses about who she is and major activities during her day on a piece of paper. Also note down if Maria’s household has a latrine.

Now let’s think about what a typical day is like for Maria.

What time does she wake up in the morning? What is/are the task(s) she does first? What does that task include? How long does it take? (i.e., fetching water, starting a fire, etc. If she has to fetch water in the morning, ask how long that will take her)

Go through her whole day, asking about the next task, then the next task … probing for more information about water location, child care responsibilities, meal preparation, etc. Document the major tasks and how much time it takes for them. Probe as appropriate about her husband’s involvement, especially if there is any kind of decision making involved.

Have there been any changes in Maria’s day due to the COVID-19 pandemic? What has changed?

Probe for her experiences in getting water, in going to the market, in being able to buy what she needs. Ask if it is harder to get water, food, soap, etc. than it used to be.

III. Budget Priorities

Now that we’ve gotten to know Maria and her family, let’s continue with the story. It’s been a good harvest and Maria’s family has some extra money beyond paying for the essentials. Let’s make a quick list of what Maria’s family might do with the money… Who in the family would decide what to spend it on?

Have them list items that the household might spend on.

Probe about the process of ‘deciding’ how to spend it. Is there discussion, negotiation, lobbying?

Listen and probe for women’s role in directing expenditures

If it doesn’t come up, lead them:

How about spending to make the home better. What would be three top things on Maria’s list to improve the home? Do you think her priorities would be the same as her husband’s?

If latrine construction or improvement isn’t listed, note that and then ask why they didn’t list it. If they do list it, have them rank the priority of the different expenditures.

Would she get any voice in how extra money is spent? How would she insert her preferences?

Is there anyone else in the household or community that would influence how money is spent in Maria’s household? Who and why?

Probe about the role of family elders in decision-making. If Maria lives in an extended family, ask who the household makes decisions about household expenses.

What about (non-relative) elders in the community? Whose opinion matters when it comes to what a family might spend money on? What about money spent on building latrines?

Ask Maria if she belongs to any community groups (e.g., a women’s group) that might influence her decisions. Ask her how other members of the group might affect her decisions.
IV. Latrine Construction

A. For ODF communities or other communities where the group says that there WOULD BE LATRINES (If no latrines, continue to section B.)

Let's say Maria is at the home cleaning up after the morning meal, think about what happens when Maria has to defecate? Would it be the same if she needed to urinate? What about in the evening after the evening meal? Would Maria’s family have a latrine? What would be typical for your community? About how many households in this community would have a latrine?

What words would you used to describe families that invest in latrines? Why would these words be used?

Probe if needed, is it a good thing or a bad thing to own latrines?

What would the latrine look like?

Why might they have a latrine?

Probe about the reasons why Maria might want a latrine. For herself? For her children?

Would anyone in the community or household approve or disapprove of Maria’s family building a latrine? Who/why?

Probe about community leaders, mothers in law, other community members.

If they answer about anyone in the household, be sure to circle back to ask anyone else in the community? (and in reverse if they answer about the community … ask about anyone else in the household).

How would Maria feel about having a latrine? Why would she feel this way?

What would her neighbors think or say about her now that she has a latrine? What about other people in her community? Who approves of households investing time and sometimes money in building a latrine? Who disapproves? Why?

Probe for emotions like proud, lucky, safe. Probe for your family and friends, community leaders, traditional/religious leaders, government officials, etc.

Tell me about how it got built?

Did they build it themselves, or would they have to find to help? What did they need help with?

Probe for specific tasks or skills

Would they pay money or make some other arrangement?

What would they build it out of? Where would they get the materials for it?

What options would they have in this area for kinds of latrines? How big would it be? Would it have an open entrance, or a door that closes? Where would it be located in relation to the house?

Would there just be one latrine built?

Thinking about when the household decided to construct the latrine, who in the household made that decision? Would anyone else in the household be involved or influence the main decision-maker? If so, who and in what way?

Probe for the role of elders in the family in making decisions if Maria lives in an extended family.
Who would have been involved in the decision about what the latrine looks like? Who would have been involved in deciding where it is placed relative to the home?

In all of these decisions, what happens if Maria and (other household members) disagree?

If Maria could have any kind of latrine she wanted, what would it be like?

Would Maria’s needs as a woman influence how the latrine was built? How so?

Probe what needs and how it influences latrine construction.

Imagine a storm or flood comes through and destroys the latrine. What do you think the household would do?

Who in the household would be responsible for fixing the latrine if it needed repairs?

Now I want to ask you some questions about the COVID-19 pandemic. Have many households in your community experienced any economic hardship due to the COVID-19 pandemic? If so, how has the pandemic changed what kinds of things household spend money on?

Probe about purchases relating to latrines.

Have there been any changes in the availability of materials and resources required to build latrines due to the pandemic?

Has COVID-19 affected household decisions to build latrines? How so? What about to repair or rebuild latrines?

Have there been any changes in who makes decisions about household purchases following the pandemic? If so, why?

Probe if women or men are less or more involved in household decisions following the pandemic.

**B. For communities where they say Maria DOESN’T have a latrine**

Why doesn’t Maria have a latrine?

Where does she go for urinating and for defecating?

Let’s say Maria decides she wants a latrine. Why might she want to have a latrine?

Probe about the reasons why Maria might want a latrine. For herself? For her children?

Who in the household would be involved in making the decision? If so, who and in what way?

If the idea came to Maria to install a latrine, how would Maria bring up the issue?

After the decision is made to build the latrine, who would be involved in the decisions about what the latrine looks like? Who would be involved in deciding where it is placed relative to the home?

In all of these decisions, what happens if Maria and (other household members) disagree?

If Maria could have any kind of latrine she wanted, what would it be like?

Would Maria’s needs (preferences) as a woman influence how the latrine was built?

Probe what needs and how it influences latrine construction.

Who in the household would be responsible for fixing the latrine if it needed repairs?
Have many households in your community experienced any economic hardship due to the COVID-19 pandemic? If so, how has the pandemic changed what kinds of things household spend money on?

Probe about purchases relating to latrines.

Have there been any changes in the availability of materials and resources required to build latrines due to the pandemic?

Has COVID-19 affected household decisions to build latrines? How so? What about to repair or rebuild latrines?

Have there been any changes in who makes decisions about household purchases following the pandemic? If so, why?

Probe if women or men are less or more involved in household decisions following the pandemic.

C. Self-Efficacy (Both w/ and w/o latrines)

Let’s say Maria’s husband had to migrate to find work. In that case, would that change who in the household would make the decisions about whether to build a latrine? Who would decide what it looks like?

Would Maria have any challenges? What would make it difficult for Maria to get the latrine constructed? What might she do to solve those challenges?

Would she have access to necessary information? To necessary supplies?

Would she need to pay for help or would she make some kind of other arrangement? Tell me about that arrangement.

CLOSING:

Let’s imagine that Maria shouts loudly at her husband in a public space outside the home. What would others think of her behavior? Who would disapprove? Who would approve? Would anything happen to Maria as a result of this behavior? What would that be? How would Maria feel about others’ reactions? What would she do?
FOCUS GROUP DISCUSSION GUIDE #2
Typical day, latrine construction & use/defecation practices, MHM

I. Introduction

Begin with greetings, introductions, and thanks to the community leaders and participants.

This study is being conducted by Iris Group on behalf of USAID to understand the concerns about sanitation and hygiene in your community. We also want to learn about how the community has been coping with the effects of the COVID-19 pandemic, particularly as it relates to sanitation and hygiene. We will use what we learn from this study to address these issues and to make sure people in Mozambique have what they need to live better and healthier lives.

The things we want to talk about include some topics people don’t usually discuss, like urinating and defecating. We know this may feel personal or uncomfortable, but we want to encourage you to be as open as possible about these topics.

First, we want to decide together as a group what terms to use when talking about urinating and defecating. There are the words you would use with a health worker, but those might not be the same words you would use with a friend, or with a child, or with your partner. What are some other words used in your community when talking about urinating?

Now let’s do the same thing for defecation. What are some other words used in your community when talking about defecating?

Thank you for sharing. For today’s discussion, we’re going to use the words XXX and XXX [INSERT WORDS USED BY PARTICIPANTS]. Is that ok with everyone? You can use whatever word you are comfortable with in our discussion.

So that this feels as comfortable as possible, we won’t ever ask you about your own personal experience, and we encourage you to NOT share personal information. We will remind you in case anyone forgets during our discussion. We hope you will talk about “what it’s like” here in your community, and in households without revealing personal details.

We will get the most out of this discussion if everyone is able to contribute their thoughts. In every group, there are people who tend to talk more and people who tend to talk less. We are going to try to make sure that everyone gets to contribute to the discussion, and we would appreciate your help.

II. Typical Day

We would like to learn from you by creating a story with you. Let’s begin by imagining a typical woman from a community like yours.

Draw or show picture of woman in capulana.

Let’s imagine this woman is from a community like yours. What should we call her? Let’s make sure it’s not a name of someone in this community, so we don’t think about that specific person while we talk.

Prompt if needed that this is how the ‘story scenario’ goes… you’ll ask them questions that will help to create the character …

Once they come up with a name (for the sake of example, we will use Maria for this script):

Keeping in mind that Maria is like typical women in your community, how old should we make Maria? Is she married? How many children do you think she has? Who else lives in the household? What does her house look like? Does it have a latrine?
If they give an answer that doesn’t seem typical for a woman in the community, gently confirm with them that it is typical for a woman there. Please write down the participants’ responses about who she is and major activities during her day on a piece of paper. Also note down if Maria’s household has a latrine.

Now let’s think about what a typical day is like for Maria.

What time does she wake up in the morning? What is the first thing she does? What does that task include? (i.e., fetching water, starting a fire, etc. If she has to fetch water in the morning, ask how long that will take her)

Go through her whole day, asking about the next task, then the next task … probing for more information about water location, childcare responsibilities, meal preparation, etc. Probe as appropriate about her husband’s involvement, especially if there is any kind of decision making involved.

Have there been any changes in Maria’s day due to the COVID-19 pandemic? What has changed?

Probe for her experiences in getting water, in going to the market, in being able to buy what she needs. Ask if it is harder to get water, food, soap, etc. than it used to be.

III. Latrine Construction

A. For ODF communities or other communities where the group says that there WOULD BE LATRINES (If no latrines, continue to section B.)

Let’s say Maria is at the home cleaning up after the morning meal, think about what happens when Maria has to defecate? Would it be the same if she needed to urinate? What about in the evening after the evening meal? Would Maria’s family have a latrine? What would be typical for your community? About how many households in this community would have a latrine?

What words would you used to describe families that invest in latrines? Why would these words be used?

Probe if needed, is it a good thing or a bad thing to own latrines?

What would the latrine look like?

Why might they have a latrine?

Probe about the reasons why Maria might want a latrine. For herself? For her children?

Would anyone in the community or household approve or disapprove of Maria’s family building a latrine? Who/why?

Probe about community leaders, mothers in law, other community members.

If they answer about anyone in the household, be sure to circle back to ask anyone else in the community?? (and in reverse if they answer about the community…ask about anyone else in the household).

How would Maria feel about having a latrine? Why would she feel this way?

What would her neighbors think or say about her now that she has a latrine? What about other people in her community? Who approves of households investing time and sometimes money in building a latrine? Who disapproves? Why?

Probe for emotions like proud, lucky, safe. Probe for your family and friends, community leaders, traditional/religious leaders, government officials, etc.

Tell me about how it got built?
Did they build it themselves, or would they have to find help? What did they need help with?

*Probe for specific tasks or skills*

Would they pay money or make another arrangement?

What would they build it out of? Where would they get the materials for it?

What options would they have in this area for kinds of latrines? How big would it be? Would it have an open entrance, or a door that closes? Where would it be located in relation to the house?

Would there just be one latrine built?

Thinking about when the household decided to construct the latrine, who in the household made that decision? Would anyone else in the household be involved or influence the main decision-maker? If so, who and in what way?

*Probe for the role of elders in the family in making decisions if Maria lives in an extended family.*

Who would have been involved in the decision about what the latrine looks like? Who would have been involved in deciding where it is placed relative to the home?

In all of these decisions, what happens if Maria and (other household members) disagree?

If Maria could have any kind of latrine she wanted, what would it be like?

Would Maria’s needs as a woman influence how the latrine was built? How so?

*Probe what needs and how it influences latrine construction.*

Imagine a storm or flood comes through and destroys the latrine. What do you think the household would do?

Who in the household would be responsible for fixing the latrine if it needed repairs?

Now I want to ask you some questions about the COVID-19 pandemic. Have many households in your community experienced any economic hardship due to the COVID-19 pandemic? If so, how has the pandemic changed what kinds of things household spend money on?

*Probe about purchases relating to latrines.*

Have there been any changes in the availability of materials and resources required to build latrines due to the pandemic?

Has COVID-19 affected household decisions to build latrines? How so? What about to repair or rebuild latrines?

Have there been any changes in who makes decisions about household purchases following the pandemic? If so, why?

*Probe if women or men are less or more involved in household decisions following the pandemic.*

**B. For communities where they say Maria DOESN’T have a latrine**

Why doesn’t Maria have a latrine?

Where does she go for urinating and for defecating?

Let’s say Maria decides she wants a latrine. Why might she want to have a latrine?
Probe about the reasons why Maria might want a latrine. For herself? For her children?

Who in the household would be involved in making the decision? If so, who and in what way?

If the idea came to Maria to install a latrine, how would Maria bring up the issue?

After the decision is made to build the latrine, who would be involved in the decisions about what the latrine looks like? Who would be involved in deciding where it is placed relative to the home?

In all of these decisions, what happens if Maria and (other household members) disagree?

If Maria could have any kind of latrine she wanted, what would it be like?

Would Maria’s needs (preferences) as a woman influence how the latrine was built?

Probe what needs and how it influences latrine construction.

Who in the household would be responsible for fixing the latrine if it needed repairs?

Have many households in your community experienced any economic hardship due to the COVID-19 pandemic? If so, how has the pandemic changed what kinds of things household spend money on?

Probe about purchases relating to latrines.

Have there been any changes in the availability of materials and resources required to build latrines due to the pandemic?

Has COVID-19 affected household decisions to build latrines? How so? What about to repair or rebuild latrines?

Have there been any changes in who makes decisions about household purchases following the pandemic? If so, why?

Probe if women or men are less or more involved in household decisions following the pandemic.

IV. Latrine Use

A. For ODF communities or other communities where the group says that there WOULD BE LATRINES (If no latrines, continue to section B.)

Would her family have just one, or more than one latrine? If more than one, how many would they have? Who would use each? If they can only afford one, who would use it?

Would anyone outside of Maria’s household ask to use the latrine? What would she say?

How common is it to share latrines between multiple families?

Within Maria’s family, is there anyone who would not use the latrine all of the time? Why not? When are they mostly likely to not use the latrine? Where would they go instead?

Who in the household would be responsible for cleaning the latrine? Why these individuals? How would they clean it/how often? What tools/supplies are needed?

Will/does Maria use the latrine? Will she use it every time she needs to urinate? Every time she needs to defecate? What would make it hard to use the latrine all the time? Is there any time she won’t use it? If so, why?

Probe for various occasions- when away from the household, when certain people are visiting the household? when she has her period?
What would Maria think is good about using a latrine all the time? What would Maria think is bad about using a latrine?

Would anyone approve or disapprove of Maria using the latrine? Would anyone approve or disapprove of Maria NOT using the latrine? Why would people approve? Why would be people disapprove?

Probe for family members (including elders), community leaders, traditional/religions leaders, government officials, etc.

What would happen if Maria didn’t use the latrine to defecate? Who would approve or disapprove?

Probe for family members (including elders), community leaders, traditional/religions leaders, government officials, etc.

What would happen if Maria’s husband didn’t use the latrine to defecate? Who would approve or disapprove?

Probe for family members (including elders), community leaders, traditional/religions leaders, government officials, etc.

B. Defecation Practices (For communities where they say Maria DOESN’T have a latrine)

What does Maria do for defecation? What does she do during the day? What about at night? Does her behavior change during the rainy or dry season?

Probe for various occasions- when away from the household, when certain people are visiting the household? when she has her period? When she is pregnant.

What would Maria think is good about open defecation? What would Maria think is bad about open defecation?

Would anyone approve or disapprove of Maria openly defecating? Why?

What would happen if Maria’s husband openly defecated? Who would approve or disapprove?

In your community, has people’s ability to defecate openly been affected by restrictions (e.g., lockdowns) imposed by the COVID-19 pandemic? How so?

V. Menstrual Hygiene Management

A. For ODF communities or other communities where the group says that there WOULD BE LATRINES (If no latrines, continue to section B.)

When Maria is having her menstrual period, can she use the family latrine? What does she do to manage her period? What kinds of materials does she use for catching the blood? Are there challenges to getting adequate supplies of menstrual management materials? What might Maria do to address the challenges?

Does having a latrine help or hinder managing her period in any way?

What are (other things) that might make it easier to help manage her period?

Are there any customs that influence how a woman manages her period? Any customs that influence how she is treated while menstruating?

Probe on whether she is able to perform her daily activities while menstruation (e.g., cooking, other household work). What is she or isn’t she allowed to do? Is she allowed to leave the house, go to work, etc.? Are there any places that she can or cannot go?
Does she have sufficient water to manage her period? Where does she get the water?

What does she do with the used products? If disposable products, where does she throw them away? If she uses cloths, where does she wash them? Where does she hang them to dry? How does she feel about washing and drying the cloths? How would she feel if someone saw her cleaning her cloths? What would they think?

How has the pandemic affected the access of women in your community to menstrual products such as menstrual pads? What about access to water or soap to bathe and clean themselves or any cloths used?

How has it affected their ability to manage their periods? Has having everyone at home during lockdowns helped or hindered women in managing their periods?

**B. For communities where they say Maria DOESN’T have a latrine**

What does she do to manage her period? What kinds of materials does she use for catching the blood? What does she do with the used material? Are there challenges to getting adequate supplies of menstrual management materials? How might Maria address the challenges?

How has the pandemic affected the access of women in your community to menstrual products such as menstrual pads? What about access to water or soap to bathe and clean themselves or any cloths used?

How has it affected their ability to manage their periods? Has having everyone at home during lockdowns helped or hindered women in managing their periods?
FOCUS GROUP DISCUSSION GUIDE #3

I. Introduction

Begin with greetings, introductions, and thanks to the community leaders and participants.

This study is being conducted by Iris Group on behalf of USAID to understand the concerns about sanitation and hygiene in your community. We also want to learn about how the community has been coping with the effects of the COVID-19 pandemic, particularly as it relates to sanitation and hygiene. We will use what we learn from this study to address these issues and to make sure people in Mozambique have what they need to live better and healthier lives.

The things we want to talk about include some topics people don’t usually discuss, like urinating and defecating. We know this may feel personal or uncomfortable, but we want to encourage you to be as open as possible about these topics.

First, we want to decide together as a group what terms to use when talking about urinating and defecating. There are the words you would use with a health worker, but those might not be the same words you would use with a friend, or with a child, or with your partner. What are some other words used in your community when talking about urinating?

Thank you for sharing all of those.

Now let’s do the same thing for defecation. What are some other words used in your community when talking about defecating?

Thank you again for sharing. For today’s discussion, we’re going to use the words XXX and XXX [INSERT WORDS SHARED BY PARTICIPANTS]. Is that ok with everyone? You can use whatever word you are comfortable with in our discussion.

So that this feels as comfortable as possible, we won’t ever ask you about your own personal experience, and we encourage you to NOT share personal information. We will remind you in case anyone forgets during our discussion. We hope you will talk about “what it’s like” here in your community, and in households without revealing personal details.

We will get the most out of this discussion if everyone is able to contribute their thoughts. In every group, there are people who tend to talk more and people who tend to talk less. We are going to try to make sure that everyone gets to contribute to the discussion, and we would appreciate your help.

II. Typical Day

We would like to learn from you by creating a story with you. Let’s begin by imagining a typical woman from a community like yours.

Draw or show picture of woman in capulana.

Let’s imagine this woman is from a community like yours. What should we call her? Let’s make sure it’s not a name of someone in this community, so we don’t think about that specific person while we talk.

Prompt if needed that this is how the ‘story scenario’ goes… you’ll ask them questions that will help to create the character …

Once they come up with a name (for the sake of example, we will use Maria for this script):

Keeping in mind that Maria is like typical women in your community, how old should we make Maria? Is she married? How many children do you think she has? Who else lives in the household? What does her house look like? Does it have a latrine?
If they give an answer that doesn’t seem typical for a woman in the community, gently confirm with them that it is typical for a woman there. Please write down the participants’ responses about who she is and major activities during her day on a piece of paper. Also note down if Maria’s household has a latrine.

Now let’s think about what a typical day is like for Maria.

What time does she wake up in the morning? What is the first thing she does? What does that task include? (i.e., fetching water, starting a fire, etc. If she has to fetch water in the morning, ask how long that will take her)

Go through her whole day, asking about the next task, then the next task … probing for more information about water location, childcare responsibilities, meal preparation, etc. Probe as appropriate about her husband’s involvement, especially if there is any kind of decision making involved.

III. Latrine Use

A. For ODF communities or other communities where the group says that there WOULD BE LATRINES (If no latrines, continue to section B.)

Would her family have just one, or more than one latrine? If more than one, how many would they have? Who would use each? If they can only afford one, who would use it?

Would anyone outside of Maria’s household ask to use the latrine? What would she say?

How common is it to share latrines between multiple families?

Within Maria’s family, is there anyone who would not use the latrine all of the time? Why not? When are they mostly likely to not use the latrine? Where would they go instead?

Who in the household would be responsible for cleaning the latrine? Why these individuals? How would they clean it/how often? What tools/supplies are needed?

Will/does Maria use the latrine? Will she use it every time she needs to urinate? Every time she needs to defecate? What would make it hard to use the latrine all the time? Is there any time she won’t use it? If so, why?

Probe for various occasions- when away from the household, when certain people are visiting the household? when she has her period?

What would Maria think is good about using a latrine all the time? What would Maria think is bad about using a latrine?

Would anyone approve or disapprove of Maria using the latrine? Would anyone approve or disapprove of Maria NOT using the latrine? Why would people approve? Why would be people disapprove?

Probe for family members (including elders), community leaders, traditional/religions leaders, government officials, etc.

What would happen if Maria didn’t use the latrine to defecate? Who would approve or disapprove?

Probe for family members (including elders), community leaders, traditional/religions leaders, government officials, etc.

What would happen if Maria’s husband didn’t use the latrine to defecate? Who would approve or disapprove?
Probe for family members (including elders), community leaders, traditional/religions leaders, government officials, etc.

B. Defecation Practices (For communities where they say Maria DOESN’T have a latrine)

What does Maria do for defecation? What does she do during the day? What about at night? Does her behavior change during the rainy or dry season?

Probe for various occasions- when away from the household, when certain people are visiting the household? when she has her period? When she is pregnant.

What would Maria think is good about open defecation? What would Maria think is bad about open defecation?

Would anyone approve or disapprove of Maria openly defecating? Why?

What would happen if Maria’s husband openly defecated? Who would approve or disapprove?

In your community, has people’s ability to defecate openly been affected by restrictions (e.g., lockdowns) imposed by the COVID-19 pandemic? How so?

IV. Safe Disposal of Child Feces

Let’s imagine that one of Maria’s children is very young - let’s say nine months. Let’s talk through what happens when the baby poops.

Where does the baby poop? Does Maria’s baby use a diaper or anything to catch the feces?

Who cleans after the baby poops? Is there anyone else in the household who helps with that? What does cleaning up the baby’s poop include? Where does the poop go? Where does the cleaning material go? What does the person do after cleaning the baby and taking care of the poop? If the person is using water, where does the soiled water go?

Does the infant’s poops get taken care of the same way throughout the day and night? What differences are there during the day/night?

Let’s say Maria is very busy making the evening meal and finds that her baby has pooped on the ground. Would she stop making dinner and take care of the poop right away?

What would be some of the reasons Maria might want the poop taken care of right away? What would be some of the reasons Maria would just let the poop stay there?

Probe: How harmful is baby poop considered? Very harmful or not so harmful? Or shameful for others to see?

How important is it to get rid of baby poop? what are dangers of baby poop? what is the right way to manage the baby’s poop?

Note if any mention is made of Maria washing her own clothes or hands.

Maria also has a three-year-old daughter.

Where does her daughter poop? What happens to the poop? Would it be the same if she had a 3 year-old son instead of daughter? Would the 3-year-old’s poop be disposed of the same way all the time day or night?

Let’s say Maria has a neighbor with a 3-year-old child as well. What would Maria think if the neighbor threw the child’s feces into the river? Would anyone else care if the neighbor did this?
In groups with latrines

At what age does the young one start to use the latrine?

What does Maria or anyone else do to get the young one started in the latrine?

What makes it difficult to have toddlers use the latrine? What would make it easier?

For all (with and without latrines)

If infant poop ends up on the compound yard, does anyone clean it or does it stay? Where does the poop go when it’s cleared away?

Who would approve of cleaning up feces from the compound? Why?

Would anyone disapprove of spending time cleaning infant feces from the yard?

Probe: Is baby poop considered harmful or harmless? Or shameful for others to see?

VI. Handwashing

Thinking again of Maria’s typical day, when does Maria wash her hands? Why is it important that she washes her hands at these times?

When else does she wash? Where does she wash her hands? What does she use to wash her hands? Where does the water come from? Would she pour the water over her hands or wash in a container?

(if they say she uses soap) Where does she get the soap? Is it difficult for someone like Maria to have soap to use for handwashing? What makes it difficult? Has it been especially challenging for people in your community to purchase soap recently? If so, why?

Who decides whether she can buy soap? Would anyone disapprove of her using household soap for handwashing?

What do people think about people who handwash with soap throughout the day, when the occasions arise? What words would neighbors use to describe someone who frequently washes hands with soap?

(if they say she uses ash) Where does she get the ash from?

What would happen if Maria didn’t wash her hands during the day with soap or ash?

What makes it difficult for someone like Maria to wash hands consistently with soap throughout the day? What makes it easier?

Has there been recent messaging about handwashing disseminated lately in your community? What messaging might Maria have seen or heard?

Probe for interpersonal sources or media (radio, TV, posters, pamphlets, etc.).

What do these messages ask Maria and the community to do?

Probe if these messages related to COVID-19.

What would be the reaction of Maria and the community to perform the actions noted in these messages?

Are Maria and other community women handwashing more, less, differently or the same since COVID? What about men in the community? What makes it harder or easier to handwash now?

Probe for challenges or facilitators.
Key Informant Interview Guide for PEC Officers/CLTS Implementors/District WASH Staff

INTRODUCTION AND CONSENT STATEMENT

Thank you for participating in this interview. Today, we wanted to discuss issues around water, sanitation, and hygiene issues in the communities in which you work – issues experienced by all members of your community including women and girls. By sanitation, I mean, latrines and disposal of adults and children’s poop, and by hygiene, I mean washing hands. We will also talk about how people in these community make decisions about building latrines. Lastly, we will also ask you about how the COVID-19 pandemic has affected sanitation and hygiene in the communities in which you work. This interview will take approximately one hour during which you will have the chance to speak about these issues. These discussions are part of a larger study where we also have group discussions with various community members.

We do not expect there to be any risks for your participation in the study. It will not cost you anything to participate in this study. We will offer refreshments during the discussions; there will be no additional benefits from participation.

You can end the discussion at any time. We will follow all recommended procedures to keep your responses and personal information confidential. Only the researchers will have access to your responses, and data will be securely stored. In any reports or articles about this research, your identity will be protected to the maximum extent possible.

You or anyone with questions may contact [interviewer name] with any questions by phone at [telephone number], or by writing them at [email address].

1. What are the key challenges that these communities experience relating to sanitation and hygiene?

2. Amongst the communities in which you work, have any of them participated in any government or NGO sanitation programs or initiatives (e.g., PRONOSAR)?

   PROBE: What kinds of programs are these? What has happened in these communities as a result of these programs?

3. Has there been a sanitation program implemented in any of the communities or districts in which you work? What activities did it include? How were you involved with it? What was the effect of the program?

   PROBE: Did these communities achieve ODF status? How long did it take? Has it been sustained in this community? Why or why not?

   For communities that have achieved ODF status, ask the person: What helped the community achieve ODF status? Why? Do you think this community will be able to maintain ODF status? Why or why not? How is this community different from communities that are not able to be ODF? What lessons would you take from this community to help other communities become ODF?

4. Do any/most households have latrines?

   PROBE: Do they use them? Why or why not?

   What kind of households have latrines and which ones don’t?

5. What are the biggest challenges for people to build latrines?

   PROBE: When people build latrines, who do you observe does the construction?

   What do men do, what do women do? Anyone else involved?

6. Who in the family decides about spending time on latrine construction?
PROBE: How are women involved in these decisions? Do they get to speak in family discussions about latrine construction? Is their input considered? Do women ever get to make the final decision?

Have any of the government or NGO initiatives ever promoted women’s involvement in latrine construction? How so?

7. Within a household, would you say the latrines are used pretty equally by all household members?

PROBE: What are the challenges for people to use latrines?

Do women and men use latrines equally?

Who doesn’t use them? [note if children are mentioned]

Why do you think XXX don’t use them?

8. Are the latrines adequate to meet the needs of women? What about when they are menstruating?

PROBE: Are women allowed to use the family latrine when menstruating?

What do women typically do manage their periods?

Does having a latrine help or hinder managing her period in any way? What might make it easier to help manage her period?

Are there any customs that influence how a woman manages her period? Any customs that influence how she is treated while menstruating?

9. In households that do not have latrines, where do people defecate? What are bad things about open defecation? Any good things?

PROBE: How does the community react to households not using latrines?

Is it something people notice, talk about, take action?

What do you think makes it hard for people (adults) to use a latrine most of the time?

What might make it easier?

10. And how about the young ones? Do children use latrines?

PROBE: Around what age is the right time for children to start using latrines?

What makes it hard for children to use latrines?

Do you think parents think it is important that children use the latrine?

Who is responsible for introducing the latrine and teaching the young one to use it? What do people commonly do to socialize the young ones to latrines?

Before they use the latrine, what happens when children poo? How is it managed?

NOTE: Careful to distinguish AGE of child with disposal/management practice

Let’s shift now from talking about latrines and sanitation to talking about water and handwashing

11. Where do people in this community get water? In general, is obtaining sufficient water for daily tasks a challenge in this community?

PROBE: Typically, is there enough water? When? When not?
How long does it take people to get water?
What do people think about the quality of the water?

12. Switching now to talk about handwashing, how common is it for people to wash their hands in this community?

PROBE: What do they use to clean their hands?

What kinds of soap would they have in their households? Would they use any of the soap to clean hands? Why/why not?

When are people most likely to wash their hands? Why are these times important?

Why would someone want to wash their hands? What makes it hard?

What would make it easier?

How are regular handwashers regarded in the community? Any words come to mind to describe people who handwash at most or all of the suggested times for washing?

Lastly, I want to ask you some questions about the COVID-19 pandemic:

13. How have communities been affected by COVID-19? What has changed in communities under COVID-19?

14. What has been the response to COVID-19 in the communities in which you work?

15. How has the response affected sanitation and hygiene behaviors, specifically handwashing in these communities? Do you think people wash their hands more or less following the pandemic?

16. Do you think it has made handwashing supplies (soap and water) easier or harder to obtain? How about menstrual hygiene? Do you think women have changed their MH practices under COVID? How?

17. Do you think menstrual hygiene materials or easier or harder for women to obtain since the arrival or COVID? Have women changed management strategies??

18. How has the pandemic and the lockdowns/curfews affected people’s ability to construct latrines? What challenges do they experience in building them?

PROBE: Are they able to afford building one?

Are they able to find materials to build one?

19. How has it affected people’s ability to obtain products like soap or menstrual products? What about access to water?
APPENDIX III: PARTICIPATORY ANALYSIS TEMPLATE

This template is intended to map findings from all communities to behavioral determinants. There is one template for each behavior. The Senior Hygiene and Behavior Change Advisor and the Senior Gender and Research Specialist will facilitate discussions and mapping of the data into this template.

SELECT BEHAVIOR [Latrine Construction / Latrine Use / Handwashing / Safe Disposal of Child Feces / MHM]

<table>
<thead>
<tr>
<th>Descriptive evidence: What do people do?</th>
<th>Determinants</th>
<th>What do we know from the data collection about each determinant?</th>
<th>Gender considerations</th>
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<tbody>
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<td><strong>Path</strong></td>
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<td>Access/availability</td>
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<td>Product attributes</td>
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<td>Social norms</td>
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<td>Sanctions/enforcement</td>
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<td><strong>Rider</strong></td>
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<td>Knowledge</td>
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<td>Social support</td>
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<td>Roles and decisions</td>
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### Descriptive evidence: What do people do?

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<tr>
<th>Determinants</th>
<th>What do we know from the data collection about each determinant?</th>
<th>Gender considerations</th>
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<td>Affordability</td>
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<td>Self-efficacy</td>
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<td><strong>Elephant</strong></td>
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<td>Attitudes and beliefs</td>
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<td>Values</td>
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<td>Willingness to pay</td>
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<td>Competing priorities</td>
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<td>Perceived risk</td>
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<td>Intention</td>
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<td>Emotional/social/ physical drivers</td>
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## APPENDIX IV: PARTICIPANT LIST FROM SECOND STAKEHOLDERS’ MEETING

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Aboobakar Covela</td>
<td>ADPP</td>
</tr>
<tr>
<td>Aditi Krishna</td>
<td>WASHPaLS/Iris Group</td>
</tr>
<tr>
<td>Abilio Manuel Cuamba</td>
<td>SNV</td>
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<tr>
<td>Atalia Tembe</td>
<td>SNV</td>
</tr>
<tr>
<td>Alex Grumbley</td>
<td>SNV</td>
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<tr>
<td>Bacelar Muneme</td>
<td>WASHPaLS/Iris Group</td>
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<tr>
<td>Carla Barros Muneme</td>
<td>WASHPaLS/Iris Group</td>
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<tr>
<td>Carlos Macande</td>
<td>SNV</td>
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<tr>
<td>Carlota Isac Muianga</td>
<td>UNICEF</td>
</tr>
<tr>
<td>Celia Cossa</td>
<td>USAID</td>
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<tr>
<td>Charmaine Consul</td>
<td>WaterAid</td>
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<tr>
<td>Clara Dimene</td>
<td>USAID</td>
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<tr>
<td>Denise Calado</td>
<td>USAID</td>
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<tr>
<td>Filipe Bila</td>
<td>ADPP</td>
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<tr>
<td>Frances Houck</td>
<td>WASHPaLS/Iris Group</td>
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<tr>
<td>Helio Penicela</td>
<td>USAID</td>
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<tr>
<td>Inacio Machoco</td>
<td>ADPP</td>
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<tr>
<td>Julia Rosenbaum</td>
<td>WASHPALS/FHI360</td>
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<tr>
<td>Leonor Victor</td>
<td>ADPP</td>
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<tr>
<td>Maggie Northman</td>
<td>USAID</td>
</tr>
<tr>
<td>Manuela Abreu</td>
<td>DNAAS</td>
</tr>
<tr>
<td>Micaela Barros</td>
<td>USAID</td>
</tr>
<tr>
<td>Michelle Wallace (including 10 other ADPP staff)</td>
<td>ADPP</td>
</tr>
<tr>
<td>Name</td>
<td>Organization</td>
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<tr>
<td>24. Mugabe Zitomugabe</td>
<td>SNV</td>
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<tr>
<td>25. Nga Nguyen</td>
<td>USAID</td>
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<tr>
<td>26. Osario Macamo</td>
<td>SNV</td>
</tr>
<tr>
<td>27. Pedro Timba</td>
<td>SNV</td>
</tr>
<tr>
<td>28. Regina dos Santos</td>
<td>MSI</td>
</tr>
<tr>
<td>29. Rita Zacharias</td>
<td>DFID</td>
</tr>
<tr>
<td>30. Lisa Rudge</td>
<td>DFID</td>
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<tr>
<td>31. Zaida Adriano</td>
<td>WASHPaLS/Iris Group</td>
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APPENDIX V: FINDING-LINKED RECOMMENDATIONS

The tables below present the full set of findings from the 2019 and 2021 research accompanied by recommendations and operational recommendations. In the blue font are findings from KIIs and the stakeholder meeting conducted in 2019; in black font are findings from the 2019 desk review.

LATRINE CONSTRUCTION AND USE

We present recommendations and operational guidance for these two behaviors together because the gendered and behavioral determinants of latrine construction and use, and subsequently, the recommendations, are linked.

<table>
<thead>
<tr>
<th>Findings from FGDs and KIIs in 2021</th>
<th>Findings from Desk Review, KIIs, and Stakeholder Consultation in 2019</th>
<th>Recommendation</th>
<th>Operational Recommendation(s)</th>
<th>Tags</th>
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<tr>
<td>Respondents considered latrine ownership to be good; building, having, and using latrines was the socially acceptable behavior. They viewed those who did not own latrines as unhygienic, lazy, or stubborn. Participants commonly cited shame in not owning a latrine. Shame over not owning a latrine and engaging in OD (or having to ask to use a neighbor’s latrine) was more pronounced for women. Women participants expressed that privacy, safety, and convenience were key reasons to own and use latrines.</td>
<td>Helvetas launched a campaign to appeal to social pride (or stigma) by marking clean and well-kept latrines with a flag. There has been no research into whether or how this intervention might affect women differently than men. Several organizations reported success in menstrual hygiene initiatives as a starting point for discussions about latrine use and other hygienic behaviors. One informant said that women face more stigma related to their open defecation than men do (S. Mucavel, personal communication, December 20, 2019). It is unclear why women face greater social disapproval relating to open defecation; however, the disapproval is</td>
<td>I. Use what we know about people’s prioritization of safety issues, pride/shame around not having a latrine, having to ask to use a neighbor’s latrine, or not having one for guests, particularly for women (who are more likely to be home more and be responsible for household sanitation and hygiene), to help motivate construction and use of latrines. Any strategies around this should use positive framing to emphasize pride, safety, and privacy rather than shame, danger, and indignity to avoid further stigmatization, especially for women.</td>
<td>• Incorporate positive behavior change strategies in sanitation and health programs (CLTS, market-based sanitation, etc.) around the benefits of having and using a latrine, such as safety, pride, and privacy.</td>
<td>Gender Elephant: emotional, social, physical drivers, values &amp; beliefs</td>
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<tr>
<td>Findings from FGDs and KIIs in 2021</td>
<td>Findings from Desk Review, KIIs, and Stakeholder Consultation in 2019</td>
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<td>Women received support (and peer pressure) from friends to encourage their husbands to build latrines. They also solicited support from other community members, leaders, and even the police to pressure husbands to build latrines. In Zambezia, women reported greater prioritization of latrines and using their own funds from selling farm products for latrine construction.</td>
<td>likely rooted in different social expectations for women regarding defecation, privacy, cleanliness, etc. Women and girls have privacy concerns related to menstrual hygiene, and security concerns about using a latrine in an unsecure, unlit, or remote location. Some communities have strict norms restricting men and women from using the same latrine. One respondent noted that some communities build a separate latrine for women to use during pregnancy.</td>
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<td>Men make the final decisions around latrine construction; however, women are active participants in the decision-making and rely on community support to advocate for it to happen. Women named markedly more wide-ranging benefits to building and using latrines than men. They also reported facing greater social pressure to own latrines.</td>
<td>In Mozambique, women’s decision-making power is limited by cultural norms present in rural areas. It is customary, for example, that a woman goes to her in-laws, rather than her husband, to discuss topics pertaining to the household (Tvedten et al., 2010). Women’s lack of participation in decision-making around the design of latrines can affect how useful they find them, particularly when considering gender differences in privacy, path: product attributes, social norms, sanctions</td>
<td>2. Engage men to understand the value of women’s full participation in latrine construction decisions (e.g., benefits for the entire family, consideration of guest, children, safety, etc.). Introduce couple communication and negotiation to advocate allocation of household resources for latrine construction. Use training and SBCC to reduce stigma for women who wish to learn about latrine construction and purchase materials and contract labor.</td>
<td>• Conduct trainings and or community sessions so that men understand the value of women’s full participation in latrine construction decisions (e.g., benefits for the whole family, consideration of guests, children, accessibility). • Ensure that siting, technology choice, construction, cleaning, and maintenance all include women’s input, to maximize use by all members of the family, and minimize burden on women such as from water-fetching, unsafe siting, technology less suited for</td>
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<td>Findings from FGDs and KII in 2021</td>
<td>Findings from Desk Review, KII, and Stakeholder Consultation in 2019</td>
<td>Recommendation</td>
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| security, and menstrual hygiene needs. Focus groups conducted by SNV found that male heads of households make the decisions about using household resources for latrine construction, and typically are the ones that access materials and labor for construction (A. Grumbley, personal communication, December 10, 2019). With support from DFID, the national rural water supply and sanitation program (PRONASAR) tracks women’s representation on and leadership positions within water committees. Respondents described many challenges to women’s power on these committees, including low literacy and husbands’ opposition to women’s participation. One informant said that communities select women who are not outspoken for water committees so that they will not challenge the status quo (S. Mucavel, personal communication, December 20, 2019). | women and children, technology that requires more cleaning, etc. Use SBCC to shift attitudes and behavior to reduce gendered stigma around who can build a latrine (carefully messaged so as not to add additional burden/shame to a population already overburdened). In the case of entrenched patriarchal gender norms that are a significant barrier to women’s participation in latrine decision-making, consider a social norms change intervention to shift community norms and facilitate more equitable decision-making and resource allocation. | security, and menstrual hygiene needs.
<table>
<thead>
<tr>
<th>Findings from FGDs and KIIs in 2021</th>
<th>Findings from Desk Review, KIIs, and Stakeholder Consultation in 2019</th>
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<th>Operational Recommendation(s)</th>
<th>Tags</th>
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<tr>
<td>A recent intervention by SNV (My Latrine, My Pride) focuses on positive masculinity by encouraging men as household decision-makers to invest in latrine construction to improve conditions for their families and communities (A. Grumbley, personal communication, December 10, 2019).</td>
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<td><strong>Women-headed households and households of elderly persons were the least likely to have latrines.</strong></td>
<td>As one informant said, women heads of households can face harassment or stigma in seeking materials and labor for latrine construction because these tasks typically fall within the purview of men and women occupying these roles are scorned as not having husbands who take care of these responsibilities (M. Salome, personal communication, December 10, 2019). Stakeholders commented that women do not receive the same information as their male peers, rendering informed decision-making a challenge.</td>
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8 Market-compatible: Fulfilled by a local enterprise

Rider: roles and decisions, self-efficacy

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<td>Participants saw latrine construction as a man’s role. Women found it challenging to dig latrine pits in rocky soils and navigate potential</td>
<td>Latrine collapse can be particularly common in areas where heavy rains are common or where there is poor soil stability (O’Connell, 2014) – a 4. Promote solutions in sanitation programs that better meet the challenging terrains (sandy, rocky soil) into sanitation programs.</td>
<td>– Build female-headed households’ technical knowledge of latrine construction, materials and hiring through targeted workshops (with childcare available) or other activities as add-ons to sanitation programming or as standalone pieces. Conduct brief needs assessment first to understand which skills/knowledge to home in on. • Consider other community initiatives to help women-headed households and the elderly construct latrines when they cannot construct them themselves. – Build on existing practices of hiring neighbors or masons. – For the elderly, explore how and whether to make the practice of using the government support checks to build latrines more systematic.</td>
<td>• Assess if households can construct these latrine designs themselves, or if professional competencies are required. Build demand for these latrine designs</td>
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<td><strong>pit collapse for latrines dug in sandy soils.</strong></td>
<td>Fear among households who have resisted latrine construction (Slekiene &amp; Mosler, 2018). In cases where latrines have collapsed, such as in Nampula, Mozambique following heavy rains in 2015, the households that rebuilt latrines were those that had more educated family members and were situated in areas with rocky soil and in communities with greater social cohesion and those that felt less vulnerable to diarrhea, perceived greater health risk for other community members resulting from one’s own open defecation, and households that estimated a greater number of latrine owners amongst their neighbors (Mosler et al., 2018). Households in communities triggered by CLTS were also more likely to rebuild, because CLTS programs targeted many social and psychosocial factors (e.g., social cohesion and perceived vulnerability to diarrhea) (Mosler et al., 2018). Because latrine collapse and past experiences with latrine construction and use are key determinants of future latrine construction and use (Alemu et</td>
<td>through appropriate channels (outreach and/or market-based).</td>
<td>• Given that the rough terrain seems differentially prohibitive to women, explore technologies that might allow women to participate more fully in construction.</td>
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<td>• Balance using local materials for affordability and sustainability with other materials that may be much more durable.</td>
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<td>al., 2017), understanding how to promote rebuilding is critical, particularly in geographies that experience common latrine collapse. While projects have encouraged use of local building materials for sustainability and affordability, such materials tend to be less durable, leading to latrine disrepair and rebuilding fatigue. As one informant said, women heads of households can face harassment or stigma in seeking materials and labor for latrine construction because these tasks typically fall within the purview of men and women occupying these roles are scorned for not having husbands who take care of these responsibilities (M. Salome, personal communication, December 10, 2019).</td>
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# SAFE DISPOSAL OF CHILD FECES

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| **Women are predominantly tasked with child feces disposal.** | Gendered division of labor within the household places the burden of childcare on mothers and makes it challenging for women to take on another set of tasks and responsibilities relating to safe child feces disposal (Hussain et al., 2017). Time spent collecting water puts further pressure on women’s time. In Mozambique, over 1.5 million women are estimated to spend 30 minutes or greater per day collecting water, behind only Nigeria and Ethiopia (Graham et al., 2016). Although other household members may support the caregiver in helping their younger siblings defecate, dispose of the feces, and clean the toilet, fathers were rarely involved (Hussain et al., 2017). Mothers reported that potty-training a child was a time-consuming task, although others reported that it saved time because it consolidated the feces and potties with stable bases and allowed | 5. Employ strategies to engage men in child feces disposal and engage men more generally as co-caregivers. | • Ensure strategies for child feces disposal that primarily target women also engage men with additional education, messaging, images, and norms change. See Recommendation 15.  
• Incorporate elements of positive fatherhood programming in WASH and health programming to shift norms around caregiving and becoming more equitable and supportive partners, as well as agents of change towards gender equality. | **Rider:** roles and decisions  
**Path:** social norms |

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<td>caregivers to leave their children unattended while they engaged in other tasks (Hussain et al., 2017). Stakeholders and informants affirmed that responsibility for managing and disposing of child feces falls to women and girls (as older siblings/cousins). However, they note that there have been no specific studies of traditions or norms around child feces disposal, and the practices girls or young women learn when beginning to care for children. HOPEM, a male engagement organization, encourages men as caregivers, including engagement in diaper changing (A. Cumbi, personal communication, December 18, 2019).</td>
<td>Reinforce existing positive practices of immediate safe disposal of infant feces.</td>
<td>• Explore the use of enabling technologies and parenting skills to encourage early socialization of latrine use, e.g., accompanying young child to the latrine and waiting with them; putting a rope or support if fear of falling in drop hole; teach squatting sideways (both feet on one pad)</td>
<td>Rider: knowledge, self-efficacy Path: access/availability, social</td>
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<td>footpads and dropholes and no grab-bars; often dark and smelly) even in households that have improved sanitation (Aluko et al., 2017; Miller-Petrie et al., 2016). Parents worry that without supervision or assistance, young children may fall into the latrines and injure themselves (Hussain et al., 2017). Child potties were perceived as a safe, convenient, and socially desirable way to deal with child feces (Hussain et al., 2017; Miller-Petrie et al., 2016). According to stakeholders, in Mozambique, child potties are not accessible or affordable, and while cloth diapers are often used, they come with their own challenges in terms of safe disposal practices. Latrines are not built for young children and are correctly seen as unsafe for them.</td>
<td>for greater feeling of security. (Men can play a role here).</td>
<td>norms, habits</td>
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### HANDWASHING

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<td>Having little access to water and affordable soap reinforces traditional ways of handwashing, which are not ideal for hand hygiene.</td>
<td>More than half of households in Mozambique do not have handwashing facilities on their premises, while one third have handwashing facilities that lack water and soap. Only 12% of households have access to basic hygiene facilities with soap and water available (WHO &amp; UNICEF, 2019). The more readily individuals can access water, the more likely they are to wash their hands with soap and water (Contzen &amp; Mosler, 2015; Rabbi &amp; Dey, 2013). Access to facilities, water, and soap is only one of many enabling factors for handwashing. Psychosocial factors such as emotional drivers (nurture [the desire for a happy, thriving child], disgust) and social norms also play a critical role in influencing handwashing behavior (Curtis et al., 2009). In rural communities, lack of access to water and soap (or ash as a substitute) is an issue, despite relatively high knowledge about the need for handwashing, according to</td>
<td>7. Build on existing positive practice of handwashing at critical times to modify harmful and ineffective elements of these current practices, to encourage more hygienic handwashing. Discourage the reuse of water in washing hands and promote the practice of pouring water from a pitcher into a communal catch bowl rather than dipping into bowl. Given water scarcity, encourage use of grey water for activities such as home gardens. Promote greater handwashing for children.</td>
<td>• Conduct rapid inquiry to identify existing household containers that can serve as pitchers for pouring water. Create a job aid (perhaps a short video for promoters’ cell phones) to demonstrate the modified practice. • Ensure that all strategies to increase hand hygiene take into account that requirements for more water will likely increase the water fetching burden for women and girls and employ strategies to mitigate and avoid this additional burden. • Use SBC methods such as the glitter game to demonstrate the need to wash children’s hands.</td>
<td>Rider: knowledge, self-efficacy Path: access/availability, social norms, habits</td>
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<td>8. Include strategies in future programming that prioritize the use of soap for handwashing (in addition to for bathing and washing clothes).</td>
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<td>• Include use of soap, ash or home-made liquid soap solution to encourage improved handwashing practice and address the perceived barrier of lack of soap availability. • Promote use of small pieces of soap, no longer useful for clothes washing or dishwashing.</td>
<td>Gender Rider: knowledge, self-efficacy Path: access/supplies</td>
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| stakeholders. Moreover, informants report that handwashing knowledge is situational – much higher for some junctures (such as after defecation) than for others (such as prior to food preparation). Stakeholders said that Mozambican traditions support handwashing prior to eating, with ceremonial passing of a bowl of water before a meal, but noted that this was not a hygienic practice given the shared water basin and re-use of the same water. However, informants noted this tradition may be an entry point to reinforce social norms around handwashing. Muslim communities have important norms around washing behaviors that should be explored and understood before any handwashing interventions are implemented in these areas. | | | - for use in handwashing or liquid soap-making.  
- Provide need-based vouchers for soap to ease the financial barriers for purchasing soap.  
- In SBCC around soap and proper handwashing, include education on intrahousehold negotiation/decision-making to reinforce women’s prioritization of soap as essential for the household. | }
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<td>Women most often use methods learned through traditional initiation rites to manage their periods. Inadequate knowledge of MHM and provisions for managing one's period were key issues noted by stakeholders.</td>
<td>9. Broaden access to menstrual management products other than capulanas, such as reusable and disposable products, complemented by provisions for appropriate disposal. Efforts to increase access should engage the local private sector to ensure supply chains, affordable price points, high quality products, and demand creation/market-based supply.</td>
<td>• From existing studies and during gender assessments and other baseline project research, understand barriers to use of reusables and disposables (affordability, willingness to pay, whether this is considered a worthwhile expenditure by household head, distribution, norms such as with using insertables, stigma, entrenched traditional practices, lack of soap or water for cleaning, lack of private space for cleaning, drying etc.) and address these barriers during program implementation.</td>
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<td>10 MHM was added to the study towards the end of Phase I. As a result, the team did not discuss MHM during the KIIs or stakeholders’ workshop but did include it in the desk review.</td>
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<td>Use and disposal of disposable MHM materials.</td>
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<td>• Explore other product options:</td>
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<td>• Work with schools, health clinics and workplaces to distribute low-cost MHM products in conjunction with education about adequate MHM.</td>
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<td>• Work with private sector suppliers of menstrual products, as well as entrepreneurs and sales agents to market and sell disposables and reusables at affordable (and potentially subsidized) prices in target areas.</td>
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<td>• Disseminate ‘do it yourself’ improved menstrual pad designs to USAID implementing partners to incorporate into outreach work.</td>
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<td>• Tap into networks for sewing of improved menstrual pads, which have been incorporated into school-based and income-generating initiatives throughout the region.</td>
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<td>• Several private sector companies market reusable menstrual products in Mozambique and have conducted formative research and market analysis in both Nampula and Zambezia. Future strategy can work toward coordination of demand creation/market-based supply of menstrual products.</td>
<td>10. Encourage more hygienic adaptations of traditional MHM practices, such as using more comfortable, clean and hygienic cloth, cleaning and storing of the cloth, and how traditional passing down of knowledge related to menstruation can include hygiene messaging.</td>
<td>• Educate women and girls on the proper use of traditional materials, including recommendation on the types of cloth that can be used, and hygienic use, cleaning, and storage of such products. • Work with older women, who transmit such knowledge to girls when they first get their periods, to raise their awareness about proper hygiene and care with traditional cloth and reusables so</td>
<td>Path: access/availability, social norms, habits, product attributes Rider: knowledge, self-efficacy</td>
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| Schools often lack the infrastructure to allow for adequate MHM (e.g., sex-segregated toilets with doors and locks, water, and waste bins) (Morgan, Bowling, Bartram, and Keyser, 2017). | | I. Support advocacy and policy dialogue efforts to create a better enabling environment for MHM policies, to create access and affordability of products, among other benefits. | • In collaboration with existing local efforts, facilitate a national steering committee on MHM to advance national and pillar-specific policies on MHM (pillars include schools, communities, and workplaces)  
  - Examples of national-level policies that may benefit from advocacy and technical inputs of a steering committee: National MHM Policy (see Kenya’s recently released policy for an example), review of locally available products and import taxes that could potentially inhibit local manufacturing of reusable and disposable products, clarification of which governmental entities should | Path: access/availability |
| *   Build on traditional use of bathhouses in Zambezia to promote and reinforce best practices with washing and hygienic care of reusable menstrual products in a private setting where women feel comfortable. | | | | |

Findings from FGDs and KII in 2021

- Findings from Desk Review, KII, and Stakeholder Consultation in 2019

Recommendation

Operational Recommendation(s)

- that they pass along this information.
- Build on traditional use of bathhouses in Zambezia to promote and reinforce best practices with washing and hygienic care of reusable menstrual products in a private setting where women feel comfortable.

Tags

Path: access/availability
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<td>While there is little research on MHM in Mozambique, disaster relief and recovery programs find that women and girls in Mozambique lack most if not all of these conditions for</td>
<td>12. Increase knowledge regarding menstruation and MHM, primarily for women and girls, coupled with efforts to shift norms and minimize taboos relating to MHM.</td>
<td>participate in MHM-specific policies moving forward (Ministry of Health, Ministry of Education, Ministry of Labor, etc.) and collaboration to increase engagement, reusable and disposable product standards, etc.</td>
<td>• Develop SBCC education materials on the physiology, health, and hygiene of MHM. • Using these SBCC materials, carry out education sessions on</td>
<td>Elephant: beliefs, attitudes, values Rider: knowledge,</td>
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<td>adequate MHM under normal circumstances and particularly so in post-cyclone settings (CARE, 2019; Haneef and Tembe, 2019; UNFPA, 2020). Even in areas not affected by natural disasters, girls’ inability to manage their periods has implications for their participation in daily life: menstruating girls often miss school, report not being able to participate fully in school activities including sports when on their periods, and have difficulty concentrating in school (Anderson, 2020).</td>
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<td>the physiology, health, and hygiene of MHM. • Consider sessions and materials targeting boys and men. • Work with schools, clinics, and workplaces to disseminate SBCC materials and educate people about proper MHM. • Develop strategies and materials that target behaviors and social norms that stigmatize menstruation. These materials should include best practices to shift restrictive social norms around menstruation (e.g., who can see MHM materials, restrictions on activities for menstruating women, etc.).</td>
<td>social support Path: social norms</td>
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<p>| OVERARCHING RECOMMENDATIONS |
|-------------------------------|-------------------------------------------------|-----------------|--------------------------------|------|
| Findings from FGDs and KII in 2021 | Findings from Desk Review, KIIs, and Stakeholder Consultation in 2019 | Recommendation | Operational Recommendation(s) | Tags |
| General | District-level WASH officials have not been trained on the importance of inclusion, and several informants believe they | 13. Ensure WASH and health projects integrate gender into project assessment baselines and | • At sanitation project startup, include a gender assessment to verify findings of this formative research and explore gendered |</p>
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<td>are resistant to the idea that gender inequality exists. One informant from a gender organization said that district officials have in some cases discouraged them from conducting activities on gender in their areas (A. Cumbi, personal communication, December 18, 2019). Another informant said that local officials need to be trained in governmental responsibilities in terms of WASH, as well as the environmental, social and economic impact of poor sanitation and hygiene (S. Mucavel, personal communication, December 20, 2019).</td>
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<td>other research to maximize learning and efficiency.</td>
<td>norms, attitudes, behaviors, and knowledge around WASH.</td>
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<td>14. Ensure that project monitoring, evaluation and learning is gender-integrated to better capture gender issues that may drive sanitation and hygiene behaviors.</td>
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<td>• Include global and Mission gender indicators, gender-sensitive indicators, sex- and age-disaggregated data anytime people are counted.</td>
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<td>• When possible, monitor actual/reported use of latrines (and not just by report of household head), rather than extrapolating coverage numbers. Projects often assume coverage</td>
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| **The Ministry of Public Works developed a gender strategy two years ago, but it has not been approved and disseminated.** | 16. Integrate best practices for gender-equitable relationships into procurements and projects. | • Build on existing best practices for engaging men as caregivers, equitable partners and agents of change to shift unequal gender norms.  
• Integrate elements of couple communication programs (there are many examples in sexual and reproductive health programming) for couples to | | |

equals use and this may not be true, especially for women, children and other vulnerable groups. If there is differential use, utilize qualitative methods to find out why certain household members are not using the latrine, or not using it consistently to troubleshoot solutions for those.
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<td>• Target community leaders and other referent persons to promote gender-equitable norms and behaviors.</td>
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<td>negotiate and prioritize household finances for latrine construction, soap, MHM products, etc.</td>
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