



BEHAVIOR CHANGE:

Evidence Summary for Menstrual Hygiene Management

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Part 1

EVIDENCE AND EXPERIENCE

SDG target 6.2

By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, **paying special attention to the needs of women and girls and those in vulnerable situations.**



HEALTH EVIDENCE

Menstrual health affects an estimated 1.9 billion women and girls ages 15 to 49, although others outside this group are also directly or indirectly affected.¹ However, menstruation is often a taboo topic that is insufficiently prioritized, leading to a lack of education, inadequate infrastructure, improper management of hygiene materials, and an overall stigma surrounding it.

Multiple studies have found knowledge gaps surrounding many aspects of menstruation among school-age girls.² Improper disposal of menstrual hygiene materials directly affects the functioning of sanitation systems, and reusable materials that are improperly cared for can cause infections and other adverse health outcomes. However, menstrual hygiene management (MHM) behaviors are not driven simply by appropriate knowledge. A systematic review of behavioral drivers of menstrual hygiene material disposal and washing found that these behaviors were primarily driven by the physical state of sanitation facilities.³ This includes quantity and design of available toilets/latrines, quality and availability of running water, availability of soap, and availability of a disposal mechanism—all indicating that access to proper facilities is a major barrier. Operation and management of facilities are critical to their sustained function and can inhibit proper MHM behaviors when they are inadequately cleaned or maintained.

Social perceptions of menstruation also play a significant role in women's and girls' ability to properly manage their periods, and these perceptions often limit availability of equitable education. The stigma surrounding menstruation leads many women and girls to experience embarrassment, shame, and fear.⁴ The recently developed definition of menstrual health takes these factors into account, not simply focusing on physical health but including the mental and social well-being of women and girls in relation to their menstrual cycles.⁵

¹ World Health Organization and UNICEF, *Progress on Household Drinking Water, Sanitation, and Hygiene 2000-2020: Five Years Into the SDGs*, 2021, p.52, <https://washdata.org/sites/default/files/2021-06/jmp-2021-wash-households-LAUNCH-VERSION.pdf>.

² Shobha P. Shah, Rajesh Nair, Pankaj P. Shah, Dhiren K. Modi, Shrey A. Desai, and Lata Desai, "Improving quality of life with new menstrual hygiene practices among adolescent tribal girls in rural Gujarat, India," *Reproductive Health Matters*, 21:41, 2013, p.205–213, [https://doi.org/10.1016/S0968-8080\(13\)41691-9](https://doi.org/10.1016/S0968-8080(13)41691-9).

³ H.J. Robinson and D.J. Barrington, "Drivers of menstrual material disposal and washing practices: A systematic review," *PLoS ONE* 16 (12): e0260472, 2021, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0260472>.

⁴ Ibid.

⁵ Julie Hennegan, Inga T. Winkler, Chris Bobel, Danielle Keiser, Janie Hampton, Gerda Larsson, Venkatraman Chandra-Mouli, Marina Plesons, and Thérèse Mahon, "Menstrual health: a definition for policy, practice, and research," *Sexual and Reproductive Health Matters*, 29:1, 2021, p.31-38, <https://doi.org/10.1080/26410397.2021.1911618>.

Menstrual health: *A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in relation to the menstrual cycle.*⁶

Many MHM interventions and research studies target water, sanitation, and hygiene (WASH) in schools as a key entry point, given the convenient access to a primary target group (school-age children first experiencing menstruation) and a pre-established, central setting for implementing MHM facilities. As important as private, dignified, and accessible MHM infrastructure is, having a consistent stock of MHM products available is also essential for sustainable use. In the 2017 14-country evaluation of World Vision's WASH programs, only 26% of schools had MHM materials available.⁷ However, focusing only on the school setting is unlikely to change social norms since schools reach a limited population (children and teachers) and there are other social influences outside of school. Thus, community-wide efforts should be considered (such as promotional campaigns or Nurturing Care Groups, as described below).

WORLD VISION'S EXPERIENCE

Following are several successful MHM programs World Vision has been implementing.

➤ WASH UP! Girl Talk

A collaboration between Sesame Workshop and World Vision, Girl Talk is a school-based approach for both girls and boys. It builds upon the WASH UP! school hygiene curriculum, teaching girls' empowerment and proper MHM, and addressing myths and misconceptions about puberty. In its pilot in Zimbabwe, Girl Talk was found to have improved student knowledge of puberty and periods, dispelled common myths about menstruation, and improved girls' practical knowledge about their cycles.⁸

➤ Nurturing Care Groups (NCGs)

NCGs use promoters to train community-based volunteers (leader mothers) to become change agents in their

communities. Leader mothers share behavior-change messages with other mothers to promote desired behaviors and shift social norms; these mothers then bring the messages to small groups in their neighborhood. This approach has been shown to double behavioral change compared to other behavior-change approaches, often exceeding 90% WASH behavior adoption.⁹ A World Vision NCG project evaluation in Ghana showed the proportion of women (10 to 49 years old) who reported having been excluded from activities during their last menstrual period reduced from 32% to 7%.¹⁰

➤ WASH business centers (WBCs)

WBCs are one-stop centers for retail and wholesale distribution of WASH-related products, reaching communities through marketing efforts. In Kenya, some WBCs promote menstrual hygiene products such as reusable pads. Local women's groups sew the pads and provide the materials and proper cleaning instructions to women and girls. Reusable pads were added a few years after the business center approach began, and the community impact on MHM practices has not yet been evaluated.

World Vision's current WASH Business Plan for 2021 to 2025 includes 4,470 schools gaining access to improved sanitation for girls, with facilities to manage menstrual hygiene.¹¹

Business Plan goals:

1. **ACCELERATE** universal and equitable access to water, sanitation, and hygiene services
2. **DEEPEN** focus on the most vulnerable people, especially in fragile contexts
3. **DEMONSTRATE** sustainable impact
4. **LEVERAGE** \$1 billion business plan to mobilize financing for WASH services

⁶ Ibid.

⁷ The University of North Carolina's World Vision 14-Country WASH Evaluation Final Report (2020) covered Ethiopia, Ghana, Honduras, India, Kenya, Malawi, Mali, Mozambique, Niger, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe.

⁸ Daniel Light, Nelia Matinhure-Muzondo, Camille Ferguson, Tamuka Huston Muzondo, Nennie Harvey Lungu, "Improving students' knowledge of puberty and menstruation in rural Zimbabwe: an evaluation of Sesame Workshop's Girl Talk program," *Journal of Water, Sanitation and Hygiene for Development*, 11(1), 2021, p.173–178, <https://doi.org/10.2166/washdev.2020.286>.

⁹ World Vision International, "Nurturing Care Groups," <https://www.wvi.org/health/nurturing-care-groups>.

¹⁰ World Vision (Ghana), *Endline Assessment for Nurturing Care Group Project: Final evaluation report*, 2021.

¹¹ World Vision, *Our Roadmap to Impact 2021–2025: World Vision Global WASH Business Plan Executive Summary*, 2020, <https://www.wvi.org/publications/business-document/clean-water/our-roadmap-impact-2021-2025-wv-global-wash-business>.



Part 2

KEY BEHAVIOR CHANGE APPROACHES

For a behavior-change intervention to be effective, it is important to understand exactly what kind of behavior you are trying to change, including the kind of action, the beneficiaries, and the kinds of benefits to consider. Refer to the guidance in the Rapid Behavior-Centered Design (RapidBCD) tool¹² from *Behavior Change: Practical Implementation Guidance for Programs*¹³ for corresponding recommendations related to the components of behavior highlighted in the following table.

Components of behavior: Safe use and disposal/cleaning of menstrual hygiene materials	
ACTION	› Routine, individual action
BENEFICIARY	› Benefits the present self (comfort, safety, time savings) and is also a private good (comfort, safety, time savings)
BENEFIT	› Benefits are certain (comfort, cleanliness, time savings), and perceptions can either be gains (privacy, dignity, mobility) or losses (avoiding missing school or other activities due to menstruation)

As discussed in all our guides and evidence summaries, to build upon the kinds of behavior identified above, formative research is crucial to understand what the target population's current beliefs and attitudes are toward menstrual hygiene management and product use, and what practices are currently common. However, drawing on behavioral theories and the limited evidence from the field to date, a few key approaches are outlined in the following table, along with how they align with the RapidBCD tool. The approaches progress from the most basic to most burdensome to implement, but the more intense interventions may lead to more substantial behavior change.

¹² This tool can be found in Appendix 2 of *Behavior Change: Practical Implementation Guidance for Programs*.

¹³ World Vision, *Behavior Change: Practical Implementation Guidance for Programs*, 2021, <https://s3.us-east-2.amazonaws.com/wwusstatic.com/2021/landing-pages/our-work/clean-water/BEHAVIOR+CHANGE+Guidance+for+Programs.pdf>.

APPROACH	DESCRIPTION	RapidBCD Tool			CONSIDERATIONS
		Grab attention	Cause revaluation	Facilitate performance	
WASH in Schools	Increasing coverage of girl-friendly infrastructure in schools reduces a major barrier to proper MHM. WASH in Schools programming that prioritizes building additional MHM facilities, or MHM rooms, increases access to a dignified, private, and hygienic space for girls to care for their periods. Hygiene promotion that incorporates MHM with other WASH topics can supplement such activities.	While drawing attention to facilities may not be necessary in settings like schools where girls know the layout well and will seek out such facilities, nudges to draw attention to safe disposal locations may improve compliance for this behavior.	Hygiene promotion activities can provide information to those who menstruate, as well as help reduce misinformation and harmful social norms for all present in the setting, including students and teachers.	Clean and sanitary latrines and MHM facilities enable girls to properly dispose of MHM materials in schools. Placing disposal bins inside or nearby sanitation facilities makes proper disposal more convenient .	Though access to MHM facilities is a major determinant of MHM practices among women and girls, facilities must be well maintained and stocked with supplies to fulfill their needs. In many cases, behavior-change programming addressing social norms complements infrastructure upgrades and can increase and improve use of facilities. WASH in Schools, however, does not account for girls who are not in school or women beyond school age, so this population must be reached through other approaches.
WASH UP! Girl Talk	Girl Talk is a school-based program for both girls and boys with educational modules on puberty and menstruation. Through 10 60-minute sessions, boys and girls alternate learning together and in separate groups. Girl Talk also includes take-home activity books with comic strips, diary entries, and worksheets. In addition, teachers are trained to be more attentive to the needs of adolescents going through puberty.	The Sesame Workshop character Didi shares MHM messages in a relatable, lighthearted, and engaging way. Videos and activity books give students multiple avenues for engagement.	By openly discussing a normally taboo topic, girls learn they do not need to fear their menstrual cycles and can become empowered to make decisions about their own bodies and personal hygiene. Engaging boys also is key to changing social norms for entire communities.	Interactive activities such as how to care for reusable menstrual pads and tracking cycles through a “cycle bracelet” create lasting impact.	This approach assumes preexisting access to WASH services in schools. Hygiene promotion and education rely on improved access to water and sanitation infrastructure to sustain behavior. Though not required, Girl Talk has typically been deployed as a continuation of WASH UP! lessons, targeting older students who already have completed WASH UP!
Market-based sanitation (MBS)	MBS is an umbrella term that includes Sanitation Marketing, sanitation market shaping, and sanitation as a business. MBS can be used to create user demand and improve the supply of products and services. Having a variety of MHM products available is important for giving women and girls a choice of which	Cause surprise in marketing/media campaigns. Mass media campaigns can be especially useful in larger or urban settings, where access to MHM materials	MBS increases the value of products and services while decreasing financial cost.	Cultivating a sanitation market increases availability of products.	MBS typically follows after a community behavior-change program, working off the assumption that substantial startup time and investment are needed for market research, design,

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APPROACH	DESCRIPTION	RapidBCD Tool			CONSIDERATIONS
		Grab attention	Cause revaluation	Facilitate performance	
	<p>products they are most comfortable using. It often is not a stand-alone approach.</p> <p>Advertising specific MHM products as unique, easier to use/clean, or more comfortable can allow a woman the agency to choose which product works best for her. Marketing also can work to reduce the stigma of menstruation by openly discussing various products.</p>	<p>for purchase is greater than in rural areas.</p> <p>Utilize comfort in marketing materials to motivate viewers to alter their behavior. One method of delivery is to send trained community health workers or sales agents door-to-door with sanitation messaging and products to explore in smaller or hard-to-reach communities.</p>	<p>Frame MHM messaging in terms of preventing a loss such as not missing school or other enjoyable activities by better managing menstruation with hygiene products.</p>	<p>Because use of MHM facilities and materials is a routine action, promoting a planned one-time purchase of a reusable material (such as a reusable pad) facilitates sustained use.</p>	<p>and testing before implementation can begin.¹⁴</p>
<p>Community-based participatory approaches (Nurturing Care Groups¹⁵ community health workers, etc.)</p>	<p>There are a number of names for community approaches to behavior change. A Nurturing Care Group is a group of 10 to 15 community-based volunteer behavior-change agents who meet every two weeks with project staff or government community health workers for training. The volunteers then cascade down behavior-change messages and activities to caregiver groups at the neighborhood level. NCGs also build social support and cohesion among members, and help link neighborhoods with community leaders, faith leaders, and government services/staff (e.g., clinics, social workers).</p> <p>Given the role of social stigma, community-based approaches targeting social norms have a unique ability to address the well-being of menstruating women and girls. These approaches also may be used to target men and boys, increasing their knowledge and acceptance of menstruation.</p>	<p>The use of both home visits and group meetings allow community volunteers to reach every household.</p> <p>Women serve as role models and are key promoters of behavior change in their communities.</p>	<p>NCGs shift social norms by establishing trust through regular communication with community members. This setting also allows leader mothers and other women to feel comfortable discussing menstruation openly and can be an effective way of dismantling myths and harmful misconceptions surrounding menstruation.</p>	<p>The NCG framework assists in sustainable change because it is community-led. Being part of a smaller care group also reduces anonymity and increases accountability.</p> <p>As a routine behavior, NCGs reinforce consistent use of MHM materials and their proper disposal. Addressing entire communities, rather than targeting only adolescents, can facilitate changes in harmful social norms.</p>	

¹⁴ UNICEF, *Guidance on Market-Based Sanitation*, 2020, <https://www.unicef.org/media/110721/file/MBS%20Guidance%202021.pdf>.

¹⁵ World Vision, *Nurturing Care Groups Project Model: Health & Nutrition Technical Brief*, 2020, <https://www.wvi.org/sites/default/files/2020-06/Nurturing%20Care%20Groups%20CPM%20Brief%20June%202020.pdf>.



Part 3

BEHAVIOR CHANGE HIGHLIGHTS

Regardless of the approach used, it is important to keep in mind the role of behavioral motives and social norms in all behavior-change program design. Behavioral motives form the basis of how each approach functions, and social norms in particular are powerful motivators to cause change at a community/societal level. The RapidBCD tool identifies social norms as one of the behavioral motives, though its unique applicability to MHM behavior change is further explored below. More detailed information on natural WASH motives and social norms can be found in the resource *Behavior Change: Practical Implementation Guidance for Programs*.¹⁶

➤ Natural WASH motives

Motivated behavior describes how we choose the appropriate behavioral response to achieve a certain goal. Natural WASH motives include disgust, comfort, nurture, affiliation, and status. Certain characteristics that may act as motivators by increasing rewards include convenience, affordability, availability, cleanliness, safety, and privacy.

Cause revaluation: Associate a natural WASH motive such as comfort or status with the use of MHM materials, like reusable or disposable pads.

➤ Social norms

The social unacceptability of discussion around menstruation and freedom of movement during menstruation may act as a barrier to change. Because many women and girls prefer to keep their menstruation private and a secret from those around them, especially men, openly discussing menstruation can be a difficult behavior to change. The comfort of women and girls is also often not a collective priority but an individual one, making widespread change difficult. Multiple intersecting social and cultural norms influence the ability of women and girls to access MHM materials and must be addressed, particularly in community settings.

Furthermore, in contexts where men control household finances, it may be even more difficult to generate demand for menstrual hygiene products and/or prioritize their purchase. When MHM materials are seen as an “extra” or “nonessential” cost, women lack the agency to purchase products for their own comfort and well-being.

Cause revaluation: Altering norms can cause revaluation. Menstruation becomes less stigmatized, and use of menstrual hygiene products becomes socially normalized, desirable, and even prioritized.

¹⁶ World Vision, *Behavior Change: Practical Implementation Guidance for Programs*, 2021, <https://s3.us-east-2.amazonaws.com/wvusstatic.com/2021/landing-pages/our-work/clean-water/BEHAVIOR+CHANGE+Guidance+for+Programs.pdf>.

➤ Enabling environment

Individuals often need support from the environment around them to change their behavior. The enabling environment is composed of the physical environment (i.e., infrastructure, places, money), the biological environment (i.e., pathogens present, thoughts, feelings), and the social environment (i.e., family members, friends, community).¹⁷ If an individual does not have access to proper infrastructure or products (such as MHM facilities or menstrual pads), she is less likely to engage in the targeted, desired behavior: safe use and disposal/cleaning of MHM materials. Similarly, if those around the individual don't discuss proper MHM or exhibit safe MHM practices, she will be less likely to practice those behaviors, too. The role of the social environment is particularly powerful with menstrual hygiene behaviors. Since it is so often kept private, young girls may feel apprehensive about asking for help or guidance, hindering their ability to learn how to safely manage their periods or clean MHM materials.

Facilitate performance: Well-maintained MHM facilities and accessible products are parts of the

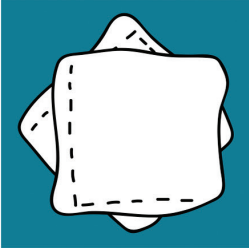
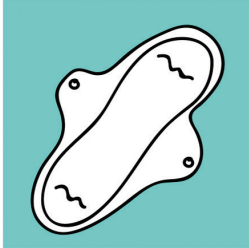



physical environment that promote proper MHM behaviors. Ensuring proper disposal systems that function adequately is also crucial to maintaining the overall solid-waste system.

Cause revaluation: Presence of MHM facilities in schools can serve as a cue or reminder that menstruation is a normal part of a girl's life and does not need to be hidden or feared. Shifting the social environment and openly discussing menstruation can influence the biological environment and reduce fear, anxiety, embarrassment, or shame around menstruation.

➤ Product choice

There are various materials and products used for MHM, largely depending on availability, affordability, and personal preference. Promoting product choice, through market facilitation or in other programming, allows women and girls to choose what is most practical and comfortable for them. Some of the more common options are outlined in the graphic below.

Overview of menstrual materials¹⁸

MENSTRUAL CLOTH	REUSABLE PAD	DISPOSABLE PAD	MENSTRUAL CUP	TAMPON
				
<p>Reusable, affordable, already used in many contexts.</p> <p>Relies on privacy, clean water and soap, and time to wash and dry.</p>	<p>Reusable, can be home-made or produced locally, where good quality, comfortable.</p> <p>Relies on privacy, water, soap and time to wash and dry.</p>	<p>Convenient, widely available, preferred by many women and girls, comfortable.</p> <p>Relies on disposal systems and access to markets.</p>	<p>Reusable, available in some countries.</p> <p>Relies on privacy, water and soap to clean, and hindered by cultural taboos on inserting and virginity.</p>	<p>Convenient, available in some countries.</p> <p>Relies on disposal systems and hindered by cultural taboos surrounding insertion and virginity.</p>

¹⁷ R. Aunger and V. Curtis, "Behaviour Centred Design: towards an applied science of behaviour change," *Health Psychology Review*, 10(4), 2016, p.425–446, <https://www.tandfonline.com/doi/full/10.1080/17437199.2016.1219673>.

¹⁸ UNICEF, *Guidance on Menstrual Health and Hygiene*, 2019, p.59, <https://www.unicef.org/media/91341/file/UNICEF-Guidance-menstrual-health-hygiene-2019.pdf>.

INDICATORS

The Joint Monitoring Programme (JMP) separates indicators into four areas:

- Awareness of menstruation before menarche (first menstruation)
- Use of menstrual materials to capture and contain menstrual blood, such as sanitary pads, cloth, tampons, or cups; these can also be grouped into single-use and reusable materials
- Access to a private place to wash and change while at home
- Participation in activities during menstruation such as school, work, and social activities¹⁹

➤ WASH Business Plan indicators

In line with JMP standards, World Vision is actively tracking a number of outcome and output indicators for access to sanitation facilities and quality of sanitation infrastructure in households, schools, and healthcare facilities. However, only one indicator specifically calls out menstrual hygiene management facilities:

Indicator: Number of education facilities gaining access to MHM facilities

Definition: Number of education facilities gaining access to at least one private, improved toilet that is designated for women and girls and provides facilities to manage menstrual hygiene needs, including washing, changing, and disposal of menstrual waste

Along with Sustainable Development Goal target 6.2, there are a number of menstrual hygiene-related indicators that

are also being monitored toward the successful completion of these targets:

- 6.2.1a Proportion of population using safely managed sanitation services
- 5.1 End all forms of discrimination against all women and girls everywhere
- 4.a.1f Proportion of schools with access to single-sex basic sanitation facilities

➤ Focus group discussions

Given the sensitivity of the topic of menstruation in many communities, as well as the apprehension to speak openly about it, focus group discussions can be an informative way of collecting qualitative data. This data can include context-specific current knowledge, attitudes, practices, myths, and misconceptions about menstruation; desirability of various MHM materials; and any other pertinent information for project design and implementation. One example from the International Federation of Red Cross and Red Crescent Societies (IFRC) of focus group discussions is their focus group discussion guide assessment on menstrual hygiene management in emergencies (with one section focused on emergency settings and distributions, but otherwise relevant to all settings), which can be found online.²⁰

➤ Menstrual Practice Needs Scale

The Menstrual Practice Needs Scale (MPNS) is a self-report questionnaire that assesses the experience of women and girls who menstruate and whether their needs are being met. There are 36 questions with six sub-scales. The MPNS user guide can be found online at [menstrualpracticemeasures.org](https://www.menstrualpracticemeasures.org).²¹

¹⁹ JMP, "Menstrual Health," <https://washdata.org/monitoring/menstrual-health>.

²⁰ IFRC, *Focus Group Discussion Guide – Assessment. Menstrual Hygiene Management in Emergencies*, n.d., <https://www.susana.org/en/knowledge-hub/resources-and-publications/library/details/4675>.

²¹ J. Hennegan, A. Nansubuga, C. Smith, M. Redshaw, A. Akullo, and K.J. Schwab, *The Menstrual Practice Needs Scale (MPNS-36): User Guide V1.0*, 2020, <https://www.menstrualpracticemeasures.org/>.



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