



An Opportunity to Address Menstrual Health and Gender Equity

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EXECUTIVE SUMMARY

Menstruation is a monthly challenge for billions of women and girls worldwide. On any given day, more than 800 million girls and women between the ages of 15 and 49 are menstruating.¹ A study in South Asia found that 33% of girls in school had never heard of menstruation prior to experiencing menarche, and 98% of girls were unaware that menstrual blood came from the uterus.² It is estimated that more than half of women and girls in low- and middle-income countries (LMICs) use homemade materials as their primary or secondary method for managing their periods.³ In Ethiopia, research showed that 25% of girls do not use any commercial products to manage their menstrual flow and isolate themselves during menstruation.⁴

Challenges with menstruation go beyond practical management to issues that affect the girl and her role in the community. Menarche, the onset of menstruation, often signifies an abrupt change for girls as they transition from childhood to adulthood. After menarche, expectations about sexual purity and social submissiveness emerge for young girls,⁵ while boys undergoing puberty face new pressures to demonstrate their virility and manhood through sexual conquests.⁶ **Menstrual health** is an encompassing term that includes both menstrual hygiene management (MHM) as well as the broader systemic factors that link menstruation with health, well-being, gender, education, equity, empowerment, and rights.⁷

The analysis of the evidence and response to menstrual health challenges reveal:

STATE OF THE EVIDENCE

- Qualitative research studies emphasize that girls experience shame, embarrassment, and discomfort during menstruation because they lack access to affordable and preferred products, private and safe facilities, and education about menstruation and how to manage it.
- Evidence about the impact of poor menstrual health on other health, development, and empowerment outcomes is scant, not statistically significant, and largely inconclusive, suggesting a need to invest in targeted research to mobilize targeted players in the field. Specifically, evidence on the relative importance of MHM to school absenteeism is mixed

and varies significantly across geographies.^{8,9,10,11,12,13,14}

THE FIELD'S RESPONSE

- Momentum from donors, governments, and other private players has increased to address problems related to menstrual health, but the focus to date has largely been on “hardware” (e.g., products and facilities).
- Players tackling issues related to menstrual health are also disparate and isolated in their approaches to reaching girls and their influencers. Despite the link between menstruation and reproductive health, the sexual reproductive health sector has paid limited attention to the issues related to menstruation until recently.
- Efforts to date to address girls’ menstrual health have largely focused on physically able and in-school girls.
- Few governments, corporations, or NGOs are looking at menstrual health as a systemic problem, and thus, they are missing the opportunity to address the problems sustainably and at scale. Rigorous evaluations of menstrual health programming to understand what works and is replicable at scale have been limited.

PROGRAMMING AND POLICY INNOVATIONS

- Few market-based solutions provide affordable, high-quality MHM products to low-income consumers in LMICs.
- Despite the emphasis on sanitation infrastructure, menstrual waste collection and disposal needs greater attention, as it is an under-prioritized area in most user-centric sanitation programming.
- Puberty programs and curricula largely target girls and often neglect to include their influencers.
- Although there are some powerful positive examples, national governments have lacked ownership of menstrual health, limiting opportunities for coordinated responses to menstrual health challenges.

Girls’ experience with menstruation is inextricably linked to a broader set of changes affecting girls during puberty. The field needs to explore how menstruation can serve as an opportunity to access girls at a critical transition point in their lives. Because stakeholders have finite resources available to address issues facing adolescents, understanding the links between menstrual health and a broader set of norms can help to identify whether there is an opportunity to influence a cross-cutting set of outcomes and set girls on a longer-term path to success.

Report Contents

An Opportunity to Address Menstrual Health and Gender Equity covers 1) the state of the evidence linking menstrual health to outcomes; 2) a brief landscape of the problem and the menstrual health sector, including areas of progress and existing gaps; and 3) conclusions and perspectives on opportunities for the field.

Methodology

This report is prepared with support from the Bill & Melinda Gates Foundation (Foundation). It provides an assessment of the menstrual health sector and identifies opportunities for the field to improve girls' dignity and empowerment.ⁱ This analysis is the result of a review of over 150 peer-reviewed articles and grey literature, interviews with 37 global experts, 70-plus interviews with experts and practitioners in India, Kenya, and Ethiopia, and a review of relevant programming focused on menstruation, MHM, and sexual reproductive health. The research focused on sub-Saharan Africa and Asia, priority areas for the Foundation, and was complemented by a sampling of research from developed countries and emerging economies (e.g., the United States, Germany, and China). The research focuses on girls' journeys through adolescence between ages 10 and 19.

The research also includes an in-depth assessment of the state of menstrual health in India, Kenya, and Ethiopia driven by an extensive literature review and set of conversations with experts and practitioners. The report intends to provide an overview of the current landscape and outline programmatic, policy, and advocacy approaches that could address menstrual health needs. This assessment included 126 interviews with adolescent girls in the following categories: (1) early post-menarche (0 to 1 year after menarche); (2) post-menarche (1 to 3 years after menarche); and (3) late post-menarche (3-plus years after menarche up to 18 years old). Interviews were also conducted with 55 influencers including mothers, sisters, teachers, and community health care workers. The interviews with adolescent girls and influencers were led and conducted by Routes 2 Results and their in-country partners in India (Rajiv and Anju Bala Bhatia, founders of Fact-Indepth), Kenya (Carolyn Muthoni Njihia, founder of Measure Associates), and Ethiopia (Feven Busa, qualitative research expert, and Efera Busa, research director, at Waas International).

ⁱ Empowerment is the process by which a girl expands her current and future ability to make and act on strategic life choices. Empowerment outcomes can include agency, social support, decision-making control, and security.

OVERVIEW

An Unexplored Problem

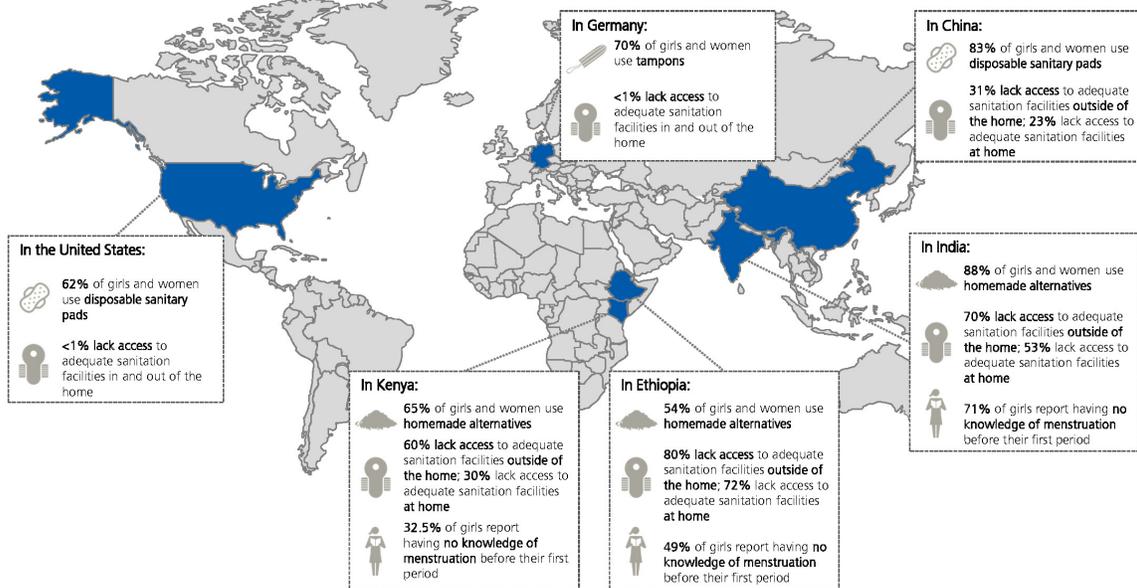
Approximately 52% of the female population (26% of the global population) is of reproductive age, and most of these women and girls menstruate each month.¹⁵ However, both communities and systems players have largely overlooked menstrual health. This report uses the term “menstrual health” to encompass menstrual hygiene managementⁱⁱ (MHM) as well as the broader systemic factors that link menstruation with health, well-being, gender, education, equity, empowerment, and rights.¹⁶

On any given day, more than 800 million girls and women between the ages of 15 and 49 are menstruating,¹⁷ and hundreds of millions of girls continue to face barriers to comfortable and dignified menstrual health. A study in South Asia found that 33% of girls in school had never heard of menstruation prior to experiencing menarche, and 98% of girls were unaware that menstrual blood came from the uterus.¹⁸ Estimates suggest that more than half of women and girls in low- and middle-income countries (LMICs) use homemade alternatives as their primary or secondary method for managing their periods.¹⁹ In Ethiopia, research showed that 25% of girls do not use any MHM products to manage their menstrual blood and isolate themselves during menstruation.²⁰ A report by the United Nations Children’s Emergency Fund found that more than half the schools in low-income countries lack sufficient latrines for girls and female teachers.²¹

The field is just beginning to understand the complex sociobiological dynamics at puberty and how these can set girls on a path to healthy development. Efforts to improve menstrual health have garnered increased interest from funders and practitioners as many look to understand whether focusing on menstrual health can provide a window into puberty and early adolescence and offer an opportunity to influence a broader set of outcomes.

ii Menstrual hygiene management refers to the use of hygienic material to absorb or collect menstrual blood, access to private spaces to change these materials as frequently as needed, use of soap and water to bathe and clean MHM products, and access to safe disposal options. (“WASH in Schools Empowers Girls’ Education: Proceedings of the Menstrual Hygiene Management in Schools Virtual Conference 2012.” IRC. UNICEF. Web. 7 Oct. 2015.)

FIGURE 1: MENSTRUAL HEALTH AROUND THE WORLD



On Pages 8-9 are a selection of stories from girls in India, Ethiopia, and Kenya that provide insight into the diversity of experiences across geographies.

The Journey through Adolescence

During the journey through adolescence, many girls experience both challenges with the monthly management of menstruation as well as more fundamental shifts that start around menarche. Menarche, the onset of menstruation, often signifies an abrupt change for girls as they transition from childhood to adulthood. After menarche, expectations about sexual purity and social submissiveness emerge for young girls,²² while boys undergoing puberty face new pressures to demonstrate their virility and manhood through sexual conquests.²³ These gendered social norms represent early adolescents' perceptions of masculinity and femininity in their community.²⁴ Lack of guidance on how to traverse the pressures of puberty can leave girls and boys vulnerable to negative outcomes in many facets of their health and development.²⁵

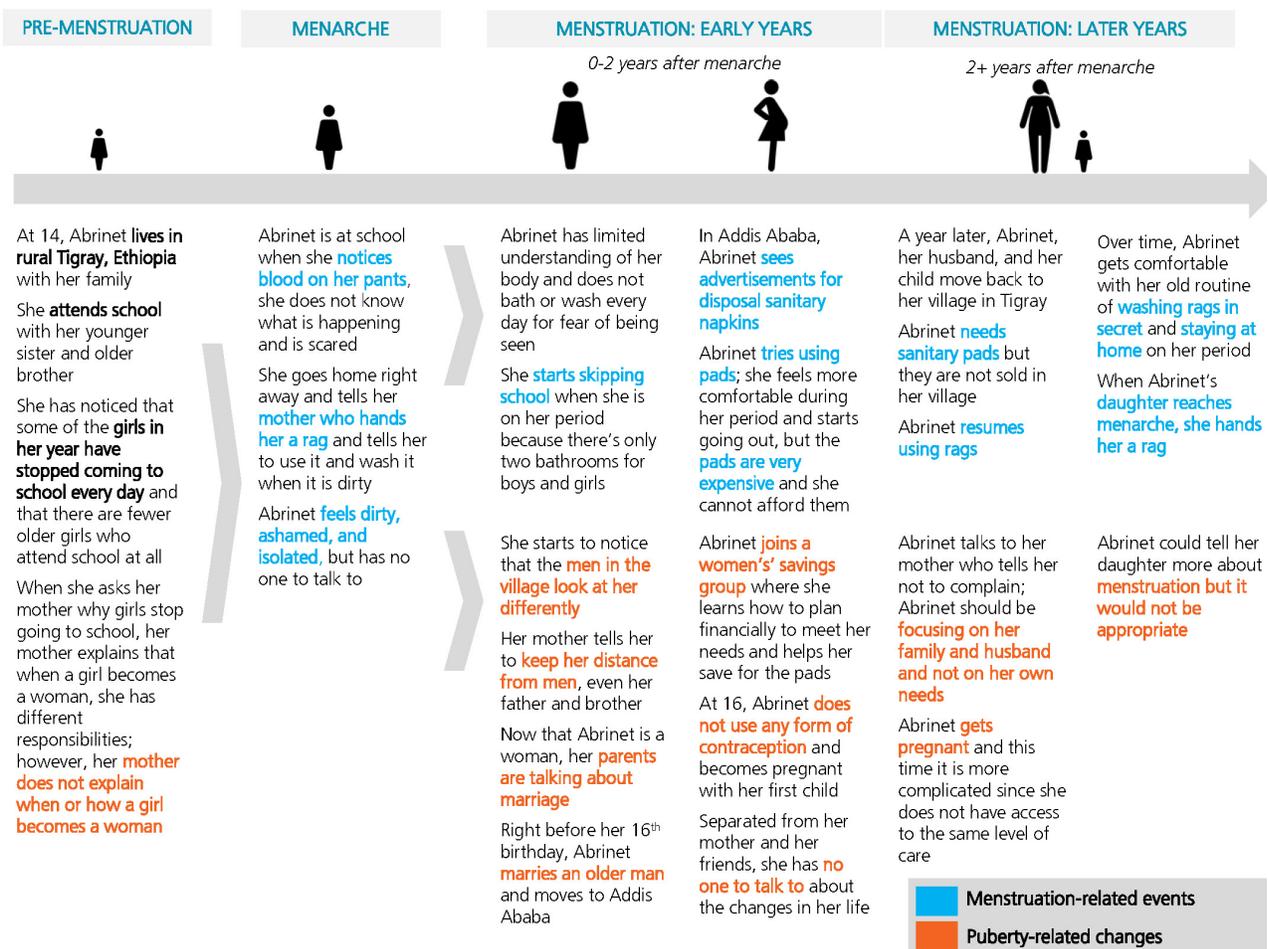
Figure 2 shows the journey of an archetypal 14-year-old Ethiopian girl.

Challenges with menstrual health, and MHM specifically, may be a symptom of these more fundamental changes and discriminatory social norms that girls face during puberty. Growing evidence shows that the expression of discriminatory social norms becomes

more pronounced during puberty and can undermine efforts to achieve multiple health and development outcomes. Gender discrimination during adolescence can take the form of unequal chore burdens and caretaking responsibilities; exclusion from education, employment, and decision making; child marriage; limitations on reproductive control; and violence, sexual abuse, and exploitation.²⁶ Research also shows the importance of mental health: girls are one and a half to two times more likely to be diagnosed with depressive disorders after the onset of puberty.²⁷

“Before puberty, I used to go wherever I wished—near and far places without fear and also alone. But after puberty, my movement has been restricted by all means, I need (to) spend more time at home and whenever I go out, which is allowed for very specific reasons only, somebody is required to accompany me at all times!” Adolescent Girl, 14 years old, Coimbatore, Tamil Nadu, India

FIGURE 2: A GIRL'S JOURNEY



STORIES FROM THE FIELD—A GLIMPSE INTO GIRLS' EXPERIENCES

Pinky

Pinky, 14 years old, lives with her parents and younger brothers in a katchaⁱⁱⁱ near a village in Kanpur, Uttar Pradesh, India. Every morning, she wakes up at 4 am and helps her mother fill water from the village pump, cook, and clean before she goes to school. Like her mother, Pinky uses cloth to manage her menstruation. She disposes of her used menstrual cloth in the field, where she goes to defecate, and then walks back home to wash and clean herself. Following her mother's advice, Pinky stays at home on the days she is menstruating, but her mother tells her brother and her father that she is unwell or has fever.

Kaveri

Kaveri, 12 years old, lives in rural Coimbatore, Tamil Nadu, India, and is aware that menstruation is linked to a woman's ability to have children—she learned that in her school's biology class. She asks her father to buy sanitary pads from the market every month. Even if she does not have a pad, she is not worried. Her school provides her with free pads supplied by the state government, and her school's toilets have an incinerator to dispose of them. Although she dislikes the free pads because of their poor quality, she knows they are useful in an emergency. She plays volleyball in school even when she has her period. "Why shouldn't I?" she asks. That said, Kaveri does face isolation at home during menstruation; her grandmother asks her to sleep separately. She says, "Yes, sometimes I feel like I am in a jail, but other times I am happy that I have to do less house chores."

ⁱⁱⁱ Houses made from mud, thatch, or other low-quality materials are called katcha houses.

Triza

Triza, 14 years old, lives in Kawangware, a slum located in the western part of Nairobi County, Kenya. She attends school in Kawangware, where she also lives with three siblings and parents in a one-bedroom house. She shares a bed with her sister, and the family shares an outdoor toilet facility. She generally feels safe using the toilet, except at night when she sometimes feels scared to. The school environment and structures are not very conducive to learning; sometimes the classrooms are very cold, and the teachers are not well trained. There is no access to running water, and students like Triza are required to either fetch water from the nearby river or carry a 5-liter container of water to flush the toilet after use. Triza does not enjoy the company of the boys at her school; sometimes they play bad jokes, like pressing the girls against the door, or trying to hold their hands. At school, girls are provided with pads if their period starts in school, and they also receive permission to go home and take a bath if they have stained their dress. However, she is not scared of her period, and she continues to go about her daily activities as normal.

Adina

Adina, 17 years old, lives in rural Debre-Birhan, Ethiopia. When Adina reached menarche two years ago, she knew what it was but was still shocked. She did not want her brother to see that she had stained her clothes, and she felt isolated. Adina asked her mother how to manage her period. Her mother taught her how to use a pad and told her how different her experience had been—when she got her period, she had no idea what was happening and she was married shortly thereafter. Adina has access to free pads at school. They are provided by an NGO, and while the quality is not great, it is better than the alternative—using rags or nothing at all. The school does have bathrooms, but Adina avoids using them if she can because they are very dirty and there is no running water or waste bins to dispose of used pads. Adina and her mother both view education as important and aspire for Adina to get married after completing her bachelor's degree.

Adolescents with special or underrepresented needs are disproportionately affected by poor menstrual health. More than 90% of children with disabilities in developing countries do not attend schools.²⁸ Currently in India, 74% of adolescent girls with disabilities and 41% of adolescent girls are permanently not going to school. Among those who do go to school, 20% of adolescent girls and 35% of adolescent girls with disabilities do not attend school during menstruation.²⁹ Though this report's analyses center on the needs of adolescent girls and to some extent women, it is critical that investments in research and interventions related to menstrual health encompass all people who menstruate, including trans men and individuals who do not identify along gender binaries.^{30,31}

With little known about girls aged 10 to 14, trends, behavioral drivers, and associations are currently difficult to identify. Current survey tools often do not include very young adolescents (ages 10–14) in their sampling populations, hindering our understanding of this critical period when puberty tends to occur. Menstrual health expert Marni Sommer described menarche measures as “a missing (set of) indicator(s) in population health from low-income countries,” highlighting the dearth of current evidence on this key experience in young girls' lives.³² There is a small but growing call among public health researchers and practitioners to begin including menarche and other puberty indicators in major health and development surveys as a way to track long-term impact and inform more strategic approaches to improving girls' outcomes.³³

Menstrual Health and Links to Life Outcomes

Evidence about the impact of poor menstrual health on other health, development, and empowerment outcomes is scant, not statistically significant, and largely inconclusive. Many studies focused on menstrual health have small sample sizes and overly rely on qualitative, self-reported, or anecdotal data to assess impact. Some outcome categories, such as education, have garnered more attention and research from the field in recent years. For instance, evidence on school absenteeism is mixed and varies across geographies,^{34,35,36,37,38,39,40} and while there are some anecdotal reports of negative impact on school performance and concentration, the topic has not been rigorously researched to date.^{41,42,43} Even less focus has centered on girls' and women's health outcomes stemming from poor menstrual health, particularly sexual and reproductive health impacts. Evidence on links between menstrual health and empowerment is, however, strong and supported by extensive qualitative research and anecdotal reports.

Improved evidence on menstrual health can support the field to advocate and mobilize funding for menstrual health. Priority areas for investment include improved understanding of the links between menstrual health and a set of cross-cutting life outcomes and evaluating the

effectiveness of different interventions and approaches. The research agenda for menstrual health should be linked closely to the audience and use of the evidence base to further the field and improve outcomes for women and girls. Table 1 on Pages 12-13 includes a review and an assessment of the state of the evidence and defines where evidence is weak and where evidence has not yet been collected.

TABLE 1: ASSESSMENT OF EVIDENCE ON OUTCOMES LINKED TO MENSTRUAL HEALTH

STATE OF THE EVIDENCE		DEFINITION	
Evidence strong	Existing evidence of high rigor conclusively documents the causal link between menstrual health and outcomes of interest.		
Evidence mixed	Existing evidence base offers inconclusive results on the causal link between menarche, menstruation, and MHM and outcomes of interest. This designation applies when some studies find there is a causal link and others find conflicting results.		
Evidence weak	Existing evidence does not support a direct causal link between menstrual health and outcomes of interest.		
Evidence lacking	Insufficient evidence has been gathered.		
DOMAIN	MENSTRUAL HEALTH IS ASSOCIATED WITH	OVERVIEW OF EVIDENCE TO DATE	QUALITY AND LIMITATIONS OF EXISTING EVIDENCE
Economic	<ul style="list-style-type: none"> Increased work absenteeism for women 	<p>Evidence lacking</p> <ul style="list-style-type: none"> MHM is an overlooked topic in research as focus has been on girls 	<ul style="list-style-type: none"> Limited cross-sectional or anecdotal evidence⁴⁴
Education	<ul style="list-style-type: none"> Increased school absenteeism School dropout Reduced school performance Deprioritization of girls' education Poor transition to secondary school 	<p>Evidence mixed</p> <ul style="list-style-type: none"> Evidence on MHM and school absenteeism is mixed and varies across geographies^{45,46,47,48,49,50,51} Some anecdotal reports of negative impact of MHM on school performance and concentration, but not well researched to date^{52,53,54} <p>Evidence lacking</p> <ul style="list-style-type: none"> Earlier experience of menarche is associated with lower schooling levels⁵⁵ 	<ul style="list-style-type: none"> Some quantitative studies, but inconsistent methodologies prevent the measurement of absenteeism and performance in a standardized and comparable way Numerous structural barriers (e.g., incomplete school registers, lack of school fees) undermine causal research Possible over-attribution of absenteeism to menstruation/MHM; more accurate assessment of attribution vs. contribution is needed^{56,57}
Empowerment	<ul style="list-style-type: none"> Lack of dignity and confidence Lack of agency Restricted mobility 	<p>Evidence strong</p> <ul style="list-style-type: none"> Overwhelming anecdotal data signifying extreme impact on girls' dignity, but no core empowerment measures to date^{58,59,60,61} Widespread anecdotal reports of restrictions placed upon girls at menarche^{62,63} Anecdotal link between menarche and changing societal expectations for girls at puberty (e.g., symbol of fertility, sexual readiness, and marriage eligibility)⁶⁴ 	<ul style="list-style-type: none"> Primarily anecdotal and self-reported incidences of disempowerment Field is unclear how to quantitatively measure empowerment Cross-sectional and retrospective analysis limits longitudinal understanding
Environment	<ul style="list-style-type: none"> Negative environmental and health impacts from improper disposal of used MHM material waste 	<p>Evidence mixed</p> <ul style="list-style-type: none"> Negative impact is documented: approximately 20 billion disposable menstrual products accumulate in American landfills annually, taking an estimated 500 to 800 years to fully break down^{65,66} Environmental health impacts of used MHM materials in landfills is hypothesized, but not well researched 	<ul style="list-style-type: none"> Alleviating the environmental impact of disposed hygiene products is a secondary research priority compared to improving MHM and access to products Numerous other potentially harmful materials in broader environment (e.g., other plastics) make isolation of causal pathway difficult in understanding the detrimental health or environmental impacts of inadequately disposed MHM products

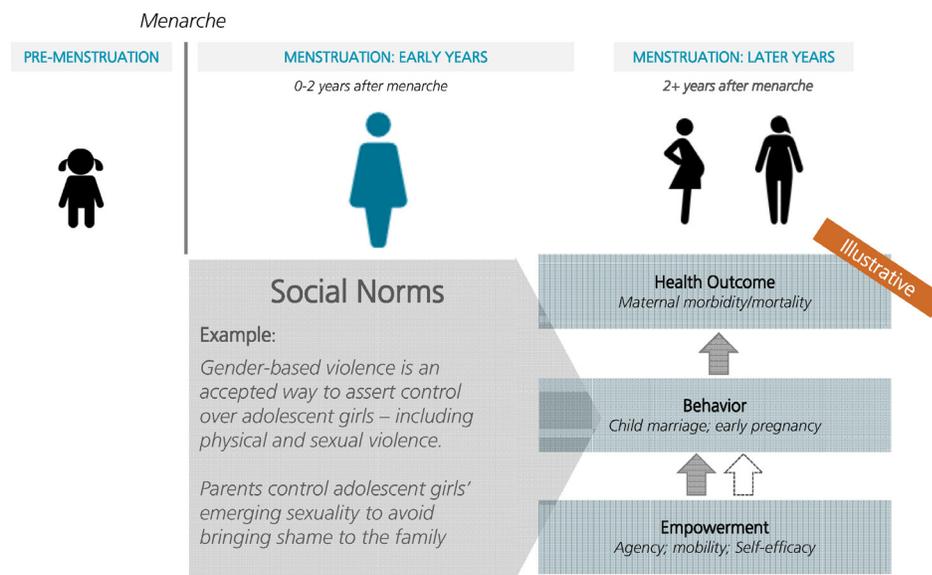
Health	<ul style="list-style-type: none"> Increased incidence of reproductive tract infections (RTIs), including bacterial vaginosis Experience of dysmenorrhea Increased risk of STIs and HIV infection Sexual debut Nutritional status Hormonal and biological changes Sexual risk-taking behavior Gender-based violence 	<p>Evidence weak / Evidence lacking</p> <ul style="list-style-type: none"> Noted correlation between poor MHM and increased incidence of RTIs, but route of infection is unknown and could be due to multiple risk factors⁶⁷ Hypothesized link between RTIs due to poor MHM and increased vulnerability to STIs and HIV is not supported by current evidence⁶⁸ Anecdotal reports of mental distress from unsupportive MHM environments⁶⁹ Dysmenorrhea is a commonly cited menstruation-related health complication for adolescents, but inconsistent and poorly understood impact on other health and development outcomes⁷⁰ <p>Evidence lacking</p> <ul style="list-style-type: none"> Limited longitudinal research restricts understanding of long-term implications of menarche and MHM on sexual and reproductive health decision-making Increased fertility pressure or associated marriageability at menarche could hold implications for sexual debut, early marriage, and early pregnancy, but is not well documented⁷¹ Affirmation of gendered expectations and cultural tolerance of gender-based violence can increase risk of sexual assault or exploitation for pubertal girls⁷² Timing of menarche can be used as a proxy for population nutritional status, but this indicator is not being captured to date⁷³ 	<ul style="list-style-type: none"> Qualitative reports of mental distress but limited quantitative evidence Limited longitudinal research hinders ability to understand long-term impact on sexual and reproductive health outcomes (e.g., early pregnancy complications, RTIs, and HIV/STI infection)
Mental Health	<ul style="list-style-type: none"> Depression 	<p>Evidence lacking</p> <ul style="list-style-type: none"> Suicide is now the leading cause of death among adolescent girls ages 15–19⁷⁴ Anecdotal reports show that new pressures and expectations at menarche can cause mental distress, particularly for girls who experience early pubertal onset^{75,76} Increased risk of depressive disorders associated with exploitative gender norms enacted at the onset of puberty⁷⁷ 	<ul style="list-style-type: none"> Limited cross-sectional or anecdotal evidence

DEFINING THE PROBLEM

Role of Community and Influencers

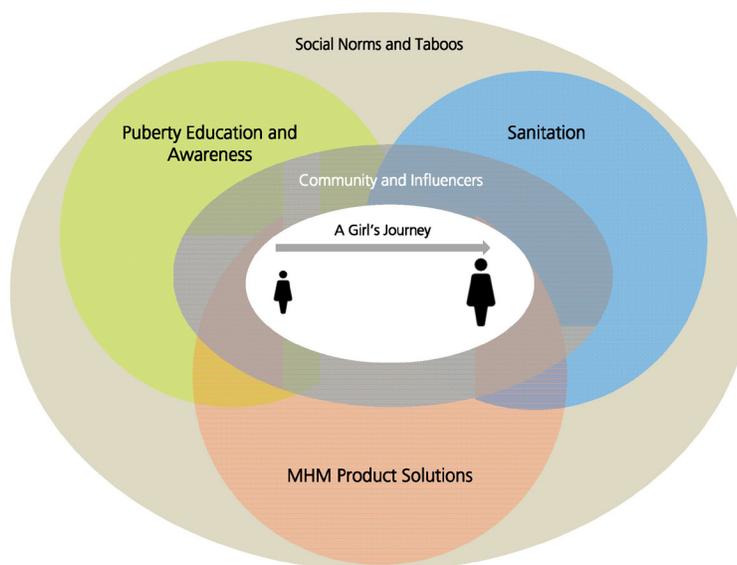
Critical members of the community often influence and reinforce girls' knowledge, attitudes, and behaviors. Girls' reference networks—people that matter to girls' choices (e.g., parents, siblings, peers, teachers, and community leaders)⁷⁸—vary but are critical to support them as they reach menarche and learn to manage menstruation. Community members perpetuate taboos and misconceptions about menstruation that can lead to further isolation of girls during and around menstruation. Research suggests that a girl's experience with menstruation is affected by the degree of agency her mother has within her personal life. These intergenerational effects cause girls to lead similar lives and have similar levels of opportunity to their mother, which in turn influences practices and perceptions related to menstruation.⁷⁹ In households marked by strict or traditional gender norms, mothers may have a limited voice and lack decision-making control, thereby reinforcing gender normative behavior in their daughters and sons.⁸⁰ Thus, engaging influencers is critical not just for shifting short-term outcomes, but also to ensure sustained impact.

FIGURE 3: MENARCHE AND SOCIAL NORMS



Communities with higher rates of poverty and increasing levels of isolation correlate with stymied empowerment among girls compared to communities with increased access to information and resources.⁸¹ For example, girls in rural or conservative communities may lack female models that challenge traditional gender roles in the household or workplace and may have less exposure to mass media messaging or lack Internet access. In such settings, the opinions of key influencers, such as religious leaders, may hold more weight and enact more rigid, gendered expectations compared to communities with more exposure to alternative perspectives and experiences. In particular, Internet access can introduce girls to less traditional manifestations of gendered behaviors and challenge ingrained norms by offering alternative role models for women. Women and girls who are devalued in their local communities may benefit from support, validation, or the opportunity for self-expression that the Internet can offer, empowering them in their daily lives.⁸²

FIGURE 4: MENSTRUAL HEALTH FRAMEWORK



Girls' Experiences with Menstrual Health

Girls' menstrual health needs include safe and consistent access to products and infrastructure, supportive community knowledge, attitudes, and practice; education and awareness; and sanitation facilities and services (see Figure 4). Qualitative research studies emphasize that girls experience shame, embarrassment, and discomfort during menstruation due to the lack of access to affordable and preferred products, private and safe facilities, and education about menstruation and how to manage it.

The section below provides an overview of challenges and opportunities for improved menstrual health based on girls' experiences with menstruation.



PUBERTY EDUCATION AND AWARENESS

Girls' knowledge and understanding of menstrual health is important to ensure their well-being and healthy transition into adulthood. **In many parts of the world, girls do not know what menstruation is prior to experiencing menarche.** In Ethiopia, 49% of girls report having no knowledge of menstruation before their first period.⁸³ Similarly, 32.5% of girls in South Asia,⁸⁴ 51% of girls in Afghanistan,⁸⁵ and 82% of girls in Malawi had no knowledge of menstruation pre-menarche.⁸⁶

Girls in LMIC lack consistent access to high-quality menstrual health education and awareness. In Pakistan, 92% of girls and women reported needing more information about menstrual hygiene,⁸⁷ and 67% of respondents in Ethiopia stated there is no menstrual health-related education given in schools.⁸⁸ Common challenges include the lack of formal puberty education in school, receiving it too late (post-menarche), and the lack of a safe place or mentor to ask questions about their body throughout puberty.

Boys also do not receive menstrual health education. Girls are often separated from boys for targeted education sessions on menstruation and trainings on product usage. Less than 10% of boys in Ghana, for example, indicated that they were very confident talking about MHM.⁸⁹

Girls lack safe spaces or access to mentors to ask questions about puberty, menstruation, or MHM in an ongoing capacity. Only 3% of girls in Nepal listed teachers as someone they feel comfortable talking to about menstruation,⁹⁰ and less than 25% of schoolgirls in Ghana indicated they were very confident talking about menstruation.⁹¹

Research also shows that parents often do not feel comfortable discussing puberty, menstruation, or MHM. A survey by MSI found that 1 in 6 parents has not discussed sex education with their children, and 1 in 20 says they have no intention of broaching the subject.⁹² A study in Kenya found that only 12% of girls would be comfortable receiving the information from their mother.⁹³

Finally, mass media messages also perpetuate taboos and misconceptions about menstruation. Community expectations regarding the need to hide and conceal menstruation are reflected in mass media campaigns. In Egypt, 92.2% of the girls accessed menstrual information primarily from mass media.⁹⁴ Studies show that mass media has one of the greatest effects on adolescent's self-conception.⁹⁵



MHM PRODUCTS

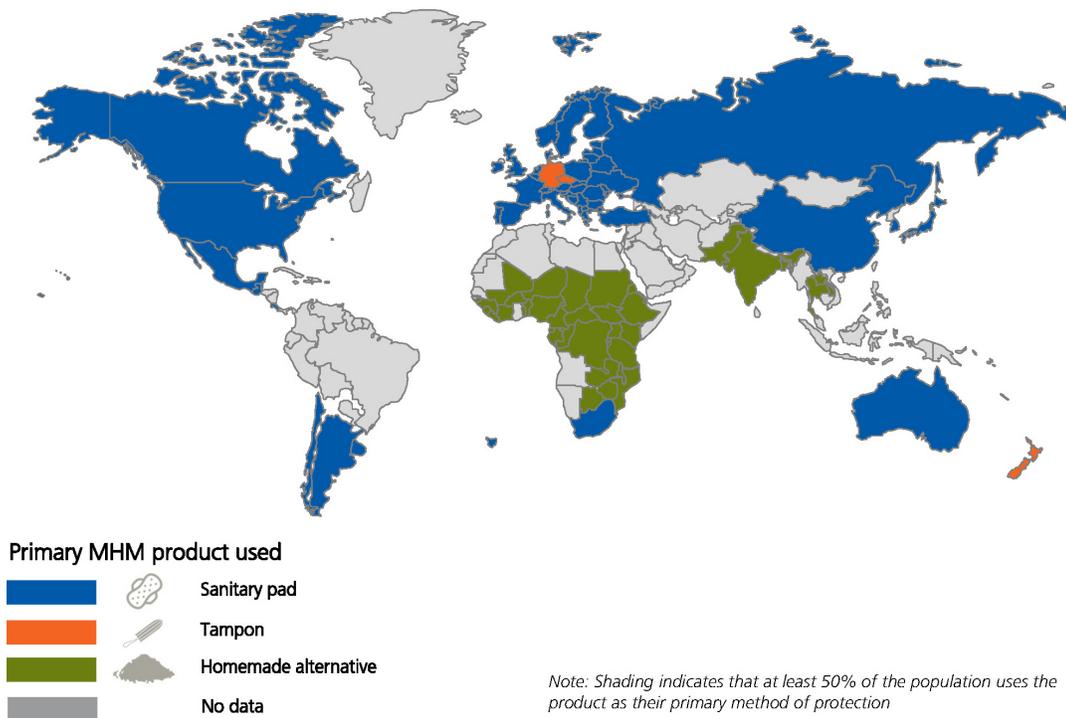
In LMICs, girls currently lack access to safe and quality MHM products and materials as well as the agency and resources to acquire them. Girls and their influencers also need improved awareness of safe hygiene practices for using those products. To understand the current state of access and use, the section below provides a brief market overview of MHM products and materials.

Market Overview

The availability and use of MHM products vary widely across the world. Data suggests that over 75%⁹⁶ of women and girls in high to upper middle-income countries use commercial products, and over 50%⁹⁷ of women and girls in LMICs use homemade products. Figure 5 shows a breakdown of use.

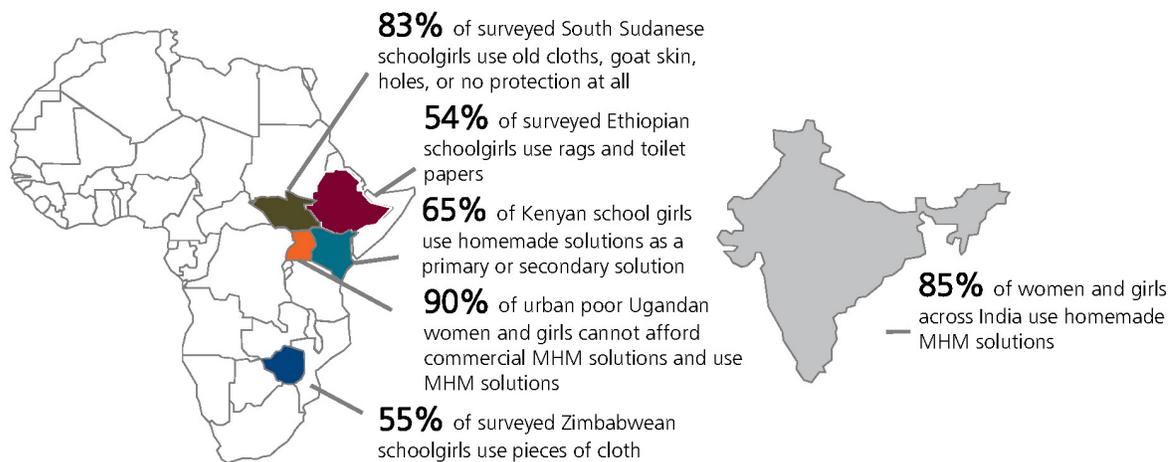
Homemade alternatives are sometimes stigmatized by experts as unhygienic,⁹⁸ and some communities view homemade materials as dirty alternatives to commercial products.^{99,iv}

FIGURE 5: MHM PRODUCT USAGE BREAKDOWN



iv It is important to note that commercial MHM products can also be used unhygienically.

FIGURE 6: HOMEMADE MHM PRODUCT USAGE^{100,101,102,103}



Factors including lack of knowledge, poor infrastructure, and presence of discriminatory social norms can cause girls not to use homemade alternatives hygienically. **Early research suggests the use of homemade products can pose risks to girls' health, development, and empowerment outcomes. However, when used hygienically, homemade products provide benefits to users including:**

- **Availability:** Made from readily available materials (e.g., straw, rags, pieces of cloth), these homemade alternatives are consistently available to women and girls.^{104,105}
- **Affordability:** Homemade alternatives cost significantly less than commercial products.¹⁰⁶
- **Cultural acceptability:** Homemade alternatives can be more culturally acceptable than some commercial product options.^{107,108}

Disposable sanitary pads dominate the Western market and are the most purchased MHM product worldwide. In 2015, sanitary pads accounted for 77% of commercial MHM product purchases worldwide.¹⁰⁹ Three multi-national players control the market—P&G, Kimberly-Clark, and Johnson & Johnson—and P&G leads with 30% of the market. **Disposable pads make up over 90% of sales in India and the continent of Africa; however, overall market penetration remains limited.** It is estimated that only 10–11% of women and girls in India use disposable pads. **Commercial disposable insertables are widely used in specific markets.** For example, over 70% of the women and girls in Germany use tampons.¹¹⁰

Small-scale studies in Kenya, Uganda, the United States, and India have found that women and girls strongly preferred commercial products (e.g., disposable sanitary

pads).¹¹¹ A study in Uganda asked girls what they would give up last if faced with a sudden financial emergency, and girls ranked commercial pads as a priority item.^{112,v} Table 2 provides a summary of MHM products and related market trends. Various supply- and demand-side constraints explain the limited sales and use of commercial MHM products in LMICs. The section below provides a summary of key constraints.

Demand-Side Constraints

Women and girls are unfamiliar with the spectrum of products available and do not have accurate knowledge about how to appropriately use commercial or homemade alternatives. In Afghanistan, 80% of girls use water but no soap when changing menstrual pads, and 69% wash and dry their menstrual cloth in a corner or shadow.¹¹³ In a random sample across three districts in Uttar Pradesh in India, 69% of girls had heard of a sanitary pad but had never used one.¹¹⁴ In rural Ethiopia, 25% of girls reported doing nothing to manage menstruation—simply washing or secluding themselves in the forest, desert, or field.¹¹⁵ And in rural Tanzania, only 24% of parents were even aware of the existence of pads.¹¹⁶

The high price of commercial products in LMICs deters women and girls from purchasing and using commercial products on a consistent basis. In a survey of girls across Ethiopia, Uganda, South-Sudan, Tanzania, and Zimbabwe, more than 70% mentioned product affordability as the main reason for not using commercial sanitary pads.¹¹⁷

Discriminatory social norms affect women and girls' roles and thus their access to and authority over how household money is allocated. Women and girls, particularly in rural areas of LMICs, were also found to have little-to-no input on how household money is spent. In rural Kenya, two out of three pad users receive sanitary pads from sexual partners.¹¹⁸ Influential social norms can also dictate which products are seen as “correct” and “hygienic.”¹¹⁹

Supply-Side Constraints

Last-mile distribution of sanitary pads, including both premium and low cost, remains a challenge in LMICs. In India, decentralized models of production have expanded in recent years, but daily production levels remain low, which limits the scale and reach of these low-cost products.^{120,121,122,123} NGOs and for-profit companies cite safety and transportation costs as key challenges to product distribution.

v Options included sanitary pads, soap, school supplies, sugar/snacks/drinks, and breakfast.

TABLE 2: MHM PRODUCT MARKET LANDSCAPE

PRODUCT TYPE	PRODUCT DESCRIPTION	OVERVIEW	PRODUCT EXAMPLES	MARKET TRENDS
Homemade Alternatives	Homemade alternatives are solutions made from readily available materials	<ul style="list-style-type: none"> Widely used by rural and urban poor in LMICs More affordable than commercial products (often free), readily and locally available Studies have suggested that the poor hygienic nature of homemade solutions can lead to reproductive tract infections¹²⁴ 	<ul style="list-style-type: none"> Natural materials (e.g., mud, leaves, hay), pieces of cloth (e.g., strips of sari or kanga, socks), tissues, or cotton 	<ul style="list-style-type: none"> Homemade alternatives are the primary or secondary product used by menstruating women in LMICs for managing their menses¹²⁵ (e.g., in South Sudan, 83% of school girls use homemade alternatives¹²⁶) Homemade alternatives are less common in middle-income countries
Commercial Pads	Commercially available, premium disposable sanitary pads produced by large multi-national corporations	<ul style="list-style-type: none"> Most widely used product by the middle and upper middle class worldwide User preference data suggests that most women and girls prefer disposable sanitary pads^{127, 128} Cost can be prohibitive for many women and girls in LMICs¹²⁹ Not environmentally friendly; plastic lining can clog sewage systems¹³⁰ 	<ul style="list-style-type: none"> P&G (Always; Whisper) Kimberly-Clark (Kotex; Kotex White) 	<ul style="list-style-type: none"> Disposable sanitary pads continue to dominate the commercial market for sanitary pads; in 2015, sanitary pads accounted for 77% of all commercial MHM solution sales¹³¹ P&G continues to dominate the market with 30% of market sales worldwide¹³²
	Low-cost commercially available disposable sanitary pads produced by local social enterprises	<ul style="list-style-type: none"> Manufactured at small scale by NGOs and social enterprises Quality of products can vary significantly, with issues related to poor absorbency 	<ul style="list-style-type: none"> Makapads (Uganda) SHE (Rwanda) 	<ul style="list-style-type: none"> Several low-cost commercially available pad companies are entering the market in LMICs; however, the market continues to be dominated by multi-national companies
	Commercially available reusable cloth pads often locally made pads that can be reused for up to one year	<ul style="list-style-type: none"> Manufactured at small scale by NGOs and social enterprises Education on use of product and appropriate sanitation infrastructure needed; unhygienic use linked to urinary/reproductive tract infections¹³³ Initial investment can be prohibitive in LMICs requiring donations or subsidies 	<ul style="list-style-type: none"> AFRipads (Uganda) Mariam Seba (Ethiopia) EcoFemme (India) 	<ul style="list-style-type: none"> Several smaller manufacturers produce locally in developing countries; however, overall market penetration remains low Reusable pads are often distributed for free or at a subsidized price through NGO programs
Alternative Commercial Products	Commercially available disposable insertables, such as tampons (a plug of soft material inserted into the vagina)	<ul style="list-style-type: none"> Used by middle and upper middle class, particularly in developing countries Limited use in developing countries; may be related to cultural appropriateness of product¹³⁴ 	<ul style="list-style-type: none"> P&G (Tampax) Johnson & Johnson (o.b.) 	<ul style="list-style-type: none"> Primarily used by women in developed countries; highest concentration of users in Germany, Austria, and the United States¹³⁵ Global market forecasts for tampons project sales will reach \$2.65 billion (17.4% of worldwide market) by 2017¹³⁶
	Commercially available reusable insertables, such as menstrual cups (usually made of medical-grade silicone and worn inside of the vagina during menstruation)	<ul style="list-style-type: none"> With appropriate sanitation and privacy, can be convenient to use Recent pilots suggest uptake when coupled with training by nurses is possible in developing countries¹³⁷ Upfront cost can be prohibitive to consumers in LMICs, requiring donations or subsidies 	<ul style="list-style-type: none"> Divacup Mooncup Lunette 	<ul style="list-style-type: none"> Gaining traction in Europe, the United States, and Canada since the 1970s and has been explored as a means of MHM in developing countries¹³⁸ Global uptake continues to be slow, in part due to large upfront cost required

Inconsistent enforcement of standards affects the quality of low-cost commercially available disposable sanitary pads and leads to product variability.^{139,140} Product standards vary significantly between countries; many only have standards for certain types of MHM products (e.g., foreign imports or disposable products). For example, the Kenyan government currently offers standards only for disposable pads, leaving reusable options unregulated and subject to variability in product quality and safety.

Import duties and value-added sales tax on menstrual hygiene products lead to higher priced products for consumers. In 2013, consumers in emerging economies paid comparatively higher prices for goods than those in developed markets due to high import duties.¹⁴¹ Duty rates for sanitary products vary widely across the globe, with tariffs as high as 40% in Botswana, South Africa, and Namibia.^{142,143} These taxes are passed down to consumers and disproportionately affect economically disadvantaged girls and women. National-level sales taxes for menstrual hygiene products are around 15% in Argentina, Croatia, Rwanda, Tanzania, and Pakistan.¹⁴⁴



SANITATION

Globally, 2.5 billion people lack access to improved sanitation.¹⁴⁵

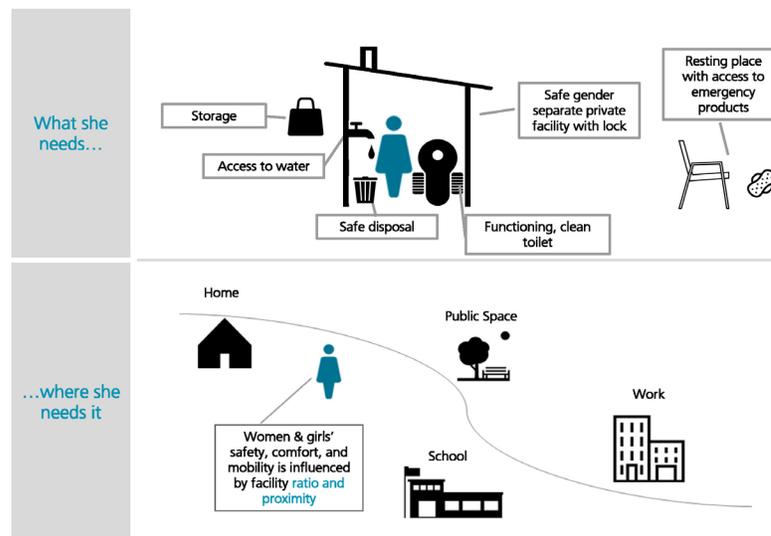
The lack of sanitation facilities disproportionately affects women and girls, especially as they reach puberty. Research shows that when gender-separate sanitation facilities are not available at schools, work, or in public places, women and girls may cope in three ways: choose to stay at home, use an isolated open space instead of using shared facilities, or choose not to use the facility and be uncomfortable. In specific geographies, qualitative research confirms that a lack of adequate and appropriate water and sanitation facilities contributes to absenteeism among school-going girls (e.g., UNICEF estimated that a girl can miss up to 10% of her school days during menstruation); however, the relative contribution of inadequate sanitation to school absenteeism is unclear.¹⁴⁶

During menstruation, girls in school often worry about staining their dress with menstrual blood and being humiliated by classmates, especially boys. If a school latrine is not secure or private, adolescent girls are less likely to use it when menstruating and may be forced to stay in their soiled pads for more than eight hours, or even choose to stay at home on those days.^{147,148} The lack of a secure, locking door can also make women and girls more susceptible to harassment and even violence.

Public facilities are important for women and girls' mobility, especially in urban areas.

Dr. Isha Ray and her colleagues at UC Berkeley have called attention to the limitations of sanitation services when women's needs are not incorporated into sanitation system designs,

FIGURE 7: HOLISTIC APPROACH TO SANITATION FOR GIRLS



implementation, monitoring, and evaluation. For women and girls in rural villages, urban slums, or humanitarian relief camps, walking to distant facilities can cause stress and anxiety.¹⁴⁹ Similarly, sanitation facilities located in more isolated areas can make girls and women vulnerable to violence.

For one-time use MHM products or materials, toilets or bathing facilities require a mechanism to safely and conveniently discard menstrual waste. In the absence of proper disposal mechanisms, users may throw menstrual waste in the latrine or pit, put it in their schoolbag or dispose of it discreetly in open drains, fields, or water bodies, which can create blockages in sanitation systems. In the case of reusable menstrual solutions, girls need access to soap and water to wash the product, as well as a discreet place to dry it. Finding a place to dry the reusable product is a challenge for girls, as they are uncomfortable hanging it out to dry with other laundry where it may be visible to others. However, drying in the sun is recommended by many practitioners to ensure that the product is hygienic.¹⁵⁰

Summary

Menstrual health is a cross-cutting issue that affects girls' daily lives and future development. Efforts to address the needs of women and girls and their community members need to consider the holistic approaches to managing the complex and cross-cutting nature of their needs. The following section provides an overview of the current landscape of players, programming, and policies that seek to address the current experiences with menstrual health and prioritized gaps.

A SILOED RESPONSE

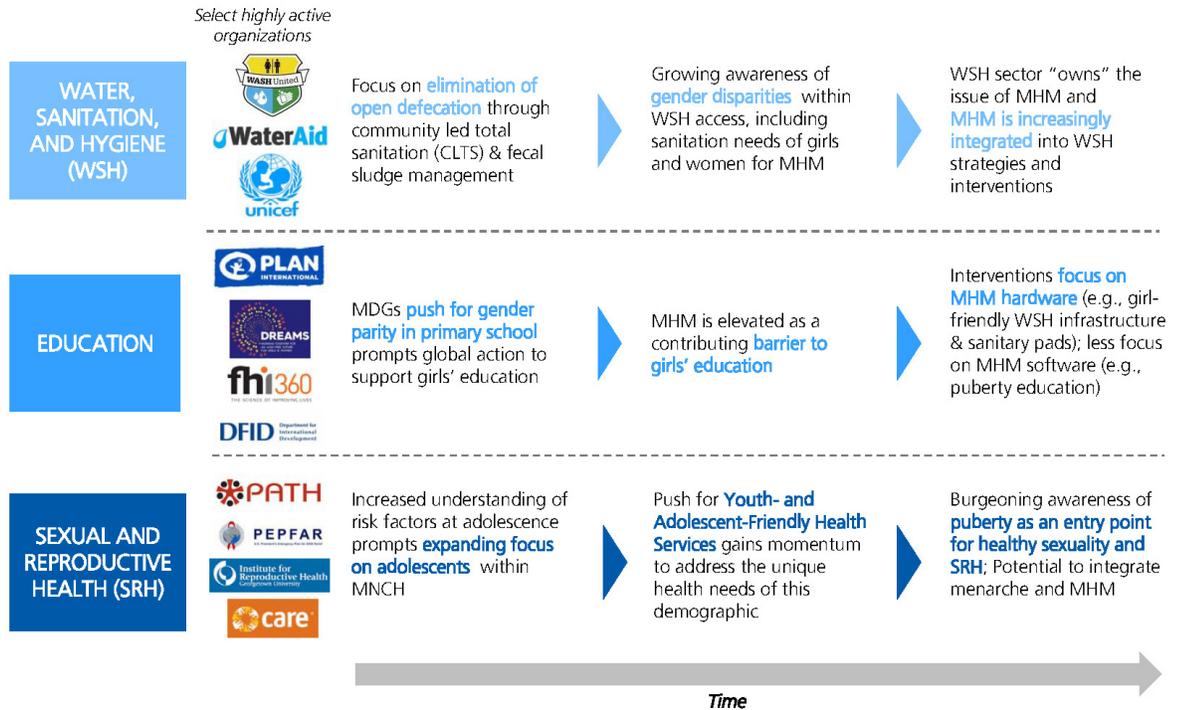
Landscape of Actors

Donors, governments, and other private players have increased the momentum to address challenges related to menstrual health, but the focus to date has largely been on “hardware” (i.e., products and infrastructure, excluding waste and disposal). Access to products and infrastructure, however, is only one of many requirements, including community knowledge, attitudes, and practice; education and awareness; sanitation; and enabling policy environments, so interventions that focus only on the “hardware” are limited in their impact. Few governments, corporations, or NGOs are looking at menstrual health as a systemic problem, and thus, they are missing the opportunity to address the problems sustainably and at scale. Furthermore, rigorous evaluations of menstrual health programming to understand what works and is replicable at scale have been limited.

The lack of universal standards for what constitutes sufficient or appropriate menstrual health makes it difficult to compare conditions or promote standardized interventions. The ideal conditions and priority interventions needed to support girls’ menstrual health needs will depend on the available resources, cultural beliefs, and practices in their regional context. The formative research conducted by Emory University, UNICEF, and Columbia University, among others, has provided useful insight into the barriers facing girls across different contexts and geographies. As noted above, common challenges that girls identified in interviews included pain, teasing, and shame related to revealing menstrual status; leaks, stains, and menstruation-related odor; lack of understanding of menstruation; lack of preparedness for menstrual onset; and the inability to effectively manage menstrual flow at school.^{151,152}

To date, funders primarily invest in improved menstrual health as an add-on to other programing efforts and are motivated to invest as a means to achieve other outcomes, such as education, water, sanitation, and hygiene, and health outcomes including reductions in HIV prevalence rates. Grand Challenges Canada (GCC) is one of the few organizations that are funding menstrual health separate from other efforts. GCC is funding research and growing social enterprises as part of its Global Innovation Marketplace program,

FIGURE 8: ILLUSTRATIVE TIMELINE OF MENSTRUAL HEALTH PLAYERS^{vi}



which aims to accelerate the quantity and quality of innovations transitioning to scale in a sustainable manner. Institutional donors such as USAID, SIDA, and DFID fund menstrual health efforts as part of larger grant funding focused on water, sanitation, and hygiene or education programming, making it difficult to assign funding flows directly to menstrual health. Illustrative grants include the \$20 million investment USAID made in WASHplus in Zambia, which is a leading example of a water, sanitation, and hygiene (WSH) program that integrates menstrual health across its efforts. Water, Sanitation, and Hygiene in Schools (WinS) for Girls, supported by Global Affairs Canada, is a notable research project that aims to inform interventions focused on building the capacity of local researchers to understand girls’ menstrual health needs in 14 countries.^{vii} Table 3 provides an overview of leading funders by investment motivation. However, the weak evidence base has made it challenging to mobilize a wider funding base.

vi The players represented in Figure 8 are illustrative. Other players include WASH United, Save the Children, SNV World, Water Supply and Sanitation Collaborative Council, Vatsalya, Aakar Innovations, Miriam Saba, Be Girl, and ZanaAfrica, among others.

vii This project is set to wrap up in September 2016.

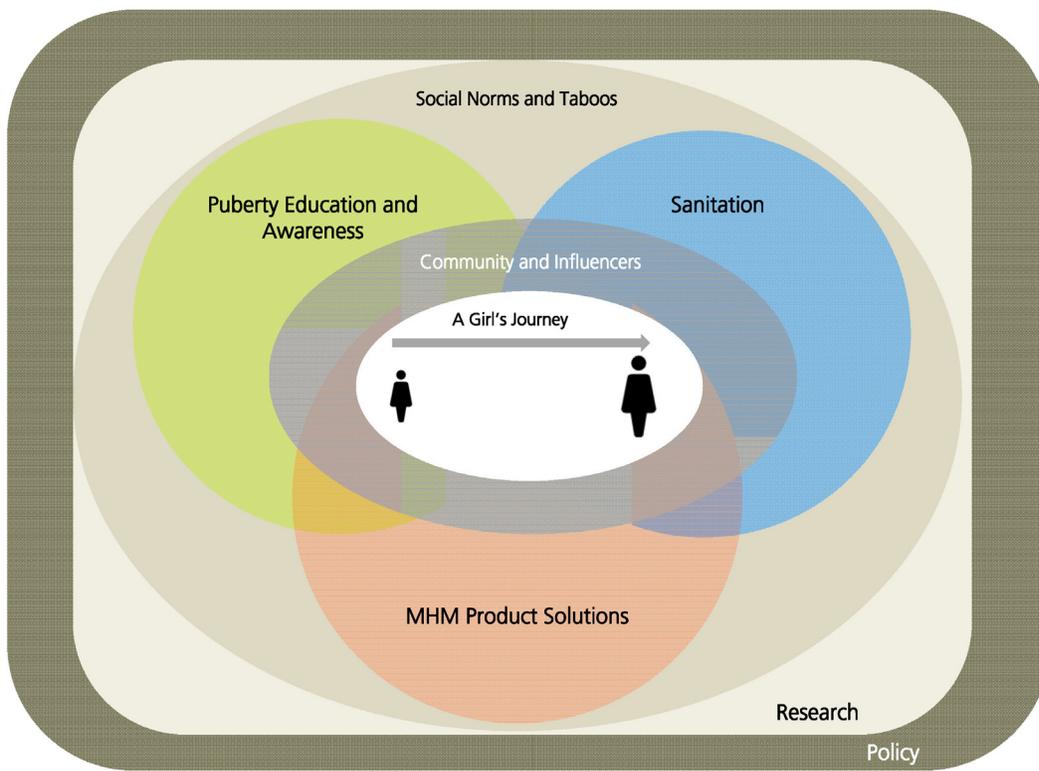
Current State of Menstrual Health Interventions

Overall, donors, NGOs, and governments tackling issues related to menstrual health are disparate and siloed in their approaches to reaching girls and their influencers. The water, sanitation, and hygiene sector is leading efforts to integrate menstrual health into school programming, and the family planning and sexual reproductive health fields are increasingly focused on youth and challenges facing very young adolescents. However, to date, there is limited collaboration and exchange across disciplines.

Few programs have conducted rigorous evaluation of programming, limiting the field's ability to assess impacts on outcomes, cost-effectiveness, scalability, and replicability.

Furthermore, much of the effort to improve menstrual health has focused on adolescents in school. Many disadvantaged populations, however, are largely untouched by broader trends and economic development. For example, in sub-Saharan Africa, 30.6 million children are not in school (2010).¹⁵³ Efforts must be broadened to encompass the wider spectrum of adolescents in need. Girls affected by humanitarian crises or in refugee situations have acute menstrual needs that are increasingly gaining attention.¹⁵⁴

FIGURE 9 : COMPREHENSIVE RESPONSE TO MENSTRUAL HEALTH



A recent study in areas affected by the 2005 Kashmir earthquake near the city of Muzaffarabad indicates that almost 50% of girls miss school during menstruation, and about 40% do not have access to protective materials to manage their menses.¹⁵⁵ UNICEF has led notable efforts to address these needs, providing standard emergency kits and engaging WSH specialists in the construction of sanitation facilities in refugee camps.¹⁵⁶

The following section provides an overview of bright spots where the field has seen progress. While there are still opportunities to improve on the progress and fill additional gaps, this represents areas of momentum, accomplishment, and effort by field. This is followed by an

TABLE 3: SELECT DONORS SUPPORTING MENSTRUAL HEALTH

DONOR	MOTIVATION	SAMPLE INVESTMENT AND RELEVANT ACTIVITIES
EMBEDDED INVESTMENTS		
USAID	Education & WSH	<ul style="list-style-type: none"> • WASHplus, Schools Promoting Learning Achievement through Sanitation (SPLASH), Zambia • Zambian Ministry of Education; FHI360; CARE
DFID	Education	<ul style="list-style-type: none"> • Multifaceted programming to improve access to education for girls around the globe
TARGETED INVESTMENTS		
Grand Challenges Canada	MHM	<ul style="list-style-type: none"> • AFRIpads, Uganda • Cost-effective cloth menstrual sanitary pads that can be reused for up to one year • ZanaAfrica, Kenya • Aims to expand women and girls' access to safe, affordable sanitary pads and related MHM education • Funding will support scale up of sanitary pad production, increase sales growth, and layer on impact evaluation related to health and education
OGAC/PEPFAR	HIV prevention	<ul style="list-style-type: none"> • Huru International • Provides kits with reusable sanitary pads, HIV/AIDS prevention information, and resources on sexuality and reproductive health for at-risk girls
Swedish International Development Agency (SIDA)	WSH	<ul style="list-style-type: none"> • Sanitation for Improved Lives of Women and Children • Event and related report on the importance of addressing WASH issues through a gender lens, including a focus on menstrual hygiene management
Global Affairs Canada	Education	<ul style="list-style-type: none"> • Water, Sanitation, and Hygiene in Schools (WinS) for Girls • 14-country program that aims to increase the number of girls completing primary school and entering secondary school, with MHM as a key strategy to ensure girls remain in school

articulation of gaps and opportunities that represent areas that have not yet been fully explored and where there is space to further address the needs of girls and their influencers across the components of Figure 9.



PUBERTY EDUCATION AND AWARENESS INTERVENTIONS

A thorough review of global menstrual health education and awareness programs and policy found traction in curricula development and menstrual hygiene awareness, but limited focus has yet been placed on reaching out-of-school girls and engaging influencers.

Bright Spots

Governments and NGOs have emphasized providing education to girls in school settings focused on the biological aspects of menstrual health and product usage.

Multiple stakeholders and programs are developing puberty and menstrual health curricula, but these efforts have been happening concurrently, and few actors are building off and leveraging the work of others, leading to redundancies. A systematic review of relevant puberty curricula could help highlight best practices across educational materials and teaching methods. UNESCO's Puberty Education and MHM Booklet seeks to provide guidelines for puberty education that may address some of these redundancies.¹⁵⁷

Addressing gender equity through puberty education has gained early traction. An evaluation of the "It's All One" program¹⁵⁸ found that a puberty curriculum that addresses gender and power in intimate relationships is five times more likely to reduce STIs and unintended pregnancies. This program highlights the potential for using menstrual health education and awareness programs as a gateway for shifting social norms.

Mass media shows potential to counter menstruation taboos. Use of mass media and other media channels for communications can affect social norms by demystifying and reducing taboos, especially about menstruation. P&G's "Touch the Pickle" campaign aimed to defy taboos that surround menstruation in India that restricted women and girls from entering the kitchen, worshiping, and "touching the pickle" during menstruation. The ad campaign encouraged women to talk openly about menstruation and led to 2.9 million women pledging to "touch the pickle jar."

Promising programs seek to develop mentorship support for girls. Studies have found that the presence of a school nurse helps improve girls' menstrual and reproductive health.¹⁵⁹ The Kasiisi Project in Uganda trains community health care workers to mentor girls on menstrual health, STIs, and strategies to avoid pregnancy. The Wezesha Vijana Project¹⁶⁰ in Kenya is also a leading example of a program that seeks to improve girls' knowledge and

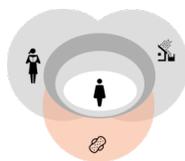
self-confidence through peer educators. Young mentors are trained to teach a comprehensive puberty curriculum covering body and emotional changes, and girls are encouraged to share their doubts and feelings.

Gaps and Opportunities

Few education and awareness programs target out-of-school girls. While some programs, including mass media campaigns, may reach girls who are out of school, a review of menstrual health education and awareness programming found few effective programs that target highly vulnerable populations, including HIV-positive girls, girls with disabilities, and out-of-school girls.

Despite research pointing to the importance of influencers, programming often neglects to include them. Research has shown the importance of including girls' key influencers, including boys, men, and older women, to change social norms and properly support girls' needs.^{161,162,163} By neglecting to include their influencers, programs may help perpetuate the status quo as influencers do not learn the importance of menstrual health and how to best support adolescent girls during this period of transition. Boys and men specifically should also have access to puberty education, which includes information that takes a gendered lens on menstruation and MHM and aims to create a less stigmatizing educational environment for girls.

Significant expectations are placed on teachers with limited training and resources to support them. Teachers are expected to teach girls and boys about menstruation, but often only receive biological basics. For improved menstrual health, teachers need to be trained in both the biological and psychosocial aspects of puberty education as well as proper hygiene behavior and practices. Values clarification training may also be required to ensure that teachers feel comfortable teaching all topics, and additional training may be required for male teachers who have been found to be less sensitized to girls' menstrual needs.¹⁶⁴



MHM PRODUCTS INTERVENTIONS

Low-income consumers, including the poorest women and girls in LMICs, lack consistent access to affordable commercial MHM products. While social enterprises have increasingly sought sustainable models, such as ZanaAfrica, AFRipads, and Sustainable Health Enterprises, few have been able to find cost-effective and reliable distribution channels in countries of operation.

Bright Spots

Menstruation has been elevated as part of the government agenda, and free pad programs are now being administered by national governments and NGOs to provide

products to vulnerable girls. The impact of these programs still varies significantly based on geographic location, with some qualitative studies finding a reduction in school absenteeism.¹⁶⁵ The proliferation of free or subsidized programs, while filling gaps in the short term, may actually create market distortions in the long term, so stakeholders need to assess and evaluate these efforts further.

Over the past decade, small and medium-sized social enterprises have entered the market (e.g., ZanaAfrica, Sustainable Health Enterprises, Mariam Seba, Ecofemme) in LMICs, aiming to provide high-quality and affordable MHM products to women and girls in need, but lack scale to reach the breadth of low-income consumers. Volume-based pricing negotiation can allow inexpensive disposable pads to be more widely available in urban informal settlements and rural towns. Currently, large corporate brands, such as Always, are widely available, but nearly twice the price of cheaper alternatives.

Financial planning and social network platforms show potential to support product access and build girls' empowerment. An evaluation of the Village Savings and Loan Association (VSLA) model found that VSLAs can effectively support women to save and invest in strategic goods including MHM products.^{166,167,168} In situations where women lack control over household resources, the priorities of women and girls are deprioritized. VSLAs can support women to have reliable and regular access to preferred MHM products on a monthly basis.

Donors and NGOs are exploring opportunities to expand access to a diverse set of commercial products that consider environmental and disposal concerns.

Be Girl works with NGOs to distribute comfortable, high-performance pads and underwear.¹⁶⁹ Sustainable Health Enterprises created a scalable franchise model for employing women entrepreneurs to manufacture and distribute affordable, eco-friendly menstrual pads by sourcing low, inexpensive materials.¹⁷⁰ However, user uptake of the menstrual cup and biodegradable products has been slow due to financial barriers and taboos related to insertable products.

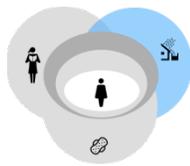
Gaps and Opportunities

Few programs consider the long-term sustainability of providing products to low-income consumers. Menstrual health programs that provide free or heavily subsidized MHM products may not be sustainable in the long term. For example, experts expressed concerns about the high cost of Kenya's national Sanitary Towels Programme, a free pad distribution program run by the Ministry of Education, Science, and Technology.¹⁷¹ Additionally, the large increase in free products may distort the market for MHM products. Affordable commercial product lines with broad distribution channels from multi-national corporations or social enterprises may be a more sustainable solution.

Luxury taxes on MHM products continue to contribute to high costs for commercial

MHM products. MHM products are subject to high “luxury” taxes^{172,173,174,175} in many countries worldwide. These taxes can significantly increase the overall price of the products to consumers (e.g., in Rwanda, sanitary pads are taxed at 18%¹⁷⁶); a reduction in these taxes would help increase the overall affordability of MHM products.

Few organizations have conducted a rigorous evaluation of MHM product programming. More than half of the programs reviewed would benefit from further evaluation to better understand the impact and attribution of various interventions on girls and women. In 2017, ZanaAfrica and Population Council will conduct a six-arm randomized cluster trial in 100 schools in Kisumu, Kenya, to better understand the impact and relative importance of providing school girls with pads and education and awareness materials.¹⁷⁷



SANITATION INTERVENTIONS

While there is increased activity by donors (e.g., UNICEF, DFID, SIDA, USAID, BMGF) and governments (e.g., India’s Swachh Bharat program) to address sanitation challenges, many experts in water, sanitation, and hygiene and gender equity are calling for sanitation interventions to be better customized to meet the needs of girls and women, especially during menstruation.

Bright Spots

Several established water and sanitation programs have added an explicit menstrual health focus, like UNICEF’s WASH in Schools for Girls (WinS4Girls), a 14-country program under the broader WASH in Schools initiative, and the BRAC-WASH program, which has achieved significant scale, covering 66 million people.

School sanitation programs, which seek to improve school attendance and linked educational outcomes by providing water and sanitation facilities, are shifting from a focus on all children to explicitly considering the needs of adolescent girls during menstruation. The water, sanitation, and hygiene community also recognizes that sanitation infrastructure alone is not enough to foster safe menstrual hygiene. It needs to be integrated with education and awareness regarding hygienic practices as well as address community attitudes and practices.

Water, sanitation, and hygiene-focused programs are creating information, education, and communication (IEC) training and materials to build understanding of menstrual health and the needs of women and girls. WaterAid and Vatsalya’s Breaking Silence program aims to build self-esteem and empower women and girls through access to high-quality sanitation materials and safe disposal.

Evidence-based advocacy targeting national and local governments has led to the adoption of menstrual health guidelines across multiple LMICs. SNV's Girls in Control program has been active in rural and peri-urban areas of Ethiopia, South Sudan, Tanzania, Uganda, and Zimbabwe, focused on influencing policy on MHM in district education plans, budget allocation, and WSH facility development in schools.

Gaps and Opportunities

Policymakers and sanitation service providers lack training on the specific needs of adolescent girls and women during menstruation, which could help practitioners design more user-friendly policies and facilities. Learning platforms across countries or states can support the exchange of best practices for policy and guideline development and implementation related to sanitation.

Out-of-school girls have disproportionately limited access to toilets and washroom facilities during menstruation. There is a need to increase the number of public and communal sanitation facilities that are available to vulnerable girls and women who are not in school. Additionally, poor public toilet maintenance can further restrict girls' mobility and access to public facilities. Most existing programs are also focused on physically able girls.

Menstrual waste collection and disposal is an under-prioritized area in most user-centric sanitation programming that needs greater attention. Increased uptake of menstrual products like disposable sanitary pads will require solid waste management systems to be configured to manage menstrual waste. In areas without public waste management infrastructure, local communities need to be trained to dispose of this waste appropriately. There is no consensus in the field on the best technology or practices for handling menstrual waste. Attention to this area will be critical for environment and public health reasons.

Rigorous evidence linking sanitation to better menstrual health outcomes is lacking as it relates to empowerment, health, and education, and few large-scale, evaluative research studies have been conducted on the impact of appropriate sanitation facilities on girls and their MHM practice.



POLICIES

Explicit governmental policies, regulations, and guidelines related to menstrual health are a vital step to improving menstrual health for girls and women and can catalyze action in the public, private, and NGO sectors.^{viii}

^{viii} Policies and regulations represent a legal requirement for specific actions while guidelines offer the government's perspective on the ideal state for MHM and provide recommendations for what is needed to achieve improved MHM for girls and women.

A gender-equitable policy framework further contributes to an enabling environment for girls and women. Figure 10 below outlines six priority elements for a policy that supports improved menstrual health for women and girls in a specific context.

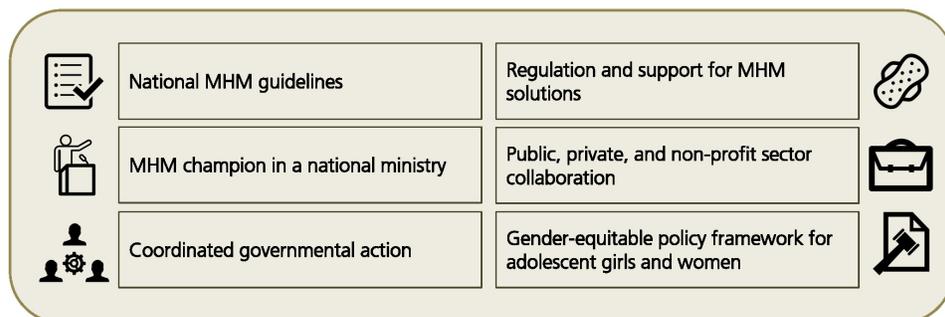
Bright Spots

National menstrual health guidelines (often referred to as MHM guidelines) can guide strategic implementation and action at the community level for improved menstrual health. India, Kenya, Ethiopia, and Uganda are examples of countries investing in a collaborative process to develop national guidelines to standardize and create a baseline vision for improved menstrual health practices.¹⁷⁸ Menstrual health guidelines determine what constitutes “good” menstrual health in each country and serve as a guiding framework for future action. Guidelines do not include a regulatory enforcement component and may stand in isolation from existing policies or ongoing programs within relevant Ministries.

A menstrual health champion in a national ministry can be a critical asset for creating buy-in, driving coordinated strategic planning, and mobilizing financial support for the issue.¹⁷⁹ Recent examples suggest that it is not necessarily important which national ministry takes the lead, but rather that there is an individual or group committed to bringing together key partners to tackle this issue. Turnover within Ministries is common, and thus, policymakers may lose momentum as administrations change and political representatives leave offices of power.

Coordinated government action is required to address the cross-cutting needs of women and girls. Components of successful implementation strategies may include the inclusion of a budgetary line item for menstrual health, a structure for ongoing engagement with the community, continuing training and capacity building for implementers at the community level, or oversight in schools to ensure that menstrual health resources, products, and infrastructure are maintained and accessible to girls. Financial incentives for implementation at the state and local levels remain a challenge.

FIGURE 10: MHM POLICY LANDSCAPE REQUIREMENTS



Government regulation can prevent access to products through imposition of duty rates and additional taxes on menstrual health solutions. Governments are also seeking to improve access to products by investing in free or subsidized product provision programs, with such efforts currently underway in Ghana,¹⁸⁰ India,¹⁸¹ and Kenya.¹⁸²

Gaps and Opportunities

Public, private, and non-profit sector collaboration is needed as sector isolation and competing incentives can make it hard to bring diverse stakeholders together. An interagency coordinating committee, public-private partnerships, or ongoing governmental support to build NGO capacity can play a vital role in addressing the menstrual health needs of women and girls. Sustainable Health Enterprises (SHE), a social enterprise in Rwanda focused on menstrual hygiene, has partnered with the governmental to advocate for expanded budgets, push for the elimination of VAT on MHM products, and support media programming that addresses taboos.¹⁸³

Gender-equitable policy frameworks are necessary to provide safety and support for women. Examples of gender-equitable policies may include the prohibition of female genital cutting, diligently enforced restrictions against gender-based violence, obligatory primary education policies, and gender-inclusive education curriculums. In most nations, the reality is that most policymakers are men and may have blind spots to the needs of women, such as menstruation.¹⁸⁴

Uganda provides a case study of national policy creation and implementation to address MHM needs.

MHM IN UGANDA: COLLECTIVE ACTION TO ADDRESS GIRLS' NEEDS

The Ugandan government has identified girls' educational attainment as a priority and a challenge in Uganda. They associate the onset of menstruation, menstrual hygiene management, and other changes at puberty as factors affecting school attendance and the quality of education for girls. To facilitate girls' increased educational participation and achieve gender equity in primary school, Uganda's Ministry of Education and Sport (MoES) developed the National Strategy for Girls' Education to serve as a guiding framework for all stakeholders to accelerate girls' education. As part of this larger strategy, a national working group, with representation from the Ministry of Education, Ministry of Health, students, parents, teachers, community-based organizations, and NGOs, convened to develop a series of interventions for MHM that address the direct needs of girls, bolster the capacity of influencers, and contribute to a broader enabling environment. Collectively, these efforts represent a commitment from the Ugandan government to enact the necessary policy framework to support the improvement of MHM, and include:^{ix}

GIRLS

- Development of a **Menstrual Hygiene Reader (MHR)** for dissemination to all MoES primary school girls; the MHR aims to address the documented lack of knowledge about menstruation and safe MHM among adolescent girls and includes information on the basics of menstruation and menstrual hygiene management.
- Creation of **Girls' Education Movement** clubs

to empower girls; these clubs include boys and empower them to better understand and support their female peers with menstrual hygiene.

- **Distribution of sanitary pads** for disadvantaged girls

INFLUENCERS

- **Training of male and female teachers** on how to support girls during puberty for their continued education, including specific content contained in the MHR
- Development of a **handbook to support teachers** in creating a safe school environment for girls
- Support for **NGOs training girls to produce reusable sanitary pads** from local materials
- Inclusion of **MHM in agenda of parent-teacher associations**

ENABLING ENVIRONMENT

- Passage of a **parliamentary motion on MHM**
- **Earmarking of MoES funds for MHM activities** under the Universal Primary Education Programme
- Development, dissemination, and enforcement of new **guidelines for girl-friendly design of WSH infrastructure** in all MoES schools
- Development of new **guidelines for school guidance counselors on required MHM support materials** (e.g., soap, clean uniforms, sanitary pads)
- **Advocacy for girls' education** through the "Go Back to School, Stay in School, and Complete School" campaign

^{ix} Sources: United Nations. *Puberty Education & Menstrual Hygiene Management* (2014): UNESCO; Tamiru, Selamawit Tamiru, Pasquina Acidria, Chemisto Satya Ali, Lindile Ndebele, Kuribachew Mamo, Rozalia Mushi, Beverly Brar, and Nick Greenfield. "Girls in Control: Compiled Findings from Studies on Menstrual Hygiene Management of Schoolgirls." 2014.

CONCLUSION

Menstruation is central to girls' experience, yet donors and other leading global actors have had a hard time mobilizing funding and resources to support girls and address their related challenges. When prioritizing research, programming, and mobilizing a finite set of resources, questions about the overarching goals for investing in menstrual health become critical. Tensions exist in the field, with some actors believing dignity and human rights should be the primary driver for investment in menstrual health, while others emphasize the need to understand whether poor MHM and menstrual health more widely influence a broader set of health and development outcomes before investing. The below statements intend to capture the two perspectives:

- 1. Improving MHM for dignity and human rights:** Investing in scaled solutions to MHM that include both boys and girls is an issue of dignity and a fundamental right.
- 2. Access the “window of opportunity”:** Investing in research and interventions that target vulnerable girls around the period of menarche may provide a unique opportunity to access vulnerable girls and set them on a path to an empowered, healthy, and fulfilling life. Improved menstrual health may also prove to have cross-cutting effects on other health, development, and empowerment outcomes.

The question of whether these two perspectives can co-exist, and how, is still outstanding and needs to be further explored by a diverse set of actors spanning various disciplines and sectors. Questions to be explored as a field include:

- Is “menstrual health” the right term to encompass issues related to menstruation, women’s health, sanitation, and puberty awareness?
- Is there a need for an entire sector dedicated to menstrual health or can responsibilities be dispersed across multiple sectors?
- Are there opportunities to support sectors with current momentum, such as WSH, to lead?
- What are the critical gaps in evidence needed to address menstrual health?
- Where is the most critical starting point based on need: water, sanitation, and hygiene

(WSH) or sexual reproductive health (SRH)? What will have the most impact in the short term and in the long term?

Building out the theory of change for each can help to address research needs and engage senior leadership across sectors and disciplines. Experts have identified a need for a platform focused on biological, social, and educational issues connected to menstrual health throughout a woman's life. The platform could help to define a research agenda both at the global level, and more specifically at the country level, in order to strategically fundraise, build the evidence base, share best practices, and facilitate cross-sector efforts.

Opportunities

Challenges related to menstrual health, while important, are just one of many issues that vulnerable girls face during early adolescence. The Bill & Melinda Gates Foundation supported a gathering of more than 40 participants from academia, private and bilateral donor agencies, research and implementing organizations, corporations, and social enterprises. This group uncovered the need to explore where menstruation can serve as an opportunity to access girls at a critical transition point in their lives. Sexual reproductive health problems are one of the leading causes of death among adolescent girls 15–19 years old,¹⁸⁵ with girls facing increased risk of HIV and STIs, unintended pregnancies, and related complications, as well as coerced sex.¹⁸⁶ Gendered discriminatory social norms that focus on the value and treatment of adolescent girls may be a cross-cutting issue that influences health, development, and empowerment outcomes. Questions remain about the contribution of poor menstrual health to short- and long-term health, development, and empowerment outcomes for girls, relative to other contributing factors.

Disadvantaged and vulnerable girls are often isolated from public systems and other programming efforts, and menstruation could provide a unique entry point to setting them on a path to an empowered and healthy life. For example, a 2015 study in rural Kenya found that two-thirds of menstrual pad users received them from their sexual partners.¹⁸⁷ It is worth exploring whether access to pads could provide a platform for discussion with girls engaged in transactional sexual relationships. While this area provides potential, the evidence is, as of yet, still nascent and needs to be further explored.

The section below outlines four promising cross-cutting opportunities the group identified that the field can begin to explore to address the menstrual health needs of women and girls and improve outcomes for women and girls. These ideas were developed and refined with a diverse set of experts in the menstrual health field from academic institutions, corporations, social enterprises, NGOs, and donor agencies.

1. USE MENSTRUATION AS AN ENTRY POINT

Leverage menstruation interventions as an entryway to access vulnerable populations and address sexual reproductive health, empowerment, and other critical life outcomes.

Menstrual health interventions can serve as a gateway for vulnerable adolescent girls to receive information and age-appropriate services related to sexual reproductive health and water, sanitation, and hygiene. Practical action can include integrating menstrual health interventions with other services for women and girls such as nutritional supplementation and water, sanitation, and hygiene and providing sexual reproductive health information and services through menstrual health programming efforts. Aggregating data on current initiatives with positive impact on outcomes and investing in impact evaluations and longitudinal research studies can also support the field's understanding of opportunities where menstrual health can provide this type of entry point and influence longer-term outcomes.

2. ENCOURAGE COLLABORATION ACROSS MENSTRUAL HEALTH ACTORS

Consider platforms and opportunities to address the full set of women and girls' menstruation needs by consolidating the research agenda and coordinating action across sectors.

Given the cross-cutting nature of menstrual health, a research agenda must be collaboratively defined both at the global level, and more specifically at the country level, in order to strategically mobilize funding, share best practices, and encourage collaboration across sectors. This could take the form of a new sector, or simply a global platform or accelerator focused on capturing data to highlight the benefits, impact, and importance of the work and share it with the field of relevant actors. An organized structure can also consolidate smaller players to bridge distribution gaps, reduce prices, and avoid redundancies. Leadership is still an open question and will be critical to the success of a new menstrual health platform or sector.

3. TACKLE SOCIAL NORMS SURROUNDING PUBERTY

Connect relevant discriminatory and gendered social norms to tangible interventions to shift empowerment and other life outcomes.

Evidence is growing that the expression of a discriminatory social norm becomes more pronounced during puberty and can undermine efforts to achieve multiple health and development outcomes. Collective behavior can play an influential role in shifting social norms that influence girls during puberty (e.g., girls playing sports, media campaigns showing uptake of HIV testing) and can set examples of new "norms." An institutional framework can help to define and target multiple stakeholders and define different approaches for reaching this diverse set of actors. These approaches include direct authority and subjective authority, increasing individual agency,

and creating community dialogue. Data and impact evaluations on existing social norms and empowerment interventions can help shed light on how to approach shifting relevant social norms and better understand the impact on menstrual health (e.g., Yegna Girl Effect, Shujaaz Well Told Story, *Femina* magazine of Tanzania). This research can also help explore whether interventions associated with MHM can be an effective vehicle for addressing social norms and leading to improved outcomes.

4. CATALYZE MARKET DEVELOPMENT

Improve access and use of quality MHM materials and products, including safe disposal of waste.

To address demand- and supply-side constraints to product access and use, a total market approach is needed to improve access to MHM products and materials. Integrated and tiered strategies emphasizing specific interest areas must be based on geographical needs and assets. While efforts need to be tailored to specific markets, collaborative action will require engagement from governments and ministries, NGOs, social marketing organizations, multi-nationals, United Nations agencies, private donors, social entrepreneurs and consumer packaged goods companies. There is opportunity to push beyond subsidized product offerings into more innovative funding approaches that lead to sustainable solutions to product access and use. This community also has the potential to emphasize the need to address the disposal of commercial sanitary pads and other products that are not biodegradable.

Closing Thought

Addressing issues related to menstrual health needs to begin with a girl's journey through adolescence to adulthood. Her experiences learning about her body and traversing this transition can influence her future behaviors and relationships with peers and community members. Further exploration of the impact of poor menstrual health can shed light on short- and long-term links to health, development, and empowerment outcomes and provide the opportunity to support and influence girls and set them on a path to a successful and healthy life.

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