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Menstrual Health in Kenya | Country Landscape Analysis

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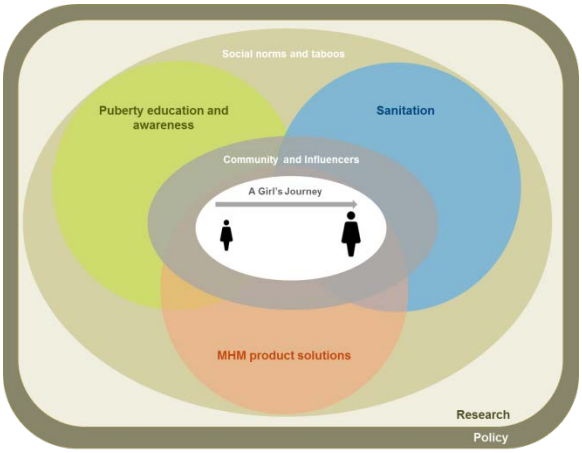
Executive Summary

Figure 1: Requirements for MHM



Significant barriers to high-quality menstrual hygiene management (MHM) persist across Kenya and remain a particular challenge for low-income women and girls. Formative research shows that girls face monthly challenges, with 65% of women and girls in Kenya unable to afford sanitary pads.[1] **Only 50%** of girls say that they openly discuss menstruation at home. **Just 32%** of rural schools have a private place for girls to change their menstrual product.[2] **And only 12%** of girls in Kenya would be comfortable receiving the information from their mother.[3] There are also more jarring statistics signaling that menstruation is tied to more fundamental risks and issues of gender inequity, with studies showing **2 out of 3** of pad users in rural Kenya receiving them from sexual partners[4] and 1 in 4 girls do not associate menstruation with pregnancy.[5]

Although there is evidence in Kenya illustrating the problem, the evidence linking the impact of poor menstrual health, an encompassing term for menarche and MHM, on critical outcomes is limited. Current studies have small sample sizes, and they rely on qualitative, self-reported, or anecdotal data making it difficult to generalize findings across different types of adolescent populations and diverse regions which have different cultural and socio-economic contexts. Yet, MHM programs are designed assuming these linkages. There is a need for more research to understand the impact of MHM programs on life outcomes.

A lack of alignment between diverse stakeholders and sector siloes is hindering progress on menstrual health. Immediate opportunities exist to better support adolescent girls' MHM in Kenya, including improved access to timely menstruation and puberty education, improved product access and affordability for low-income consumers, integration of girl-friendly features into sanitation design and infrastructure, and political advocacy for improved MHM at the district level.

Table 1: High-level Overview of Menstrual Health Enablers in Kenya

Enablers	Overview of Current Challenges in Kenya
Education and Awareness	Girls receive **inadequate education** on menarche, puberty, and MHM, and **lack the necessary information channels** for ongoing support, mentorship, and knowledge.
Products	**High costs and distribution challenges limit the accessibility of disposable pads to the** majority of low-income girls and women, especially in rural areas. There is an **increase in low-cost sanitary pad enterprises** but their reach is still limited.
Sanitation	Awareness of WASH (water, sanitation and hygiene) needs for proper MHM exists, but **MHM is still under-prioritized** given significant gaps in access to sanitation facilities in urban, low-income settings.
Policy	**There is growing national attention to MHM** with the National Sanitary Towels Program for school girls and development of national MHM guidelines.

Girls' ability to manage their menstruation is influenced by broader gender inequities across Kenya and can be hindered by the presence of discriminatory social norms. There may be opportunity to leverage MHM as

an entry point to sensitive sexual and reproductive health topics, such as reproductive rights, transactional sex, and teenage pregnancy prevention, but research and programming are still nascent.

Methodology

This report seeks to understand: (1) the current state of girls' experience with menarche and MHM in Kenya, (2) the donor, government, and NGO responses to girls' needs, and (3) opportunities for research, advocacy, and programming to better address these needs. This complements a Global Landscape Analysis and is one of three Country Landscape Analyses focused on India, Kenya, and Ethiopia.

This report provides an assessment of the menstrual health sector and identifies opportunities for the field to improve girls' dignity and empowerment in Kenya.[i] It is the result of a review of over 50 peer-reviewed articles and grey literature; over 25 interviews with policymakers, researchers, and practitioners living or working in Kenya; and a review of relevant programming focused on menstruation, MHM, sexual reproductive health, and sanitation. The country research for Kenya was also informed by 36 interviews with adolescent girls from Kangundo in Machakos County and Kawangware in Western Nairobi County in the following categories: (1) early post-menarche 0 to 1 year post-menarche, (2) post-menarche 1 to 3 years post-menarche, and (3) late post-menarche 3+ years post-menarche up to 18 years old. Interviews were also conducted with 7 influencers including mothers, sisters, teachers, and community health care workers. The regions were selected based on the following criteria: (1) urban setting and rural setting for contrast, (2) proximity to Nairobi for feasibility, and (3) safety and access for trained moderators.

Context | Gender Inequities in Kenya

The Broader Context for Women and Girls

Women and girls in Kenya have seen improvements in their health and development indicators in recent years. In particular, there have been positive trends.

Table 2: High-level Trends across Health and Development Indicators for Women and Girls in Kenya

Trend	Evidence
Greater female participation in the workforce[6,7]	Kenya ranks 9th for gender parity in economic participation and opportunity, with 73% of men and 63% of women employed.
Increased access to primary education[8]	Kenya has achieved gender parity for primary education enrollment, with 82% of girls and 81% of boys enrolled in primary school.
Increased access to secondary education[9]	Secondary school gross enrollment rates increased from 37% and 39% for girls and boys, respectively, in 1999 to 65% and 69%, respectively, in 2012.

[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.

Multiple forces are driving these improvements. **Kenya has seen strong macroeconomic growth, with experts forecasting this trend to continue in the coming years**. Kenya's annual GDP growth rate has averaged 5.3% from 2004 to 2014.[10] GDP growth was 5.7% in 2013 and was forecasted to increase to 6.5% through 2017.[11] In 2014, Kenya achieved middle-income status and is now the 9th largest economy in Africa.[12] **Increasing governmental intentionality and action on gender inequity is further contributing to improved opportunities and outcomes for girls and women**. A 2012 World Bank report comparing 141 countries found that Kenya ranked first and had the highest number of legal and regulatory changes aimed at improving gender parity and reducing legal gender discrimination in recent years.[13]

The Role and Influence of Gender Disparities and Discriminatory Social Norms

Despite these gains, adolescent girls in Kenya are often left out and remain vulnerable and isolated from society. There is significant heterogeneity among Kenyan adolescent girls and women, including geographic and socio-economic differences that affect their degree of access to services, goods, and opportunities and shape their long-term well-being and potential. For example, compared to the national average of 7%, 50% of girls 15–19 are illiterate in the rural, conservative North Eastern province.[14] One million children are still out of school in Kenya.[15] For 15–19-year-old girls, 29.2% nationally are not in school. Further, 43% of urban Kenyan girls 15–19 are out-of-school compared to 26% of their rural counterparts.[ii16] Girls in peri-urban or urban settings are more likely to experience sexual violence than girls who live in rural settings, while rural girls are at a higher risk of experiencing physical violence.[17] Girls from the poorest wealth quintile are nearly four times as likely to be married before 18 compared to girls from the richest quintile.[18] These stark disparities need to be examined and should inform the development of tailored approaches to improve outcomes for unique sub-sets of girls.

> "We always talk about [poor MHM] as young girls not going to school and we may be doing a disservice. We need to change the narrative and we need to invest in what is most important."
>
> - *Dr. Joyce Mumah, African Population and Health Research Center*

In Kenya, inequitable gender dynamics become pronounced during puberty and can leave adolescent girls and young women unable to negotiate access to vital health care services and products. For example, research suggests it is common for girls in Kenya to engage in transactional sex or seek out boyfriends to obtain goods that meet their basic needs, including sanitary pads.[19,20] In such unions, adolescent girls may be unable to negotiate safe sex practices, thereby increasing their risk of contracting STIs including HIV or experiencing unwanted pregnancy.[21] To protect girls from sexual vulnerability upon maturation, family and community members may encourage girls to get married at a young age. Child marriage affects nearly one in four girls in Kenya, with 23% of women aged 20–24 reporting being married before age 18 in the 2014 DHS.[22] In Kenya, child marriage increases girls' risk of school dropout, social isolation, and negative health outcomes.[23,24] Many of the gendered discriminatory social norms outlined above take root upon menarche, a life event which is viewed as a signal of girls' emerging sexuality.[25]

[ii] These figures are based on DHS data, which is based on a sampling of the population.

Menstrual Health | The Problem

Stories from the Field—A Glimpse into Girls' Experience

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.

Mary is 18 years old and lives in Kangundo in Machakos County, Kenya. She lives with her extended family, specifically her grandmother, uncle, brother, and niece. Her mother lives in Kajiado County where she works. Mary dropped out of school because her family could not raise enough school fees for her to continue her education. During the day, she does not work for pay and spends most of her day tending to the livestock, specifically grazing the goats. She also buys groceries for the family such as milk and vegetables, and is responsible for preparing all the meals, washing the dishes, doing laundry, and fetching firewood. They have an outdoor bathroom and toilet. Since they do not have running water, they use basin water and soap to take a bath. During her periods, she experiences a lot of pain in her lower back and abdomen, and she is not able to work. The boys in her area do not know much about menstruation, and although Mary has a boyfriend, he lives in Nairobi and they do not discuss menstruation.

Christine is a 12-year-old girl from Machakos County, Kenya. She lives with her six siblings and parents. She fetches water and washes dishes every evening after school, and thereafter spends time doing her homework. She likes her school because the buildings are clean and well-constructed, and the students always perform well in their exams. She remembers getting her first period when she was at home, when she was 11 years old. She did not know anything about menstruation before then, and she was shocked. However, she told her mother, and her mother assured her that it was normal and provided her with sanitary pads. Once she started her period, she felt that she had now matured into an adult. In school, they are taught menstruation and her female teachers provide her and other female students a lot of support. However, some of her classmates laugh when they find out that one of the girls is menstruating. Christine's dream is to complete her education so that she can have a prosperous life.

Menstrual Health and Links to Life Outcomes

While there is a growing evidence base on menstrual health and related barriers in Kenya, existing data is limited. Studies have small sample sizes and predominantly rely on qualitative methods of self-reporting

and anecdotal data, making generalizations and assessment of the challenges at scale difficult given immense diversity among adolescent girls in Kenya. Further, limited studies have examined or quantified the impact of poor MHM on the health, development, and empowerment outcomes of Kenyan adolescent girls, and results are not statistically significant and largely inconclusive.

There is also a dearth of data documenting trends in age of menarche in Kenya. However, a small study in urban primary schools found that 10% of girls experienced early menarche (defined as ≤ 11 years of age), with increased rates of early menarche among girls with higher socio-economic backgrounds. Moreover, 54% of girls who underwent early menarche experienced diminished academic performance compared to girls with normal menarcheal age.[26]

There is some early evidence suggesting that an unsupportive MHM environment impacts girls' sexual and reproductive health risk-taking behavior. In rural Western Kenya, two-thirds of girls and young women aged 13–29 using sanitary pads reported receiving them from sexual partners. There was a higher likelihood of receiving pads if respondents had more than one sexual partner, placing girls at increased risk of HIV or unwanted pregnancy. The prevalence of sex for money to purchase pads was concentrated among 15-year-old girls, with a six-fold higher likelihood of engaging in this practice compared to older respondents.[27] A further study in the same region[iii] found that the provision of sanitary pads and menstrual cups to 14–16-year-olds, in-school adolescent girls did reduce STI prevalence and menstrual cups reduced the prevalence of bacterial vaginosis.[28]

However, assumed causal links between MHM and educational outcomes are driving investment and programmatic interventions related to MHM. The Ministry of Education's Free Sanitary Towels Program was created to improve educational outcomes for girls. Yet, emerging research[iv] has found that providing in-school adolescent girls with sanitary pads and menstrual cups had no significant impact on school dropout and no impact on self-reported school absenteeism.[29]

Anecdotal reports and small qualitative studies suggest a link to empowerment outcomes including self-confidence, mobility, and control over resources. In rural Western Kenya, girls reported shock, confusion, shame, and fear during menarche due to lack of accessible and accurate information about sexual maturation during early adolescence.[30,31] In a qualitative study examining adolescent school girls' attitudes and experiences with menstruation, one girl reported, "When I first started [menstruating], my lower abdomen was stretching painfully and when I went back to the classroom everybody was asking me what was on my clothes, then I told them I don't know."[32]

The Current State of Menstrual Health

Over the last five years, there has been growing momentum around improving women and girls' menstrual health. Various sectors—the Kenyan government, international donors, local NGOs, and social enterprises—are making various efforts to improve MHM and, in some cases, menstrual health more broadly. Most of the efforts to date focus on providing products to manage menstruation and limited interventions seek to

[iii] The results of this study have not yet been published and are not meant for public distribution.
[iv] *Ibid.*

increase menstruation awareness. Although sanitation remains a significant barrier, gendered approaches to sanitation remain limited.

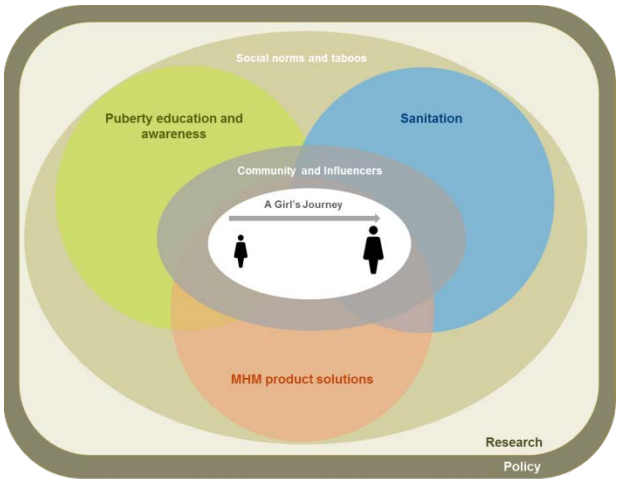
Table 3: Key MHM players in Kenya[v]

Organization	Summary of Menstrual Health-related Activities
CARE	Village Savings and Loan Association, 26 African countries • Set up groups of people who save together and take small loans from those savings. • Some VSLA's comprised of girls and women in Kenya use their savings to purchase sanitary pads.
Girl Child Network	Teacher Training Program; program focuses on training teachers that can better • Support the transition to puberty and support MHM. • Support girls' and boys' health clubs. • Be mentors.
Kenyan Ministry of Education	National Sanitary Towel Programme has been in place since 2010 and • Provides sanitary towels to school girls. • Trains teachers on hygienic usage and disposal of sanitary towels. • Monitors and evaluates of impact of work.
PATH	Menstrual Hygiene Management Programming and Research in Kenya • Researched the link between menstrual hygiene practices and school completion or women's access to employment. • Integrate girls' and women's voices in identifying MHM approaches. • R&D of low-cost and effective menstrual hygiene products and concepts.
Population Council	Randomized-controlled study on the effects of pad and MHM education interventions • In 2017, in partnership with ZanaAfrica, 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.[33]
Save the Children	Menstrual hygiene management operational guidelines in Kenya • Development of operational guidelines for integrating MHM-related activities into school-based programs.
WaterAid	• Practical toolkit and education resources for improving menstrual hygiene around the world.
	Menstrual hygiene programming, global • Menstruation education to address taboos and misinformation and to teach safe and healthy MHM practices. • Construction of gender-separated toilets for girls in school. • Creation of hygiene clubs to increase access to vital health information and encourage creation of homemade, reusable sanitary pads.
WASH United	"Knocking down menstrual taboos" in Kenya • A game-based learning approach to MHM education to empower girls to overcome silence, shame, and stigma. • The game is also used to engage boys as supporters and train teachers how to better address topics related to puberty and MHM.
	Menstrual Hygiene Day, Global • Global advocacy effort to elevate the issue of MHM within the development sector.
Water Supply and Sanitation Collaborative Council	Menstrual Hygiene Management / We Can't Wait, global; sub-Saharan Africa, South India focus • Qualitative and quantitative research on MHM behaviors and practices. • Created training manuals designed to help practitioners organize MLM Lab events. • Emergency situation MHM workshops. • 3 pillar approach: (1) Breaking the silence on taboos, (2) MHM, (3) Safe reuse and disposal solutions.
UNESCO	Puberty Education and Menstrual Hygiene Management booklet, global (focus on sub-Saharan Africa)

[v] Social enterprises and NGOs that are primarily focused on products are profiled in the MHM Product section below.

- Exemplary policies and practices, and offers recommendations for diverse stakeholders to improve school health through puberty education inclusive of MHM.

Figure 2: Requirements for Menstrual Health



The next four sections present a deep analysis of the challenges, current efforts, and critical gaps related to **(A) Education and Awareness, (B) MHM Products, (C) Sanitation, and (D) Policy**.

The relative importance and the manner in which these four interrelated enablers (see Figure 2[vi]) manifest within a girl's life may vary, but there are certain trends unique to Kenya. The next four sections examine these enablers and the interrelated and compounding effects limitations in access to these enablers can have on adolescent girls and young women in Kenya. Where applicable, the below analysis elevates links to broader gendered inequities and presence of discriminatory social norms and highlights opportunities to integrate a community-based or inclusive approach into programming, research, and policy efforts. Additionally, key insights about current interventions are included below.

A. Education and Awareness

The Current State

Despite momentum at the national level, girls and boys still have limited access to high-quality and comprehensive puberty education. A study by Population Council found that only 1 in 5 girls in Nairobi's informal settlements can accurately pinpoint the time of the month that they are most likely to get pregnant.[34,35]

Communities perpetuate taboos and misconceptions about menstruation that restrict girls' mobility and activity during menstruation. While these practices vary across regions and families, common discriminatory practices include the belief that menstruating women and girls are polluted,[36,37] restrictions on the type of food they can eat (e.g., menstruating women cannot eat meat[38]), and the policing and restricting of adolescent girls' interactions with men and boys.[39] The strength and degree to which taboos are present is in part dictated by the availability of high-quality MHM education and awareness. In more remote and rural areas, taboos play a stronger role.[40] For example, in the semi-nomadic Masai region, menstruating women and girls are not allowed to enter goat pens or milk cows for fear they will contaminate the animal.[41]

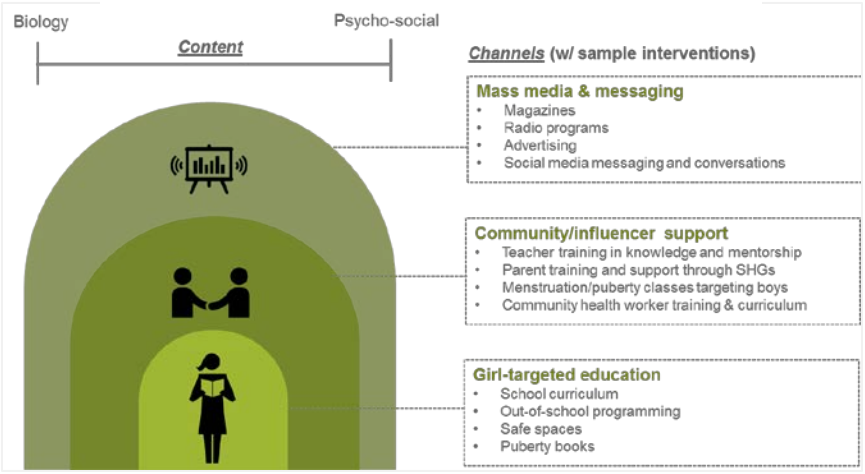
The need for puberty and menstruation education in poorer and more rural areas including the North Eastern and Rift Valley provinces is dire. A UNICEF study in Garissa, in the North Eastern Province, found that 64% of girls self-reported their knowledge of puberty as fair or poor.[42]

[vi] Source: FSG informed by secondary research sources and expert interviews.

Enablers for Improved Menstrual Health

As depicted in Figure 3, comprehensive education and awareness on menstrual health should provide girls and boys with accurate, timely information on the biological and psycho-social aspects of puberty, menstruation, and MHM. The **quality of *girl-targeted education* and capacity of *community influencers* to provide support are particularly significant enablers for improved menstrual health in Kenya.** The key enablers and the limitations of the current state of these enablers are described below:[vii]

Figure 3: Education and Awareness (User Perspective)



> "What I can say is that these girls are scared because they think that they are the only ones experiencing monthly periods. And also it is our fault as parents not to share with our girls of the changes they will be undergoing. They are not aware that all females undergo the same." -- *Parent in Western Kenya*[i]

Although the Kenyan government mandates puberty education in schools, the curriculum focuses primarily on the biological rather than psycho-social changes including the hygienic use and disposal of sanitary pads.[43,44] Additionally, while some curricula (e.g., It's All One) do take a gender equity lens and discusses power dynamics in intimate relationships, the curriculum broadly used in public schools does not address these issues.[45,46]

The quality of instruction by teachers varies significantly across the country. While teachers are meant to receive training on how to provide puberty education, studies have shown that teachers find the topic of menstruation embarrassing to discuss in a classroom setting and will often provide their specific point of view rather than the official curriculum.[47] Another qualitative study found that teachers often skip puberty modules because they have too many other mandatory subjects to cover, and are expected to teach and train students on a variety of different topics (e.g., how to use toilets).[48] Experts suggest that teachers may opt to skip puberty education because, unlike most other mandatory subjects, it is not tested and there is thus less accountability.[49]

Out-of-school girls and particularly vulnerable populations (e.g., HIV+) have been largely left out of menstrual health and MHM programming. To date, the Kenyan government, NGOs, and corporate partners have focused on providing MHM education and awareness and MHM products *as means of keeping girls in school*.[50,51,52,53] However, few programs have focused on reaching girls who have already dropped out of

[vii] See Appendix for a detailed list of enablers, barriers, and supporting evidence.

school, refugee women and girls,[54] or on providing specialized menstrual health education and awareness for girls with special needs. For example, 75% of girls in Garissa who have undergone female genital mutilation report suffering greater physical distress during their period because of a narrow vaginal opening resulting from infibulations; however, they do not receive specialized menstrual health education to help them manage their unique needs.

The Field's Response

Several key government ministries and NGOs are focused on improving the state of menstrual health education and awareness for adolescent girls in Kenya. Political support garnered through civil society, the parliament, the ministry of education, and the prime minister's office led to national recognition of the need for puberty education, teacher training, and sanitary pads (discussed in MHM product section), and the allocation by parliament of additional funds for the ministry of education to implement the program (discussed in the policy section).[55]

Small and medium sized product companies are seeking to provide basic education to girls; however, these rarely include boys and do not address the psycho-social aspects of puberty and development of healthy sexuality. About a dozen of small and medium sized social enterprises have entered the market (e.g., ZanaAfrica, Huru International) with the primary aim to sustainably provide high-quality, affordable MHM products to women and girls. These organizations have expanded offerings to enhance puberty and menstrual health education through comic books, booklets, and in-person trainings. To date, their scale and reach remains limited and questions remain about the competitive advantage of these organizations to provide education programming and how well product companies are suited to provide puberty education.

Broad menstrual health education and awareness programs are one of the most common approaches for addressing poor MHM among women and girls; however, there is a need to provide more tailored support systems for girls and their influencers. Larger multinational organizations (e.g., P&G) provide one-time puberty trainings whose long-term effectiveness and impact is unknown. The Ministry of Education and smaller sexual reproductive health NGOs partner with schools to either implement the programming directly or train teachers and facilitators. Depending on the perspective and the primary goal of the organization involved, MHM education can take multiple approaches for intervention. A review of the most effective and innovative/promising programs in Kenya highlighted the following three trends.

Table 4: Overview of Menstrual Health Education and Awareness Interventions in Kenya

Primary Goal of Intervention	Trends and Key Players
Providing girl-targeted education	**Girl-only in-school menstrual health education and awareness programming** - Create curriculum focused on biological changes during puberty (e.g., Ministry of Education; ZanaAfrica Foundation). - Train teachers or provide direct programming to girls-only on biological changes and managing periods. - MHM education targets only girls often neglecting to teach boys about menstruation or MHM.[56,57] - There are no major mass media campaigns, and programming that targets highly vulnerable populations (e.g., HIV+ girls) and out-of-school girls is very rare.

Supplementing in-school menstrual health education by providing safe spaces for discussion	**Safe places and peer educators as a supplemental source for girls' menstrual health education and awareness** - Leverage existing structures (e.g., after-school clubs and peer educators) to create safe spaces for girls to ask questions about menstruation and sexual reproductive health and create formal and informal relationships to support them through this transitory period (e.g., National Organization of Peer Educators; Wezhesa Vijana Project).
Providing short-term menstrual health education in school settings	**MHM product based organizations with an ancillary focus on awareness** - P&G conducts in-school MHM awareness programs and distribute products (e.g., P&G's Always Keeping Girls in School annual budget: KES 13 million; USD 150,000).[58] - Other multinationals fund NGOs (e.g., Huru International) menstrual health education and awareness through their CSR and philanthropic dollars (Johnson & Johnson funds Huru International. Huru provides girls in an informal settlement in Nairobi with reusable pads and basic MHM education). - Social enterprises are also increasingly providing menstrual health education and awareness (e.g., ZanaAfrica developed a comic book).

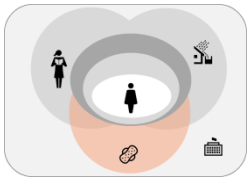
Conclusions

There is limited understanding of how girls and women prefer to receive education and awareness about sensitive topics such as MHM and menstruation. Specifically, there is an opportunity to understand the ideal timing, length, and frequency of MHM, as well as through what channels women and girls prefer to learn about sensitive issues (e.g., peer networks, influencers, in the classroom).

Lack of education and taboos also prevent influencers from discussing puberty and other sensitive topics with girls. Studies have found that while parents believe it is their responsibility to speak to their children about puberty, the majority find it difficult to speak of sensitive and sexual issues with their children.[59,60,61] Additional programming and trainings targeted at influencers may help them feel empowered to discuss these topics with girls.

B. Menstrual Hygiene Management Products

Current State and Market Analysis



The primary MHM product used by women and girls in Kenya varies regionally and based on economic status. Small studies indicate that the majority of urban women and girls use disposable sanitary pads, while the majority of women and girls in rural areas use homemade alternatives as a primary or secondary method for managing their periods. Small scale studies indicate that 65% of Kenyan school girls across the country use homemade alternatives as primary or secondary solutions.[62] A survey done by Procter & Gamble (P&G) and Heart Education found that 42% of Kenyan school girls have never used sanitary pads, and instead use alternatives such as rags, blankets, pieces of mattress, tissue paper, and cotton wool.[63] Another study found that 75% of women in rural western Kenya use commercial pads as a primary or secondary method and 25% use traditional materials exclusively.[64] Product use may also vary regionally

based on the presence and strengths of taboos surrounding menstruation. The small sample sizes of these studies make it difficult to reach comprehensive conclusions on product coverage and use.

Premium disposable sanitary pads have the highest market share of any commercial product. In 2015, P&G's Always had 62% of the Kenyan commercial MHM market. P&G's dominance is in part attributed to its strong marketing, including providing feminine hygiene education and providing free samples to school girls.[65]

Low-cost disposable sanitary pads, targeted at low-income urban and rural users, are entering the market place but still have limited reach. Small and medium-sized social and private enterprises (e.g., ZanaAfrica, Decent Products) are designing and selling low-cost pads. Currently, there are only two manufacturers based in Kenya, which suppliers complain about the level of quality for the price, and so the majority of these enterprises purchase higher-quality, but still low-cost sanitary pads, from overseas, most commonly China.[66,67,68] While the number of enterprises is growing, the quality, price, and reach of these pads varies significantly. Many of these enterprises also struggle to remain financially sustainable due in part to their small scale, poor distribution channels, and limited resources to put towards marketing.[69,70] Experts do note that Kenya has seen more MHM product social enterprises entering the MHM space than other African countries.[71]

Reusable pads provide an important alternative to girls in low-income settings, but the usage continues to be limited. The majority of reusable pads are distributed for free or highly subsidized prices by small social enterprises (e.g., iCare pads, Huru International). The limited reach is largely due to high initial upfront cost, limited aspirational value, and the small scale of production.[72]

Insertable products (i.e., tampons and menstrual cups[viii]) are considered taboo by users and community members. Use of insertables remains low due to the following factors: women's personal discomfort with inserting products in their body, the high cost of the product, and in certain regions taboos associated with women's purity and virginity.[73] However, a randomized controlled feasibility study conducted among 14–16-year-old girls in 30 primary schools in rural western Kenya examined acceptability, use, and safety of menstrual cups. The study found that after initial concerns of insertion were overcome, with the aid of a nurse trainer, girls reported less leakage and more comfort than using pads. The study also found that girls were able to safely use the menstrual cups with no higher incidents of infections.[74] Currently, there is no sustainable model for menstrual cups as it requires high upfront investments from both the user and the program which needs to invest in training.

Table 5 below provides an overview of the products organizations providing the products, and a description of how these products are currently being used.

Table 5: Landscape of MHM Products in Kenya

Type of Product	Overview	Organizations Intervening
Commercially available, premium disposable sanitary pads	- Most widely used by the middle and upper-middle class urban girls and women in Kenya. - Aspirational product for Kenyan girls from lower income households symbolizing freedom for girls (freedom of mobility	Usually manufactured by large multinationals:

[viii] A menstrual cup is a feminine hygiene product which is usually made of medical grade silicone, shaped like a bell and is flexible. It is worn inside the vagina during menstruation to catch menstrual blood.

	and freedom from worry of staining). - Disposal varies, including disposing in pit latrines.	P&G; Kimberly-Clark; Johnson & Johnson
Low-cost commercially available disposable sanitary pads	- Manufactured by growing small-scale social enterprises or private sector start-ups or nonprofit groups who buy low-cost manufacturing machines. - Quality of products varies widely. - Targeted at low-income urban and rural. - Scale and reach of these manufacturers are limited as compared to the commercially available, premium disposable sanitary pads. - Disposal of product continues to remain a concern.	ZanaAfrica (Nia); Safeworld Enterprises; Decent Products (Wonder Girl); MarvelFive (Sunny Girl)
Commercially available re-usable cloth-pads	- Manufactured on a small scale by NGOs, social enterprises, motivated by the need to provide a longer-term solution (up to three years) and an opportunity to provide women a livelihood. - Targeted at low-income girls; a menstrual kit containing a reusable pad, soap, and MHM educational materials are distributed. - Education on use of product and appropriate sanitation infrastructure are imperative for good MHM.	Huru International; I-Care Pads
Homemade alternatives (strips of cloth (kanga), cotton wool, pieces of mattress, or natural materials (mud, ash, leaves))	- Cloths or cloth pads may be a sustainable sanitary option, but it must be hygienically washed and dried in the sunlight. Sunlight is a natural sterilizer, and drying the cloth pads in sunlight sterilizes them for future use. They also need to be stored in a clean dry place for reuse.[75] - Widely used by rural and urban poor.	n/a

Use of the following MHM products exists, but only in a few select pockets.

Table 6: Alternative MHM Products in Kenya

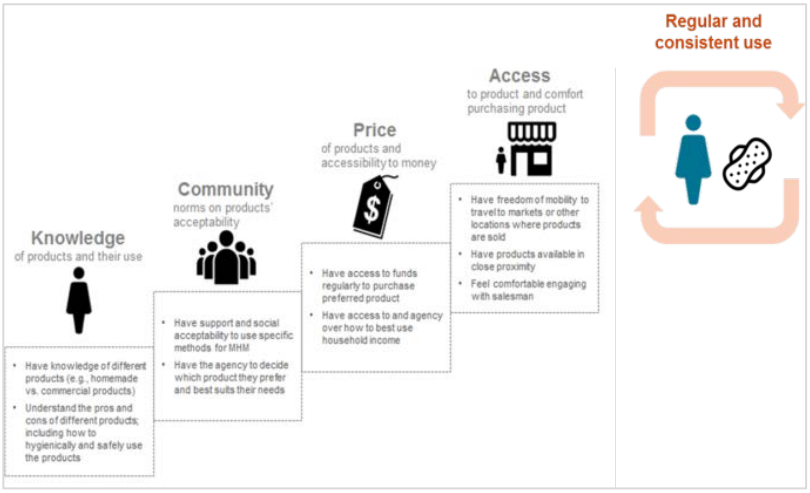
Type of Product	Description on Who Uses the Product	Example of Product
Commercially available disposable insertables (tampons)	- Insertables considered a high barrier product given women's discomfort with inserting products as well as the community's concerns with insertables (e.g., relation to virginity). - Used by the middle and upper-middle class.	J&J's OB Tampon
Commercially available reusable insertables (menstrual cups)	- Very limited distribution; can be ordered from select pharmacies. - Upfront cost is prohibitive for vast majority of the population; free or highly subsidized model would be needed. - Pilot study in western Kenya suggested that with appropriate	Divacup, Lunette

	support, including education from nurses, uptake is possible.[76]	

Enablers for Improved Product Access and Uptake

High price and limited access to financial resources are the biggest barriers to MHM product access across in Kenya. Figure 4 depicts critical factors that contribute to regular and consistent use of preferred MHM product(s).

Figure 4: User Challenges to MHM Product Usage



Limit knowledge of MHM product options and their use leads to the unhygienic use of MHM products. A large (3,418 person) study in western Kenya found that two-thirds of women with no puberty education relied on homemade alternatives and were less likely to know hygiene basics (e.g., how often to change MHM product, importance of washing genitals with soap and water).[77] However, lack of countrywide studies makes it difficult to extrapolate on this.

High cost of disposable pads makes them inaccessible to the majority of women and girls. Approximately 65% of girls in Kenya cannot afford any brand of sanitary pads on a monthly basis.[78] Prices vary from cheaper brands (e.g., AllTyme and Sunny Girl) which cost approximately 50 shillings for a package of eight to P&G's Always which costs 80 shillings or more per package of eight.[79] Several surveys found that women and girls prefer Always over other brands,[80,81,82] however, over 80% of women and girls cannot afford P&G's Always (80 KSH or more a package) on a monthly basis.[83] Due to the high cost of disposable pads, it is common for women and girls to use both sanitary pads and homemade alternatives to manage their periods.[84]

Lack of access to money or control over household resources limits women and girls' ability to purchase MHM products. Social norms affect women and girls' access to and say over household money. Two out of three pad users in rural Kenya receive their pads from their sexual partners.[85] **As noted above, social norms also affect power dynamics in intimate relationships, with some girls relying on sexual partners for money to buy pads which increases their vulnerability.**[86,87]

MHM product availability is unreliable in rural and remote areas across Kenya. Although premium sanitary pad companies have far-reaching distribution channels, their products are often too expensive for women and girls in rural and remote areas.[88,89] Smaller, low-cost enterprises, while more affordable, have had limited distribution, particularly to remote and rural areas. As a result, women and girls in these areas are left with little to no access to affordable commercial MHM products. For example, focus groups in Korogocho found that 18 participants out of 29 had experienced problems accessing pads.[90]

The Field's Response

While MHM product programs are common, most provide just short MHM education sessions and free or highly subsidized products, and do not address the psycho-social changes or offer sustainable access to products. A review of the most effective and innovative/promising programs highlighted the following.

Table 7: Overview of MHM Product Interventions in Kenya

Primary Goal	Trends and Key Players
Keeping girls in school	**The majority of programs are focused on providing girls with MHM products in school settings as a means to decrease school absenteeism.** In 2011, the Ministry of Education, Science, and Technology launched the National Sanitary Towels Programme to provide free disposable pads to school girls with the goal of reducing school absenteeism.[91] Huru International also distributes a reusable pad kit with supplement MHM education with the aim of reducing school absenteeism. A formative evaluation found their program a 95% reduction in absenteeism.[92]
Providing short-term support to manage menstruation	**Grant-funded programs provide women and girls with immediate access to MHM products, but few provide long-term sustainable access to products.** For example, experts expressed concerns about the high cost of Kenya's National Sanitary Towels Programme, run by the Ministry of Education, Science, and Technology free pad distribution program.[93]

To date few programs have conducted rigorous evaluations, limiting options for scale and replicability. 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.[94]

Conclusions

Small scale studies suggest that users prefer disposable sanitary pads to reusable sanitary pads, and homemade alternatives, yet there is limited understanding about detailed product preferences and women's willingness to pay for different product types.

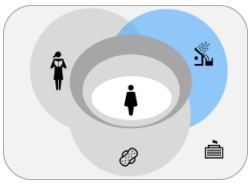
Early pilots and small scale programs that are leveraging savings groups to support product purchases have garnered interest, but there are few evaluations of this approach. Experts[95,96] mentioned the potential use of savings groups or girls' clubs as a way to give girls and women financial resources and limit their reliance on sexual partners; however, more research is needed to understand under what circumstances these groups may work.

Organizations and for-profit companies consistently cite safety and transportation costs as key challenges to product distribution. Corporations with high volume, like P&G, have access to reliable distributors but provide higher-end products through those distribution channels. Few of the smaller cheaper firms have been able to find cost-effective and reliable distribution channels across the country.

Experts suggest that certain MHM programming can be used as a gateway to discussing broader social norms and gender dynamics,[97,98,99] but there is a need to understand if and how MHM product programming can be used as an entry point for addressing power dynamics in intimate relationships.

C. Sanitation

The Current State



Adolescent girls and boys alike lack access to general sanitation in school, at home, and in public locations. Currently, only 30% of Kenyans have access to improved sanitation facilities, with large regional disparities in sanitation access (15% in rural Northern Kenya compared to 99% in central provinces where Nairobi sits).[100,101] A total of 6 million Kenyans lack access to toilets, with 13% of the population practicing open defecation.[102]

WASH (water, sanitation and hygiene) facilities in schools are insufficient, poorly maintained, and lack the necessary resources and design features to support girls. The latrine to pupil ratio in the Kibera informal settlement in Nairobi was 1:50, nearly double the recommended ratio of 1:25 for boys and 1:30 for girls.[103] An assessment of existing WASH facilities in schools in rural Kenya found that only 60% had accessible water for hand washing and just 2% had soap.[104] Water taps, where available, tended to be far from the latrine, contributing to poor hygienic practices. While 84% of schools had gender-separated toilets, 77% of these did not have locks.[105]

Lack of consistent access to water disproportionately affects menstruating women and girls, particularly in low-income, urban settings. In a country where 25% of the population lives in urban areas and an estimated 60–70% of Nairobi's residents reside in informal settlements, consideration of the water and sanitation needs of menstruating people are crucial to ensure functioning sanitation systems for all.[106] Inequitable distribution of water resources results in accessible water for urban areas and wealthy rural communities, while urban slums or remote rural villages go without, leaving 17 million Kenyans without access to safe water.[107,108]

Enabling Factors and Barriers Contributing to the Problem

The limited prioritization **of women and girls' needs can inhibit their access to water and sanitation.** Anecdotal reports suggest that water is not prioritized for MHM within households.[109] Sanitation blocks in informal settlements often charge per use, placing economic burdens in the form of increased public toilet expenditures or forcing women and girls to seek out other potentially less safe options if those fees are unaffordable.[110]

Placement and proximity of toilets may put girls at greater risk of gender-based violence. In Kenyan informal settlements, the majority of sexual violence occurs within the context of using a toilet, bathing, or managing menstrual hygiene.[111,112] In Mathare, an informal settlement within Nairobi, 68% of women report experiencing violence, in part due to limited access to private toilets.[113]

Girls and women have limited options for safe, private disposal of menstrual waste. In rural public schools, only 1% of girls are able to dispose of their menstrual waste in a safe, environmentally sustainable manner.[114] Currently, there are limited disposal solutions beyond trash bins and pit latrines; incinerators are not common in Kenya. Women often wrap used MHM solutions in plastic bags before disposal to prevent others from seeing used menstrual waste, which inhibits decomposition and is a challenge when emptying pit latrines.[115]

The sanitation system is not designed to meet the needs of menstruating people; the systems will be strained with the increased disposal of used menstrual products. Menstrual pads constitute nearly 40% of material hauled from blocked sewers and often result in sewage backflows into homes in Eastern Kenya.[116,117,118]

The Field's Response

MHM is often included as one component within broader WASH programming efforts. Significant challenges remain in Kenya related to water accessibility and sanitation. MHM-focused WASH programming sits within this reality. See the Appendix for profiles of WASH interventions that include an MHM element.

Nairobi is serving as an innovation hub for numerous organizations looking to improve access to and quality of WASH infrastructure and services in Kenya. Leading NGOs—such as WASH United, Kenya Water for Health Organization (KWAHO), FHI360, and WASH Alliance Kenya—have actively included MHM into WASH programs in Kenya.[119,120,121] Yet, the issue of menstruation has largely remained absent from the national sanitation conversation until recently.

Efforts to address MHM needs focus on creating supportive MHM environments for menstruating girls in school. In the rural district of Siaya, 76% of public schools receive NGO support for school sanitation infrastructure and resources.[122] There is limited programming aimed at addressing water and sanitation needs in the home, and the public community, particularly related to the MHM needs of out-of-school girls and working women.

Sustainable disposal of used MHM products is still a secondary or tertiary concern, with efforts centered on improving access to products and supportive WASH infrastructure.

Conclusions

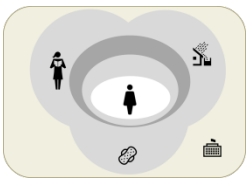
Existing sanitation facilities are poorly maintained and lack necessary elements for safe and dignified MHM. Additionally, there have been missed opportunities to integrate girl-friendly elements in new construction, especially for girls in urban informal settlements.

Proximity and ratio of sanitation facilities can influence girls' risk of gender based violence. Community acceptability of violence contributes to this dynamic and needs to be considered in the design of programming efforts and policy.

There is limited innovation or investment in the disposal of menstrual waste. Safe, private disposal options are needed for behavior change at the individual level. Sustainable mechanisms to process large amounts of menstrual waste are needed at the system level.

D. Policy

Current State of the Government's Response



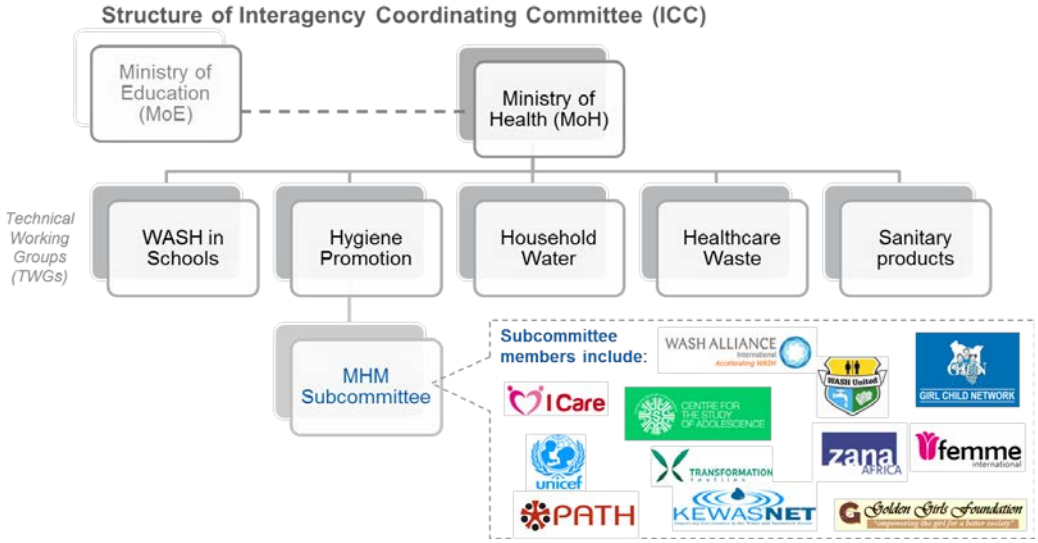
There is growing political will at the national and district level to address menstrual health-related challenges in Kenya. The government has made the following progress over the past five years.

Ministry of Health (MoH) is currently leading a collaborative process to draft national MHM guidelines. Sitting within a larger WASH-focused Interagency Coordinating Committee (see Figure 5), an MHM subcommittee is developing the national guidelines in partnership with a team of consultants that have been hired to produce: 1) a situational analysis of MHM, 2) a policy analysis, and 3) an MHM policy and strategy document by the end of Q1 2016.[123] The MoH introduces a health prevention focus to the guidelines, which is bolstered by deep representation from the WASH and MHM product sectors. At the time of authorship, the guidelines are expected to be complete in May 2016. Current priorities include creating minimal standards for MHM programming, establishing standards for reusable products, and building consistent messaging.[124]

In 2011, governmental policy allocated 240 million Kenyan shillings annually towards **the provision of free sanitary pads to girls in public governmental schools through the National Sanitary Towel Programme**. This sum had increased to 400M shillings in 2015.[125,126,127] The program does not include menstrual cups and focuses on distribution of sanitary pads only. The program was targeted to benefit 443,858 girls in public primary schools across 82 districts. While the program is achieving greater scale than many NGO or donor funded programs, it is still insufficient to meet the needs of the estimated 2.6 million girls in primary and secondary school.[128]

The Kenyan government **removed import duties and value-added sales tax on menstrual hygiene products** and solutions in 2011.[129,130]

Figure 5: Kenya Ministry of Health's Interagency Coordinating Committee



Barriers and Gaps

Once completed, implementation of the national MHM guidelines will pose new challenges. As of yet, there are no regulations or budgetary allocations in place to enforce the implementation of the guidelines, and there is a need to align the guidelines to other existing policies relevant to adolescent girls and menstruation (e.g., governmental WASH policies and reproductive health policies). Further, **with frequent turnover in government, it is critical to engage and coordinate with other leaders in the field to build and maintain momentum on MHM.**[131,132,133]

The Ministry of Education's Free Sanitary Towel Programme has met criticisms, yet there has been no formal evaluation of the program to assess impact. Sanitary pad suppliers suggest that governmental tender price for pads is extremely low, and there are anecdotal reports of suppliers lowering the quality of pads to obtain governmental contracts. There are reports of corruption and collusion along the supply chain. (e.g., security issues on the road in northern regions, suppliers providing a fraction of agreed upon product quantity).[134] For users, girls report frustration with the low quality of the pads and have inconsistent access due to stock outs in school and only receiving support during the academic year.[135]

There are insufficient regulations on MHM products and programming. The Kenyan government currently only offers standards for disposable pads, leaving reusable options unregulated and subject to variability in product quality and safety. As noted above, this is a priority on the agenda for the Technical Working Group. Further, there has been an increase in international NGOs entering Kenya and establishing MHM-related programming, yet there are no standards or regulations guiding the content, methods, or efficacy of these efforts.[136,137]

Conclusions

The Kenyan government has taken steps to create a more supportive environment for MHM, but significant gaps remain. Improved monitoring and evaluation of current policies and governmental programs will illuminate what is working well and identify areas for development to inform continual innovation and adaptation. To do this, there's a need to align on priority indicators for measuring progress.

Additional research is necessary to inform future policy development and implementation and to maximize the value of limited resources towards the highest priority needs. Research priorities include:

1. Understanding the current MHM practices of girls and women at the local and national levels through integration of MHM-related indicators in national and international survey tools.
2. Understanding the unique needs of vulnerable populations of menstruating people (e.g., disabled girls, women living with HIV, and refugee populations).
3. Identifying the best ways to support menstruating women in the workplace, in the community, and at home.
4. Assessing innovative approaches to MHM, including the use of incinerators for disposal and male engagement in MHM education.

Private sector engagement could help fill gaps on MHM. Progress towards improved MHM cannot be achieved solely by the public and nonprofit sectors. Private sector engagement can address challenges in product access, innovation in disposal technology, "last mile" distribution challenges, and standardization and enforcement of sanitary product quality and safety.

Conclusions and Recommendations

The issue of menstrual health has gained momentum in Kenya at the national level over the past five years, with new supportive policies, an increase in advocacy and awareness efforts, and growth within the MHM product market. **However, the most vulnerable girls are still not benefiting from current advances in menstrual health and often face compounded risks to their health, well-being, and empowerment.** Taboos related to menstruation are still common, and girls report feeling shame and embarrassment during

menstruation. MHM products remain unaffordable and inaccessible to adolescent girls, especially those in rural and remote areas. Sanitation facilities are ill equipped to support girls and women to manage menstruation, and widespread gaps persist in water access and sanitation across the country. **Menstrual health stakeholders and efforts remain siloed, missing the opportunity to provide comprehensive intervention packages to address the interrelated barriers to and promote enablers of menstrual health.**

There are immediate opportunities for the field to better support girls' experience of menarche and create improved conditions for girls' MHM throughout their life.

Table 8: High-level Conclusions for Each Barrier in Kenya

Barrier	Overview of Conclusions for Each Barrier
Education and Awareness	**Integrate a gender equity lens into existing puberty and sexual reproductive health curricula targeting early adolescents.** Kenya's existing sexuality curriculum offers the biological context around menstruation, but additional instruction to both boys and girls on the gendered sociocultural aspects of menarche and interpersonal relationships at puberty would serve to support girls to manage menstruation in a more dignified manner. There is a need to build the capacity of teachers, school administrators, and parents to deliver this information and serve as ongoing mentors as a source of emotional support for girls as they transition through puberty.
Products	**Improve access to low-cost MHM products for underprivileged and/or low-income consumers**. There is a gap between product demand and supply for low-income consumers. Currently, there are half a dozen small social enterprises which have entered the market, but to date have failed to achieve scale. To develop an appropriate market-based solution for Kenya, additional research is needed to understand: • **Manufacturing challenges**: Few social enterprises manufacture domestically citing unreliable quality and high-costs. Government subsidies may help increase and improve domestic manufacturing.[138] • **Underlying distribution challenges**: Smaller social enterprises are currently unable to access the best distributors, in part due to volume limitations. Additionally, safety remains an issue in certain pockets of the country. There may be an opportunity to consolidate supply of several social enterprises to meet volume minimums. Additionally, safety remains an issue in certain regions of the country, including in the North, whereby goods are stolen during transportation. Anecdotally, smaller scale social enterprises have found success in vertical integration whereby the organization took on distribution to ensure the safe delivery of their own products.[139] • **Price point that women and girls are willing to pay:** Initial user research suggests that women and girls prefer to purchase MHM products in smaller quantities to reduce upfront costs.[140] Additional research is needed to fully understand women and girls' price sensitivity and how much women and girls are able to pay consistently for pads. Once these research questions are answered, seed funding can help to explore approaches to market consolidation and volume-based pricing.
Sanitation	Embed **girl-friendly resources and design** in existing and new WASH initiatives and in governmental infrastructure efforts. These efforts can be integrated into governmental guidelines for WASH infrastructure or through NGO-led efforts to encourage gender-inclusivity in WASH infrastructure development, as seen in SANA's WASH in Schools for MHM program (See Appendix). **Menstrual waste is placing an increasing amount of pressure on existing sanitation infrastructure, and there are few sustainable, appropriate solutions for the individual or**

	the system. Innovative technology or models are needed to ensure girls can dispose of menstrual waste privately and safely and that system can process waste efficiently while limiting health and environmental risks.
Policy	**Support development and implementation of the national MHM guidelines through strategic advocacy at the district level.** The MHM Technical Working Group will produce a policy landscape assessing regulations relevant to MHM and menstruation and highlight gaps in existing policies. This holds the potential to set an advocacy agenda for gender-inclusive and female-friendly policies across diverse policy arenas (e.g., governmental regulations for construction of WASH infrastructure, or integration gender-equity training in national school curriculums). **Improve learning and adapt best practices by creating an international knowledge sharing platform for supportive MHM policy**. The Kenyan government is in the early stages of designing and implementing a national response to address MHM. Senior governmental officials have noted the potential value of sharing best practices of what has and has not been effective in improving MHM with other countries currently tackling this issue, including India and Uganda.
Cross-cutting	**Invest in targeted research to better understand the current state and pressing needs of girls and women.** Though the Kenyan government has committed to addressing the issue of MHM, the current data is insufficient to understand the needs of menstruating girls and women with diverse economic and sociocultural realities. Cross-sectional and longitudinal research on the issue would lead to more evidence-based decision making and align budgetary and human resources to the activities with the greatest impact. Potential research partners with relevant expertise in Kenya include the African Population and Health Research Center and Population Council.

In addition to direct action to improve MHM, there is an opportunity to explore MHM as a potential gateway to improving gender equity and shift a cross-cutting set of outcomes. Researchers and practitioners note that MHM as a topic is less sensitive among communities and stakeholders than related sexual reproductive health topics, thereby providing an entry point to talk to girls.[141] Menstrual health education and product programs implemented by Femme International and ZanaAfrica note that sessions focused on MHM provide a space for girls to ask questions about a broader range of issues related to their sexual reproductive health and well-being.[142] **Research is needed to understand the ways in which MHM interventions could play a catalytic role in social norm change at the community level**. Some ways in which this approach could manifest include:

1. **Use menstrual health education and awareness curriculum to help shift gender norms and improve gender equity.** Studies show that sexuality curriculums that address gender and power are five times as likely to be effective as those that do not explore these dynamics, and are significantly more likely to reduce rates of STIs and unintended pregnancy.[143] Curricula guidelines, such as Population Council's It's All One, offers the tools to improve the existing curriculum and support accessible information about menstruation and sexual reproductive health at scale.
2. **Leverage free or highly-subsidized pad programs to educate girls and women about power dynamics in intimate relationships.** PS Kenya and IDEO.org have experimented using free pad distribution programs as a venue for engaging women and girls in conversations about power dynamics in intimate relationships and discussing the dangers of transactional sex.[144] This could be particularly impactful in Kenya where **two out of three** pad users in rural Kenya receive them from sexual partners and **10%** of

15-year-olds in rural Kenya reported engaging in transactional sex for money to buy pads. [145] However, additional research is required to understand the effectiveness of such programs.

3. **Integrate menstruation into existing community-led total sanitation (CLTS) efforts in order to shift community attitudes and practices**. CLTS offers an existing and effective platform of behavior change related to open defecation. Integration of menstruation and MHM information could address harmful social taboos and increase awareness of gendered differences in sanitation needs.

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