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THE FUTURE OF WATER, SANITATION AND HYGIENE:  
INNOVATION, ADAPTATION AND ENGAGEMENT IN A CHANGING WORLD

**Integrating menstrual hygiene management (MHM)  
into the school water, sanitation and hygiene agenda**

*M. Sommer, USA*

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*The integration of menstrual hygiene management (MHM) into existing water, sanitation and hygiene approaches in low-income countries is long overdue. This briefing paper presents an illustrative overview of existing research, programming and policy to date, with recommendations for the way forward in terms of research and programming priority areas. Of critical importance to any approach is the incorporation of girls' voiced experiences and perspectives on their own needs for managing menses successfully in school, and the importance of adapting interventions to the local context. While attention to the issue of MHM for school girls is growing, much remains to be done, and the water and sanitation community has an important role to play in moving this effort forward.*

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**Introduction**

Over the past ten years, there has been increasing attention to the unique challenges faced by school girls in low-income settings who are struggling to manage monthly menstrual flow in school environments that lack adequate water and sanitation facilities. While the peer reviewed studies attesting to these challenges remain small in number (Oster & Thornton, *forthcoming*; Sommer, 2009), numerous reports from the field and within the grey literature underscore the importance of addressing this long overlooked challenge for adolescent girls (FAWE, 2008, Sommer & Kirk, 2008, Kirumira, 2004; UNICEF, 2006; Snel, 2003). Girls in many regions of the world are also perceived to be receiving inadequate guidance on the hygiene-related aspects of managing monthly menses. Given the critical importance of keeping girls in school, and assuring they are able to attend and participate to the fullest extent possible, it is essential that the absence of facilities and pragmatic guidance are no longer overlooked as fundamental interventions in school water and sanitation approaches. The physiologic changes of puberty, including the onset of menses, are a natural part of a girl's transition into young womanhood. It is critical that school environments support this transition by providing girl friendly facilities and appropriate menstrual hygiene information. The field of water and sanitation is overdue to address this issue, and to ensure school environments are no longer gender discriminatory in this manner.

**The current status of the field of MHM**

The topic of menstrual hygiene management (MHM) has begun to pervade the water and sanitation program and policy arena, with numerous research or activities being planned or undertaken around the world to better understand and address this challenge for adolescent girls. As the water and sanitation community begins to widely undertake efforts to address the MHM challenges of school girls, it is critical to review what has already been done, and what gaps remain in our knowledge and guidance for program and policy response.

***MHM-related research***

From a research perspective, the knowledge around MHM is growing but remains insufficient. A broad review of existing research pertaining to menstruation, puberty, and schooling is discussed elsewhere (Sommer, 2010). This briefing paper focuses on the existing research that explicitly explored the intersection

between menstruation and girls' education. This illustratively includes published reports on case studies conducted in Uganda, Zimbabwe, Kenya and Ghana that documented girls' experiences of sexual maturation and schooling (Kirumira, 2001; FAWE 2008); an in-depth comparative case study conducted in Tanzania that explored girls' experiences of menstruation and education using participatory methodologies with girls in and out of school (Sommer, 2009); a small randomized control trial that introduced a menstrual cup (a silicone shaped device that is inserted to collect menstrual blood) as a potential intervention to improve school attendance in Nepal (Oster & Thornton, *forthcoming*); and a small pilot study introducing sanitary pads and puberty information in Ghana to determine impact on attendance (Scott et al, 2009). These studies have provided a foundation for supporting the importance of addressing MHM, and more specifically, have begun to capture girls' own voiced experiences of the challenges they face in managing menses in school. Of equal importance is the research conducted by non-governmental organizations (NGOs) as formative assessments for country-specific programming that are discussed below. Additional research projects are underway but are not yet to date written up for review (e.g. APHRC/Kenya, LSHTM/Emory University).

Gaps in the current knowledge base include country-specific research that explores beliefs around menses in local contexts; local priorities around MHM for school girls; and culturally and environmentally appropriate mechanisms for disposing of used sanitary materials in local contexts. Research is also needed to evaluate packages of interventions to ascertain the most cost-effective and impactful approaches for making school environments more accessible and comfortable for menstruating girls. To date, the research with girls suggests their comfort and dignity will most effectively be met if synergistic approaches are utilized that include private, safe, clean and sufficient numbers of sanitation facilities, with locks inside doors; adequate water availability inside or next to the latrines; culturally appropriate disposal mechanisms that are near to latrines; and pragmatic guidance on managing menses. In some settings, girls have requested access to affordable sanitary materials, such as pads, along with underwear or under-shorts that can provide an additional protection for menstruating girls who are fearful of having an accident while in school.

#### ***MHM-related programming***

From a programmatic standpoint, there are projects underway and others being planned that address MHM challenges that school girls' face in a variety of countries. An illustrative list includes BRAC in Bangladesh which has provided puberty guidance and produced and distributed low cost sanitary pads (BRAC, 2010), and WaterAid/Bangladesh, which recently assessed the specific challenges faced by girls, and is developing interventions to respond (Ahmed & Yesmin, 2010). In Nepal and India, WaterAid has developed MHM-related interventions that include raising awareness about the MHM challenges girls face, and attempting to overcome the secrecy and taboo that surrounds the topic and inhibits effective responses (WaterAid, 2009). In Ethiopia, Proctor & Gamble has partnered with Save the Children to provide sanitary materials to school girls, along with upgrading water and sanitation facilities in schools. In Kenya, Johnson & Johnson is partnering with Duke University to conduct a similar intervention in schools, and the Huru Initiative is producing low cost sanitary materials to be distributed to school girls. In Tanzania, a girl's puberty book has been developed based on participatory work with girls that aims to empower and inform girls around managing menses in schools ([www.growandknow.org](http://www.growandknow.org)); and in Sierra Leone and India, UNICEF has assisted in the development of MHM guidance materials for girls. Other projects are underway by the International Water and Sanitation Center, the Forum for African Women Educationalists (FAWE) in Uganda, and SHE (Sustainable Health Enterprises) in Rwanda. Activities range from addressing the insufficient facilities in schools, to raising awareness among girls, teachers and communities, to producing low cost sanitary materials for girls.

This is an illustrative list of existing interventions, as the number continue to grow, and there is not as of yet an effective mechanism for channelling all of the existing activities around this topic. A research roundtable hosted by the SHARE consortium at WaterAid/London in November 2010 proposed, amongst other key recommendations, that a forum for improving MHM-related communications be created.

Evaluation of MHM interventions brings certain challenges that must be considered as projects are designed, baseline data collected, and measurement outcomes planned. Key indicators that donors and policy makers would like to see include improved attendance, participation, and completion of schooling; and within the education community, improved achievement and performance. Although it would be ideal to capture such data to demonstrate the effectiveness of MHM interventions, programmers must be cautious about the validity of such data, and how it can effectively be captured. For example, research suggests that girls are missing hours during the day to manage their menses, or leaving school early to evade having to manage

menses in school. However, if attendance data is not kept meticulously, and is collected by student prefects who cover for their friends, or is collected once a day in the morning, or girls are reporting “sick” rather than the specific reason for their absence, it is difficult to track the impact of menses on school attendance. Newly menstruating girls are often irregular in their menstrual flow, which compounds the challenge of tracking menstrual absences. This is further complicated by the taboo nature of the topic, and the likelihood that girls will not share with a teacher that menses is the cause of absence. As many girls also report difficulty concentrating or participating during menses, an ideal measure would seem to be improved performance. This again poses difficulties as the pedagogy in many of countries includes exams based on rote memorization of material, an approach that may not be the most effective measure of improved concentration during menstrual days. As evaluation is critical, MHM programmers should consider working closely with education and related researchers to most effectively capture the impact of MHM interventions.

### ***MHM-related policy***

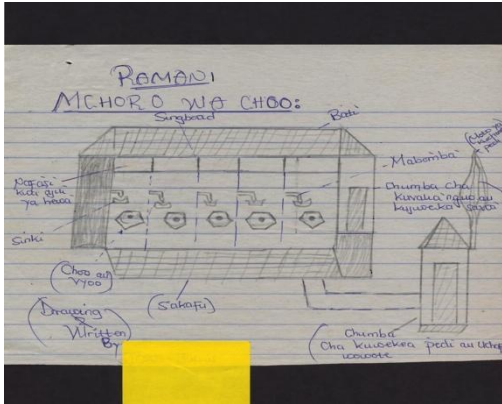
At the policy level, there is less to report, however selected governments and international organizations such as UNICEF are becoming increasingly engaged in raising awareness about the challenges of MHM for school girls, both in development and emergency settings. In specific countries such as Tanzania, MHM is being incorporated into the government’s new water and sanitation guidance that will be implemented in 2011. In India, the governments of selected states have already incorporated the production and distribution of low cost sanitary materials into policy. Discussions at the SHARE MHM meeting in November 2010 suggested that numerous countries are interested in integrating MHM into existing water and sanitation strategies in schools, but lack the relevant guidance about how best to introduce and integrate interventions.

### **Integrating MHM into existing programs**

The recommendation of this briefing paper is that MHM should not be perceived as an entirely new area of programming for governments, NGOs, and international agencies. The preferred and likely most effective approach is to integrate MHM into existing water, sanitation, and hygiene approaches, subsequent to country-specific formative assessments conducted with girls, parents, and school staff, to assure there is understanding of local menstrual meanings and beliefs, knowledge about particular MHM challenges within a country’s education system, and clarity on cultural beliefs surrounding mechanisms for disposal of used materials. Identifying the most cost effective approaches remains to be done, however recommendations include low cost approaches such as placing buckets of water inside of latrines, building pits or small incinerators for burning of used materials, and developing low cost information materials such as the girl’s puberty book done in Tanzania (currently \$0.50/copy). Related, standardized indicators are needed to monitor interventions and assess impact at the individual girl and school environment levels.

It is essential to capture girls’ own voiced experiences of managing menses in school, and their perspectives and recommendations for how to make school environments more “girl friendly.” Figure 1 was drawn by a 15 year old girl during the in-depth participatory research with girls conducted in Tanzania (Sommer, 2009). The drawing helps to identify those aspects that are essential to the girls themselves, including having a water source inside the latrine stall for washing off blood from hands and skirts, or rinsing of used menstrual cloths; an incinerator that is located nearby to the latrines so girls do not need to walk a long distance in front of their school mates, and particularly not in front of males, to dispose of used materials; and latrines with locks inside each door so that girls can have privacy while managing their monthly menses.

## Future steps for MHM research, programming and policy



**Figure 1. A girl's drawing of the "perfect toilet"**

Source: Sommer

This briefing paper should not be viewed as covering the entire range of research and activities that currently exist or are being planned around MHM. As mentioned above, a comprehensive forum for improving MHM-related communications is needed to assure all the relevant research and programming-related information on MHM can more easily be shared and discussed for global and country learning purposes. This paper can be viewed as an attempt to highlight the key areas of MHM-related activity that are underway, and those areas that are in need of further attention. A final area that was not explicitly discussed above is that of school girls in emergency contexts who are struggling to manage menses in environments with even less privacy.

The global and local water and sanitation community can lead the way in all of these efforts, through collaboration with health and education researchers and programmers, and government policy makers.

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### Contact details

Marni Sommer

Mailman School of Public Health, 722 W. 168<sup>th</sup> Street, Room 540, New York, NY 10032.

Tel: 1-212-305-1826 Email: [ms2778@columbia.edu](mailto:ms2778@columbia.edu)

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