

## **CASE: Menstrual Hygiene Management for School-Age Girls**

### **Background:**

In recent years, menstrual hygiene management (MHM) – and the challenges it poses for schoolgirls in low-income contexts – has become increasingly recognized as a public health issue (Sommer et al, 2015). Although there is limited and mixed evidence about the potential for reproductive tract infection associated with using non-sterile materials for MHM, reductions in bacterial vaginosis through provision of hygienic products could reduce girls' susceptibility to sexually-transmitted infections, including HIV (Anand et al, 2015; Phillips-Howard et al, 2016). The association of reproductive tract infections with use of cloths and rags is likely higher in areas with limited access to a clean water supply as well as where social norms lead women to hide these damp cloths in dark spaces, promoting bacterial growth (Garg, 2010).

While more evidence is needed on the potential impacts of reducing infection, there is an abundance of work demonstrating that lack of appropriate MHM methods and products can result in shame, embarrassment, and absence from school and increased drop-out rates. It is widely recognized that education is not only essential to development and long-term prosperity, but that it also has protective effects on health. These protective effects include delaying sexual debut, increasing safe sex practice, and delaying early marriage and pregnancy (Baird et al, 2010). These protective effects also extend to future generations, since both increased earning potential and higher maternal educational attainment are associated with improvements in key indicators of child health.

In various low- and middle-income contexts, girls cannot access pads due to low supply in non-urban areas, and even where they are available many girls cannot afford to pay for sanitary pads (McMahon, 2011). There is also evidence that adolescent girls engage in transactional sex to obtain sanitary pads, with one study in Kenya reporting over 10% of study participants engaging in sex for money to buy pads and another study in Tanzania where 26% of girls indicated that males had approached them for sex because they knew they started menstruating (Phillips-Howard et al, 2015 & 2016; Tamiru et al, 2015)

Because this is still a newly recognized public health need, there is limited cost-effectiveness data on government subsidized sanitary pads. There have, however, been some preliminary pilot studies to look at the potential impacts of providing pads to school-age girls. One study suggested a significant reduction in STI prevalence (4.3%) as compared to the control group (7.7%; adjusted prevalence ratio 0.54, 95% CI [0.34 - 0.87],  $p=0.012$ ). (Phillips-Howard et al, 2016). Another study in Ghana found a 9 % increase in school attendance after 5 months among girls provided with pads and MHM education (Montgomery et al, 2012). Further evidence is needed to assess impacts on schooling.

### **Assessment:**

Your group has been asked to conduct an ethics analysis as part of the Health Technology Assessment for school-based provision of MHM products. Some preliminary cost estimates are provided below.

	ZAR	USD
Commercial Cost per 10 pack	R18	\$1.80
Cost per period	R36	\$2.60
Cost per student per year	R468*	\$35.92

\* Unit price likely to fall with economies of scale and bargaining power for large purchasing orders.  
Additional costs may be associated with structural interventions such as disposal bins in schools and complementary interventions like educational programs on MHM or provision of undergarments

Please use the accompanying worksheet to analyze this case. At the end of the case discussion, your group must provide a recommendation to:

- Cover for all school-age girls
- Cover for all girls below a certain poverty threshold
- Cover for all girls attending schools where average household is below a certain poverty threshold
- Not cover for anyone
- Other: \_\_\_\_\_ (please specify)

If time allows, you can also identify what additional pieces of information you would want to need to make a more informed decision on this case.

### References:

Anand E, Singh J, Unisa S. Menstrual hygiene practices and its association with reproductive tract infections and abnormal vaginal discharge among women in India. *Sexual & Reproductive Healthcare*. 2015 Dec 31;6(4):249-54.

Baird S, Chirwa E, McIntosh C, et al. The short-term impacts of a schooling conditional cash transfer program on the sexual behavior of young women. *Health Econ* 2010;19(Suppl 1):55–68.

Garg R, Goyal S, Gupta S. India Moves Towards Menstrual Hygiene: Subsidized Sanitary Napkins for Rural Adolescent Girls—Issues and Challenges. *Matern Child Health J* (2012) 16:767–774 DOI 10.1007/s10995-011-0798-5

McMahon S.A., et al. 'The girl with her period is the one to hang her head' Reflections on menstrual management among schoolgirls in rural Kenya. *BMC Int Health Hum Rights*. 2011; 11: 7. Published online 2011 Jun 16.

Montgomery P, Hennegan J, Dolan C, Wu M, Steinfield L, Scott L (2016) Menstruation and the Cycle of Poverty: A Cluster Quasi-Randomised Control Trial of Sanitary Pad and Puberty Education Provision in Uganda. *PLoS ONE* 11(12)

Phillips-Howard PA, Caruso B, Torondel B, Zulaika G, Sahin M, Sommer M. Menstrual hygiene management among adolescent schoolgirls in low-and middle-income countries: research priorities. *Global health action*. 2016;9.

Phillips-Howard PA, Nyothach E, ter Kuile FO, et al. Menstrual cups and sanitary pads to reduce school attrition, and sexually transmitted and reproductive tract infections: a cluster randomised controlled feasibility study in rural Western Kenya. *BMJ Open* 2016;6:e013229. doi:10.1136/bmjopen-2016- 013229

Sommer, M. et al. Comfortably, Safely, and Without Shame: Defining Menstrual Hygiene Management as a Public Health Issue. *American Journal of Public Health*: July 2015, Vol. 105, No. 7, pp. 1302-1311.

Tamiru S, et al. Towards a sustainable solution for school menstrual hygiene management: cases of Ethiopia, Uganda, South-Sudan, Tanzania, and Zimbabwe. January 2015. *Waterlines* Vol. 34 No. 1