Public Health Barriers and Challenges related to Menstrual Health and Hygiene in Jordan

2026

Forward

Menstrual health and hygiene (MHH) remain an unaddressed yet critical dimension of adolescent girls' well-being, dignity, and rights. Despite its profound impact on girls' education, health, and social participation, MHH continues to be shaped by persistent stigma, structural inequities, and gaps in policy and service delivery. This thought paper was written by the Higher Population Council (HPC) and is a reflection of a shared commitment to advancing MHH within Jordan's broader Reproductive Health (RH) agenda. It examines the public health barriers facing adolescent girls and young women, from menarche timing and menstrual hygiene management to broader challenges, such as access to products, Water, Sanitation, and Hygiene (WASH) facilities, and stigma-free information. The analysis is grounded on Jordan's National Strategy for Reproductive and Sexual Health (2020–2030) and aligned to the Sustainable Development Goals E.g. Goal 3.7, Goal 5.6, Goal 6.2, offering actionable insights to support policymakers, practitioners, and partners in designing evidence-based, context-sensitive interventions that treat menstrual health as a fundamental human right and development priority.

The paper recommends a coordinated, systems-level approach that integrates evidence and data generation, comprehensive education, equity-focused financing, and inclusive WASH infrastructure, together with sustained community engagement to shift discriminatory gender norms.

I. Introduction

Menarche represents a key biological and social milestone as its impact is not limited to the biological aspect alone but also extends to multiple social, cultural, and psychological dimensions. In many societies the first menstruation is viewed as a symbolic marker of the transition to “womanhood"[1] and it is surrounded by socially diverse practices and perceptions according to cultural contexts, ranging from celebration and social recognition to silence, stigma, or social restrictions[2,3]. In the Jordanian context, perceptions of menstruation are influenced by a combination of social, cultural, and religious factors, which in turn affect girls’ level of knowledge, family communication, and the nature of their first menstrual experiences[4].

The current paper reviews global and national data on menarche timing and MHH, examining what parents, health providers, and educators can do to better support girls' needs and rights during menstruation. It also explores the role of government in ensuring affordable access to menstrual products, with a particular focus on vulnerable populations. Drawing on evidence-based analysis, the paper bridges individual practices and public policy to suggest practical, implementable actions that make menstruation a safe and dignified experience for every girl.

II. Timing of Menarche and Menopause

Menarche is a fundamental component of RH, which forms an integral part of Universal Health Coverage (UHC). As countries such as Jordan strive to achieve UHC, it is essential to consider how the reproductive health needs of the population are met across all stages of life, from infancy and childhood, through puberty and adolescence, and into adulthood and old age[5]. Globally, the age of menarche has been declining over recent decades[6]. Research on determinants of menarche[7] points to key determinants driving this trend, including nutritional status, rising rates of childhood obesity, and reduced physical activity. Socioeconomic development, urbanization, and psychosocial stress have also been associated with its earlier onset. This shift has important public health implications, as earlier menarches have been linked to heightened risks of depression, early sexual activity, and longer lifetime exposure to reproductive hormones[8].

In Jordan, the Population and Family Health Survey (DHS) 2023 found that approximately 60 per cent of women had begun menstruating by age 13 years[9]. Given global trends and similar likelihood factors in Jordan, an important question emerges: is a similar trend toward earlier menarche also occurring in Jordan?

The age at menarche has clinical significance in diagnosing delayed puberty, as well as various pathological and hormonal disorders. The overall health of the population is also partly influenced by the age at which menarche occurs[10]. DHS 2023 data indicates that the average age at menarche is lowest among women aged 15–19 compared to women in the age cohort 20-49. By age 13, 63.4 per cent of girls aged 15–19 had begun menstruating, compared to 59 per cent of women aged 20–49[11]. Another question concerns the relationship between the timing of menarche and menopause[1]. A study on early menarche[12] attempts to address this question by examining whether the number of births and the age at menarche are related to early or very early natural menopause. This study found that early menarche (<11 years) is a likely factor for very early menopause (<40) as well as for early menopause (40 - 44), with a higher likelihood among women who have never given birth.

Data from Jordan's 2002[13] and 2023[14] DHS reveal a notable rise in reported early onset of menopause across all examined age cohorts particularly among women aged 30–49, 30–39, and 35–39 highlighting a pattern that warrants closer scrutiny. Overall, there is a marked increase in prevalence in the age cohort 30-49 years: from 4.4 per cent to 5.9 per cent over two decades, suggesting a shift in the timing of menopause central to the analysis of early onset of menopause. However, this cross-sectional data does not allow for establishing causality or tracking individual trajectories, limiting the ability to confirm whether this reflects true changes in onset timing.

---

1 WHO defines menopause as the natural and permanent cessation of menstruation, marking the end of a woman's reproductive years due to declining ovarian production and estrogen levels. It typically occurs between ages 45 and 55 and may be accompanied by a transitional phase (perimenopause) with varying physical and emotional changes.

III. Harmful beliefs and practices associated with the onset of menstruation

In recent years, there is a growing momentum to disseminating information, challenging menstrual stigma, taboos, and period poverty[2] through social media campaigns, online educational content, and community-based engagement. Recent studies demonstrate that these platforms can normalize conversations around menstruation, improve menstrual health awareness, and highlight how menstrual experiences are shaped by intersecting inequalities, including gender, disability, socioeconomic status, and humanitarian crises[15]. However, a long path still lies ahead to achieve menstrual health for all as menstruating women and girls continue to face barriers to achieving menstrual health[16].

The barrier of menstrual stigma, rooted in the perception of menstruation as shameful and requiring concealment, has measurable consequences for women's and girls' health literacy, decision-making, and access to reproductive health services[17,18]. In Jordan, this manifests in puberty education that arrives too late and too narrow, often delivered only after menarche and focused on hygiene and religious observance rather than understanding of reproductive anatomy, health and rights. Gender-based social norms enforce silence around menstruation, particularly from male family members, while the cost of menstrual hygiene products place an additional burden on households with limited resources. These challenges are most acutely felt by married adolescents, girls in poverty, and those in displacement settings especially refugees[19] reflecting a broader global pattern of menstrual inequity, but one that is distinctly shaped by Jordan's social, cultural, and economic realities.

Barriers on the supply side that increase the likelihood of school exclusion include weak infrastructure, low-quality education, violence within schools, and inadequate accessibility for children with disabilities pose another challenge. Shortcomings in infrastructure often involve poor WASH facilities, which negatively impact menstrual management and can lead to increased absenteeism and exclusion among girls[20]. Similarly, prevailing harmful beliefs and practices in many societies, such as the notion that a girl becomes ready for marriage after her first menstrual period, expose her to an increased risk of child, early, and forced marriage[21], as well as sexual violence and early and unintended pregnancy. This, in turn, jeopardizes her education and economic opportunities, violates her rights, and can place her life at risk[22]. The economic costs of unmet menstrual health needs are substantial and multidimensional. At the individual level, menstruation-related symptoms contribute to an estimated 8.9 days of lost productivity per woman per year, while unaddressed menstrual needs among girls are closely linked to school dropout, reduced employment prospects, and intergenerational poverty[23]. At the macro level, the failure to invest in menstrual health carries significant economic consequences, conversely, effective management of menstrual symptoms alone could contribute an estimated USD 115 billion to the global economy[24,25]. Menstrual poverty is therefore not merely a health or social issue; it is an economic and political issue.

---

2 UNFPA defines period poverty describes the struggle many low-income women and girls face while trying to afford menstrual products. The term also refers to the increased economic vulnerability women and girls face due the financial burden posed by menstrual supplies. These include not only menstrual pads and tampons, but also related costs such as pain medication and underwear.

IV. Menstrual hygiene management and associated barriers

Access to menstrual hygiene remains a critical and largely unmet global need, with the World Bank estimating that at least 500 million women and girls worldwide lack both adequate facilities and the financial means to manage menstruation effectively[26]. Recognizing this, the World Health Organization (WHO)/ United Nations Children's Fund (UNICEF) Joint Monitoring Programme (JMP) has begun developing indicators to track global progress on menstrual health within the SDG framework[3], signaling a broader normative shift toward treating menstrual hygiene not as a private concern, but as a measurable public health and rights obligation. Additionally, in Jordan the institutionalization of MHH indicators remains limited, since a fully established national MHH indicator framework is not yet in place; monitoring instead relies on WHO/UNICEF Joint Monitoring Programme indicators, survey-based data, and programmatic reporting by actors including the United Nations Population Fund (UNFPA) and civil society organizations, key gaps persist in the routine measurement of dimensions such as privacy, dignity, and stigma, as well as in the integration of MHH indicators into national WASH and health information systems, resulting in fragmented data that limits effective policy and planning[27].

In the Population and Family Health Survey[28], previously married women aged 15–49 whose last menstrual period occurred within the past year were asked about the menstrual hygiene products they use, including disposable pads, tampons, reusable pads, menstrual cups, cloth, toilet paper, and/or medical cotton. The results show that 96 per cent reported using disposable pads, while only 4 per cent reported using reusable pads. While these figures describe overall patterns of use, they do not capture potential differences across socioeconomic groups, which may mask inequities in access, affordability, and choice of menstrual products. Drawing on a large mixed-methods study combining surveys of nearly 3,000 participants with longitudinal qualitative interviews, Gender and Adolescence: Global Evidence (GAGE) endline data illustrates: while 83 per cent of young females reported using pads, 8 per cent faced difficulties managing their periods, with cost (49 per cent), product unavailability (44 per cent), lack of privacy (36 per cent), and insufficient access to soap and water (33 per cent) were identified as primary barriers[29]. These figures show menstrual health inequality, reflecting both unequal access to products and services and broader systemic inequities driven by poverty, gender inequality, and structural exclusion. Girls with disabilities face compounded neglect, with their reproductive health needs often overlooked, and in some cases resulting in hysterectomy as a perceived management option[30].

GAGE endline findings[31] also reveal significant gaps across knowledge, social, and infrastructural dimensions of menstrual health in Jordan. Puberty education being delivered with a limited scope, reflected that only 38 per cent of young people understood the link between menstruation and fertility, with awareness particularly low among boys. This raises questions about the gendered nature of menstrual and more broadly, reproductive health education, and the missed opportunity to engage boys in MHH awareness. Social stigma further

3 Globally recognized human rights that may be negatively affected by the treatment of women and girls during menstruation include the right to health, the right to education, the right to work, the right to non-discrimination and gender equality, and the right to water and sanitation.

shapes girls' experiences, with over half reporting embarrassment or fear when seeking menstrual products from family members. At the school level, while 57 per cent of girls reported adequate menstrual facilities, this proportion dropped to 44 per cent among girls with disabilities, highlighting the need for more inclusive infrastructure and support. With over 40 per cent of girls reporting the absence of basic or appropriate facilities, these findings point to a system-wide gap calling for strengthening school WASH services, with accessibility and inclusivity as core design principles. Collectively, these findings point to the importance of strengthening the enabling environment for menstrual health across education, family, and social systems in a more coordinated and equity-centered manner. A related UNFPA study[32] of 171 women and girls aged 15–49 found that puberty is widely perceived as a difficult and distressing experience, with 90 per cent reporting negative emotional responses. Information is primarily shared within female family networks, particularly mothers, yet 95 per cent of participants remain uncomfortable disclosing menstruation. Many continue daily activities despite pain or conceal symptoms due to stigma. These findings underscore menstruation as both a health and social experience shaped by silence and stigma, pointing to the need for broader societal responses that go beyond the household, including improved services, better pain management, and wider engagement of boys, men, and community influencers in shifting norms.

V. Policy and Program Recommendations

1. Global evidence suggests shifting patterns in menarche and menopause milestones, but the absence of longitudinal and comparative analysis across age cohorts in Jordan limits confirmation of changing patterns. **Thus, it is important to advocate for trend analysis in onset of menarche and menopause to enhance public policy and inform programming on the emerging structural gap in health education at a critical development stage.**

2. Earlier biological onset combined with delayed education creates a structural knowledge gap at a critical developmental stage. Delivering education post-menarche is misaligned with epidemiological trends and undermines informed decision-making. **Thus, it is important to integrate standardized, age-appropriate, rights-based menstrual health education into school curricula for both girls and boys before menarche, aligned with national reproductive and adolescent health frameworks.** It is also important to engage key community influencers, including religious leaders and health professionals, to strengthen awareness and reduce stigma, while reinforcing linkages between the education and health sectors through schools and healthcare facilities to expand and sustain MHH outreach.

3. While overall product use is high, affordability remains a binding constraint for vulnerable groups, indicating gaps in universal coverage. Given a case for state intervention in fiscal space, it is recommended **to advocate and strengthen universal budget subsidies through social protection schemes, and tax reforms to reduce cost barriers for access to menstrual products.**

4. Inadequacy of school infrastructure contributes directly to educational exclusion and inequality, while gaps affecting girls with disabilities point to systemic design shortcomings and the need for inclusive infrastructure planning. **It is therefore recommended to prioritize upgrading WASH facilities to meet menstrual health needs, including privacy, water, soap, disposal systems, and accessibility for girls with disabilities.**

5. Stigma functions as a structural barrier that limits access to services and information, meaning that supply-side improvements alone are insufficient without addressing social norms. **It is important to design and implement community engagement and gender responsive behavior change interventions involving families, educators, and men and boys to normalize menstruation and reduce stigma.**

6. Policy design is currently constrained by fragmented and lack of cross-sectional data. Absence of evidence, baseline and analytical data limits evidence informed planning and implementation. **It thus is important to establish routine national indicators, institute data collection, monitoring and analysis, while promoting evaluative and good practice research.**

This work was made possible through support from UNICEF and funding contributions from the Government of the United Kingdom's Foreign, Commonwealth & Development Office and the Government of the Netherlands through the PROSPECTS partnership, whose investments continue to strengthen systems that protect, educate, and create opportunities for vulnerable adolescents across Jordan. We would like to thank the writers and reviewes: Prof. Issa Almasawrweh, Ali Almetleq, Woroud Albtoush, Razan Alazzeh, Helen Belachew, Jesus Trelles, Leonardo Menchini.

References

1 Do Amaral, M. C., Hardy, E., & Hebling, E. M. (2011). Menarche among Brazilian women: Memories of experiences. Midwifery, 27(2), 203–208. https://doi.org/10.1016/j.midw.2009.05.008

2 Marván, M. L., Morales, C., & Cortés-Iniestra, S. (2006). Emotional reactions to menarche among Mexican women of different generations. Sex Roles, 54(5–6), 323–330. https://doi.org/10.1007/s11199-006-9002-6

3 Uskul, A. K. (2004). Women's menarche stories from a multicultural sample. Social Science & Medicine, 59(4), 667–679. https://doi.org/10.1016/j.socscimed.2003.11.031

4 Al Omari, O., Razeq, N. M. A., & Fooladi, M. M. (2016). Experience of menarche among Jordanian adolescent girls: an interpretive phenomenological analysis. Journal of pediatric and adolescent gynecology, 29 (3), 246-251. https://doi.org/10.1016/j.jpag.2015.09.005

5 United Nations Population Fund (UNFPA). (2019). Sexual and reproductive health and rights: An essential element of universal health coverage. Background paper for the Nairobi Summit on the 25th anniversary of the International Conference on Population and Development (ICPD+25). https://www.unfpa.org/featured-publication/sexual-and-reproductive-health-and-rights-essential-element-universal-health

6 The DHS Program. (n.d.). StatCompiler. https://lnk.ua/rCCbmt0bv

7 Karapanou, O., & Papadimitriou, A. (2010). Determinants of menarche. Reproductive Biology and Endocrinology, 8, 115. https://doi.org/10.1186/1477-7827-8-115

8 Ibid

9 Department of Statistics (Jordan) & ICF. (2024). Jordan Demographic and Health Survey 2023 (JPFHS 2023). https://dosweb.dos.gov.jo/DataBank/Population/Health/DHS2023_Survey.pdf

10 Tarannum, F., Khalique, N., & Eram, U. (2018). A community-based study on age of menarche among adolescent girls in Aligarh. Int. J. Community Med. Public Health, 5, 395-400. https://doi.org/10.18203/2394-6040.ijcmph20175820

11 Ibid

12 Mishra, G. D., Pandeya, N., Dobson, A. J., Chung, H. F., Anderson, D., Kuh, D., Sandin, S., et al. (2017). Early menarche, nulliparity and the risk for premature and early natural menopause. Human reproduction (Oxford, England), 32(3), 679–686. https://doi.org/10.1093/humrep/dew350

13 Department of Statistics (Jordan). (2002). Jordan Demographic and Health Survey 2002 (JPFHS 2002). https://dhsprogram.com/publications/publication-fr138-dhs-final-reports.cfm

14 Ibid

15 Thakur, S., Suri, C. S., Dosajh, B., Amika, A., & Grover, N. (2025). New Media as a Tool for Menstruation Hygiene Awareness: A Systematic Review. Journal of Neonatal Surgery, 14(32S), 1210–1218. Retrieved from https://jneonatalsurg.com/index.php/jns/article/view/7525

16 Drzewiecki, J., Jin, R., Concina, G., & the JRS Global Education Team. (2024). The state of menstrual health & hygiene (MHH) in JRS – 2024 report. Jesuit Refugee Service. https://jrs.net/wp-content/uploads/2024/05/The-State-of-MHH-in-JRS-2024-FINAL-28-May-2024.pdf

17 van Lonkhuijzen, R. M., Garcia, F. K., & Wagemakers, A. (2022). The Stigma Surrounding Menstruation: Attitudes and Practices Regarding Menstruation and Sexual Activity During Menstruation. Women's Reproductive Health, 10(3), 364–384. https://doi.org/10.1080/23293691.2022.2124041

References

18 Plan International. (n.d.). Menstruation. https://plan-international.org/srhr/menstruation/.

19 Presler-Marshall, E., Luokenbill, S., Jones, N., Alheiwidi, S., Baird, S., Leung, S., Al Amaireh, W., Alabbadi, T., & Shareef, Q. (2025). Young people's sexual and reproductive health in Jordan: Evidence from the GAGE endline. Gender and Adolescence: Global Evidence (GAGE). https://api.gage.odi.org/media/8209_endline-srhweb.pdf

20 UNICEF & Ministry of Education Jordan. (2020). Middle East and North Africa out-of-school children initiative: Jordan country report on out-of-school children (p. 80). https://www.unicef.org/jordan/media/5501/file/OSC-Report-EN.pdf

21 Shah, S. F., Punjani, N. S., Rizvi, S. N., Sheikh, S. S., & Jan, R. (2023). Knowledge, Attitudes, and Practices Regarding Menstrual Hygiene among Girls in Ghizer, Gilgit, Pakistan. International journal of environmental research and public health, 20(14), 6424. https://doi.org/10.3390/ijerph20146424

22 United Nations Children's Fund (UNICEF). (2019). Guidance on menstrual health and hygiene. UNICEF. https://www.unicef.org/media/91341/file/UNICEF-Guidance-menstrual-health-hygiene-2019.pdf

23 Schoep, M. E., Adang, E. M. M., Maas, J. W. M., & Nieboer, T. E. (2019). Productivity loss due to menstruation-related symptoms: A nationwide cross-sectional survey among 32,748 women. BMJ Open, 9(6), e026186. https://doi.org/10.1136/bmjopen-2018-026186

24 McKinsey Health Institute. (2024). Closing the women's health gap: A $1 trillion opportunity to improve lives and economies. McKinsey & Company. https://www.mckinsey.com/mhi/our-insights/closing-the-womens-health-gap-a-1-trillion-dollar-opportunity-to-improve-lives-and-economies

25 Ibid

26 Sara, J. J., Grown, C., Keener, S., Hatzfeldt, G., & Kuoh, G. (2021). Menstrual health and hygiene empowers women and girls: How to ensure we get it right. World Bank Blogs. https://blogs.worldbank.org/en/water/menstrual-health-and-hygiene-empowers-women-and-girls-how-ensure-we-get-it-right

27 UNICEF, & WaterAid. (2024). Assessing national monitoring of menstrual health and hygiene: Synthesis of learning from four countries. UNICEF Knowledge Hub.https://knowledge.unicef.org/wash/resource/assessing-national-monitoring-menstrual-health-and-hygiene-synthesis-learning-four

28 Department of Statistics (Jordan) & ICF. (2024). Jordan Demographic and Health Survey 2023 (JPFHS 2023). https://dosweb.dos.gov.jo/DataBank/Population/Health/DHS2023_Survey.pdf

29 Ibid

30 United Nations Population Fund. (2022). Menstruation and human rights – Frequently asked questions. UNFPA. https://www.unfpa.org/menstruationfaq

31 Ibid

32 United Nations Population Fund (UNFPA) Jordan. (2022). Period poverty policy paper: Menstrual hygiene management and access in Jordan. https://jordan.unfpa.org/en/publications/period-poverty-policy-paper-menstrual-hygiene-management-and-access-jordan

Supported by:



