

Research, Monitoring and Evaluation

Technical Brief



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Key messages



- The lack of validated measures for evaluating and addressing menstrual health within global health and development is a significant challenge, both in terms of qualitative and quantitative assessments. This absence of standardized measures hinders the evaluation of outcomes and the development of effective programmes targeting menstrual health interventions.
- Household surveys such as UNICEF-supported Multiple Indicator Cluster Surveys (MICS) and Johns Hopkins University's Performance Monitoring and Accountability 2020 (PMA2020) have started including questions on menstrual health, but the lack of consistency across different tools and datasets makes it challenging to produce comparable international estimates.
- Also, the lack of uniformity in tools used to research, monitor and evaluate menstrual health and the absence of clear definitions for core concepts pose challenges in comparing and measuring menstrual health outcomes.
- There is a recognized need for further research on menstrual health, particularly in understanding the interconnections between menstrual health, its determinants and its consequences.
- Research on menstrual health is important for understanding the needs of women, girls and people who menstruate and to also improve programming through evidence-based interventions. Additionally, strengthening the evidence base can help identifying research/policy priorities to help guide decisionmakers in allocating resources effectively.

Introduction and background



Menstrual health has gained recognition as a crucial public health issue due to continuous advocacy efforts at the local, regional, national and global levels.

As articulated by Hennegan et al. (2021a), menstrual health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in relation to the menstrual cycle. It includes the ability to manage menstrual hygiene effectively, access to safe and affordable menstrual products, and facilities to dispose of used menstrual materials. Additionally, menstrual health involves access to accurate information and education on menstruation and

related topics, as well as the ability to participate fully in all aspects of society, free from the stigma and discrimination associated with menstruation. Menstrual health plays a critical role in achieving the United Nation's Sustainable Development Agenda, improving global population health and advancing gender equality (Sommer et al., 2015; Hennegan et al., 2021a). In the last decade, a growing body of evidence focused on menstrual health has emerged which has revealed that menstruation continues to be a challenge for women, girls and those who menstruate globally and including Africa. While awareness of menstrual-related challenges has grown in recent years, there is still a need for increased investment in research, monitoring and evaluation of menstrual health interventions to develop a better understanding of what works and what does not work in order to address individual needs around menstruation holistically.

Although researchers and practitioners alike, have sought to evaluate the efficacy of menstrual health interventions and track advancements in the field, there are several gaps in terms of conceptual and definitional consistency of menstrual health-related constructs, indicators and validated measures to evaluate and address menstrual health within global health and development. Furthermore, despite an increasing amount of literature on menstrual health, there is still a lack of understanding of the complexities and interlinkages surrounding this topic, mainly because menstrual health is often shaped by social and cultural beliefs that impact attitudes towards menstruation. Moreover, there is a need for a deeper understanding of menstrual beliefs and practices to fully comprehend the various constraints, restrictions and pressures that exist in a particular socio-cultural context and in many countries throughout Africa.

To explore this and other, interrelated topics with menstrual health, the UNFPA East and Southern Regional Office (ESARO) and the African Coalition for Menstrual Health Management convened menstrual health symposia in May 2021 and May 2023. These symposia have generated a breadth of knowledge about the status of menstrual health in the African context, which have informed the findings and recommendations in this technical brief (UNFPA, 2021; UNFPA, 2023). During the 2023 symposium, a dedicated session was held on research, monitoring and evaluation entitled, 'Prioritising Research, Monitoring, Evaluation and Learning (RMEL) on Menstrual Health in Africa,' which highlighted an integrated model of the menstrual needs practice scale which aims to develop understanding of the different aspects which lead to absenteeism, employed by Femme International in Tanzania; an adapted Menstrual Practice Needs Scale (MPNS-36) model, which removed some aspects relating to household context, and an adapted standards advocacy toolkit to support menstrual product standards development, validating results and dissemination.

Purpose and scope

At the 2023 Africa Menstrual Health Symposium, stakeholders came together to make substantial strides in understanding and planning for comprehensive, multi-sectoral menstrual health interventions of the future. This technical brief

provides an up-to-date summary of key evidence related to menstrual health with the main aim of presenting available information on research, monitoring and evaluation in relation to menstrual health in Africa.

This technical brief also builds upon and serves as an update of key literature on menstrual health focused on the region namely, Siri Tellier and Maria Hyttel's 2018 Menstrual Health Management in East and Southern Africa: Review Paper (Tellier, Hyttel, 2018), the Technical Brief on the Integration of Menstrual Health into Sexual and Reproductive Health and Rights Policies and Programmes (UNFPA ESARO, 2021) and the 2021 Report of the Africa Symposium on Improving Menstrual Health Management (ACMHM, UNFPA, 2021).

Methodology

This technical brief presents the findings of a rapid literature review of academic and grey literature using a scoping review methodology, with a focus on the period from 2018 to 2023. To conduct a rapid literature search, search terms were used through relevant websites, databases, or search engines such as PubMed and Google Scholar. Relevant studies and/or programmes conducted in the African region¹ were included in the search and inclusion/exclusion criteria applied. Information extracted from the rapid review was analysed and grouped thematically and key findings are presented below.

There are limitations to this methodology that should be acknowledged, given the general scope and limited resources. Furthermore, the rapid review does not approximate an academic systematic review, or an attempt to assign quality to sources. Additionally, in instances where there was limited literature from African countries, relevant global literature was included. However, while this methodology has limitations, given the general scope and limited resources, it provides an overview of recent literature, gaps in existing evidence and recommendations for future implementation derived from existing literature in relation to research, monitoring and evaluation of menstrual health initiatives throughout Africa. Furthermore, this brief uses the term 'women, girls and people who menstruate' to be inclusive of all individuals who do not identify as female, but still experience menstruation.

1 Countries of relevance included the 54 African countries covered by UNFPA regional offices at the time of review



Current evidence



Menstrual health and the sustainable development agenda

Although there is growing global attention to menstruation as an important health, education and gender equality issue, there is a lack of both qualitative and quantitative validated measures to evaluate and address menstrual health within global health and development (Wilson et al., 2021; Plesons et al., 2023; Sommer et al., 2019). Furthermore, the absence of standardized measures for assessing menstrual-related interventions limits both evaluation of outcomes and development of effective programmes (Sommer et al., 2019).

Menstrual health is also a crucial component of the 2030 Sustainable Development Agenda, especially in achieving several Sustainable Development Goals (SDGs). Although there is no specific goal or indicator devoted exclusively to menstrual health in the 2030 Agenda, monitoring progress through these indicators is crucial to verify that tangible progress is occurring at the local, national and global levels. This is especially important, considering that menstrual health is a fundamental component of reproductive health, population health and comprehensive sexuality education; educational attainment or menstrual-related absenteeism for young girls; gender equality and human rights; and gender-sensitive water, sanitation and hygiene (WASH) (Tellier and Hyttel, 2018; Wilson et al., 2021; Schmitt et al., 2018). According to Loughnan et al. (2020) evaluating progress towards the SDGs must include an explicit and comprehensive analysis of whether the menstruation needs of people who menstruate are being met in order to show progress on multiple goals namely 3, 4, 5, 6, 8 and 12 (Sommer et al., 2021), however, the Global Advisory Group's publication on the priority list of indicators indicates that there was a proximal or distal link of menstrual health to the achievement of all 17 SDGs (Sommer et al., 2019). Sommer et al. (2020) also highlights the need to define issues relating to menstrual health in an effort to identify potential solutions.

Examples of promising tools for menstrual health monitoring

Although several documents described a lack of menstrual health-related data and indicators across study contexts, several studies presented novel tools which demonstrate promise for advancing research, monitoring and evaluation efforts of menstrual health. A search for additional organizational guidelines yielded UNICEF's 'Guidance for Monitoring Menstrual Health and Hygiene' (UNICEF, 2020); Monitoring Menstrual Health and Hygiene: Measuring Progress for Girls related to Menstruation (Sommer et al., 2019); and The Menstrual Practice Needs Scale (MPNS-36): User Guide (Hennegan et al., 2020d). Additionally, the MPNS-36 demonstrates promise, offering a way to test relationships between overarching menstrual practice experience and education, health, well-being and social participation in cross-sectional or longitudinal studies, which could be applied in needs assessments or NGO monitoring and evaluation (Hennegan et al., 2020b). Moreover, the Menstrual Practices Questionnaire is a flexible tool for standardizing the assessment of menstrual practices in self-report surveys. It encourages researchers to consider a wide range of practices and reduces the burden of generating comprehensive survey items. The Menstrual Practices Questionnaire has been piloted with adolescent girls and can be modified for use in adult populations and aims to support the comparability of menstrual practice data over time and improve the refinement of practice-related questions (Hennegan et al., 2020c).

Data collection tools for menstrual health monitoring

Several household surveys, such as UNICEF-supported MICS (UNICEF, 2020) and Johns Hopkins University's PMA2020 surveys (Hennegan et al., 2021b), have included menstrual health-related questions in recent years, although the inconsistency across different tools and datasets pose a challenge for producing comparable international estimates. UNICEF-supported MICS have been carried out in more than 100 countries, covering a diverse range of subjects related to the health and well-being of children and women. Since 2017, these surveys have included new inquiries about menstrual health. Additionally, PMA2020 surveys, conducted by Johns Hopkins University in 11 countries, have focused on family planning and WASH and have placed greater emphasis on menstrual health, encompassing a wide range of questions about it. Although menstrual-related questions may be included in other nationally-representative household surveys, the absence of uniformity across existing tools and datasets make it difficult to produce comparable international estimates (Loughnan et al., 2020).

Furthermore, the literature from the rapid review has shown that surveys which focus on monitoring population health and sanitation are now increasingly including questions related to menstrual health. However, since there are no standardized indicators, these surveys generally gather data on the type of menstrual products utilized (Smith et al., 2020). Other studies like Sommer et al. (2018) which describe the piloting of a toolkit for menstrual hygiene management in refugee camps in northwest Tanzania detail how monthly monitoring reports track progress and uptake of the toolkit to improve menstrual health response capacity and coordination, including monitoring efforts. Additionally, monthly environmental inspections of menstrual health supportive infrastructure were conducted from the onset to completion of the project to identify design gaps and areas for improvement, such as examining toilet facilities, washing facilities and disposal systems at both the household and facility levels (Sommer et al., 2018). The study also generated valuable insight on how menstrual screening questions can be integrated into existing questionnaires and thus programming when the correct circumstances are met (Sommer et al., 2018).

Improving instruments and indicators for monitoring menstrual health

Several studies reviewed included the development or use of novel instruments or standardized tools for monitoring menstrual health and assessing changes over time, making a vast contribution to enhancing research, monitoring and evaluation of menstrual health. These tools were developed in response to increasing focus on menstrual-related barriers facing adolescent girls and women. Such tools are also key to defining and monitoring menstrual health which can in turn support the identification of potential solutions and funding sources. For example, one study on the pilot and validation of a new measure to capture respondents' perceptions of their menstrual management needs (MPNS-36) in Soroti, Uganda found that the instrument has high face validity and evidence of content validity, reflecting experiences across a range of practices. Authors also suggested that the total and subscale scores could be useful in a needs assessment or when monitoring and exploring intervention impact (Hennegan et al., 2020b).

A study focused on enumerator perspectives and insights from carrying out a large-scale survey using the PMA2020 tool in Niamey, Niger, found that although menstruation was considered a sensitive 'women's issue' in this context, questions about menstruation (e.g., materials and locations for menstrual management) were accepted and mostly understood. In this study, enumerators also reported that questions relating to menstrual health were considered less challenging in terms of gaining trust and responses than those addressing sexual practices (Larson et al., 2021). However, the study also identified some challenges with the instrument, for instance, that if a woman reported separate locations for cleaning and changing, more time to clarify was required. Additionally, when asked to rate facilities used for managing menstruation, field staff reported inconsistencies relating to their clarification of 'clean,' 'private' and 'safe' terms (enumerators reported sharing definitions based on their individual understanding of the terms) (Larson et al., 2021). Furthermore, it was mentioned by enumerators that respondents using commercial materials often responded with the brand name in this context, suggesting potential adaptation of the survey tools to include common brands of menstrual products

Overall, the perspectives of enumerators on survey tools highlight the need of consistent and universal definitions for key concepts that are fundamental to developing an understanding of menstrual health. Development of standard definitions of clean, private and safe may also further enhance future efforts to menstrual health programmatic monitoring in other contexts. Study findings also indicate that questions which seek to capture the privacy and safety aspects of menstrual health may require further modification or more intensive training efforts to capture these concepts properly and consistently and ensure data quality. Furthermore, authors suggested a possible social desirability response bias triggered by feelings of shame and embarrassment around perceived lower quality menstrual health products and practices which may have pushed some respondents to provide untrue or less complete responses (e.g. type of material and drying of reusable absorbents) (Larson et al., 2021). However, it should be further acknowledged that potential social desirability bias can affect many domains and is not unique to menstrual health. Finally, enumerators expressed that a 12-month recall period for reporting school absenteeism was too long and suggested a shorter period closer to three or six months (Larson et al., 2021). While reflections regarding recall periods have also been described at length in other studies as well (Hennegan et al., 2021b).

(Larson et al., 2021). Larson et al. (2021), further emphasizes the importance of including common brands in enumerator training to avoid potential misinterpretation, noting that this will be increasingly important as reusable products achieve greater market penetration. These sentiments were further echoed by Hennegan et al. (2020a) who suggest that in order to improve measurement in menstrual health and hygiene research, researchers must revisit the definitions of core concepts and how such concepts are operationalized.

Additionally, to identify and test solutions or strategies that address menstrual health needs and

justify investments from aid and donor organizations and government, rigorous outcome measures need to be developed further. Sommer et al. (2020) discusses the need for rigorous outcome measures in evaluating menstrual health interventions, particularly for development and donor organizations that require quantitative measure to justify their investments. It was further suggested that this could be done effectively by embedding menstrual health into a structured model or framework such as a Theory of Change (ToC) to ensure proper monitoring of menstrual-related outputs, outcomes and impacts (Sommer et al., 2020). Use of a menstrual health ToC may also contribute to strengthening the quality and impact of interventions and further improve the consistency of delivery approaches. Additionally, the monitoring and evaluation framework will describe and measure any changes resulting from the development, introduction and use of the menstrual health interventions utilizing the ToC framework with a focus on identifying existing standard menstrual health indicators and structuring their correct and timely measurement in target populations.

A study by Hennegan et al. (2020a) noted that core concepts pertaining to menstrual health were defined differently in each study or lacked clear definitions entirely thus preventing comparisons across the evidence base. The study further reports that the unclear labelling of core concepts was particularly problematic when examining menstrual and hygiene practices, menstrual knowledge, and menstrual attitudes, norms, beliefs and restrictions. This may also be further clarified in publications where few of the studies reviewed reported the questions used to assess menstrual and hygiene practices, making unclear the recall periods used, question structure and response options (Hennegan et al., 2020a). Additionally, although several studies reported measuring menstrual knowledge, the content of knowledge assessments varied, as did the level of detail provided by authors about the topics covered (Hennegan et al., 2020a).

In a secondary analysis of national or state representative data collected by the PMA2020 survey, across eight countries (Burkina Faso, Ethiopia, Ghana, India, Kenya, Niger, Nigeria and Uganda), Hennegan et al. (2018) found that surveys on women's menstrual hygiene practices tend to over represent the experiences of certain demographic

groups such as more educated, wealthier and urban women, as well as younger and single women, who are more likely to be menstruating and therefore eligible to answer questions. The study demonstrates that PMA2020 survey data can provide estimates representative of the population of women, but certain demographic groups may be overrepresented, leading to a smaller proportion of practices reported by poorer, rural and less educated women.

Another study that was reviewed focusing on the data collected from the PMA2020 programme's national or state representative surveys in ten countries, including Uganda, Kenya, Ethiopia, Ghana, Burkina Faso, Niger, Nigeria and the Democratic Republic of Congo revealed that the proportion of the population using various types of menstrual materials differed across countries, which provided valuable population-level information on material use. However, the study also found that the use of menstrual pads was not an accurate indicator of sufficient material access, particularly for more disadvantaged and vulnerable menstruating individuals. These findings highlight the limitations of using material type as an indicator of whether menstrual material needs are being met for the relevant populations. Despite its usefulness in providing population-level data, this study confirms the inadequacy of menstrual material use, and menstrual pad use, as indicators of menstrual health (Smith et al., 2020).

Furthermore, Smith et al. (2020) revealed that the use of menstrual materials varied across settings, and no single type of material was consistently associated with having menstrual material needs fully met or unmet. These findings suggest that a one-size-fits-all approach cannot be used by menstrual health practitioners and researchers, and the development of indicators must account for the nuances of the menstrual experience and needs (Hennegan et al., 2020). Although menstrual material use can be applied to measure the uptake of national-level product access initiatives, the study found that it is

not a reliable indicator of whether material needs are being met, especially for disadvantaged groups. Therefore, it is essential to identify or develop accurate indicators of menstrual health at the population level that reflect the experiences of girls, women and people who menstruate and agree on a definition of menstrual health (Smith et al., 2020).

Understanding of menstrual health interlinkages

Although several researchers describe a need for further research on menstrual health, evidence suggests that there is a need to develop further understanding of how menstrual health, determinants and consequences are interlinked. According to Plesons et al. (2021), several international organizations and agencies² initiated a global research collaborative meeting on menstrual health where experts from government, international organizations, NGOs, academia, and donor organizations and young people mapped the state of the field on adolescent menstrual health and generated suggestions for future action and for research, signalling that there is a critical need to better understand how nine domains of menstrual health (awareness and understanding; stigma, norms and socio-cultural practices; menstrual products; water and sanitation; disposal; empathy and support; clinical care; integration with other programmes; and financing), including their determinants and consequences, reinforce each other (Plesons et al., 2021). Furthermore, Hennegan et al. (2019) created a comprehensive model based on qualitative research, which can be used to develop interventions and measures related to various aspects of the menstrual experience. This model emphasizes the importance of considering multiple components of menstrual health³ in designing effective interventions and conducting comprehensive quantitative evaluations (Hennegan et al., 2019).

2 Organizations included the World Health Organization's (WHO) Department of Sexual and Reproductive Health and Research and the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction.

3 The integrated model takes into account the continuum of menstrual experience and acknowledges that resource limitations and the socio-cultural context, including menstrual stigma, play pivotal roles in shaping the negative impacts of menstruation. By recognizing these determinants, the model provides a comprehensive understanding of the multifaceted factors that influence individuals' experiences of menstruation and their subsequent outcomes (Hennegan et al., 2019).

Advancing menstrual health through policy shifts

Undertaking research on menstrual health is crucial for understanding the menstrual needs of girls, women and people who menstruate, and for enhancing programmes by adopting evidence-based interventions to enhance health, well-being and productivity.

The process of identifying research priorities plays a critical role in guiding researchers, policymakers, programmers and funding agencies in determining where to allocate their efforts and resources

(Plesons et al., 2023).

Decision makers often expect data to justify potential interventions for menstrual health but obtaining the necessary data can be challenging. This is especially true for developing equitable and effective policies, as the required data is often lacking. To address this issue, both government and NGOs involved in menstrual health interventions should implement monitoring and learning research mechanisms to demonstrate the effectiveness and scalability of their solutions, and support with data (ACMHM, Days for Girls, UNFPA ESARO, 2021).

A government official from Kenya's Ministry of Health described how the establishment of legal and regulatory frameworks that include monitoring, evaluation, research and feedback mechanisms at the national level can have significant implications in promoting equitable policies. He added that policy changes and government actions at the national level can set a precedent and serve as a model to facilitate the development of strong policies at regional and local levels especially for addressing menstrual health (ACMHM, Days for Girls, UNFPA ESARO, 2021).

Gaps in the existing evidence



Several gaps were identified in the existing evidence which include the following:

- Although there are several studies coming out of East and Southern Africa, few studies had a distinct focus on the African continent, demonstrating a lack of regionally pooled evidence on menstrual health throughout the continent.
- Although over the last decade the definition of menstrual health has evolved, there are still gaps in terms of defining menstrual health-related indicators which often rely on the self-reported use of sanitary pads. However, given that menstrual health is a complex and multifaceted issue, analyses fail to incorporate the full range of determinants, outcomes and impacts (Hennegan et al., 2020b; Plesons et al., 2023).
- The literature reviewed revealed a number of information gaps which should be addressed through further research using rigorous methods to provide evidence to practitioners, policymakers and funders/investors on the impact of various menstrual health interventions (Phillips-Howard, 2016; Sommer et al., 2020). There is currently a lack of quantitative studies which are often needed to support decision-making, evaluate interventions and monitor progress. To date, quantitative studies have struggled to engage with the complexity of menstrual experiences and have been limited by the lack of available measures to capture core concepts. Additionally, Hennegan et al. (2020c) argue that there is a need for high-quality evidence to inform policies and programmes aimed at improving menstrual health. Quantitative studies are essential to fill the existing evidence gaps in this field, and practitioners must enhance their monitoring and evaluation efforts to keep track of progress. However, a major challenge in enhancing the rigor of this work is the lack of comprehensive and comparable measures that can effectively capture the essential components of menstrual health.
- To enhance the understanding of the needs, visions and perspectives of people who menstruate, it is recommended to conduct robust qualitative studies. These studies should employ rigorous methodologies such as in-depth interviews, focus group discussions and ethnographic approaches to capture rich and nuanced insights. By amplifying the voices and experiences of individuals who menstruate, qualitative research can contribute valuable knowledge that informs policy, programming and interventions aimed at addressing menstrual health challenges and promoting menstrual health equity.
- There is a need for future research to investigate biases in reporting menstrual practices and menstrual health in order to improve survey methods. Furthermore, the importance of considering the menstrual health needs of vulnerable women, girls and people who menstruate who may not be represented in population surveys is of critical importance. Additionally, policymakers and funders need to acknowledge such limitations in large-scale surveys and make concerted efforts to both research, monitor and prioritize the needs of the most vulnerable (Hennegan et al., 2018).

Conclusion and recommendations



Overall findings reveal that although advancements have been made in developing data collection tools for menstrual health research and monitoring, further developments are needed. Recommendations for improving research, monitoring and evaluation of menstrual health highlight the need for a comprehensive and holistic understanding of menstrual health concerns. This requires interdisciplinary efforts to ensure consistency in the measurement of menstrual-related practices and behaviours. Additionally, researchers should clearly report the questions used in their studies, and

validated tools should be more readily available to strengthen the evidence base. The recommendations also emphasize the need for more rigorous measurements of menstrual health intervention outcomes and for large-scale surveys to capture vulnerable and disadvantaged populations. Finally, the global development community needs to prioritize and invest in identifying effective and efficient solutions for addressing the menstrual health and management needs of people who menstruate, particularly in non-school settings such as home, community and workplace.

- Since many studies include inconsistent measures of the menstrual-related practices or behaviours, Hennegan et al., (2020a) suggest that interdisciplinary efforts are needed to ensure the conceptual and definitional consistency of these constructs in order to improve future quantitative research in menstrual health, external validity and reliability of menstrual health research and the generalizability of study findings. It is still imperative that concepts such as 'menstrual hygiene,' 'hygiene behaviours' or 'menstrual knowledge, attitudes, norms and restrictions,' need to be consistently defined and operationalized for measurement to ensure comparability across studies and cultural contexts (Hennegan et al., 2020a).
- Develop more rigorous measurement of standard indicators; to quantify the determinants and outcomes of menstrual health and help assess the impact of menstrual health interventions, this can subsequently support the building of an evidence base on effective approaches to address poor menstrual health for practitioners, entrepreneurs, policy makers and funders/investors (Sommer et al., 2020).
- Since the study conducted by Hennegan et al. (2018) found that large-scale surveys on menstrual health practices tend to over represent the experiences of more educated, wealthy, urban, younger and single women. It is critical that vulnerable and disadvantaged women's voices are not minimized, and policy responses and donor funding acknowledge the limitations of this data. Therefore, in order to address this issue, national or state-level estimates of menstrual health should be presented with attention to key demographics such as rural residence or education level (Hennegan et al., 2018).

References



- African Coalition for Menstrual Health Management [ACMHM], Days for Girls, UNFPA ESARO. (2021). *Advancing Menstrual Equity at the Systemic Level Through Policy Shifts and Standards*
- ACMHM & UNFPA ESARO. (2021). Report of the Africa symposium on improving menstrual health management
- Hennegan, J., Winkler, I. T., Bobel, C., Keiser, D., Hampton, J., Larsson, G., ... & Mahon, T. (2021). Menstrual health: a definition for policy, practice, and research. *Sexual and Reproductive Health Matters*, 29(1), 31-38.
- Hennegan, J., Brooks, D. J., Schwab, K. J., & Melendez-Torres, G. J. (2020). Measurement in the study of menstrual health and hygiene: A systematic review and audit. *PLoS One*, 15(6), e0232935.
- Hennegan, J., Nansubuga, A., Akullo, A., Smith, C., & Schwab, K. J. (2020). The Menstrual Practices Questionnaire (MPQ): development, elaboration, and implications for future research. *Global health action*, 13(1), 1829402.
- Hennegan, J., Nansubuga, A., Smith, C., Redshaw, M., Akullo, A., & Schwab, K. J. (2020). Measuring menstrual hygiene experience: development and validation of the Menstrual Practice Needs Scale (MPNS-36) in Soroti, Uganda. *BMJ open*, 10(2), e034461.
- "Hennegan, J., Nansubuga, A., Smith, C., Redshaw, M., Akullo, A., & Schwab, K.J. (2020d). The Menstrual Practice Needs Scale (MPNS-36): User Guide ."
- Hennegan, J., OlaOlorun, F. M., Oumarou, S., Alzouma, S., Guiella, G., Omoluabi, E., & Schwab, K. J. (2021b). School and work absenteeism due to menstruation in three West African countries: findings from PMA2020 surveys. *Sexual and reproductive health matters*, 29(1), 409-424.
- Hennegan, J., Shannon, A. K., Rubli, J., Schwab, K. J., & Melendez-Torres, G. J. (2019). Women's and girls' experiences of menstruation in low-and middle-income countries: A systematic review and qualitative metasynthesis. *PLoS medicine*, 16(5), e1002803.
- Hennegan, J., Shannon, A. K., Schwab, K. J., & PMA2020 investigators. (2018). Wealthy, urban, educated. Who is represented in population surveys of women's menstrual hygiene management?. *Reproductive health matters*, 26(52), 81-91.
- Hennegan, J., Swe, Z. Y., Than, K. K., Smith, C., Sol, L., Alberda, H., ... & Azzopardi, P. S. (2022). Monitoring Menstrual Health Knowledge: Awareness of Menstruation at Menarche as an Indicator. *Frontiers in Global Women's Health*, 32.
- Hennegan, J., Winkler, I. T., Bobel, C., Keiser, D., Hampton, J., Larsson, G., ... & Mahon, T. (2021). Menstrual health: a definition for policy, practice, and research. *Sexual and Reproductive Health Matters*, 29(1), 31-38.
- Larson, E., Turke, S., Miko, N. H., Oumarou, S., Alzouma, S., Rogers, A., ... & Hennegan, J. (2021). Capturing menstrual health and hygiene in national surveys: insights from performance monitoring and accountability 2020 resident enumerators in Niamey, Niger. *Journal of Water, Sanitation and Hygiene for Development*, 11(2), 295-303.
- Loughnan, L., Mahon, T., Goddard, S., Bain, R., & Sommer, M. (2020). Monitoring Menstrual Health in the Sustainable Development Goals. *The Palgrave Handbook of Critical Menstruation Studies*, 577-592.
- Okello, E., Rubli, J., Torondel, B., Makata, K., Ayieko, P., Kapiga, S., ... & Renju, J. (2022). Co-development and piloting of a menstrual, sexual and reproductive health intervention to improve social and psychological outcomes among secondary schoolgirls in Northern Tanzania: the PASS MHW study protocol. *BMJ open*, 12(2), e054860.

- Phillips-Howard, P. A., Caruso, B., Torondel, B., Zulaika, G., Sahin, M., & Sommer, M. (2016). Menstrual hygiene management among adolescent schoolgirls in low-and middle-income countries: research priorities. *Global health action*, 9(1), 33032.
- Plesons, M., Patkar, A., Babb, J., Balapitiya, A., Carson, F., Caruso, B. A., ... & Chandra-Mouli, V. (2021). The state of adolescent menstrual health in low-and middle-income countries and suggestions for future action and research. *Reproductive Health*, 18, 1-13.
- Plesons, M., Torondel, B., Caruso, B. A., Hennegan, J., Sommer, M., Haver, J., ... & Phillips-Howard, P. A. (2023). Research priorities for improving menstrual health across the life-course in low-and middle-income countries. *medRxiv*, 2023-01.
- Schmitt, M. L., Clatworthy, D., Ogello, T., & Sommer, M. (2018). Making the case for a female-friendly toilet. *Water*, 10(9), 1193.
- Smith, A. D., Muli, A., Schwab, K. J., & Hennegan, J. (2020). National monitoring for menstrual health and hygiene: is the type of menstrual material used indicative of needs across 10 countries?. *International journal of environmental research and public health*, 17(8), 2633.
- Sommer, M., Hirsch, J. S., Nathanson, C., & Parker, R. G. (2015). Comfortably, safely, and without shame: defining menstrual hygiene management as a public health issue. *American journal of public health*, 105(7), 1302-1311.
- Sommer, M., Schmitt, M. L., Ogello, T., Mathenge, P., Mark, M., Clatworthy, D., ... & Ratnayake, R. (2018). Pilot testing and evaluation of a toolkit for menstrual hygiene management in emergencies in three refugee camps in Northwest Tanzania. *Journal of International Humanitarian Action*, 3(1), 1-14.
- Sommer, M., Torondel, B., Hennegan, J., Phillips-Howard, P. A., Mahon, T., Motivans, A., ... & Monitoring Menstrual Health and Hygiene Group. (2021). How addressing menstrual health and hygiene may enable progress across the Sustainable Development Goals. *Global health action*, 14(1), 1920315.
- Sommer, M., Zulaika, G., Schmitt, M. L., Khandaki, N., Gellis, L., & Phillips-Howard, P. (2020). Improving the impact of menstrual health innovations in low-and middle-income countries: a theory of change and measurement framework. *Journal of Global Health Reports*, 4(e2020007.).
- Sommer, M., Zulaika, G., Schmitt, M., & Gruer, C. (2019). Monitoring menstrual health and hygiene: measuring progress for girls on menstruation; meeting report. New York & Geneva: Columbia University and WSSCC.
- Tellier, S., & Hyttel, M., WoMena. (2018). *Menstrual Health Management in East and Southern Africa*
- UNFPA ESARO. (2019). *Technical Brief: The Integration of Menstrual Health into Sexual and Reproductive Health and Rights Policies and Programmes*
- UNICEF. (2020). *Guidance for monitoring menstrual health and hygiene*. New York: UNICEF.
- USAID. (2019). *Menstrual Hygiene Management and Women's Economic Empowerment: A Review of Existing Evidence*.
- Wilson, L. C., Rademacher, K. H., Rosenbaum, J., Callahan, R. L., Nanda, G., Fry, S., & Mackenzie, A. C. (2021). Seeking synergies: understanding the evidence that links menstrual health and sexual and reproductive health and rights. *Sexual and Reproductive Health Matters*, 29(1), 44-56.