

# Period Poverty: A Risk Factor for People Who Menstruate in STEM

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**Executive Summary:** In the United States, lack of access to menstrual hygiene products (MHPs) is contributing to a serious problem, period poverty. Period poverty has negative impacts on physical and mental health, as well as long term decreased productivity in educational and professional outcomes. Therefore, it is critical that action be taken to reduce period poverty and improve menstrual equity particularly for young menstruators, as inaction can result in lasting negative effects on both health and prosperity. The inability to afford and access MHPs results in recurring absences from school, which is a critical time for nurturing interest in science, technology, engineering, and mathematics (STEM). To ensure the development of a diverse STEM workforce, significant action needs to be taken to reduce period poverty and improve menstrual equity. **We recommend instituting a requirement that all public K-12 schools provide free MHPs to students, an expansion of Section 2 of the Menstrual Equity for All Act of 2019 (ME4ALL Act, H.R. 1882).**

## I. Statement of issue

One overlooked barrier in achieving a diverse workforce in science, technology, engineering, and mathematics (STEM) is the issue of period poverty. Period poverty is defined as the inability to access clean menstrual hygiene products (MHPs). This can be caused by long-standing social stigma surrounding menstruation, limited access to products, or by factors that increase the cost of MHPs making them difficult to purchase. The need for menstrual equity is a serious global concern that has a significant impact on the health, education, economic security, and personal dignity of menstruators (Figure 1) (Evans and Smith 2019). Approximately 26% of the global population menstruates and the lack of education and stigma surrounding menstruation is widespread (House 2016). Issues related to menstruation are not solely a women's problem, but also include people who are non-binary and transgender. Thus, the terms "people who menstruate" or "menstruators" encompass this spectrum of both biological sex and

gender identity. These populations are already underrepresented in STEM, and period poverty creates an additional barrier to progressing through STEM education and careers.

### *i. Economic costs*

In the United States, period poverty is closely associated with the high cost of MHPs, with the average menstruator spending \$13.25 each month, or over \$6,000 before tax over the course of the average reproductive lifetime (age twelve to fifty-two) (Sadlier 2019). This cost is expected to rise as the cost of raw materials has been steadily increasing (Meyersohn 2021). There are two main factors that contribute to the inability to afford and purchase MHPs: the "tampon tax" and exclusion of MHPs from public assistance programs.

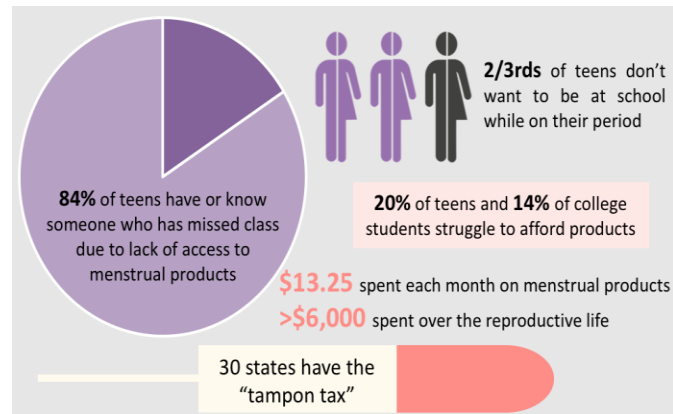
The "tampon tax" classifies MHPs as "luxury items" that are not exempt from sales tax. As of February 2021, this tax is still applied in thirty states (Bland

2021). While several states have already or are in the process of abolishing this tax, others argue that states need the revenue generated from the tax and that exempting specific items could get out of hand (Bland 2021; Tax Free. Period. 2021; Period Equity 2021; Zraick 2019).

Benefits from public assistance programs such as the Supplemental Nutrition Assistance Program (SNAP) and the Women, Infants, and Children program (WIC), used by over forty-seven million people each month, are not permitted to be used to purchase MHPs (American Civil Liberties Union 2019; U.S. Department of Agriculture 2021). A 2019 study of low-income women in St. Louis, Missouri, found that 64% of study participants were unable to afford MHPs in the past year and 21% reported experiencing this monthly. Nearly 46% of those surveyed reported difficulty buying both food and MHPs and 36% reported skipping or reducing meals on a monthly basis to purchase needed supplies (Kuhlmann 2019). Allowing MHPs to be purchased with SNAP and WIC benefits, which currently do not allow for the purchasing of hygiene or health products, could alleviate this burden.

### ii. Period poverty and young menstruators

A 2019 survey from Thinx & PERIOD found that 20% of teens and 14% of college students in the United States struggle to afford MHPs monthly (De La Rosa 2019; Cardoso et al. 2021). This lack of access to clean MHPs has a significant impact on both the health and success of young menstruators. Limited MHP access can result in increased risk for infections and the life-



**Figure 1: Period Poverty in America.** Young menstruators experience high levels of period poverty and face social stigma due to menstruation which can impact their success in education and STEM fields. Aspects of figure were made using BioRender.

threatening condition toxic shock syndrome, and results in a declining mental state due to extreme stress and anxiety (Cardoso et al. 2021). Among college menstruators experiencing period poverty, 68% reported symptoms consistent with moderate to severe depression, demonstrating a significant correlation between period poverty and depression (Cardoso et al. 2021).

### iii. Period poverty and education

Period poverty also significantly impacts the ability of young menstruators to succeed in school, with 84% reported to have personally or known someone who missed class due to lack of MHP access (De La Rosa 2019; Smith and Straus 2019). With the average age of menarche, or first menstruation, being 11.9 years and earlier onset of menarche reported in menstruators from low-income or single parent households (Martinez 2020), access to proper MHPs through school is becoming increasingly more crucial. Currently only four states (California, Illinois, New York, and New Hampshire) require schools to provide MHPs (Iyer 2021). Alongside access, 66% of teens report that they do not want to be at school during their period due to the shame and self-consciousness they feel regarding their period, further impacting school attendance (De La Rosa 2019). This chronic absenteeism ultimately affects achievement in school (Center for Research in Education and Social Policy 2018; Garcia and Weiss 2018). These statistics become increasingly worrisome when considering women, the majority of menstruators, who pursue STEM careers. As of 2019, only 27% of all STEM workers identified as women, and an even smaller percentage being women of color or coming from a low socioeconomic status (Martinez and Christnacht 2021). A survey commissioned by Microsoft found that the critical window of time to nurture girls' passion in STEM is between the ages of eleven and fifteen (Trotman 2017). However, if girls are missing school due to lack of MHP access and shame associated with menstruation, this window of opportunity to nurture girls' passion for STEM becomes significantly smaller. Inadequate MHP access creates an unnecessary barrier to education and success, particularly in STEM fields. Just as school bathrooms provide toilet paper, soap, and paper towels, MHPs should also be considered a necessity. **Providing free MHPs in schools would increase attendance, support students' physical and mental well-being, and address poverty.** In

conjunction, schools provide the perfect platform to provide access to MHPs throughout the year including holidays and breaks through “period packs” which can be utilized by students on an as needed basis.

### *iii. International menstrual policy*

In 2018, the Scottish government committed to providing access to free MHPs to students attending schools and universities, and as of 2020 became the world’s first country to make period products free for anyone in need (Wamsley 2020). Following Scotland’s example, England, Wales, and France implemented similar measures in schools and universities, all of which have been very successful (Iyer 2021; Deutsche Welle 2021). In the United States, only a handful of states have committed to providing public or low-income school students access to free MHPs (Iyer 2021). We implore Congress to act via the policy options outlined below to address menstrual inequities and increase the success of menstruators in education and STEM fields.

## **II. Policy options**

### *i. Option 1: Reinroduce and pass Menstrual Equity for All Act (ME4ALL ACT, H.R.1882)*

By reintroducing and passing the ME4ALL Act, the US can set the precedent that MHPs should be provided to all students, incarcerated individuals, homeless individuals, and employees. Providing MHPs to those in need would reduce the mental duress associated with menstruation and encourage improved school attendance and retention in STEM (Cardoso et al. 2021; De La Rosa 2019; Smith and Strauss 2019).

#### *Advantages*

This bill would provide a pathway for anyone in need to have access to MHPs at no additional cost. This structure could also be adopted by states to increase availability of these products in other areas not under federal designation, including local and state government buildings, public libraries, and public restrooms. By increasing access to MHPs, this will reduce financial limitations to access and stigma associated with obtaining MHPs. Improved access, affordability, and availability of MHPs will both aid in improved retention and attendance in school, as well as demonstrate commitment to achieving menstrual equity.

#### *Disadvantages*

While this bill would increase accessibility to MHPs, it is mainly limited to providing products in schools and public buildings. This will not reduce all stigmas or financial burdens associated with menstruation, such as the luxury tax on MHPs. Additionally, the implementation of this bill would require significant budget increases, as adequate supplies of MHPs will be needed for all areas provided for under the bill. This problem could be mitigated by partnering with MHP manufacturers and distributors to purchase products in bulk to reduce costs.

### *ii. Option 2: Require all public K-12 schools to supply MHPs at no cost*

While the ME4ALL Act is an ambitious proposal, the potential budget and supplies needed to fulfill said request may be too large to achieve at this time. Therefore, by focusing on providing MHPs for students, we can increase MHP availability to young people who may need the additional support to continue their education. This would hopefully address at least some of the stigma and financial burden currently experienced by young people adjusting to menstruation, who are at elevated risk for mental health crises (Cardoso et al. 2021) and may currently be struggling to afford MHPs (De La Rosa 2019). While some states have begun providing MHPs for students, action at a national level would further increase accessibility of MHPs in schools.

#### *Advantages*

Providing all public K-12 schools with sufficient MHPs would improve access without stigma or cost for those in need. Availability of free MHPs in all bathrooms would not only reduce the shame or self-consciousness associated with periods, but also mitigate the financial burden of MHPs and potential health consequences associated with lack of access. Increasing access and availability of MHPs would encourage improved attendance and ultimately retention of menstruators in STEM.

#### *Disadvantages*

One potential pitfall of only providing MHPs in public K-12 schools is the lack of access during breaks when schools are closed. This could be mitigated by providing “period packs” available throughout the whole year, either by supplying a set amount to all students in need at once or having an easily accessible stock to choose from. Ultimately, providing MHPs in

all public K-12 schools would require an increased education budget to support these supplies. Schools that have begun to supply MHPs have alleviated costs through grants, partnering with non-profits, and MHP manufacturers. However, when weighing the potential consequences of lack of access to proper MHPs, these costs can be considered nominal compared to the economic, health, and educational costs on menstruators experiencing period poverty. While this does not address MHP access in private institutions or universities, this is a crucial first step towards menstrual equity.

### III. Consequences of inaction

Inadequate access to MHPs creates an unnecessary barrier to STEM education. In addition to school absences, a lack of access to MHPs can cause emotional duress, infection, and disease, ultimately

impacting long term achievement in school. Without the introduction of free MHPs in schools, they will remain inaccessible to the students who need them most, leading to greater loss of productivity and ultimate STEM pursuits by those who experience menstrual inequity.

### IV. Policy recommendation

While some states have begun to address menstrual inequity via abolishment of the tampon tax and by providing MHPs in some public buildings, action is needed on a national level to demonstrate commitment to menstrual equity. Requiring all public K-12 schools to provide MHPs is just one step in reducing period poverty. This has the potential to increase success and retention for menstruators in STEM, ultimately creating a more diverse STEM workforce.

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### Disclaimer

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