Baseline Report for:

FDYV-NBXV-ZK: Developing a replicable package for creating "menstruation friendly" schools in Uganda

15/16/2018 v1.0

Contents

Summary:

Baseline data collection and analysis with girls, boys, parents and teachers in the 10 target schools and community enabled an exploration of girls' baseline menstrual health & hygiene (MHH) experiences and practices, the characteristics of the target population (including disability and socioeconomic status), an assessment of parents' readiness to change and an understanding of the current support for menstruation in schools. Data was also used to calculate a project specific baseline and update indicators and milestones in the log frame. The baseline was consistent with previous baseline work in the area and revealed a population with high levels of deprivation and disability where MHH is a significant challenge for girls. Schools and parents demonstrated an awareness of the issue and some readiness to take action. However, knowledge and attitudes towards menstruation among all groups were inadequate. A focus on improving knowledge and attitudes in order to engage parents and staff in making tangible improvements for girls is needed.

Background:

This project builds on and is informed by a pilot study[1] and randomised control trial[2] investigating the impact of menstrual health and hygiene (MHH) interventions on girls' school engagement conducted by Irise International in partnership with the University of Sheffield.

Key learning from this work highlighted the need for better measures to capture menstrual related absenteeism and the need to capture effects on girls' confidence and concentration in order to quantify the full impact of MHH interventions on girls' wellbeing. It also highlighted the importance of community engagement and shifts in the attitudes of parents, teachers and the wider community in order for the benefits of MHH interventions to be fully realised and sustained.

The evaluation tools and approach used in this project build on the tools used and the learning from these two research projects and additionally include:
- More holistic measures of the impact of MHH interventions on girls' outcomes and wellbeing
- Tools to track changes in the attitudes and behaviours of the wider community and support network surrounding girls

Aims and Objectives

1. To capture a baseline for the project
   a. To explore girls' baseline MHH experiences and practices
   b. To establish the characteristics of the target population including socioeconomic status and prevalence of disabilities.
   c. To assess and understand parents' baseline readiness to change and support for improving MHH
   d. To assess and understand current support for menstruation in schools
   e. To establish a project specific baseline for log frame indicators and update milestones in the context of baseline

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1 https://www.sheffield.ac.uk/scharr/sections/dts/statistics/inspires
2http://www.irise.org.uk/uploads/4/1/2/1/41215619/does_menstrual_hygiene_matter_research_protocol_for_white_rose.pdf

Review and development of evaluation tools:

The table below summarises the tools developed, their components, purpose and development work undertaken prior to baseline collection[3]:

Tool	Components	Development work
Menstruation friendly school checklist	-menstruation school policies -emergency pads -long term supply of pads -gender sensitive facilities -allocated member of staff -process for disposal of sanitary products -working with parents to make improvements	The school checklist used in previous work was refined to fully reflect new government policy about MHM provision in schools. More detailed guidance was created to aid objective assessment of schools by field staff.
Girls' Survey	-Demographic, socioeconomic and disability data[4] -Menstrual hygiene products and practices -Confidence and comfort -Knowledge and attitudes -School attendance -Reproductive health	The survey was discussed with researcher Julie Hennegan and questions were included to enable a multidomain, holistic assessment of girls' MHH. Questions were adapted from a questionnaire used in her research[5] for menstrual hygiene products and hygiene and reproductive health.
Girls' attendance diaries	-school attendance and self-esteem	This approach was included following discussions with Professor Helen Weiss about the use of attendance diaries to measure menstrual related absenteeism in her current study- initial results are promising[6].
School register data capture form	-attendance data for girls in P6 in target schools	NA
School performance data capture form	-school level performance data in Primary Leaving Exams (PLE)	NA
Boys' Survey	-Demographic, socioeconomic and disability data -Confidence -Attitudes and knowledge	These surveys were reviewed by the Uganda team and adjustments to language and phrasing were made in response to feedback from
Teachers' Survey	- Confidence	

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3 Copies of tools and guidance can be accessed here: https://drive.google.com/drive/folders/1cKl4qlWwsx64Yfp2kdnG_-nGixRkEIy5?usp=sharing

4 We used a modified version of the Washington Group Short Set to measure disability. A question about language that did not translate well and was less relevant to the impact of disability on menstrual hygiene practices was removed. An adapted version of the Afrobarometer Lived Poverty Index was used as a measure of social economic status. It is described in this document as the Lived Poverty Score (LPS)

5 Hennegan J, Dolan C, Wu M, et al Measuring the prevalence and impact of poor menstrual hygiene management: a quantitative survey of schoolgirls in rural Uganda. BMJ Open 2016;6:e012596. doi: 10.1136/bmjopen-2016-012596

6 http://gtr.ukri.org/projects?ref=MR%2FP020283%2F1

	- Knowledge -Attitudes	field staff and program participants who had completed the surveys as part of previous projects.
Parents Community Readiness to Change questions and scoring table	-Parents knowledge of MHH -Parents belief systems and attitudes to MHH -Parents efforts to improve MHH -Parents knowledge of efforts to improve MHH -Parents efforts to mobilise resources to improve MHH -Overall readiness to change score	The tools and approach were adapted from REPLACE (a successful behaviour change approach used to address social norms perpetuating Female Genital Mutilation in Europe)[7]. Meetings with academics who developed the original approach informed our adaptation.
Adapted REPLACE tools	-A full set of REPLACE tools were created to collect baseline data for the impact evaluation and work with the intervention community to implement an adapted version of the REPLACE[8].	

Guidance was also developed for each tool to aid the team during data collection and training.

Methods:

The table below summarises the data collection process for each tool:

Tool	Method of data collection	Sample Size
Menstruation friendly school checklist	Project officers completed the school checklist through conversations with senior staff at the project schools and inspection of relevant facilities and policies.	10 schools (all schools involved in project)
Girls' Survey	The survey was completed in facilitated small groups of up to 10 girls per facilitator. Girls completed the survey privately with the facilitator working through each question with the group and addressing any questions or concerns.	113 girls (approx. 10 from each school)
Girls' attendance diaries	Given to girls to complete during July and August.	Offered to all girls enrolled in P6 in target schools
School register data capture form	One month of attendance data (March-April 2018[9]) captured from girls in P6.	356 girls (approx. 35 from each school)
School performance data capture form	Request last year's results from project schools disaggregated by gender.	304 girls who completed PLE in 2017
Boys' Survey	The survey was completed in facilitated small groups of up to 10 boys per facilitator. Girls completed the survey privately with the facilitator working through each	114 (approx. 10 from each school)

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7 http://www.replacefgm2.eu/resource/tools.aspx

8 The results of the impact evaluation will be analysed and written-up separately.

9 Time period selected to minimise influence of other causes of absenteeism e.g. during exam periods

	question with the group and addressing any questions or concerns.	
Teachers' Survey	The survey was completed in facilitated sessions where teachers were learning more about the project.	73 teachers (approx. 7 from each school)
Parents Community Readiness to Change questions and scoring table	Focus group discussions and interviews were conducted with parents from the community in which the schools are located.	5 parents

Analysis:

The analysis plan for each data set is summarised in the table below:

Tool	Analysis
Menstruation friendly school checklist	Questions reflect 9 key components of a menstruation friendly school and were combined to produce a score out of 9.
Girls' Survey data	Measuring MHH- Questions were grouped into different MHH domains designed to capture a holistic understanding of adequate MHH. Criteria were developed to define what constituted adequate MHH in each domain. Each girl was scored as adequate or inadequate in each domain and then the domains were combined into an overarching score to give the proportion of girls with adequate MHH. Self-reported absenteeism- Girls' average self-reported menstrual related absenteeism was calculated using a question on the survey. Confidence and concentration- questions were converted into a score out of 4 with a score of >2 considered adequate. Knowledge- mean average score on knowledge questions calculated. A score of >80% of key knowledge statements classed as adequate. Attitudes- questions were converted into a score.
School register data	Mean absenteeism calculated. Proportion of girls missing any school calculated.
School performance data	Proportion of girls scoring greater than a 1 or a 2 in PLE exams.
Boys' Survey data	Knowledge- mean average score on knowledge questions calculated. Attitudes- questions were converted into a score.
Teachers' Survey data	Confidence- proportion of teachers who report feeling confident Knowledge- pass mark set at >80%, proportion of teachers passing knowledge questions calculated. Attitudes- questions were converted into a score
Parents Community Readiness to Change data	Interviews were scored against criteria adapted from the REPLACE Readiness to Change Approach. The model uses qualitative data from a small sample of parents to assess the readiness to change of the wider community of parents.

Results:

Girls' baseline MHH experiences and practices

Six domains that constitute adequate MHH were developed (informed by the work of Hennegan et al.[10]) The use of domains is designed to enable a more holistic measurement of girls' menstruation experiences and a more accurate estimate of the scale of the challenges girls face. In addition, the domains move the focus away from a focus on product provision towards an intervention package rooted in an understanding of the root causes of inadequate MHH. This is an approach Irise's previous research has highlighted an urgent need for. The survey questions were designed to test these domains and criteria for what adequate MHH would mean under each domain were developed. These are summarised in the table below.

Absorbent use, Frequency of absorbent change	Knowledge and attitudes
- Adequate absorbent use means that girls' are able to access purpose built products at least some of the time and are not using products considered potentially harmful (natural materials e.g. leaves, mattress, toilet paper) - Adequate provision means that products are usually obtained from parents/caregivers rather than peers or boyfriends. - Adequate frequency of absorbent change means girls are changing at least 3-4 times a day.	- Adequate knowledge means that girls score >80% on key knowledge statements[11] - Adequate attitudes mean that girls give responses to attitude scenarios that would not harm themselves or others.
Washing and drying procedures and privacy	**Self-reported health**
- Adequate washing and drying means that girls nearly always have enough soap and water to wash during their periods. - When using reusable products, adequate means always washing and drying appropriately[12]	- Adequate means that girls are not reporting health-related symptoms during menstruation[13] (skin irritation/rashes in pelvic area, bad smell/odour, depression)
Education (school attendance and engagement)	**Psychosocial (shame, insecurity, embarrassment)**
- Adequate means usually able to participate in class and answer the teacher's questions during menstruation.[14] - Adequate means not missing any school because of menstruation.	- Adequate[15] means that girls usually feel comfortable and confident during menstruation and are able to talk to peers and caregivers about menstruation. - Adequate means that girls are not reporting fear of staining or absorbent falling out the underwear or embarrassment[16].

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10 Hennegan J, Dolan C, Wu M, et al Measuring the prevalence and impact of poor menstrual hygiene management: a quantitative survey of schoolgirls in rural Uganda. BMJ Open 2016;6:e012596. doi: 10.1136/bmjopen-2016-012596

[11] Question 14 a)-f). Question designed to test key knowledge gaps identified in baseline work and validated in Ugandan context in previous work.

[12] Washing with soap and water, drying outside, using when dry

[13] Any health-related symptom in response to question 20 (apart from a)) is inadequate

[14] Score greater than 2/4 on concentration indicator (Question 13) is adequate

[15] A score of greater than 2/4 on confidence indicator (Question 12) is adequate

[16] Answering 2 or more of c), e) or f) to Q20 is inadequate

The baseline results for each domain are summarised below:

33% of girls meet the criteria for adequate absorbent use and frequency of absorbent change	10% of girls meet the criteria for adequate knowledge and attitudes
• 70% of girls using at least one purpose-built product and not using potentially harmful improvised materials. • 80% of girls were obtaining products from appropriate caregivers. • 52% of girls were able to change products at least 3-4 times a day.	• 22% of girls scored more than 80% on the knowledge test. • 29% of girls demonstrate positive attitudes to menstruation.
24% of girls meet the criteria for adequate washing and drying procedures and privacy	47% of girls meet the criteria for adequate Self-reported health
• 38% of girls usually had enough soap and water to wash during their periods. • 47% of girls always follow appropriate washing and drying instructions for products.	• 47% of girls did not self-report health related symptoms during menstruation.
40% of girls meet the criteria for adequate school attendance and engagement during menstruation	13% of girls meet the criteria for adequate psychosocial wellbeing during menstruation
• 63% were able to concentrate in class during menstruation. • 42% did not miss school during their periods.	• 39% of girls felt confident during their period and were able to talk to caregivers. • 25% were not embarrassed or fearful or menstrual related accidents.

Overall average MHH score: 1.76/6

Characteristics of the target population including socioeconomic status and prevalence of disabilities.

The graph below shows the results of the Lived Poverty Index[17] for boys and girls.
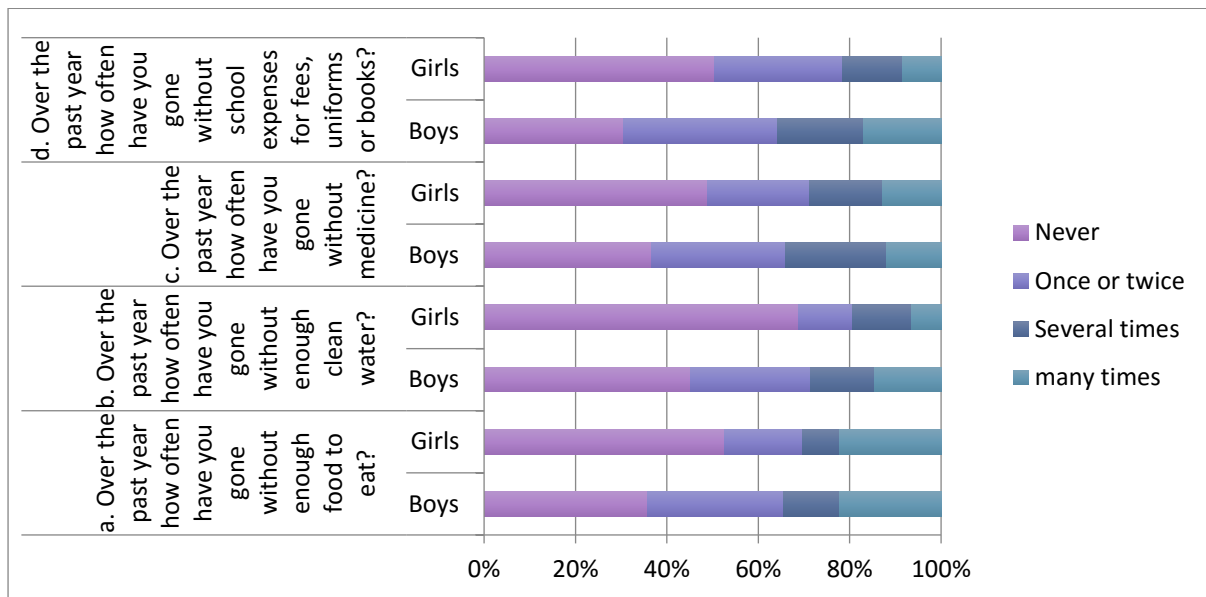
The graph below shows the median Lived Poverty Score (LPS) for each school with 25% and 75% quartiles and the maximum and minimum values shown on the box and whisker plot.

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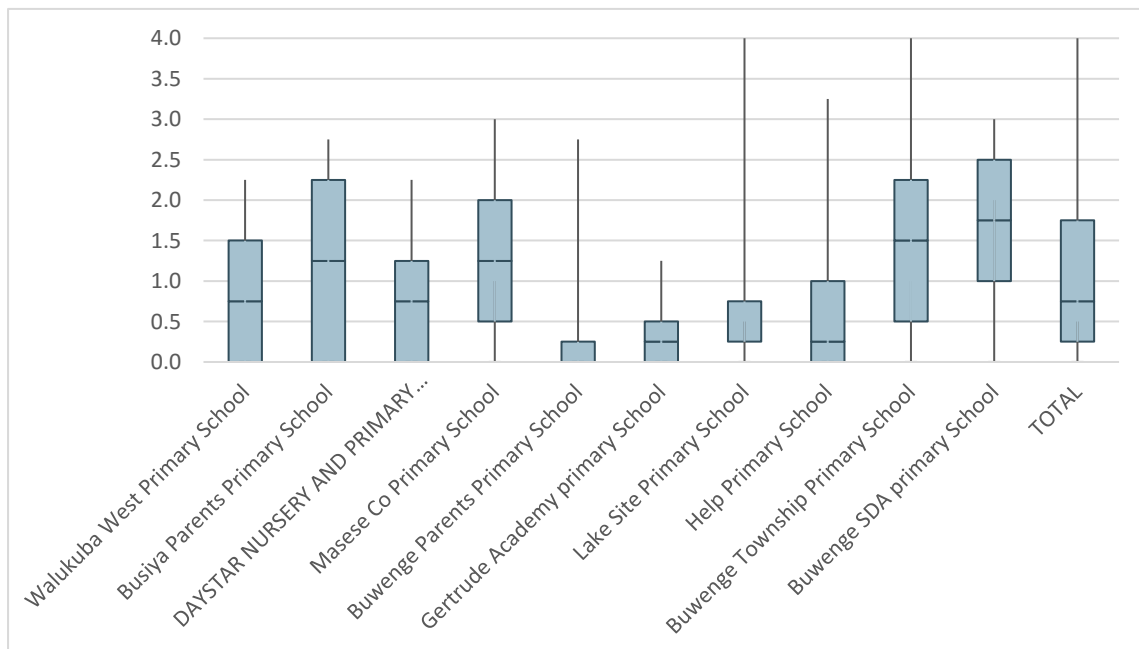
[17] Afrobarometer (2014). Surveys and Methods. [Online] Available at: http://afrobarometer.org/surveys-and-methods/questionnaires

The graph below shows girls and boys responses to the Washington Group Short Set of questions:
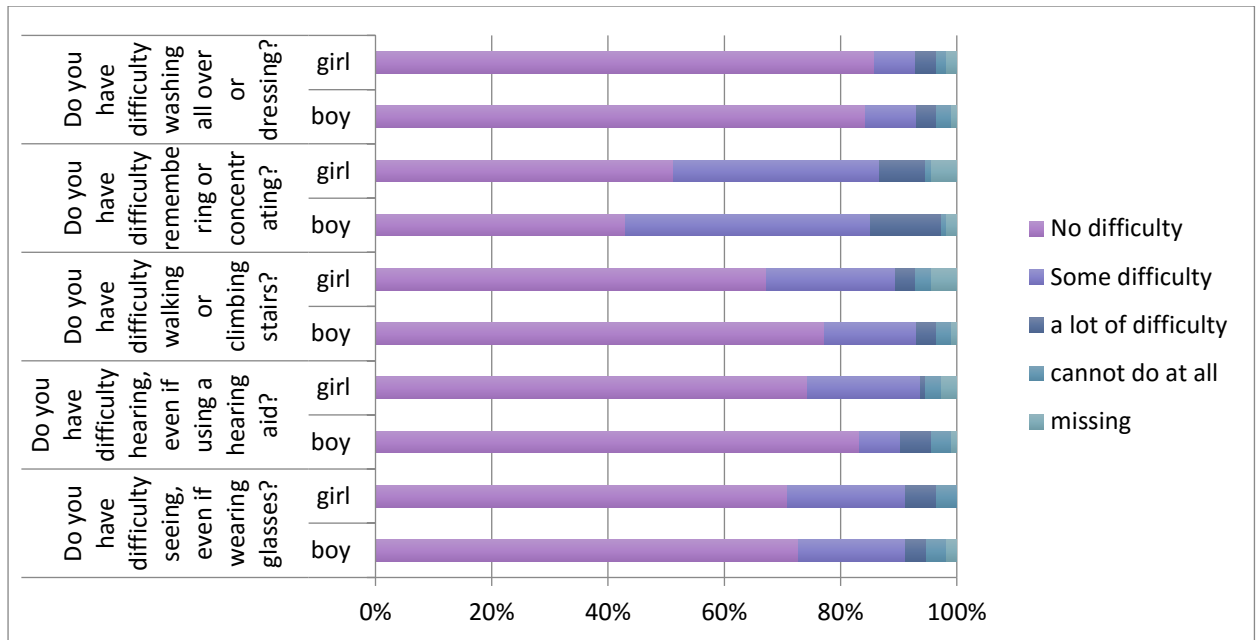
Understanding parents' baseline readiness to change and support for improving MHH

The qualitative data collected from a sample of parents was used to assess the wider community of parents "Readiness to Change" and support improving MHH for girls. The model is displayed on the following page:

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Dimensions of Change	Low(1-5) 🟥								
	Medium (4-6) 🟧								
	High (7-9) 🟩								
A. Community Knowledge of Menstrual Hygiene Management (MHM)	🟥	🟧	🟧	🟧	🟩	🟩	🟩	🟩	🟩
B. Community belief systems and attitudes towards MHM	🟥	🟥	🟧	🟧	🟧	🟩	🟩	🟩	🟩
C. Community Efforts to improve MHM	🟥	🟥	🟥	🟧	🟧	🟧	🟧	🟩	🟩
D. Community Knowledge of the Efforts to improve MHM	🟥	🟥	🟥	🟥	🟥	🟧	🟩	🟩	🟩
E. Community Leader's and Influential People's attitudes to improving MHM	🟥	🟥	🟥	🟧	🟧	🟩	🟩	🟩	🟩
F. Community Resources Available to Support Efforts to improve MHM	🟥	🟥	🟥	🟥	🟥	🟧	🟧	🟧	🟩
Stages of Community Readiness to end menstrual related discrimination	1	2	3	4	5	6	7	8	9
	No community awareness	Community denial/ resistance	Vague community awareness	Preplanning	Preparation	Initiation	Stabilisation	Expansion	Community ownership
Focus of Intervention	Increasing knowledge of MHM			Changing attitudes and initiating behaviour change concerning MHM			Supporting behaviour change		
	-building community cohesion -increase knowledge of health & education impacts -Challenge belief systems underpinning menstrual taboos and subsequent neglect			-identify and support community leaders/champions -Support efforts by developing appropriate interventions - Begin to harness community resources			-reinforce community efforts -Continue to harness community resources		
Social Norm Change	Social norm supporting neglect of MHM			Social norm tipping point			Social norm supporting MHM		

The table below summarises the parents' overall score on each dimension of the Readiness to Change Model:

Dimension	Average Score out of 9	Meaning of Score
Dimension A: Parents Knowledge of MHM	4	Some parents know about the education and health impacts but information is lacking.
Dimension B: Parents belief systems and attitudes to MHM	4.5	Parents are concerned about MHM and are beginning to reflect modest support efforts to improve MHM.
Dimension C: Parents Efforts to improve MHM	5	Efforts to improve MHM and support girls are being planned by parents.
Dimension D: Parents knowledge of efforts to improve MHM	5	Some parents have basic knowledge about initiatives to improve MHM.
Dimension E: Parents efforts to mobilise resources to improve MHM	5	Some parents are actively investigating how to get resources and make sure girls' needs are prioritised.

When combined, this indicates that parents are starting to change attitudes and initiate behaviour change on MHH on the readiness to change scale below:

No awareness	Denial/ resistance	Vague awareness	Preplanning	Preparation	Initiation	Stabilisation	Expansion	Community ownership
Increasing knowledge of MHM			Changing attitudes and initiating behaviour change concerning MHM			Supporting behaviour change to improve MHM		

Current support for menstruation in schools

This table summarises the components of the menstruation friendly school checklist.

Component	Scores
Menstruation School Policies	A score of 2 means that the school has written documents describing how they want to support girls during their period. A score of 1 means the school can demonstrate plans to put these documents in place.
Provision of Emergency Pads	A score of 2 means that the school is providing emergency pads. A score of 1 means that the school can demonstrate plans to provide emergency pads.
Establishing long term provision of products	A score of 2 means that the school is working with parents to provide pupils with sanitary products. A score of 2 means that the school can demonstrate plans to work with parents to provide pupils with sanitary products.
Process for disposal of products	A score of 1 means that the school has a preferred process for disposal of sanitary products. A score of 2 means that this process is usually followed.

Working with parents to improve facilities for adolescent girls	A score of 2 means that the school is working with parents to improve facilities. A score of 1 means that the school can demonstrate plans to work with parents to improve facilities.
Separate toilets for girls and boys	A score of 1 means that the school has separate toilets for girls and boys.
Staff member assigned to support girls during menstruation	A score of 2 means that school has a nominated staff member responsible for supporting girls during menstruation. A score of 1 means that the school can demonstrate plans to introduce this.
Gender Sensitive facilities	A score of 9 means that on inspection the school has clearly marked toilets for boys and girls, a place/instructions about how to dispose of sanitary products, toilets are clean & light with locking doors and there is access to water, soap and toilet paper. (each component scores 1)

Results by school:

Component/School	BPPS	BPS	BTMPS	MCEPS	HPS	LSPS	DNPS	BWPPS	GPS	WWEPS
Menstruation School Policies	2	2	1	2	2	2	1	2	2	2
Provision of Emergency Pads	2	2	2	2	2	2	2	2	1	2
Establishing long term provision of products	2	2	2	2	2	2	0	0	2	2
Process for disposal of products	0	0	0	0	0	0	0	2	0	0
Working with parents to improve facilities for adolescent girls	0	1	1	1	1	0	0	0	0	0
Separate toilets for girls and boys	1	1	1	1	1	1	1	1	0	1
Staff member assigned to support girls during menstruation	0	0	0	0	0	0	2	2	2	2
Gender Sensitive facilities	2	3	2	5	6	5	5	8	5	6
TOTAL SCORE (out of 22)	9	11	9	13	14	12	11	17	12	15

Establishing a project specific baseline for log frame indicators and updating milestones in the context of baseline

Outputs:

Output 1: Improved knowledge of, and attitudes towards menstruation and puberty in girls, boys, parents and teachers.

Output Indicator 1.1 Average girls and boys score in knowledge test

Baseline, June 2018	Average girls' knowledge score is 62%. Average boys score is 63%
Milestone 1, April 2019	Average girls' score>65% Average boys' score >65% immediately after teaching
Milestone 2, April 2020	Average girls' score >70% Average boys' score >70% immediately after teaching
Target, June 2020	Average girls' score >75% Average boys' score >75% 3-6 months after teaching

The indicator was changed from proportion of girls and boys scoring above a predefined threshold to improvement in average score on the knowledge test because this is a more sensitive measure of gradual change over the course of the program.

Girls' and boys' knowledge scores were comparable to original baseline. Milestones were revised to reflect gradual improvement throughout the life of the program.

Output Indicator 1.2 Proportion of teachers' feeling confident to teach pupils about menstruation and puberty

Baseline, June 2018	30% (20/67) of teachers feel confident to teach about menstruation and puberty.
Milestone 1, April 2019	>60% (30/50) of teachers feel confident to teach about menstruation and puberty after training
Milestone 2, April 2020	>80% (40/50) of teachers feel confident to teach about menstruation and puberty immediately after top-up training
Target, June 2020	>70% (35/50) of teachers feel confident to teach about menstruation and puberty 6-12 months after training

Milestones were revised to reflect a gradual increase during the program with a lower target for long term confidence compared to confidence immediately after training as there is likely to be some reduction over time.

Output Indicator 1.3 Proportion of teachers' demonstrating sufficient knowledge of menstruation and puberty

Baseline, June 2018	0% (0/73) of teacher pass learning test.
Milestone 1, April 2019	>60% (30/50) teachers pass learning test immediately after trainin
Milestone 2, April 2020	>80% (40/50) teachers pass learning test immediately after top-up training
Target, June 2020	>70% (35/50) pass learning test several months after training

Milestones were revised to reflect a gradual increase during the program with a lower target for long term knowledge retention compared to knowledge immediately after training as there is likely to be some reduction over time.

Output Indicator 1.4: Proportion of boys demonstrating more positive attitudes to girls during menstruation

Baseline, June 2018	61% (67/110) of boys would never sit next to or talk to a girl during her period. 78% (83/107) unable/unwilling to support a friend. 14% (16/112) would not respond in a supportive way to a girl staining her skirt.
Milestone 1, April 2019	>60% (60/100) of boys have a more positive attitude to girls during menstruation after teaching
Milestone 2, April 2020	>70% (70/100) of boys have a more positive attitude to girls during menstruation after teaching
Target, June 2020	>80% (80/100) of boys have a more positive attitude to girls during menstruation 3-6 months after teaching

Output Indicator 1.5:

Baseline, June 2018	Overall Score 4, equivalent to Preplanning stage in Readiness to Change Mode
Milestone 1, April 2019	Overall Score 5, equivalent to Preparation stage in Readiness to Change Model
Milestone 2, April 2020	Overall Score 6, equivalent to Initiation stage in Readiness to Change Model
Target, June 2020	Overall Score 6/7, equivalent to Stabilisation stage in Readiness to Change Model

The indicator was changed from "Proportion of parents supporting girls and boys during menstruation and puberty" to "Increase in parents' Readiness to Change score/stage (using adapted version of REPLACE Community Readiness Model)." Adapting the REPLACE approach enables us to assess attitude and behaviour shifts in the whole community through qualitative interviews with a small number of parents.

Output 2: Schools are better equipped to provide for girls during menstruation.

Output Indicator 2.1: Proportion of schools with menstruation friendly school facilities present

Baseline, June 2018	Mean score on menstruation friendly school checklist is 4.5/9
Milestone 1, April 2019	Half of schools (5/10) started to make improvements to school facilities.
Milestone 2, April 2020	All schools (10/10) started to make improvements to school facilities.
Target, June 2020	All schools (10/10) score 8/9 on menstruation friendly school facilities checklist.

This indicator uses the gender sensitive facilities component of the Menstruation Friendly School Checklist. School facilities are scored of out 9 following inspection by a project officer. New baseline comparable to original and original milestones are still applicable.

Output 3: Girls teacher and parents have improved access to products.

Output Indicator 3.1 Proportion of schools committing to provide access to products long-term

Baseline, June 2018	No schools currently working with Irise entrepreneur.
Milestone 1, April 2019	Half of schools (5/10) have begun discussions with Irise entrepreneur to provide long-term access to products
Milestone 2, April 2020	All schools (10/10) have begun discussions with Irise entrepreneur to provide long-term access to products
Target, June 2020	All schools (10/10) have plan for long-term provision in place

No schools working with Irise entrepreneur to set-up access to products. Some schools have schemes to provide emergency pads or motivate parents to provide clean cloth.

Outcome: Improvement in adolescent girls' school engagement as they are more confident and better able to concentrate and attend lessons during their periods.

School attendance and performance measures were moved from the Outcome to the Impact level of the Log frame.

Outcome Indicator 1: Proportion of girls reporting difficulty concentrating during menstruation.

Baseline, June 2018	59% (62/105) of girls report difficulty concentrating during menstruation.
Milestone 1, April 2019	Cumulative 15% (9/100) reduction in girls reporting difficulty concentrating during menstruation
Milestone 2, April 2020	Cumulative 30% (17/100) reduction in girls reporting difficulty concentrating during menstruation
Target, June 2020	Cumulative 50% (29/100) reduction in girls reporting difficulty concentrating during menstruation

Milestones were revised to reflect a gradual reduction in the proportion of girls struggling to concentrate during menstruation.

Outcome Indicator 2: Proportion of girls reporting higher levels of confidence during menstruation.

Baseline, June 2018	55% (55/99) of girls score less than 2/4 on confidence indicator.
Milestone 1, April 2019	>50% (50/100) of girls score 2 or greater on confidence during menstruation indicator
Milestone 2, April 2020	>55%(55/100) of girls score 2 or greater on confidence during menstruation indicator
Target, June 2020	>60%(60/100) of girls score 2 or greater on confidence during menstruation indicator

Milestones were revised to reflect a gradual increase in girls' confidence throughout the project.

Impact: Improved concentration and confidence leads to better school attendance and performance.

Impact Indicator 1: Mean average school performance on national exams

Baseline, June 2018	65% (197/304) of girls taking the exam at target schools achieved a 1-2 in PLE exams.
Milestone 1, April 2019	>50% (50/100) of girls score 2 or greater on confidence during menstruation indicator
Milestone 2, April 2020	>55%(55/100) of girls score 2 or greater on confidence during menstruation indicator
Target, June 2020	>60%(60/100) of girls score 2 or greater on confidence during menstruation indicator

In order to calculate a mean average of individual pupils' scores, we would need access to each pupils' individual marks. It has not been possible to obtain these with proper consent, as those who have already sat national primary leaving exams left the school before the project started. Instead, schools have been able to share information about the total number of applicants who have achieved each grade. The indicator was changes to the proportion of girls sitting Primary Leaving Exams achieving a 1 or a 2 (the top 2 grades possible to obtain).

Milestones reflecting an improvement in the proportion of girls achieving a 1-2 in PLE exams in intervention schools at follow-up compared to baseline were added. However, this indicator will need to be interpreted in the context of drop out rates. If improved attendance reduces drop out, performance may worsen or stay the same as those who would otherwise have dropped are likely to be those who would struggle most to perform well in exams. We aim to analyse and interpret the data in the context of dropout rates.

Impact Indicator 2: Mean average school attendance in girls benefitting from the intervention

Baseline, June 2018	Mean average self-reported menstrual related absenteeism of 1.17 days/month
Milestone 1, April 2019	Cumulative 15% reduction in mean average self-reported menstrual related absenteeism
Milestone 2, April 2020	Cumulative 25% reduction in mean average self-reported menstrual related absenteeism
Target, June 2020	Cumulative 50% reduction in mean average self-reported menstrual related absenteeism

Register data and self-reported absenteeism data were collected using surveys. Diary cards have not yet been completed. Data is summarised below:

Indicators	
Proportion of girls reporting missing school due to their period	48% (23% missing 2 or more days each month)
Self-reported average number of days missed due to menstruation	0.99 (range 0-5), (Amongst those who miss at least some school due to menstruation, this average increases to 1.97 days per month)
Proportion of girls missing school according to registers	34% (12% missing 2 or more days each month)
Average number of days missed according to registers	0.91 (range 0-16)

Irise International will work with academics at the University of Sheffield to triangulate different measures of school attendance and menstrual related absenteeism.

Mean self-reported attendance data from the survey will be the main measure used to track this indicator. Data from diaries will also be included in late reports. The milestones were reviewed to reflect a percentage reduction rather than an absolute reduction.

Discussion

Girls' baseline MHH experiences and practices

Girls' baseline experiences of MHH are inadequate with an average overall score of 1.67/6. The most poorly scoring domains were knowledge and attitudes of and towards menstruation and psychosocial wellbeing, with 10% and 13% of girls meeting the criteria for adequate lived experience of MHH respectively. It is likely that these domains are closely linked, with lack of knowledges, menstrual myths and stigma driving girls' experiences of anxiety and embarrassment during menstruation. Across all 6 domains (absorbent use and frequency of change, knowledge and attitudes, washing and drying procedures and privacy, self-reported health, school engagement and psychosocial wellbeing during menstruation) the majority of girls were experiencing inadequate provision and support, resulting in negative experiences of menstruation. Of particular concern are the 20% of girls unable to obtain products from an appropriate caregiver who may be pressured to engage in transactional sex in order to obtain toiletries and other basic feminine hygiene needs, with anecdotal reports and some research reporting that this is taking place in similar situations and locations[18].

Characteristics of the target population including socioeconomic status and prevalence of disabilities.

Girls reported lower levels of deprivation on the Lived Poverty Score (LPS) compared to boys. At least half of girls were struggling to access food, school equipment and medicine at least some of the time. 40% struggled to access clean water at least some of the time. Between 5-20% reported high levels of deprivation across the four areas and frequently struggled to access basic necessities. There was some variation in LPS across schools. Interestingly, the more well-off schools still contain groups of highly deprived students. The findings are consistent with the Afrobarometer's findings in this area, suggesting the schools are representative of the general population.

The population reported high levels of disability with between 13-30% of girls and boys experiencing some disability with seeing, walking, hearing, washing all over or dressing. 56% of boys and 46% of girls respectively reported some difficulty remembering or concentrating. A minority of pupils (between 1-4% across the different domains) were experiencing severe disability. Further analysis is needed at follow-up to investigate the interaction between disability and engagement in project activities and outcomes.

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[18] A recent study found that 1 in 10 15 year old Kenyan school girls had engaged in transactional sex for pads; 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

Understanding parents' baseline readiness to change and support for improving MHH

The Readiness to Change Score reflects some awareness of MHH as an issue and suggests that any behaviour change interventions should be focused on recruiting and engaging community champions to support appropriate interventions and begin to mobilise community resources. The parents lowest score was on knowledge of MHH and its effects on education and health suggesting more information and education about this will help to move the parents and wider community through the cycle outlined in the Readiness to Change Model.

Current support for menstruation in schools

The majority of schools had started to think about supporting girls during menstruation through creating policies and attempting to provide emergency pads and some support accessing products. They scored poorly on considering disposal of products and working with parents to address the issue. Scores were also low on an objective assessment of school facilities (the inspection of the facilities focused on simple, low cost interventions to make facilities more menstruation friendly). The data highlights a need to focus on working with schools to engage parents and make tangible, simple improvements to school facilities. Half of schools did not have a named staff member responsible for supporting girls during menstruation. Introducing this may help to initiate efforts to work with staff and parents to improve the school environment.

Establishing a project specific baseline for log frame indicators and updating milestones in the context of baseline

The baseline was consistent with previous baseline work in Uganda. Teacher's knowledge continues to be measured by tracking the proportion of teachers who can pass a simple test. This is because their knowledge must be above a certain threshold in order to benefit pupils. For boys and girls, knowledge will be tracked as a mean score on a knowledge test as for this group overall improvement is more important for achieving impact than a pass/fail approach. A more holistic approach to capturing parents' attitudes and knowledge was introduced and has enabled a more in depth understanding of their readiness to address the issue. For school performance improvements will be measured against baseline rather than compared to a district average because a district average broken down by gender was not available. This is a less robust measure and follow-up data will need to be interpreted in the context of drop out rates and potential fluctuations in the difficulty of the exam. For school absenteeism, register and self-reported data was collected. Due to observed inaccuracies in the register data and significant amounts of missing data, self-reported absenteeism will be used as the made indicator for menstrual related absenteeism. Milestones were all reviewed in the context of the baseline and small adjustments made to reflect realistic improvements in the context of baseline performance.

Limitations

- A small sample size limits the generalisability of the data.
- Some register data was missing as schools were unable to provide it (girls with less than 10 days of data were excluded from the final analysis, meaning that 51 girls were excluded from a sample of 407).
- Girls who are not included in registers or not frequently registered may be the most likely to experience challenges attending school.
- Performance data does not include people who do not register to do the Primary Leaving Exam which means the sample likely excludes the children who are struggling most. For baseline we were not able to obtain data about drop out/failure to complete the PLE but will aim to capture this at follow-up.
- Performance will be measured by comparing follow-up to baseline. This is open to bias as changes could be due to fluctuations in the difficulty of the exam rather than an objective improvement in performance. Performance may also be affected by dropout rates. If less girls drop out performance may worsen as those who would have dropped out are likely to be those with the worst performance.

Conclusions

MHH is clearly a significant issue for this population and schools and parent demonstrate some readiness to address it. Within the school community parental engagement and improving the environment are key priorities. Despite some awareness and readiness to address the issue, attitudes and knowledge among girls, boys, teachers and parents remain inadequate for achieving change and a focus on transforming this barrier will need to be a focus of coming months.