

Menstrual Health and Hygiene Management

Knowledge, Attitudes and Practices among Adolescent Girls in Namibia



Republic of Namibia



UNITED NATIONS
NAMIBIA



Comprehensive Assessment of Menstrual Health and Hygiene Management

Knowledge, Attitudes and Practices among Adolescent Girls in Namibia



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Preface

The adoption of Sustainable Development Goals (SDGs) in 2015 present a historic opportunity to advance the rights and well-being of every woman and girl child, especially the most disadvantaged. SDG 6.2 acknowledges the right to menstrual health and hygiene and specifically seeks to achieve access for all to sanitation and hygiene.

The 2021 Namibia Multidimensional Poverty Report shows that sanitation and hygiene is the second largest indicator, after transportation, contributing to multidimensional poverty at 68.9% for the total population and 72.7% among children. The Namibian Government has prioritised access to Water, sanitation and hygiene (WASH) services as a key strategy to tackle poverty and equality through the Blue Print on Wealth Redistribution and Poverty Eradication (2016), National Sanitation and Hygiene Strategy (2021-2025), Harambee Prosperity Plan II (2021 – 2025) and the 5th National Development Plan (2021 – 2023) in line with Vision 2030 and the SDGs. This demonstrates recognition by the government on the importance of safe and dignified menstruation for girls and women which is to be fulfilled through gender-responsive WASH services.

To support this vision UNICEF, UNFPA and UNESCO provided technical and funding support to Ministry of Health and Social Services (MoHSS) and the Ministry of Education, Arts and Culture (MoEAC) to conduct a Comprehensive Assessment of Menstrual Health and Hygiene Management Knowledge, Practices and Challenges on Adolescent Girls in Namibia. The Assessment was undertaken in seven out of 14 regions of Namibia namely: //Kharas, Kavango East, Khomas, Kunene, Ohangwena, Omaheke and Zambezi. In total 1,119 girls between the ages of 10 to 19 years old from 66 schools were interviewed, whilst 372 girls and key informants took part in focused group discussions.

The main goal was to assess the prevalence of Mental Health and Hygiene Management knowledge, attitudes, and practices among adolescent schoolgirls in Namibia, and identify factors associated with poor menstrual health management and school absenteeism due to menstruation. To achieve this, the assessment focused on three objectives:

1. Investigate the current knowledge, attitude and practices of girls, boys, parents and teachers towards menstrual health and hygiene;
2. Identify menstrual health and hygiene related challenges at school and at home and determinant causes of these challenges; and
3. Determine the effects of menstrual health and hygiene on school attendance and academic performance.

The entire UN system stands ready to support the government and partners and call upon learners, teachers, parents, communities, stakeholders in education, to join hands in supporting interventions to support the girl child to continue her education with dignity in conducive, safe and healthy school environments. UNICEF, UNFPA and UNESCO will continue to support government interventions to towards the realisation and the fulfilment of girls' and women's rights as well as in ensuring that girls and women's human rights to living with dignity are preserved by collectively supporting implementation of the report recommendations.



Sen Pang
UN Resident Coordinator in Namibia

Foreword

Menstruation is an integral and normal part of human life, indeed of human existence. Menstrual health and hygiene is fundamental to the dignity and wellbeing of women and girls. It is an important part of the basic hygiene, sanitation and reproductive health services to which every woman and girl has a right. In many cultures, menstruation however remains a taboo subject, and is treated as something negative, shameful or dirty. The continued silence around menstruation, combined with limited access to information as well as the resources required to effectively manage it at home and in schools results in millions of women and girls having very little knowledge about what is happening to their bodies when they menstruate and how to deal with it.

Menstrual Health and Hygiene Management (MHM) is directly linked to the fulfilment of human rights and specifically sexual reproductive health and rights, both as a precondition for attaining health or education, and also as a matter of dignity in its own right. MHM is an integral component of achieving the Sustainable Development Goals, particularly: Goal 3 (Good health and well-being), Goal 4 (Quality Education), Goal 5 (Gender Equality), Goal 6 (Clean Water and sanitation), Goal 8 (Decent Work and Economic Growth) and Goal 12 (Responsible consumption and production). Furthermore, MHM is essential to the advancement of the African Union Agenda 2063, and is a key element in the implementation of the Global Strategy for Women's, Children's and Adolescent Health 2016-2030.

Insufficient empirical knowledge in Namibia on Menstrual Health and Hygiene Management (MHM) among girls presents a challenge to decision-making regarding menstrual care and support needed for the girls and young women in school. This assessment was conducted to assess the comprehensive knowledge, attitudes and challenges experienced in relation to MHM among girls in Namibia, in order to design appropriate interventions to support Namibian girls and women. Although Namibia has already taken a huge step towards declaring zero tax on MHM products, the findings of this research will further enrich the country's efforts deployed to ensure that young girls and women achieve their potential and do not miss out on relevant opportunities.

The study findings will inform decision making across relevant ministries, private-sector and civil society organisations in ensuring sufficient provision and management of menstrual supplies for girls and young women, _enhancing their dignity, and keeping them in class during their menstrual cycles.


Particularly, the findings on the level of knowledge among adolescent girls, parents and teachers will be used in designing Adolescent Girls and Young Women (AGYW) empowerment programs for girls, information sharing with the adolescent boys to maximize their understanding of MHM with the purpose of supporting the adolescent girls, capacity building programs for teachers and advocacy programs for the parents and communities at large.

The Ministry of Health and Social Services will be equally, supported by the study findings in the provision of adolescents and youth friendly health services, ensuring the availability of menstrual products at health facilities, and ensure the responsive health programming for the learners and adolescents and young people. The promotion of Water, Sanitation and Hygiene (WASH) in schools and community at large, which is key to MHM, will further contribute towards addressing the challenges related to poor sanitation which remains to be a national challenge.

The Executive Directors of Ministry of Education, Arts and Culture and Ministry of Health and Social Services are hereby accepting the assessment report with its findings and pledge our support to ensure the use of these findings in informing decision making processes at different levels.

We therefore urge all implementers, be it in government, private sector and civil societies to strengthen synergies and together mobilize for resources and expertise required for the effective and successful implementation of MHM programs, which are aimed at empowerment of adolescent girls and young women in the country.

Finally, the two Ministries wish to extend a word of gratitude to all the stakeholders who participated in ensuring the success of this assessment.


Sanet L. Steenkamp
EXECUTIVE DIRECTOR
MINISTRY OF EDUCATION,
ARTS AND CULTURE


Ben Nangombe
EXECUTIVE DIRECTOR
MINISTRY OF HEALTH AND
SOCIAL SERVICES

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Acronyms and Abbreviations

CLTS	Community-Led Total Sanitation
DREAMS	Determined, Resilient, Empowered, AIDS-Free, Mentored and Safe
EMIS	Education Management Information System
FGD	Focus Group Discussion
GBV	Gender-based Violence
GRN	Government of the Republic of Namibia
IDI	In-depth Interview
JMP	Joint Monitoring Programme
KII	Key Informant Interview
MAWF	Ministry of Agriculture, Water and Forestry
MGEPEWSW	Ministry of Gender Equality, Poverty Eradication and Social Welfare
MHHM	Menstrual Health and Hygiene Management
MHM	Menstrual Hygiene Management
MoEAC	Ministry of Education, Arts and Culture
MoHSS	Ministry of Health and Social Services
MET	Ministry of Environment and Tourism
NAPPA	Namibia Planned Parenthood Association
ODK	Open Data Kit
OVC	Orphans and Vulnerable Children
OYO	Ombetja Yehinga Organisation
SDG	Sustainable Development Goal
SFH	Society for Family Health
SHP	School Health Programme
SLTS	School Led Total Sanitation
SRH	Sexual and reproductive health
SRHR	Sexual and Reproductive Health Rights
UMIC	Upper Mid Income Country
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Executive Summary



Introduction

The Government of the Republic of Namibia (GRN), through the Ministry of Health and Social Services (MoHSS) and the Ministry of Education, Arts and Culture (MoEAC) with support from the United Children Fund (UNICEF) and United Nations Population Fund (UNFPA) conducted a Comprehensive Assessment of Menstrual Health and Hygiene Management (MHHM) Knowledge, Attitudes, Practices and Challenges Facing Adolescent Girls in Namibia (hereinafter referred to as MHHM Assessment). This is the first assessment of its kind conducted in Namibia and will therefore serve as baseline data.

The goal of the MHHM Assessment was to assess the prevalence of MHHM knowledge, attitudes and practices among adolescent schoolgirls in Namibia, and identify factors associated with poor MHM and school absenteeism due to menstruation. The objectives of the MHHM Assessment were:

- to investigate the current knowledge, attitude and practices of girls, boys, parents and teachers towards menstrual health and hygiene;
- to identify menstrual health and hygiene related challenges at school and at home and determinant causes of these challenges; and
- to determine the effects of menstrual health and hygiene on school attendance and academic performance.

MHHM Assessment Approach and Methodology

A mixed-method research approach was employed including extensive literature review, quantitative survey, and qualitative methods such as Key Informant Interviews (KIIs), In-depth Interviews (IDIs), Focus Group Discussions (FGDs) and observations. The assessment covered seven regions of Namibia, representing the key different languages groups and ethnicities of the country: Zambezi, Kavango East, Ohangwena, Kunene, Khomas, //Kharas, Omaheke. The actual data collection was carried out in November 2020.

Assessment Findings

Knowledge of menstruation and MHM

Knowledge about menstruation prior to menarche and MHM was found to be moderate in Namibia. However, knowledge was compromised by misunderstandings and myths that create fear and influences the manner in which girls manage menstruation hygiene. Main sources of information regarding

menstruation were Life Skills teachers in schools, followed by mothers and other family members at home. Girls in Namibia have access to information about the menstrual cycle, menstruation, but lacked in-depth understanding of changes experienced through the life-course, as well as related self-care and hygiene practices.

Attitudes toward Menstruation

Attitudes about menstruation are influenced by education in schools and at home, culture and tradition, willingness and ability to openly speak about menstruation, and stigmatisation. Although knowledge levels can be regarded as moderate, attitudes toward menstruation negatively influence willingness and ability of the girl child to effectively manage hygiene and the impacts on health, education and overall well-being.

Menstrual Hygiene Management Practices

The average age at menarche was found to be 13.7 years of age. The reaction of girls to menarche in Namibia is an indication that, although many learners knew of menstruation before menarche, most were not ready for it due to their inadequate understanding of different aspects of menstruation.

Girls were mostly aware of disposable pads, which were introduced to them by their mothers, sisters or friends amongst others. Almost all girls used preferred disposable pads, while 98% of schoolgirls wear pads. Not using preferred products were mainly influenced by unaffordability, followed by ineffectiveness, availability and not knowing other products. Girls are currently not making informed choices as their choices are based on the one product that has been introduced to them. As indicated above, almost all girls preferred and used disposable pads, but one-out-of-four girls could not afford it. This should be considered as high unaffordability, especially taking into consideration that disposable pads cost between N\$10 and N\$20 per package that lasts approximately one month. Some schools distributed pads at school for girls who were in need. Washable pads were used by close to one-out-of-ten survey respondents.

Water and Sanitation at Schools

Menstrual hygiene needs consistent supply of potable water, as well as clean, functional and private toilets/ changing rooms, accompanied by readily available soap and toilet paper in close range, sanitary products and waste disposable mechanisms within toilets/ changing rooms. The above was found to be the key challenge in schools for effective MHHM, which contributed to negative impacts on school absenteeism and academic performance.

MHM Impact on Education and Health

The MHHM Assessment found that 97.1 percent of girls attended school when menstruating, although some may miss some of the days during menstruation. Slightly more than one-out-of-ten (14.2 percent) of girls missed schools due to the effects of menstruation. This is in addition to one-third of girl learners not attending school for other reasons, such as illnesses, funerals and lack of money amongst other reasons. Half of those who missed school, missed one day of school in a month, two-thirds missed 2-3 days, while 14.1 percent missed four days or more. Access to sanitary products and affordability were issues of concern in managing menstruation, but dysmenorrhea (pain) was the most widely reported challenge affecting

concentration in the classroom and schools attendance. In addition, most the learners noted that they experienced low levels of concentration and comfort in schools.

One-third of girl survey respondents noted to have experienced health consequences due to inadequate management of menstrual hygiene, while 67.4 percent did not. Most experienced vaginal itching, followed by vaginal smelly/unusual discharge, irritation/soreness around the vagina, redness around the vagina, lumps/blisters and heavy bleeding. Many of the girl survey respondents (70.7 percent) noted that they did not get treatment for the symptoms experienced due to inadequate menstruation management. Of those who received treatment, 80.5 percent noted to have received medical treatment from the local clinic, doctor, nurse who visited the school, or pharmacy. The rest self-medicated.

Education and Health Responses

Namibia does not currently have a policy framework that directly deals with MHHM. However, MHHM is indirectly covered by other education and health policies. The above was considered insufficient for a more coordinated, financed and managed responses to MHHM.

Life Skills teachers were mainly responsible for MHHM during the Life Skills class, although different aspects of MHHM were tackled by other subjects such as Biology, Natural Sciences, Physical Education, Home Ecology, etc. The Life Skills curriculum makes provision of reproductive health and sexuality education. However, most of the girl survey respondents (77.3 percent) did not know of the health education curriculum at schools.

Counselling facilities for MHM were limited in schools.

Some NGOs or projects such as Ombetja Yehinga Organisation (OYO), DREAMS (Determined, Resilient, Empowered, AIDS-Free, Mentored and Safe) Anna Pants, youth groups, First Lady Project, FAWENA, and My Future is My Choice amongst others implement initiatives in some schools in some regions. External support to schools were found to be ad hoc, uncoordinated and unsustainable. There seems to be disjoint on MHHM responses from the three key ministries: MoEAC, MoHSS and Ministry of Gender Equality, Poverty Eradication and Social Welfare (MGEPEWS). Relevant ministries have not been very responsive to menstrual needs within schools and at homes. Half of the schools who participated in the MHHM Assessment were found to have some kind of sanitary product distribution mechanism in place, albeit at different levels across the regions. Significant discrepancies were found between regions.

Close to half of the girls interviewed (45.3 percent) said that MHM facilities in schools, i.e., water and sanitation for menstruations, were inadequate for managing menstrual hygiene or to keep clean.

Schools did not have school nurses, leaving many social and health issues to the Life Skills teachers who, many a times, felt overwhelmed. Close to three-quarters (71.6 percent) of girl survey respondents indicated that their schools never had hygiene kits, 9.5 percent said sometimes, 17.6 percent said never, while 1.4 percent did not know. One third of the respondents reported that they received insufficient training on health issues during school hours, including sexual reproductive health.

Conclusions

The primary challenges that learners experience in schools are access to adequate water and sanitation facilities, access to hygiene products and services (soap and toilet paper amongst others) for washing of hands and the body where needed, access to pain relievers, facilities for changing of menstrual materials in a safe and private manner, and facilities for cleaning and/or disposing of used materials. The above is the core of the matter. Secondary challenges include moderate knowledge levels, attitudes and misconceptions, and access and affordability to sanitary products.

Recommendations

The key finding of this assessment is that adequate MHHM is complex including levels of age-appropriate knowledge, enabling attitudes toward menstruation, acceptable and suitable MHM practices, access to suitable sanitary products and pain relievers, access to potable water and functional sanitation facilities and finally MHM located within a broader SRH Framework. Recommendations should be aimed at strengthening the dignity of the girl child who menstruates and mitigating negative impacts on school attendance, academic performance and overall associated health needs that cater for the above-mentioned complexities. It is therefore recommended that a multi-sectoral approach is applied to respond to the needs of the girl child as it pertains to MHHM.

It is essential to focus on strategic and operational strategies and prioritise accordingly. There are two sets of recommendations: strategic and operational recommendations. Please note that the operational recommendations are further elaborated under Chapter 10.



Strategic Recommendations

Integrate MHM into the School Health Policy.

Integrate MHM into WASH Programming, or expand the integration thereof.

The MoEAC needs to champion the overall response to inadequate MHM and resultant impacts of education, health and well-being. This response needs to be multi-sectoral with the following key ministries playing active roles: MoHSS, MGEPSW, Ministry of Agriculture, Water and Forestry (MAWF), and Ministry of Works and Transport (MWT). Essential development partners and local NGOs need to support the MoEAC, such as UNESCO, UNFPA, UNICEF, UNWOMEN, DREAMS, OYO and others. Other essential ministries are Ministry of Environment and Tourism (MET), Ministry of Higher Education, Training and Innovation (MHITI), and Ministry of Poverty Eradication and Social Welfare (MPESW) amongst others.

Thematic Working Groups need to be established to respond to the complexities of MHM, including age-appropriate knowledge/information sharing, adequate MHM practices, water and sanitation, education, health, well-being, etc. This needs to be done under the auspices of Integrated School Health and Safety committees where such programmes will be managed, coordinated, monitored and evaluated.

Curriculum revision to include MHM more directly is not possible at this time, as curriculum revisions were recently completed. Therefore, guidelines towards the integration of MHM more directly need to be developed and implemented. Develop clear implementation guidelines on MHM, including IGAs, so that all schools comply and implement the guidelines consistently.

New training material needs to be developed to complement trainings of Life Skills Teachers, focusing on inclusion of MHHM. MHHM should be integrated in all the subjects, just like HIV and AIDS.

The age of Reproductive Health Education embedded in Mother and Child Health has to be revisited. School MHM champions need to be selected, and supported by dedicated school management, to lead and motivate schools on issues pertaining to MHM. Assign a MHM Focal Person in Health Directorates in every region.

Besides the MHHM Day, celebrated annually on 28 May, organise an annual conference with regional directors and Life Skills teachers, focusing on women and girls' health and hygiene.

Carry out regular annual assessments in schools to identify MHM needs. This should also be included in the MHM Guidelines.

Re-design architectural standards for school toilets, ensuring two separate blocks of toilets for male and female learners. New schools should not be opened when toilets have not been built and are functional.

Promote, advocate and ensure inclusion of children with special needs or with disabilities.

Operational Recommendations

Establish mechanisms to enhance access to accurate, timely, age-appropriate information about the menstrual cycle, menstruation, and changes experienced through the life-course, as well as related self-care and hygiene practices.

Provide support to girl learners to access and use effective, affordable and environmentally friendly menstrual products in schools and at home.

Strengthen school physical infrastructure and services including water, sanitation and hygiene services, for washing the body and hands, changing menstrual materials, and cleaning and/or disposing of used materials in order to provide opportunities to change menstrual products in a safe and private environment.

Provide support to learners to understand the importance of timely diagnosis, treatment and care for menstrual cycle-related discomforts and disorders, including access to appropriate health services and resources, pain relief, and strategies for self-care. Provide a positive and respectful environment at school in relation to the menstrual cycle, free from stigma and psychological distress, including the resources and support to confidently care for their bodies and make informed discussion about self-care throughout their menstrual cycle. This will support positive impacts on school attendance, academic performance, health and overall wellbeing of learners.



1 Introduction



1.1. Introduction

The Government of the Republic of Namibia (GRN), through the Ministry of Health and Social Services (MoHSS) and the Ministry of Education, Arts and Culture (MoEAC) with support from the United Children Fund (UNICEF) and United Nations Population Fund (UNFPA) conducted a Comprehensive Assessment on Menstrual Health and Hygiene Management (MHMM) Knowledge, Attitudes, Practices and Challenges Facing Adolescent Girls in Namibia (hereinafter referred to as MHMM Assessment). This is the first assessment of its kind conducted in Namibia and will therefore serve as baseline data.

1.2. MHMM Assessment Problem Statement

MHMM 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. Achieving menstrual health implies that women, girls, and all other people who experience a menstrual cycle, throughout their life-course, are able to:

- Access accurate, timely, age-appropriate information about the menstrual cycle, menstruation, and changes experienced through the life-course, as well as related self-care and hygiene practices.
- Care for their bodies during menstruation such that their preferences, hygiene, comfort, privacy, and safety are supported. This includes accessing and using effective and affordable menstrual materials and having supportive facilities and services, including either, sanitation and hygiene services, for washing the body and hands, changing menstrual materials, and cleaning and/or disposing of used materials.
- Assess timely diagnosis, treatment and care for menstrual cycle-related discomforts and disorders, including access to appropriate health services and resources, pain relief, and strategies for self-care.
- Experience a positive and respectful environment in relation to the menstrual cycle, free from stigma and psychological distress, including the resources and support they need to confidently care for their bodies and make informed decisions about self-care throughout their menstrual cycle.
- Decide whether and how to participate in all spheres of life, including civil, cultural, economic, social, and political, during all phases of the menstrual cycle, free from menstrual related exclusion, restriction, discrimination, coercion, and/or violence.”¹

From the literature review there is general consensus that if not managed well, menstruation may have negative effects on the social, psychological, health and educational well-being of the girl child, both within society and in school. Lack of adequate support from families and schools may lead to increased absenteeism, low academic performance and lack of concentration amongst girls. Girls become anxious, have low self-esteem and feel discriminated against, and suffering silently. Many schools do not adequately support adolescent girls or female teachers in managing their menstrual health and hygiene with dignity.

Inadequate WASH facilities exacerbate compromised management of menstruation hygiene. The impact of poor MHM on the psychosocial wellbeing of girls (e.g., stress levels, fear and embarrassment, and social exclusion) affect their health, and ultimately contributes to poor results and inability to access opportunities thereafter. Improving MHHM, which includes managing and ending 'period poverty', one of the many MHHM components/challenges, can substantially improve girls' education, health and wellbeing. The literature review confirms that MHM has an impact on the lives of women and girls, albeit indirectly.² Impacts are influenced by the following themes:

WASH:

poverty influences period experiences because of water, sanitation and hygiene facilities. Lack of safe WASH facilities increases the vulnerability of women and girls who may practice open defecation.³

SEXUAL AND REPRODUCTIVE HEALTH RIGHTS (SRHR):

MHM is a critical component of SRHR, and efforts should be made to integrate MHM in SRHR policy and programming. The provision of menstrual products has been associated with lower risk of STI, likely due to a reduction in transactional sex.⁴ This is a potential mechanism by which the issue may be interacting with girls' economic empowerment, however, the results are unclear.⁵

HEALTH:

Without access to toilets, women and girls develop coping strategies during menstruation: they eat and drink less.⁶ This is related to negative cultural stigmas around menstruation.

EDUCATION:

girls' school experiences are negatively impacted if they are distracted, uncomfortable, or unable to participate because of anxiety over menstrual leakage and odour.⁷ Although education on MHM is important, MHM has yet to be included within the numerous activities underway to improve girls' educational outcomes in low and middle income countries.⁸

ECONOMIC ISSUES:

MHM restrictions include being excluded from religious and other social activities, any interaction with males, or travelling outside the home. Such practices are likely to contribute to economic consequences where increasing numbers of adult women are engaging in the workforce. Moreover, MHM has an impact on employment and work performance and on transactional sex.⁹

1.3. MHHM Assessment Justification

Sufficient data on MHM in Namibia are currently unavailable to inform policy development, strategies, plans, implementation and monitoring and evaluation. Current sources suggest that lack of adequate water and sanitation facilities, incorrect and age appropriate knowledge, stigma and discrimination, gender, access to appropriate sanitary products, and cultural and religious practices contribute to the ineffective participation of the girl child in education, politics, economy, sport, religious activities, culture and recreation amongst others. School health programs in Namibia do not effectively address MHHM in schools, mainly due to lack of resources, but also limited information to make informed decisions.

Therefore, the need for a comprehensive assessment of knowledge, attitudes, practices and challenges in relation to MHHM in Namibia. The baseline information collected by the MHHM Assessment will inform the development of key aspects of MHHM to be integrated into School Health, WASH and Education policies.

1.4. MHHM Assessment Goals and Objectives

The goal of the MHHM Assessment was to assess the prevalence of MHHM knowledge, attitudes and practices among adolescent schoolgirls in Namibia, and identify factors associated with poor MHM and school absenteeism due to menstruation.

The objectives of the MHHM Assessment were:

- to investigate the current knowledge, attitude and practices of girls, boys, parents and teachers towards menstrual health and hygiene;
- to identify menstrual health and hygiene related challenges at school and at home and determinant causes of these challenges; and
- to determine the effects of menstrual health and hygiene on school attendance and academic performance.



2

MHHM Assessment Approach and Methodology

2.1 Introduction

The MHHM Assessment approach and methodology was influenced by key research questions based on the above-mentioned goals and objectives. This section of the report describes the research approach and methodology, which employed both quantitative and qualitative research methods.

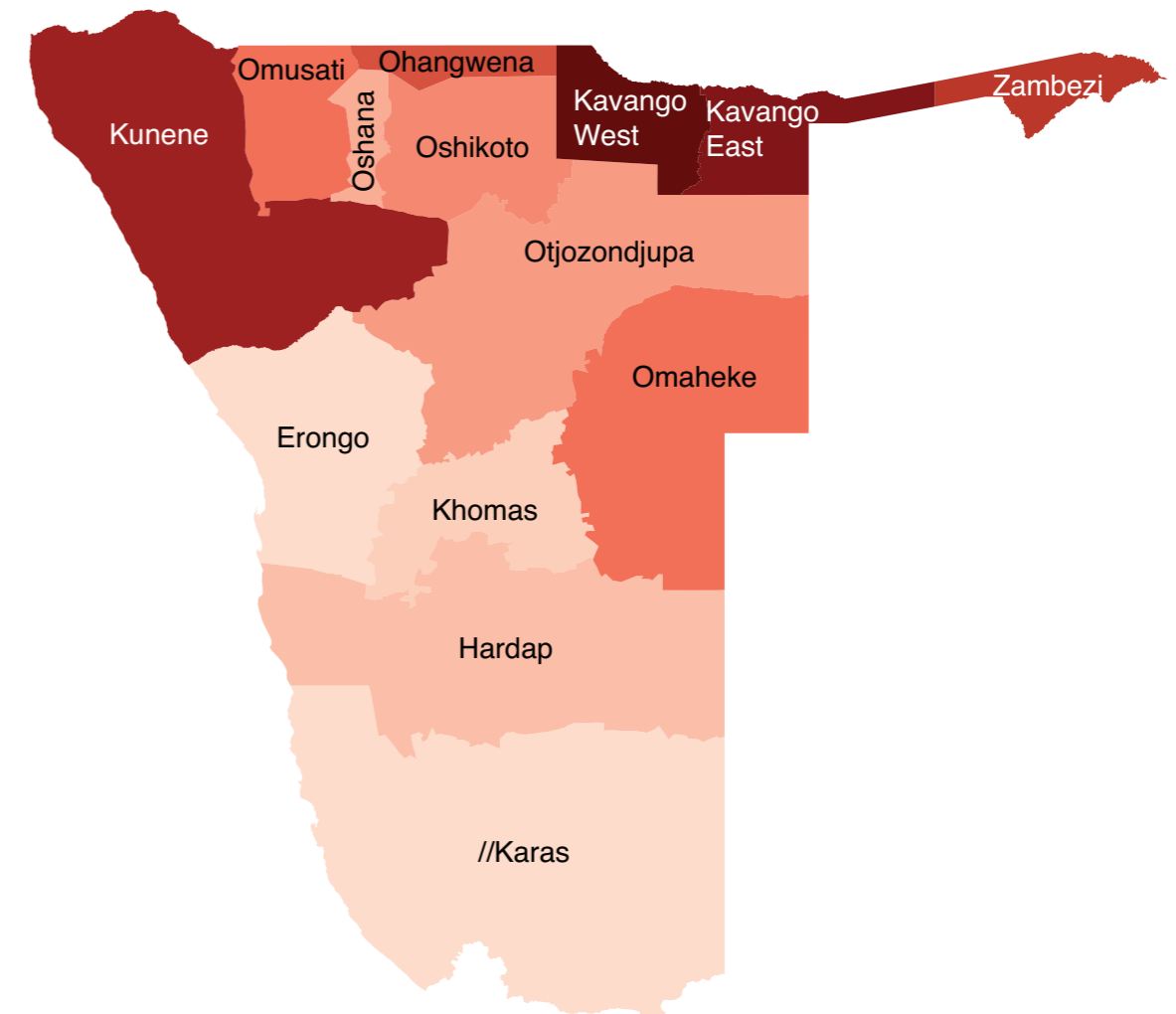
2.2 MHHM Assessment Approach

The collection of valid and reliable data as it relates to better understanding of MHHM is central to an accurate and in-depth understanding of the subject at hand. The overall survey approach was participatory in nature, ensuring the active involvement of key stakeholders, such as MoEAC, MoHSS, UNICEF, UNFPA UNESCO and WHO amongst others. The client, via a Steering Committee comprised of the above stakeholders, was kept informed and was actively involved on a regular basis; accompanied with written updates and personal discussions on progress. The Steering Committee, Principal Investigator and SusDAf worked together as a team, towards one goal; that of producing a top-quality research product.

A mixed-method research approach was employed including extensive literature review, quantitative survey, and qualitative methods such as Key Informant Interviews (KIIs), In-depth Interviews (IDIs), Focus Group Discussions (FGDs) and observations.

The assessment covered seven regions of Namibia, representing the key different languages groups and ethnicities of the country: //Kharas, Kavango East, Khomas, Kunene, Ohangwena, Omaheke and Zambezi. The actual data collection was carried out in November 2020.

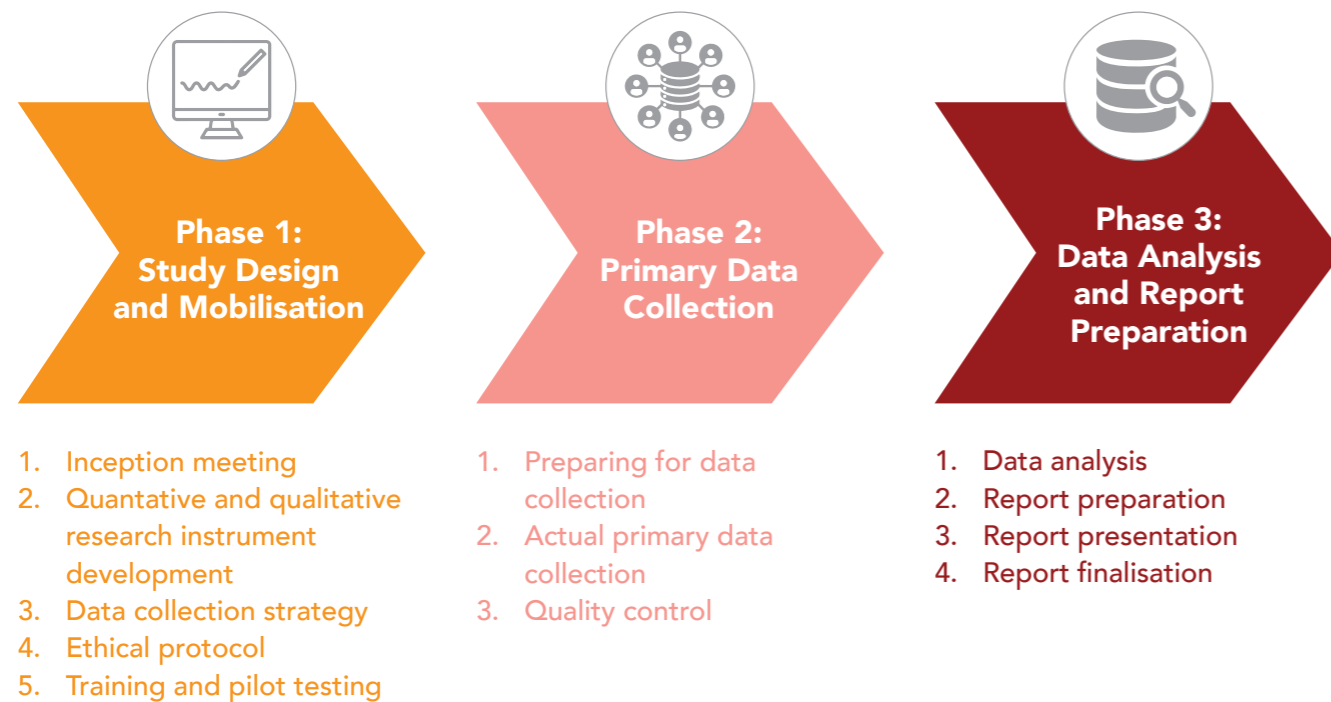
Map 1: Map of Namibia showing different regions



2.3 MHHM Assessment Methodology

The MHHM Assessment methodology is divided into the following three phases to ensure effective and efficient implementation, quality control and a reliable and valid reflection of MHHM, knowledge, practices, attitudes and challenges experienced by adolescent school-going girls in Namibia.

MHM Baseline Study Life Cycle



2.3.1 Phase 1: Assessment Design and Mobilisation

2.3.1.1 Research Team and Assessment Oversight

An inception meeting with the Steering Committee was conducted to reach consensus on research approach and methodology, as well as a workplan. Decisions made during the inception meeting guided the design and implementation of the MHM Assessment.

2.3.1.2 Research Team and Assessment Oversight

The MHM Assessment was managed by the Steering Committee, while the day-to-day operations were managed by representative of MoHSS and MoEAC. The Principal Investigator led the Assessment. Besides the Principal Investigator (hired by UNICEF), an Assessment Data Collection Team from a local research firm was utilised (hired by UNFPA). The Data Collection Team comprised of a Survey Manager, Survey Coordinator, Statistician, seven Regional Supervisors and 21 Data Collection Officers (DCOs) (three per region). DCOs were all female due to the sensitivity of questions and discussions. DCOs were conversant in English and the main languages spoken across the seven participating regions. The MoHSS and MoEAC provided the required number of DCOs and seven vehicles for primary data collection. Please see Annex C for a list of DCOs.

Community Health Workers (MoHSS), Regional School Counsellors, Race Coordinators, and national staff supported organisation of data collection, including FGDs.

2.3.1.3 Literature Review

An extensive literature review was conducted that provided contextual information for the Assessment, but also informed data collection tool development.

2.3.1.4 Development of MHM Assessment Data Collection Tools

The Principal Investigator was responsible for data collection tool development. The following data collection tools were developed and approved by Steering Committee and IRB:

- Quantitative questionnaire for girls (grades 4-12)
- FGD for girls and boys in schools
- KII for teachers, parents, traditional leaders and education and health directors
- IDI for girl learners, including girls with special needs, San and Orphaned and Other Vulnerable Children (OVC)
- Informed consent forms.

2.3.1.5 Sample Strategy

The MHM Assessment sampled population included adolescent girls, adolescent boys, teachers, principals, other educators, parents, regional representatives, traditional authorities, policy makers, Non-Governmental Organisations (NGOs), government officials, UN agencies and other developmental partners.

Quantitative Sample

The quantitative sample strategy needed to cater for the selection of schools from rural and urban areas and public as well as private schools. Learners were selected to ensure that different age groups and grades, were captured. The seven regions were selected by the Steering Committee to capture MHM from different cultural/ethnic groups. Although the results were not generalisable to the entire country, the sample reflected main cultural attributes in selected regions.

The target group for the quantitative component of the Assessment was adolescent girls in grades 4 to 12. A Microsoft Excel file with a list of all schools in Namibia and the number of pupils was provided by MoEAC. The number of interviews per school was determined based on 5 percent of interviews per school.

The survey covered the following seven regions out of the 14 regions, //Kharas, Kavango East, Khomas, Kunene, Ohangwena, Omaheke and Zambezi. The assumption was that various cultural groupings in Namibia were represented by these seven regions. The representation of cultural groupings was considered an important factor in the sampling stages. It should be noted that respective regions were not always culturally homogeneous, but these regions represented key cultural groups. For example, most learners in Zambezi were Silozi speakers, but some were Oshiwambo speakers emanating from a different culture. In Kunene, two different cultural groups were found in the south and the north. Caution should therefore be given that these cultural discrepancies are present in the sample and analysis.

Overall estimation at the combined regional level may represent cultural aspects of Namibia as a whole. Additionally, estimation at urban/rural level, state and private school levels as well grades were also considered. Different age groups were captured via learners from different grades.

The ToR indicated that 8 to 10 percent of schools within a region were selected randomly as the sample schools. The minimum required to have urban, rural, public and private was 8 percent as per the sampling, approved by IRB. The 8 percent was also agreed upon in the inception meeting with the Steering Committee on 14 October 2020.

However, the 8 percent sample distribution of schools across the regions did not allow for sufficient representivity of key cultural patterns existing within the regions. For example, Ohangwena region got the largest sample of schools, because of its large population and consequently the largest number of schools, but it constituted one main cultural group; the Oshiwambo cultural group. It also represented three other regions with the same cultural set up. On the other hand, there were other regions with a mixture of different cultural set ups where the sample of schools were not sufficient, such as Kunene Region where the northern part was primarily Ovazemba/Ovahimba speaking, and the southern part was Khoekhoegowab speaking. //Kharas and Omaheke regions got very small numbers of sampled schools, because of their population size. Hence it was agreed upon to oversample the //Kharas, Kunene and Omaheke regions and to adjust the sample for the Ohangwena Region. Sampling, therefore, strived not to be representative of the selected regions per se, but representative of key cultural groups of those regions.

Table 1: The distribution of schools by region and urban/rural, state/private levels

Region	Sample schools (8%)		Adjustment for Oversampling **	Adjustment for the region with the largest sample	Final sample schools	Number of girls sampled
//Kharas	4.24	5	8	8	8	107
Kavango East	6.64	7	8	8	8	190
Khomas	9.76	10	10	10	10	237
Kunene	6.08	7	8	8	8	100
Ohangwena	19.92	20	20	20	15	285
Omaheke	2.96	3	8	8	8	120
Zambezi	8.56	9	9	9	9	162
Total	58.16	61	71	71	66	1201

Source: Research submission to IRB

* The schools not relevant to the Assessment were removed and the balance was taken as the eligible number of schools

** Minimum number of sampled schools were taken as 8 percent and the regions with lower number of sampled schools raised to that level - oversample to ensure better representation

The completed sampled accounted for 1,199 interviews. Data collection took place close to examination time resulting in some schools not able to provide for the full number of learners required. The list of schools that were randomly selected can be found in Annex B.

Once the schools were selected it was then a matter of getting the relevant learner population from the selected schools. The ToR specified that the grades 4 to 12 were targeted. Hence it was necessary to identify the number of learners of all grades in each of the selected schools. The ToR indicated that 5.0 percent of the learner population should be selected for the interviews.

Here again this proportion was changed depending on the relevant learner population in the school, because the precision levels of different characteristics depended upon the number of girl learners in the sample. Once these numbers were finalised based on the information received from the schools, the sample girl learners were selected for the interviews from the list of learners of the relevant grades, obtained from the schools.

Qualitative Sample

Seven regions as indicated above participated in the Assessment. In each of the regions the following qualitative data collection exercises were facilitated as per Table 2.

Table 2: Qualitative Sample per Region

FGDs	KIIs	IDI
2 School-going girls (urban & rural) 1 School-going boys 0.5 San girls	1 Regional Director Education/ Inspector 1 Regional Director Health 2 Teacher/Principal (rural & urban) 2 Mother (rural & urban) 2 Traditional/Church Leaders (rural & urban)	1 Female OVC 1 Female out-of-school 0.5 Special Needs
Total FGDs per Region = 3.5 FGDs per region	Total KIIs per region = 8 KIIs per region	Total IDID per region = 2.5



Table 3: Number of data collection exercises and number of participants for the qualitative assessment component

Type of Data Collection Tools	Kavango East	Khomas	//Kharas	Omaheke	Kunene	Ohangwena	Zambezi
Kavango East	✓	✓	✓	✓	✓	✓	✓
Khomas	✓	✓	✓	✓	✓	✓	✓
//Kharas	✓	✓	✓	✓	✓	✓	✓
Omaheke				✓		✓	✓
Kunene	✓	✓	✓	✓	✓	✓	✓
Ohangwena	✓	✓	✓	✓	✓	✓	✓
Zambezi	✓	✓	✓	✓	✓	✓	✓
KII Parent Urban	✓	✓	✓	✓	✓	✓	✓
KII Parent Rural	✓	✓	✓	✓	✓	✓	✓
KII Teacher Urban	✓	✓	✓	✓	✓	✓	✓
KII Teacher Rural	✓	✓	✓	✓	✓	✓	✓
KII Traditional/Religious Leader Urban	✓	✓	✓	✓	✓	✓	✓
KII Traditional/Religious Leader Rural	✓	✓	✓	✓	✓	✓	✓
KII Regional Director Health	✓	✓	✓	✓	✓	✓	✓
KII Regional Director Education	✓	✓	✓	✓	✓	✓	✓

2.3.1. Ethical Protocol

The MHHM Assessment was approved by the Ethical Review Board of the MoHSS. The MHHM Assessment adhered to the following ethical protocols:

- Participation in interviews and group discussions was voluntary. Participants were made aware that they have the right not to participate.
- The Assessment design included actions aimed at reducing any possible distress caused to the participants by the research.
- The safety of research respondents and the research team was paramount and guided all survey decisions.
- Confidentiality was essential to ensure both respondent's safety and integrity of data.
- Participation was voluntary
- All research team members were carefully selected and received specialised training and on-going support.

- Researchers have an ethical obligation to help ensure that their findings are properly interpreted and used for advancement.

All research participants provided written consent or verbal consent. Special attention was granted to research subjects under the age of 18, as guardian assent was required for their participation. Internationally acceptable ethical protocols were followed.

2.3.1.7 Training and Pilot Testing

Training of Supervisors and DCOs took place from 26 to 30 October 2020 at the Avani Hotel and Conference Centre, Windhoek. A one-day training exercise with Supervisors was facilitated prior to training with DCOs. The five-day training exercise ensured the following outcomes:

- In-depth understanding of the goals and objectives of the MHHM Assessment;
- Adequate understanding of the issues to be covered by the survey and of the target population;
- Understanding the sample frame and sample methodology;
- In-depth understanding of survey methodology and data collection instruments, demonstrating adequate quality assurance techniques;
- Commitment towards proper, high quality and effective data collection in the best interests of the Client and respondents; and understanding ethical protocols;
- Master probing to gather in-depth views and opinions from research respondents; master appropriate body language and dress codes; how to overcome cultural and language barriers; and
- Teamwork, time management of an interview and timely reporting.
- The pilot test was conducted at the Faith Primary and C. J. Brandt Senior Secondary schools in Windhoek. The outcome of the pilot-test informed finalisation of the questionnaire, qualitative data collection tools, subsequent sample size, data quality mechanisms and the overall data collection process. The data collection instruments were revised after this pilot-test. All Supervisors and DCOs participated in the pilot test.

2.3.2 Phase 2: Primary Data Collection

2.3.2.1 Quantitative Data Collection

- Primary quantitative data were collected through a questionnaire that was developed and administered to learners of grades 4-12 in randomly selected schools (Annex B).¹⁰ Data were collected using smart mobile phones or tablets onto an online tool "Open Data Kit",

During implementation, consent to conduct interviews with respondents was obtained after the introduction. The ethical protocols were guided by the following:

- The right of the respondent to refuse interview.
- The right of the respondent to refuse to answer any questions.
- The right of the respondent to opt out of the interview prior to completion.
- Excluding name identifiers.
- Ensuring that interviews are conducted in a confidential location.
- Security of completed interviews and group discussions.

as the chosen prototype to obtain real-time data from approved tools for the Assessment, where validation rules were employed.

- b. An observational check list was prepared and filled in at each school visited to report on availability of water and sanitation facilities in the schools, their status and if gender friendly.
- c. Secondary data was collected through available in country statistics and documents available from line Ministries, UN, NGOs and schools.

2.3.2.2 Qualitative Data Collection

The Assessment team supervisors, who were mostly female, facilitated FGDs, KIs and IDIs. Where the supervisors were male, the assistant coordinator facilitated discussions. The qualitative data collection was run/supervised by the Principal Investigator and Co-Principal Investigator.

FGDs were conducted in private rooms in the schools visited or community venue in open space. Qualitative discussions started with informed consent procedures, followed by a warmup introduction exercise. Each FGD was composed of 4-8 participants.

All qualitative discussions were audio-recorded with consent of the participants (due to the impracticality of taking sufficiently detailed notes during a multi-participant discussion), and then transcribed into English. Participants were informed that they do not have to use their own name during discussions, and, in such a case, the participant was issued with a number or pseudonym for the purposes of identifying themselves. The audio-recordings were not marked with any identifying information. Digital audio-recordings were stored on a password-protected computer, accessible only to trained assessment staff.



2.3.2.3 Quality Assurance and Quality Control

Since quality assurance precedes data collection, its main focus was 'prevention' (i.e., forestalling problems with data collection). Prevention was the most cost-effective activity to ensure the integrity of data collection. An important component of quality assurance was developing a rigorous and detailed recruitment and training plan of DCOs. The training aspect was particularly important to address the potential problem of staff who may unintentionally deviate from the original protocol. This phenomenon, known as 'drift', was corrected during training, and a reminder was put in the interview guide, as needed.

To ensure reliability and validity of the tools, comparisons were made with mother tools of similar studies, and a pilot test was carried out in schools of Windhoek.

While quality control activities (detection/monitoring and action) occurred during and after data collection, the details were carefully documented during the process before and during data collection. A clearly defined communication structure was a necessary pre-condition for establishing a monitoring system. There was not any uncertainty about the flow of information between Principal Investigator, Survey Manager, Survey Coordinator and supervisors following the detection of errors in data collection.

Detection or monitoring took the form of direct staff observation during site visits, conference calls, or regular and frequent reviews of data reports to identify inconsistencies, extreme values and/or invalid codes. Quality control also identified the required responses, or 'actions' necessary to correct faulty data collection practices and also minimize future occurrences. These actions were less likely to occur if data collection procedures were vaguely written and the necessary steps to minimize recurrence were not implemented through feedback and education.¹¹

2.3.2.4 Limitations

The main constraint identified was inadequate resources for the Assessment and time to travel to each of the seven regions. To avoid unnecessary interference to schoolwork, data collection was concentrated to one day at each school, except when the sample of a specific school was large.

The utilisation of Open Data Kit (ODK) was seen as a problem since some areas were not covered by mobile network. Hard copy questionnaires were printed for such potential instances. In such cases, there was a need for someone in each region to enter the data on ODK, which would have been time consuming. However, this did not happen apart from the first two days when the ODK server did not receive data uploaded, and DCOs had become more conversant with the app. Since ODK questionnaires could be saved and be uploaded later when connection was available, some DCOs used the app immediately, while some others collected data on paper. Another constraint was to access out of schoolgirls to ask them the causes of drop out. This was sorted out through community leaders. There was a need to utilise female community leaders to reach out to out-of-schoolgirls, which, however, were not common.

Interviewing traditional leaders was also a constraint since they were very busy and not always available. The regional supervisors had to be flexible to fix appointments.

COVID-19 was another risk since the assessment was carried out in November 2020 when a number of community transmissions were reported. The schools had been closed and were re-opened with all precautionary measures, including every learner wearing a mask and a hydro-alcoholic solution available in front of every class. DCOs strictly observed all recommended COVID-19 prevention measures.



2.3.3 Phase 3: Data Entry, Analysis and Report Preparation

2.3.3.1 Data Entry

Data entry was done automatically with ODK. Qualitative data was audio recorded and transcribed in English. Debriefs with data collection teams to ascertain outstanding variables and key research outcomes that require further probing.

2.3.3.2 Data Cleaning and Analysis

Quantitative data cleaning started during data collection and continued afterwards. However, during data collection, the Data Manager regularly performed basic analysis for quality control purposes. The aim of data cleaning was to resolve inconsistencies e.g., duplicate cases, missing values, conflicting data, and illogical data based on the validity checks that were created. In accordance with international standards, the Data Manager had a plan in place for cleaning the data and keep a record of the actions taken to resolve identified problems; keeping a record of the cleaning processes was important for audit purposes. The results framework already specified, guided data analysis and reporting, as the characteristics of the sample were described. Descriptive analysis was followed by the standards of analysis for all the variables under the Assessment at a confidence level of 95 percent and 5 percent margin of error for all seven regions combined. Besides summarising results in tables, they were also shown graphically and written up. The program STATA 14.1 was used to manage and analyse data collected and entered by ODK online data collection tool and exported to a statistical tool (SPSS) for analysis.

Qualitative analysis process involved reading the full transcripts to identify major and minor themes. The process of eliciting themes involved: a) familiarization through careful reading of transcripts and research memos, and noting emergent themes. The themes were primarily focused on education and health, adolescent experiences, needs and programmatic questions as defined above, but were also allowing for additional themes emerging from the data. The aforementioned methods were used in combination to ensure that qualitative findings were internally valid and that conclusions were robust.

2.3.3.3 Report Preparation

The collected data, both quantitative and qualitative data, were managed and analysed by SusDAf. Interpretation of such data and report preparation was done by the Principal Investigator:

- Draft Report and presentation to Stakeholders for comments
- Incorporation of comments and writing final report.

3

MHHM in Context



3.1. Introduction

This chapter of the report describes the context of MHHM in Namibia, regionally and internationally.

3.2. Country Context

3.2.1 WASH

According to WHO/UNICEF Joint Monitoring (JMP) Programme data, water coverage in Namibia was 83% in 2007, up from 77% in 2000. However, in the same period coverage in rural areas decreased from 68% to 63 percent. The decrease is due to lack of maintenance and the breakdown of systems in rural areas as well as a lack of willingness or affordability to pay for piped water. Information provided by the GRN, shows a higher coverage with 92.9% have access to safe water and regional differences which ranges between 74.6% and 99.6%. The low water coverage is mainly in rural areas with limited water sources and in disperse rural communities. According to JMP 2017, water coverage in rural areas increased from 66 to 69 percent.

In a general study on hygiene knowledge and attitudes in communities in four regions of Namibia (Khomas, Omaheke, Kavango and Ohangwena), high levels of hygiene knowledge were found.¹² The study was qualitative and was carried out through focus groups discussions. Elderly people, particularly older men in rural areas, demonstrated a lower level of hygiene knowledge in some of the groups. Despite the high level of knowledge, actual application of hygiene habits is low. Communities indicated that this is due to complicated procedures to wash hands mostly due to accessibility (no access to water or water sources that are located at a far distance, no soap), and poor motivation and belief in the importance of using a toilet and handwashing. Many people see hygiene knowledge as something imposed by 'outsiders', and although it can be reiterated, change of habits is not necessarily believed and translated into practice, nor into a positive change of behaviour.

Improved sanitation facilities are those designed to hygienically separate excreta from human contact. Sanitation coverage in Namibia, has remained almost stagnant over the past ten years, in terms of availability, use of facilities and the quality of sanitation infrastructures and services. The proportion of rural households with basic toilet facilities has remained stable at 15%, whilst access in urban settlements

has actually decreased (from 57 to 55%).¹³ Currently, only 34% of households nationwide have access to basic sanitation facilities. What is even more alarming is that 49% of the total population practice open defecation according to JMP, 2017 data.

3.2.2 Education

Namibia has made progress to achieve education for all since its independence in 1990. The formal education system comprises seven years of compulsory and free primary education, two years of junior secondary education, and two years of senior secondary education, from the age of six up to the age of eighteen.¹⁴ Namibia was one of the pioneers in Africa to introduce a school health program (SHP) and provision of health services to schools in 1972. In 1990, Namibia formally established a SHP in all schools in order to promote the health of school going children and ensure that Namibian learners have optimal conditions to grow, develop and learn. School health has formed a core component of the country's Primary Health Care strategy¹⁵ and a number of milestones have been achieved which to ensure that learners learn in a safe, healthy and enabling environment. However, a lot still remains to be done.

Menstruation and reproductive systems are taught within the framework of the school health programme (SHP), which is a joint collaborative programme between MoHSS and the MoEAC. MHHM particularly is not a subject taught. Namibia adopted the WHO's Health Promoting School Initiative as a key strategy to deliver on the Vision 2030 goal of ensuring equity and access to quality education for all Namibians, especially young people. Namibia's SHP furthermore complements the Eastern and Southern African (ESA) Commitment on Comprehensive Sexuality Education and Sexual and Reproductive Health and Rights.¹⁶ Despite the well-established policy framework on the field of integrated school health, Namibia faces several challenges in its implementation. One of the challenges is funding the "Strengthening the School Health Programme in Namibia" so that learners' health and development challenges are supported in the right way.¹⁷ The school health program staff struggles with shortage of trained school health workers, insufficient health education material, insufficient equipment for health check-ups and underdeveloped school health information systems. Public rural schools are facing additional challenges like distance and poor transportation infrastructure, lack of access to electricity and WASH facilities, as well as an insufficient supply of teaching and learning material. Lack of suitable products and facilities for MHHM can limit female participation in education and employment, and can impact leisure activities, travel and demand for care and treatment, such as pain relief.

3.2.3 Water in Schools

According to the 2018 GRN/MoEAC Education Management Information System (EMIS):^{18 19} 88.6% of schools had access to water (211 out of 1848 schools with no water nationwide). This is a reduction in water coverage in comparison to 93.7% coverage in 2012. This situation is worse in some regions namely Kavango West with 73.3% (47 out of 176 schools with no water) and Kavango East with 67.1% of water

access in schools (54 out of 164 schools with no water) compared to schools in Hardap, //Kharas and Erongo Regions which have 100% coverage. It can be concluded from the statistics is that water coverage to schools is regressing and characterised by regional and urban-rural disparities.

3.2.4 Sanitation in Schools

Based on EMIS and additional information by UNESCO it was reported that in 2016, 46% of all primary schools in Namibia had access to basic sanitation, 31% with limited sanitation services (improved but not usable or not single-sex) and 23% had no sanitation services at all. This means that 77% of the schools had sanitary facilities, but of those only 3 out of 5 met the minimum criteria of accessibility, functionality and privacy. Even in some cases where schools have toilets, they were often inadequate or in a state of disrepair rendering them unusable. The number of schools with no toilets reduced from 301 in 2016 to 232 in 2019. In fact, according to the 2018 EMIS Report 294 schools in Namibia²⁰ were without toilets. In 2019 the number of schools without toilets were 232. This entails that schools were still being constructed without toilet facilities in that period.²¹

A positive aspect is that 54% of the schools have facilities which are accessible to people with limited mobility. Inaccessible WASH facilities in schools create additional barriers for children with disabilities to attend school. This is particularly an issue for girls with disabilities who also have to manage menstrual hygiene in inaccessible facilities, something which can potentially undermine dignity, health and school attendance.²²

In 2018, MoEAC and UNICEF introduced the international School Led Total Sanitation (SLTS) in Namibia. The SLTS in Namibia includes the facilitation of, 'let people design toilets', and focus more on behaviour change and capacity building, encouraging people to monitor and follow progress toward total sanitation with indicators. SLTS is a process of facilitating school communities (learners, teachers, parents, School Management Committee members, village heads, etc.) to analyze the current sanitation and hygiene situation, their practices and consequences, and to improve their sanitation and hygiene status. SLTS has been adapted for schools from Community-Led Total sanitation (CLTS) approach. It is expected to lead to collective actions to achieve total sanitation in both schools and catchment communities.

Currently CLTS is being piloted in Kavango East, Kavango West, Ohangwena and Zambezi. The presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for global monitoring of hygiene. According to a number of systematic reviews, handwashing with soap has a significant effect on health and reduced diarrhoea between 32% and 48% among children.

Based on EMIS 2018²³ and additional information by UNESCO, it was reported that 20% of the schools had handwashing facilities with water and soap, 16% limited handwashing facilities with just water, and 64% had no handwashing facilities. Of those facilities, only 27% of them are located inside or near toilets. This seriously affects the health and hygiene conditions of school children as well as attendance.²⁴

WASH and in particular hygiene and menstrual hygiene management, is included in the Integrated School Health program methodology which is currently being implemented in Namibia.

3.2.5 Policy Framework for WASH

Within its existing policies, the RoN clearly recognises its social responsibility in ensuring basic services which include, but are not limited to, (a) provision of water, (b) provision of sanitation, (c) access to health services, (d) access to education, (e) skills and training, (f) provision of shelter/ housing, and (g) access to electricity. No specific policies have been developed in Namibia with regard to WASH in Schools and MHM.

3.2.6 Sexual and Reproductive Health for Adolescent Girls

Sexual and reproductive health (SRH) education in Namibia is integrated into the Education Curriculum and Life-Skills syllabus, as well as in subjects like Biology and Life Science. Primary and secondary schoolteachers receive training on the Life Skills and SRH syllabus. Efforts have been made to ensure that religious, community and/or traditional leaders support the HIV prevention approach adopted by the education sector.²⁵

Most programs run by NGOs and development partners deal with SRH education for girls related to early pregnancies and HIV. Early pregnancy is quite an issue in Namibia. About 3 500 pupils fell pregnant between 2017 and 2018, leading to more than 2 000 dropping out of school during the same period. A report submitted in 2019 to the National Assembly shows that about 1 440 fell pregnant in five northern regions in 2018, while about 2 000 pupils fell pregnant in 2017. The report stated that the majority of the girls who fell pregnant either dropped out of school, or found it difficult to return to school.²⁶ These findings were collected through public hearings at various schools with teachers, pregnant pupils, traditional authorities, parents and government institutions. Teenage pregnancy is a huge concern in the country as it deprives teenagers of the right to realise their goals. Several socio-economic challenges, including unemployment and poverty, are among the contributing factors to the high rate of teenage pregnancy. Other causes are community hostels, unprotected sex among teenagers, the social structure (family set-up), cultural and religious beliefs, and a lack of parental guidance, amongst other things, no connections with MHM were enquired.

Family planning services are free and available to all Namibians, and all health facilities provide family planning services, counselling and contraceptives.²⁷ According to the Namibian Demographic Health Survey (NDHS) of 2013, only 50.2% of women of reproductive age (15- 49 years) use some form of family planning method. This number varies widely, according to geographic areas, habitation, level of education and income.

The Namibia UNGASS Country Report indicates that the number of new HIV infections is now declining. Some of the key drivers of the epidemic in Namibia are lack of male circumcision; multiple and concurrent partnerships; inconsistent condom use, especially among married and cohabiting couples; excessive alcohol use; intergenerational sex; transactional sex; and lack of knowledge of status/HIV testing. No connections between HIV incidence and MHM was enquired nor reported in the UNGASS Report.

3.3 International and Regional MHHM Context

Adolescence is the period of transition between puberty and adulthood. Menarche is one of the markers of puberty and can therefore be considered as an important event in the life of adolescent girls.²⁸ There is

an influence of socioeconomic and nutritional status on menarche. Studies suggested that menarche tends to appear earlier in life as the sanitary, nutritional, and economic conditions of a society improve.²⁹ For most females, it occurs between the age of 10 and 16 years; however, there is a remarkable range of variation.³⁰ Menstrual disorders are a common presentation by late adolescence;³¹ 75% of girls experience some problems associated with menstruation including delayed, irregular, painful, and heavy menstrual bleeding, which are the leading reasons for healthcare consultations and visits by adolescents. Menstrual patterns are also influenced by a host of environmental factors. Historically, the age at menarche has gradually decreased by about four months in every 10-year interval. Some of these menstrual characteristics, such as irregularity in the menstrual cycle, premenstrual pain and discomfort, pain and discomfort at the time of menstrual bleeding and a heavy menstrual bleeding may affect the general and/or reproductive health of women and girls.

The menstrual cycle is an important indicator of women's reproductive health. However, menstruation has a different pattern within a few years after menarche, which might not be well understood by many adolescent girls. A comprehensive school education program on menarche and menstrual health may help girls to cope better and seek proper medical assistance.³²

MHM is an important gender issue and a critical component in holistic human development. It has been realised that menstrual hygiene related challenges continue to hinder women and girls' participation in development and other social initiatives and activities; affecting about 25 percent of the global population aged between 15 and 49 years. Water, sanitation and hygiene (WASH) interventions in schools have not prioritised MHM, thus exposing girls and the entire school community to health-related hazards. A study was carried out in Zimbabwe³³ to explore knowledge, attitudes and community practices, investigate the impact of religious and cultural beliefs on MHM and how they impact the girl child in the Masvingo district. Its findings revealed deeply embedded power relations, a culture of silence around MHM, non-involvement of men in MHM issues, limited availability of information, girl unfriendly infrastructure, and limited access to menstrual hygiene products due to poverty, poor management and disposal practices. Resultant effects ranged from poor class participation, lack of concentration and constrained interactions with peers and teachers, low self-esteem, anxiety and the general feeling of being discriminated against. Results confirmed the need for increased awareness initiatives on MHM in a bid to tackle inherent religious and cultural beliefs that are a barrier to effective holistic implementation of WASH and MHM interventions to empower women and girls. Lobbying government to provide an appropriate policy framework, education and training, construction of girl friendly sanitary facilities, exploring and capitalisation of local production of Reusable Menstrual Pads (RUMPS), more research targeting children with disabilities, those living in refugee and makeshift camps and OVC, are some of the recommendations from the study.

Another study shows that when menstruating, schoolgirls in rural Zambia would rather stay home than be uncomfortable, inactive and embarrassed due to inadequate MHM facilities at school. A friendly and supportive MHM environment that provides education, absorbent sanitary materials and adequate WASH facilities is essential to providing equal opportunity for all girls.³⁴

Several other studies have been carried out on the African continent.³⁵ Menstrual hygiene is vital to the health, well-being, dignity and productivity of women and girls. A culture of silence surrounds menstruation while inadequate facilities predispose adolescents to psycho-social trauma and cyclic absenteeism from schools. A study assessed menstrual hygiene practices among adolescents in selected secondary schools in Nigeria, and concluded that sanitary pads were found to be the most common (76.6%) menstrual

protective material used by the respondents. The choice of menstrual hygiene product by majority (42.3%) of the respondents was not dependent on any particular reason. Most (93.7%) of the respondents had information about menstruation before they started and mothers were the source of information for most of them (87.0 percent).³⁶ Another study in Nigeria assessed the knowledge and MHM practices among in-school adolescents in an urban area in Nigeria. The mean age and age-at-menarche of respondents were 15.3 ±1.5 and 12.8 years, respectively. Most respondents (70%) were aged 10–15 years, (296 i.e., 74%) had good knowledge of MHM and (85.4%), knew about menstruation before menarche. The number of absorbents used daily was 2.5 ±0.7; 90% of adolescents changed absorbents at least twice daily while 24.2% had previously changed it in school. Moreover, 14.4% of respondents abstained from school during menstruation and there was a significant association between school type and menstrual absorbents used, mothers' education and disposal of used absorbents. Used absorbents were mostly disposed of in pit latrines (35.1%) and by burning (32.6%). A wide disparity remained between good MHM knowledge and poor practices. Therefore, gender-friendly facilities should be provided in schools to ensure retention of girls and end psycho-social trauma experienced during menstruation.³⁷

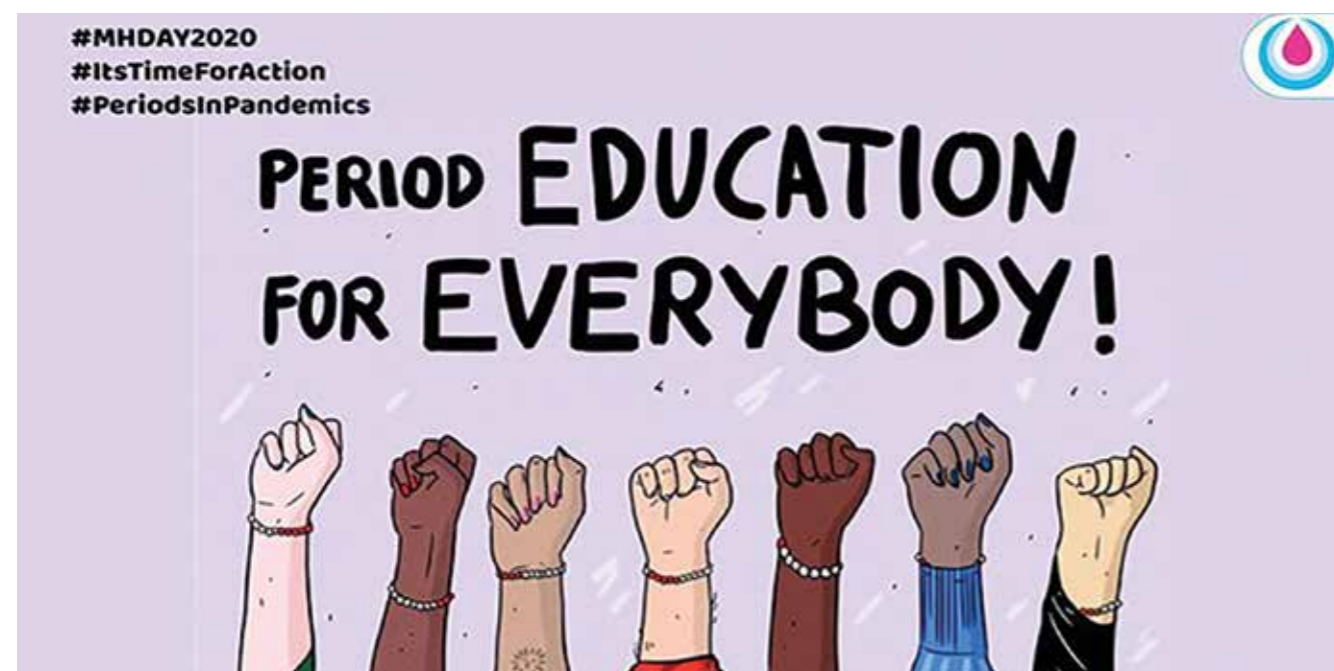
Menarche is the most dramatic manifestation of puberty in girls; unlike the biometric developmental changes that occur at puberty, menarche requires the personal adjustment and response of an affected girl in order to attain good menstrual hygiene. A study was designed to evaluate how boarding secondary schoolgirls manage their menstruation in school in Nigeria, away from the guidance of their parents. The study population was 975 girls whose survey revealed the mean age at menarche of 12.5±1.4 years. 72% had received sexuality education before onset of menarche. Respondents who attained good menstrual hygiene were 79.5% (775). Such respondents were those who had received sexuality education and those who had access to synthetic sanitary pad. Duration of the menstrual period and the volume of menstrual blood loss did not affect the ability of respondents to attain good menstrual hygiene. Respondents who received sexuality education had about much higher chances of attaining good menstrual hygiene than those who did not receive such education.³⁸

Many similar studies have been carried out in Asia.^{39 40} High prevalence of poor MHM and considerable school absenteeism due to menstruation among Indonesian girls highlighted the need for improved interventions that could reach girls at a young age and address knowledge, shame and secrecy, acceptability of WASH infrastructure and menstrual pain management. Many adolescent girls in low-income and middle-income countries lack appropriate facilities and support in school to manage menstruation. Little research has been conducted on how menstruation affects school absence. A similar study in Bangladesh examines the association of MHM knowledge, facilities and practice with absence from school during menstruation among Bangladeshi schoolgirls. Among schoolgirls who reached menarche, 41% reported missing school, an average of 2.8 missed days per menstrual cycle. Students who felt uncomfortable at school during menstruation, and who believed menstrual problems interfere with school performance, were more likely to miss school during menstruation than those who did not. School absence during menstruation was less common among girls attending schools with unlocked toilet for girls (35% vs 43%). School absence was more common among girls who were forbidden from any activities during menstruation (41% vs 33%). Risk factors for school absence included girl's attitude, misconceptions about menstruation, insufficient and inadequate facilities at school, and family restriction. Enabling girls to manage menstruation at school by providing knowledge and management methods prior to menarche, privacy and a positive social environment around menstrual issues has the potential to benefit students by reducing school absence.

The Sanitation and Hygiene Applied Research for Equity (SHARE) Consortium’s policy brief ⁴¹ of 2017, summarizes previous research on MHM and highlights the contribution of studies on this important topic, to policy formulation. The policy brief defines still existing knowledge gaps to set out clear recommendations for improving policy programs globally. It also advocates for further research on the topic and highlights the importance of integrating MHM in sanitation programming as well as the need to provide access to absorbent sanitary materials for women and girls in low- and middle-income countries, especially in schools.

The *Lancet Child & Adolescent Health* journal in 2018 highlighted the need for a Menstrual Hygiene Day. Menstrual Health has been a neglected component of adolescent health, including the increasing efforts worldwide to empower, educate, and engage country leaders, communities, families, and adolescent girls and boys about menstruation, and the rights of women and girls to manage their periods hygienically, comfortably, and safely. Menstrual health is also an under recognised social determinant of broader sexual and reproductive health and rights outcomes. Stigma, lack of knowledge, and negative social norms can leave girls poorly equipped to make decisions about sex, relationships, and family planning at a crucial juncture in their life course, contributing to the cycle of early pregnancy and marriage, and poor educational attainment and population health outcomes. For example, one study found 10% of young girls (aged 15 years) in rural Kenya resort to transactional sex to obtain money for sanitary pads, with dependency on men for sanitary wear continuing throughout adulthood.

While menstruation is a component of reproductive health in concept, the consideration of its effect on sexual and reproductive health, psychosocial stress, or on education and employment, is neglected,⁴² all of which perpetuate the cycle of sexual and reproductive health risks. Menstrual awareness and hygiene are also left behind when discussing sexual and reproductive health curricula, puberty education, life skills, and social rights. Also, of crucial relevance to menstruation within sexual and reproductive health and rights, is an enabling social and physical environment that provides emotional support as well as water, sanitation, and hygiene facilities, which requires accountability above and beyond women’s and girls’ individual-level behaviors to address menstruation-related needs for all, from the displaced, to those in school, home, and workplace environments.⁴³



4 Knowledge of Menstruation and MHM



4.1 Introduction

Correct, timely and age-appropriate knowledge of menstruation and the management of associated hygiene and health prior and post menarche, is essential in relation to the manner in which girls respond to menarche and manage menstruation hygiene and health. This chapter describes knowledge of adolescent girls in relation to MHHM, sources of information about MHHM and challenges in relation to the above.

4.2 Knowledge of MHHM Prior to Menarche

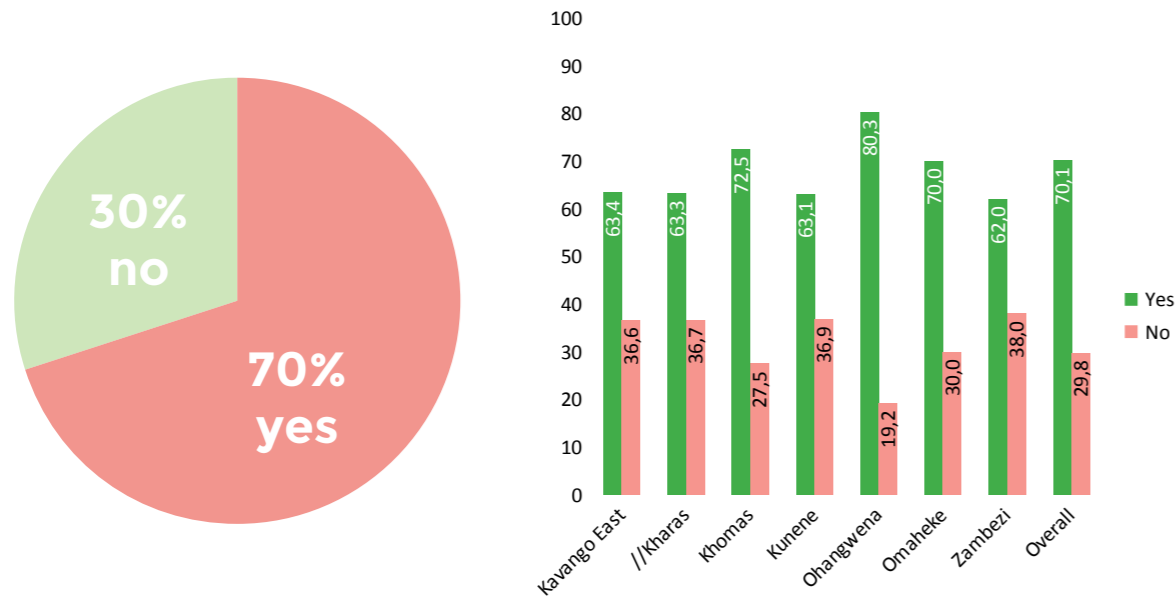
Of the survey respondents who have menarched, 70.1% reported to have known about menstruation (received information about menstruation) before menarche, while 29.8 % did not. Knowledge of menstruation before menarche was found to be highest in the Oshana Region (80.3 %), followed by Kunene and Kunene regions (72.5% and 70% respectively), while it was found to be lowest in the Kunene Region (62%), followed by Kunene and Kunene regions (63.1% and 63.3% respectively).



When I first got my period, I was in total shock and very angry with myself. I thought that I had done something that I was not supposed to do for the period to start so soon. A few weeks before the period started, I had abdominal pain and took some antibiotics my friend gave me. I thought that the antibiotics I drank the entire week caused the periods to start sooner than expected. I blamed myself, because I didn't expect the period to commence so soon.
(IDI, Out-of-Schoolgirl)



Figure 1: Known of menstruation before menarche (%)



Knowledge levels about menstruation before menarche was similar in urban (70.7%) and rural (69.7%) schools.

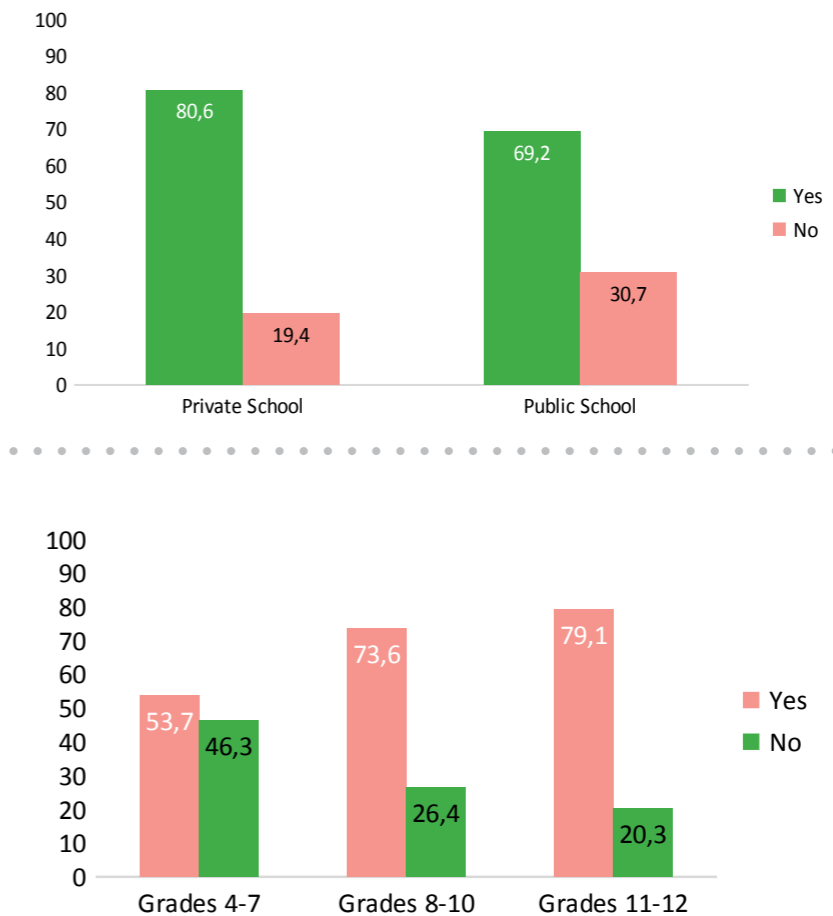
However, significant differences were found in private and public schools. Girl survey respondents in private schools were more likely (80.6%) to have been informed about menstruation before menarche than girls in public schools (69.2%).

In addition, girls in lower grades were less likely to be informed about menstruation before menarche than girls in higher grades. Only half of the girls were informed about menstruation in grades 4-7, compared with 73.6% in grades 8-10 and 79.1% in grades 11-12.



I got my first period last year when I was 15 years old. I was at home at the time. I was just sitting and relaxing at home. I did not feel any pain when my period started. I was just felt normal. Last year I was not going to school, I only started school this year. When I got my periods I told my mother. I told her there was blood on my panty. I was not scared, because my mother always taught me about periods and how to take care of myself. My pants was dirty with blood and my mother told me to bath. She showed me how to wear the pad. I cleaned myself and put the pad on my panty and wore it. My mother did not have enough pads at the time, so she went to the shop to buy more. (IDI, Special needs girl)

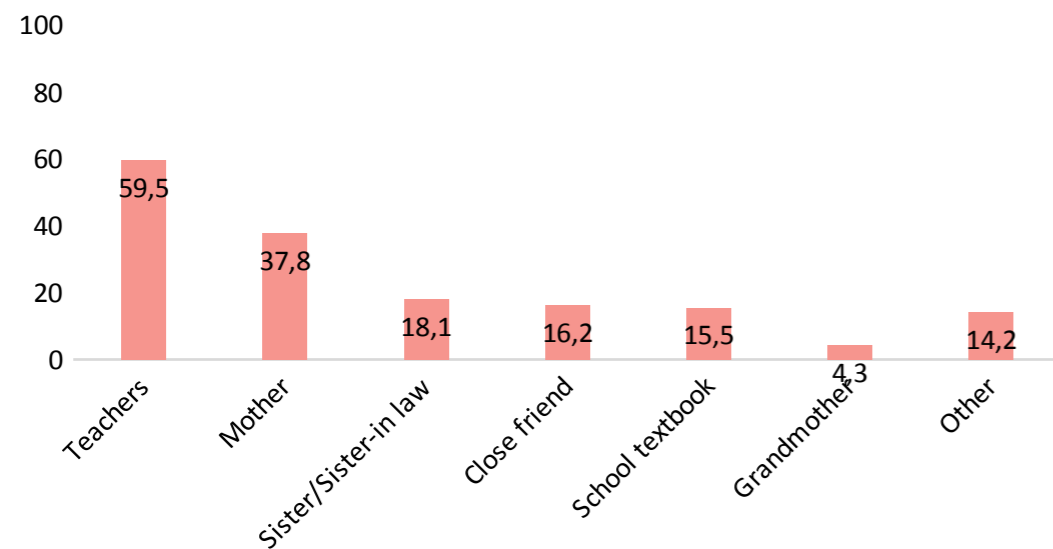
Figure 2: Knowledge of menstruation before menarche by private/public schools, and by grade (%)



4.3 Sources of Information about Menstruation

Three quarters of survey respondents (75 percent) who have menarched noted to have received information about menstruation prior to menarche from school (59.5 percent from teachers and 15.5 percent from school textbooks), followed by mothers (37.8 percent), sisters (18.1%), close friend (16.2%), grandmother (4.3%) and other. Only 1.4% were informed by either their father or brother, while 1.6% were informed by a health worker. Other informants included aunt/uncle, hostel matron, community worker, stranger, print media, television, social media/internet, other family members and peers.

Figure 3: Informants of menstruation prior to menarche (%)



Girl survey respondents in rural settings were slightly more likely (77.7%) to have received information about menstruation before menarche from schools (teachers and textbooks), in comparison to girls in urban settings (72.3 %). Mothers in rural areas (41.7%) were also more likely to be informants prior to menarche, compared with urban mothers (34%). Miniscule variance was recorded for sisters. However, close friends in rural settings (20.1%) were significantly more likely to be informants than close friends in urban settings (12.3%). Grandmothers were three times likely to be informants in rural areas, than in urban areas.

Girl survey respondents in private schools were more likely (87%) to have received information about menstruation before menarche from schools (teachers and textbooks), in comparison to girls in public schools (73.3%). The difference for textbooks separately is quite big: 22.2% in private schools and 14.7% in public schools. Mothers of girls in private schools were also more likely to have informed their daughters about menstruation before menarche (44.4%), compared with 37.1% in public schools. Very little variations were found for sisters and close friends. However, grandmothers were twice as likely to be informants on menstruation for girls in public schools, than in private schools.

Little variations were recorded for different grade cohorts. Girls in grades 11 to 12 were more likely to have had teacher and school textbooks as informants than those in lower grades. Girls in grades 4 to 7 were more likely to have sisters as informants than those in higher grades.

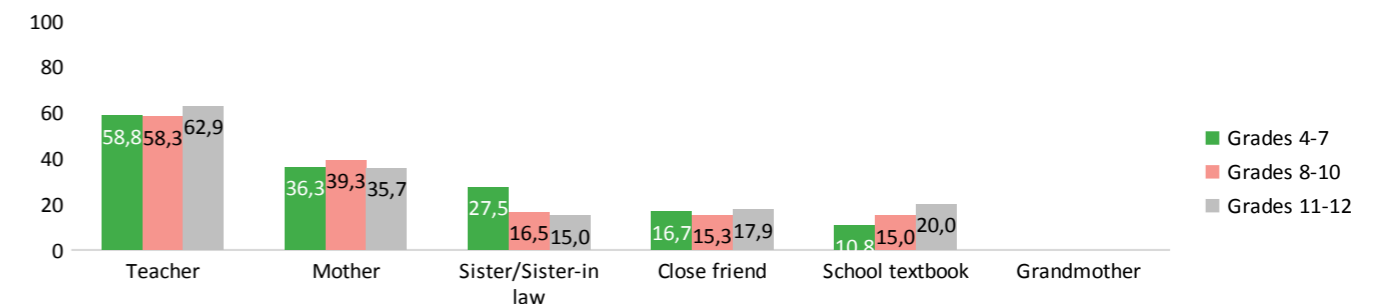


It depends on how slow or quickly you grow. When your mom or grandmother notices that you are approaching puberty, then they sit down with you and tell you what happens and what to do once it happens. (FGD Schoolgirls, Urban-Private School, Zambezi)

Girls are taught about menstruation from the age of 13 upward before they get their period. Female teachers, our mothers and aunts teach us how to take care of ourselves during menstruation. (FGD Schoolgirls, Rural-State School, Kavango East)

Most girls are taught about menstruations when they start to menstruate, because some parents are not ready to have that discussion yet. As a girl, once your menstruation started then that is the time you want to learn more about it. (FGD Schoolgirls, Urban-Private School, Khomas)

Figure 4: Informants of menstruation prior to menarche by grade (%)



4.3.1 Information from Schools

Teachers responsible for educating girls on menstruation health and hygiene were Life Skills and Natural Science and Health Education teachers. KII with teachers in rural schools found that menstruation was taught in schools, primarily by Life Skills teachers. Interviewees differed from when teaching on menstruation started at schools. Most interviewees noted that different aspects of menstruation were integrated into different subjects, but that the Life Skills subject focused on this from grades 4 to 12. Some interviewees noted that they taught it to lower grades as well, as there were girls in lower grades who menarched earlier than others. They also noted that some older girls were in lower grades, but in need of such information as well. Secondary school learners noted that they focused on menstruation in grade 8, as some primary schools did not have Life Skills teachers, resulting in many learners being ignorant about menstruation hygiene. One interviewee also noted that teachers from the DREAMS project visited schools to teach about health and hygiene and distribute pads.

None of the teacher KIIs in the rural schools noted that menstruation was excluded from Life Skills or other subject teachings.



Three out of seven urban teacher interviewees noted that menstrual health and hygiene were not specifically taught in schools, but dealt with when needed, or as part of general teachings on hygiene and health. One of the Life Skills teacher interviewee in an urban school noted that she did not teach about menstruation health and hygiene specifically, but the topic was covered across different subjects such as Biology and Life Science. She noted that Life Skills teachers were overloaded and overwhelmed with Life Skills and other subjects and could not cover everything. She was also concerned that some Life Skills teachers were uncomfortable to discuss the topic, as menstruation was considered taboo in some cultures. Another teacher interviewee noted that Life Skills teachers were not 'supermen', and could not do everything. However, she noted that Life Skills teachers did teach about menstruation, amongst many other topics.

Teacher interviewees in rural schools noted that it was important for menstruation to be discussed in schools, as it was a normal human phenomenon. One of the interviewees in a rural school noted, "I do not have a problem discussing menstrual information or topics in school, because it is better to inform the child from an early age, before it is too late. When we have staff meetings, we normally discussed different topics including MHHM and my colleagues also seemed fine about the topic being discussed at school."

Female teachers were more likely to be Life Skills teachers than male teachers. Teacher KIIs were asked if teachers were comfortable teaching about menstruation. They all noted that almost all teachers were comfortable with the topic. Two of the three rural male teacher KIIs noted that they were comfortable teaching about menstruation. One of the male teacher KIIs noted that, "It's a bit challenging because I can't relate properly with them, but I am coping. Some girl learners were comfortable with me, while others were not, but we manage to get things done."

Both boys and girls were taught in the same class. However, some teachers separated boys and girls when very sensitive issues were discussed. The DREAMS project taught girls and boys separately in after-school sessions. There were several organisations in Namibia working on Early Pregnancy, including projects by OYO, Namibia Planned Parenthood Association (NAPPA), Society for Family Health (SFH) and DREAMS.

Many FGDs with girls noted menstruation was taught in schools from grade 6 onward, and that they heard of menstruation from school for the first time. There were no significant differences between FGDs done in urban and rural schools.

Teacher KII in rural schools noted the following.

"Menstrual hygiene management is always taught by the Life Skills Teacher, where we target age groups as young as 9 years old, because some learners start their periods at an earlier age. However, we have girls above 9 and 10 who are in lower grades 1-3, so what I do as a Life Skills Teacher is to select all girls from the ages of 9 and above and bring them together for training on menstrual health and hygiene."

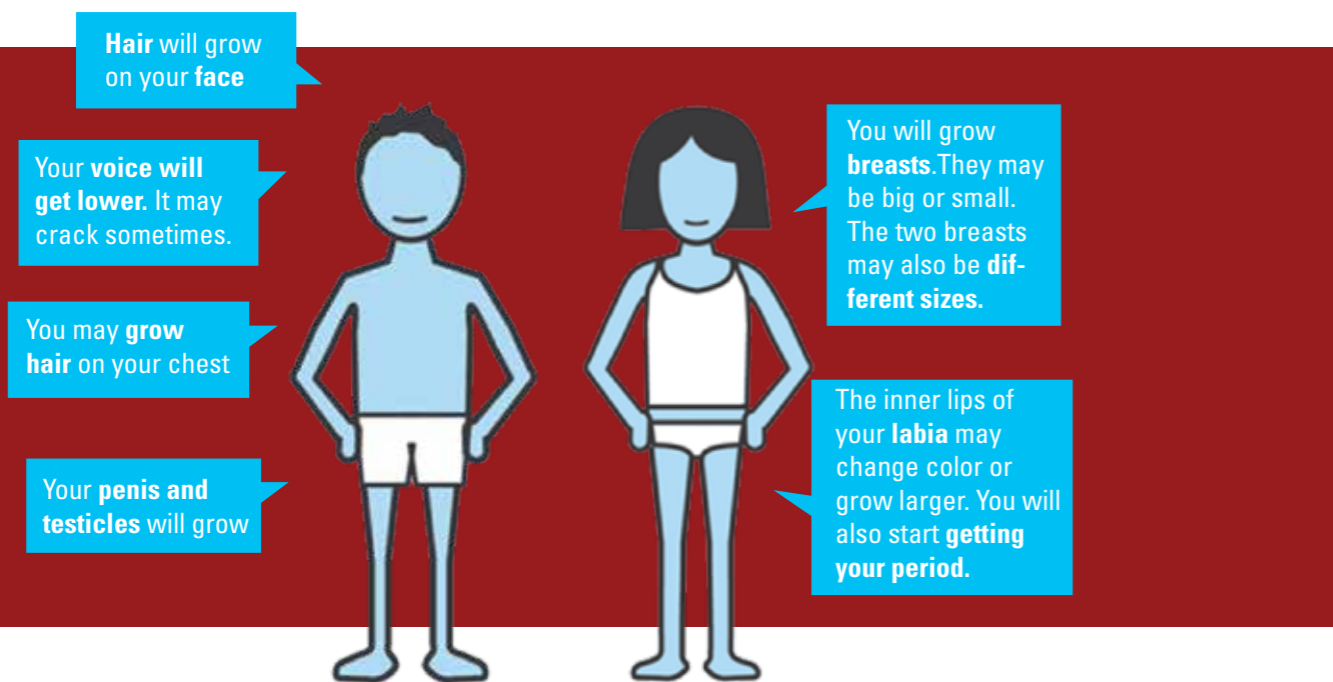
"During Life Science class, menstrual hygiene is an integral part of the lesson. It is taught in grades 4 and 7. They are taught during the lesson."

"The program starts as from the age of 15 years, or grade 8 upwards, and it is taught during school hours. It is a topic which is integrated into subjects."

Boys in FGDs noted that they mostly learned of menstruation in their Life Skills and other classes at schools, or when community programs were facilitated by community development organisations, such as NGOs. They noted that they started learning about menstruation from grades 6 and 7.

Some boys noted that their girlfriends told them about menstruation, or that boys talked amongst themselves. Almost all boys in FGDs noted that girls did not speak to them about menstruation, except for some boys who noted that their cousins talked to them, while others felt that girls who were close friends with boys might.

Boys who participated in FGDs knew about menstruation. Most of the boys who participated in FGDs noted that they learned about menstruation in schools. Most FGD boys participants noted that they were not informed about menstruation at home. Those who were informed at home, noted that their mother, or grandparents had informed them. One boy FGD participant said that he only knew of the “red beemer” (red BMW vehicle arrived, signifying arrival of menstruation), which is what his sister called it when ‘it arrived’. They noted that they learned about menstruation in the following school subject classes, Life Skills, Biology, Life Science and Natural Science.



A teacher KII in an urban school noted that:

“We teach on the menstrual cycle as part of the puberty topic. We cover changes of a boy’s and a girl’s body, such as breast enlargement, menstruation cycle, why a girl menstruates. The government also wanted to introduce comprehensive sexual education, but the parents vetoed it because they felt that their children were too young to be taught about sex and that this could encourage the learners to engage in sexual activities. But, we as teachers feel that the topic is important because it creates preparedness. The learners should know what to expect especially when they start menstruating, they should know the dangers of sex”.

4.3.2 Information from Homes

Of the 14 mother KIIs, nine noted to have taught their daughters about menstruation, while one noted that her daughter was taught in school. Some mothers noted that they talk to their children about menstruation, but that the children got more in-depth information from schools. Five of the seven urban mother interviewees and all rural mother interviewees were comfortable talking to their daughters about menstruation and puberty. They did note that not all mothers were comfortable talking to their daughters about menstruation, because of mother/daughter relationships, or cultural influences.

Most of the urban mothers noted that they started talking about menstruation with their daughters at the age of 9-10, while rural mothers noted mostly 10-11, because this was seen as the time when girls started with physical changes.

Boys in FGDs were asked if their parents talked to them about menstruation. Almost all participants said no. They indicated that parents did not discuss menstruation with them because parents felt that it was a female issue, that it was culturally unacceptable. In addition, parents might be concerned that such information may make boys naughtier, that parents were not equipped to talk about this, and that parents were afraid that boys would tease girls with such information.

4.4. Knowledge of Menstrual Hygiene Management

It should be noted that there was a general awareness among schoolgirls and boys that menstruation takes place every month and that this was a process resulting from an unfertilized egg. It was also understood that women were sexually maturing and that they could fall pregnant during this time.

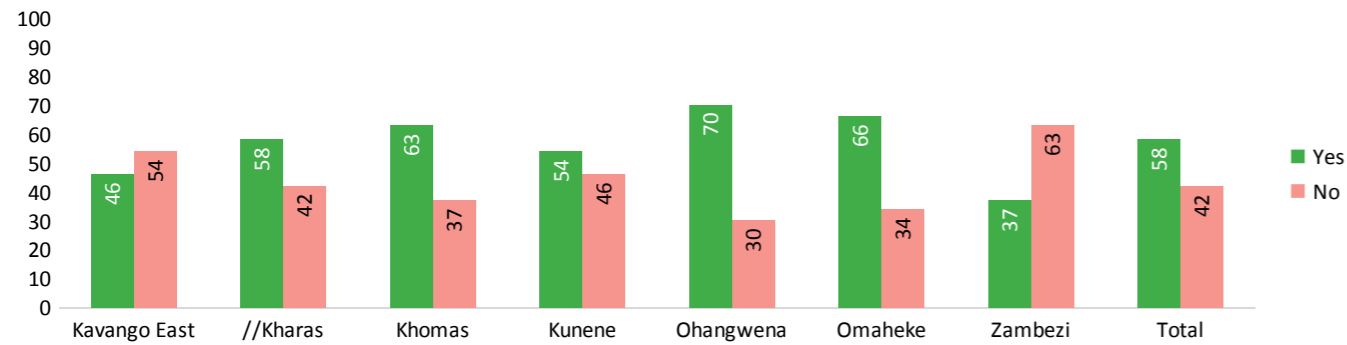
Knowledge of menstruation is important, but it needs to translate into proper hygiene and health management attitudes and practices. Although only 29.8% were uninformed of menstruation before menarche, 42% noted that they were unaware of hygiene management, with Zambezi Region reporting the highest ignorance (63%), followed by Kavango East (53%) and Kunene (46%).

“I told her that as from 12 years upwards you start to become fruitful, meaning that you can fall pregnant. I advise her in the same vein, to stay away from boys and not to mingle with them, because she can fall pregnant or worse contract HIV.” (Rural KII, parent)

“I speak to my daughter openly; she is 13 years of age. We have an exceptionally good relationship. I told her that she would begin with her menstruation which means that she became an adult. I tell my kids everything out in the open so that they are well informed and not surprised when something happens. So as parents we shouldn’t be afraid to talk to our kids, we should be open to give them information and advice in advance, so they are prepared for any situation they encounter.” (Rural KII, parent)

“I give my daughters information on what to expect and what to do when on periods. I teach them about personal hygiene and health and how to use pads. I tell them to keep their bodies clean, use soap to bath and wear clean underwear every time.” (Rural KII, parent)

Figure 5: Information about menstruation before period (%)



Complementing the above, 62.8% of girl survey respondents indicated that they were aware of the consequences of inadequate management of menstrual hygiene, while 37.2% were unaware. Many of the girls in Omaheke Region (73.3%) reported to be aware of the above, followed by Kunene and Khomas regions (69.2 and 68.5% respectively). Only about half of the girls in Zambezi and Kavango East regions reported to be aware of the consequences of inadequate management of menstrual hygiene (49 and 50.9 percent respectively).

Very little variation in knowledge levels were found amongst survey respondents in rural (64.2%) and urban (61.5%) schools.

Knowledge of consequences of inadequate management of menstrual hygiene was very similar for private and public schoolgirls (64.2 and 62.2 percent respectively).

Knowledge levels seem to improve as children progressed from one grade to another, but not significantly: 59.5% of girl survey respondents in grades 4 -7 indicated that they were knowledgeable, 63.3% in grades 8-10 and 65% in grades 11-12.

Slightly more than one-third of the survey respondents noted that one of the consequences of inadequate management of menstrual hygiene was infections (38%), followed by bad smell (29.8%), and white/grey vaginal discharge or itching (15.7%). Other health consequences included dysmenorrhea (menstrual pain, such as abdomen, headaches, lower back pains), fatigue, bleeding between periods, illnesses (such as blood clots, cancer, infertility, damaged ovaries), fever, appetite loss, anaemia and other abnormalities.

Figure 6: Knowledge of consequences of inadequate management of menstrual hygiene (%)

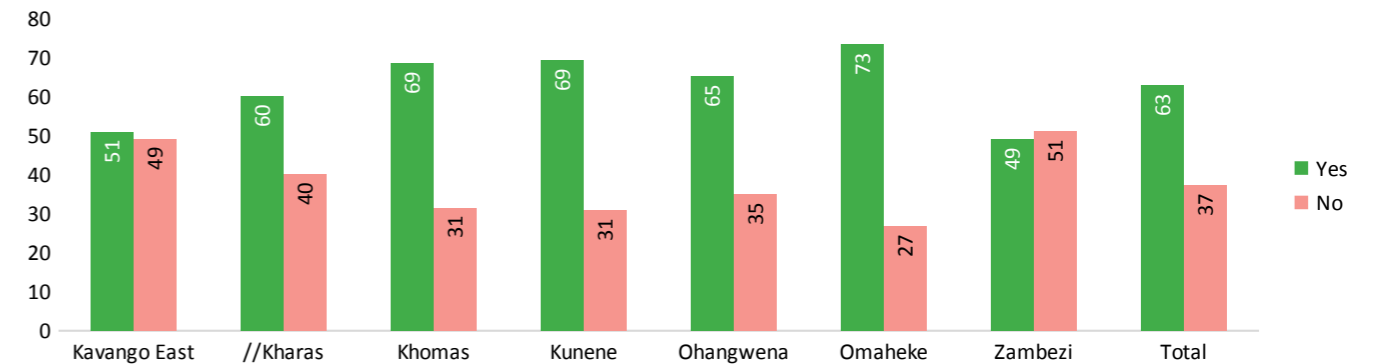
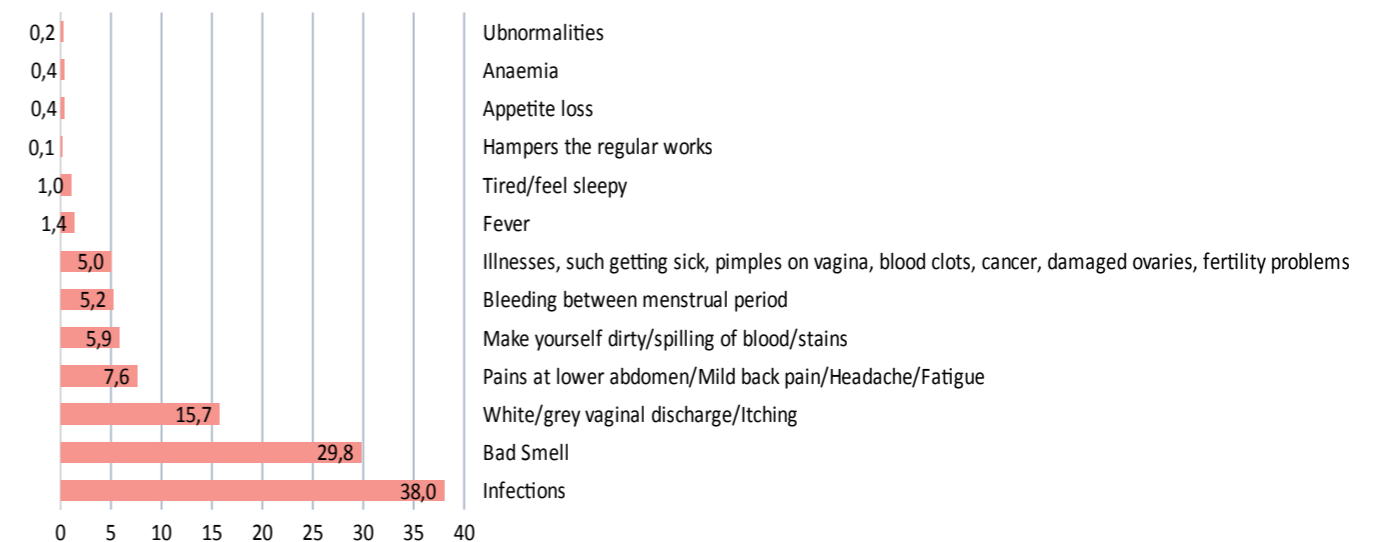


Figure 7: Health consequences of inadequate management of menstrual hygiene (%)



4.5 Knowledge of Menstrual Products

Almost all girl survey respondents were aware of disposable pads, while less were aware of tampons and pantyliners. Very few girl survey respondents were aware of washable pads and menstrual cups. However, many girls, especially in rural settings spoke of using old cloths (chitenge) and cotton. Rarely did girls know of traditional ways, such as herbs or roots. Girls were mostly knowledgeable about disposable pads, because this the only product that they were exposed to by those who purchased products for them. Knowledge was therefore influenced by what mothers, older sisters and aunts were aware of.

San girls who participated in FGDs were aware of some menstrual products, but unaware of most products on the market. They were aware of disposable pads, old cloths and toilet paper. The San girls in the Zambezi Region who participated in the FGD were very surprised to see, for the first time, washable pads, tampons and cotton. They indicated that they did not know about these products. None of the San girls in the Omaheke Region were aware of washable pads, while only some were aware of tampons.

None of the special needs girls who participated in the Assessment were aware of washable pads. They were mostly aware of disposable pads, while some were aware of tampons. Additional items included toilet paper, wet wipes, etc.

All out-of-schoolgirls who were interviewed were aware of disposable pads and tampons. Half have not heard of washable pads and do not use them. Others have heard of it, seen it, but were not interested in using it, because of lack of trust (possibility of leakage).

OVC girls who were interviewed were mainly aware of disposable pads. They have not heard of washable pads.

4.6 Challenges in Knowledge

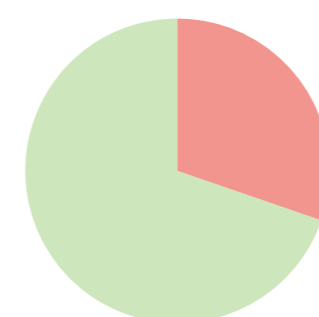
The survey found significant gaps in knowledge, although 71.2% girl survey respondents were informed of menstruation before onset of menstruation and 58% felt knowledgeable about menstrual hygiene and health management. The above level of knowledge was influenced by high levels of misunderstandings/myths.

On average, 30.5% of girl survey respondents misunderstood key aspects of menstruation. The highest levels of misconceptions were found in the Kunene Region (39.5%), followed by //Kharas (35.3%) and Zambezi (30.6%) regions. The lowest levels of misconceptions were found in the Khomas Region (26.7%), followed by the Ohangwena (29.1%) and Omaheke (30%) regions.

Table 4: Misconceptions about menstruation by girl survey respondents (%)

Misconception	Kavango East	Khomas	//Kharas	Omaheke	Kunene	Ohangwena	Zambezi	Total
Women continue menstruating as they grow old	24.5	15.0	18.0	26.3	19.2	10.7	20.9	19.3
Pregnant women menstruate	25.5	28.0	23.4	26.3	16.8	28.7	19.0	22.8
Menstruation blood comes from the stomach	16.5	14.0	14.2	23.2	8.7	18.9	19.6	15.2
Menstruation blood comes from the womb	48.9	71.0	63.2	65.7	77.3	73.8	48.7	64.4
Menstruation is a disease	16.5	15.9	5.0	26.3	5.2	13.1	14.6	11.7
Menstruation blood is harmful	30.3	41.1	19.7	48.5	30.4	21.3	39.2	30.9
Menstruation is a sickness	25.5	33.6	18.8	36.4	19.6	27.9	35.4	25.9
Harmful if a woman runs/dance during menstruation	29.3	58.9	38.9	49.5	36.7	40.2	47.5	40.8
HIV cannot be transmitted through menstruating blood	55.3	40.2	38.9	53.5	47.9	35.2	30.4	43.5

The above correlates with the three regions that were most informed about menstruation before menarche and most knowledgeable about menstruation health and hygiene (Khomas, Ohangwena and Omaheke). It also correlated with those regions that were least informed about menstruation before menarche and least knowledgeable about menstruation health and hygiene, such as Kunene and Zambezi regions.



30.5%
of girl survey respondents
misunderstood key aspects of
menstruation



Other Misconceptions About Menstruation by Girls



Talking to boys while menstruating will make you bleed more.

Menstruating girls should not play with boys while menstruating.

Menstruation is a curse from God.

Menstruation is when a girl lost her virginity.

Menstruating married women must sleep on the floor when menstruating.

It is harmful to run or dance when menstruating.

Menstruating girls were not allowed to share food with boys because they would develop a persistent cough that will never end.

Menstruating girls don't cook food or if you do you shouldn't add salt. This is just so that the males in the family will know that you are menstruating, and they should avoid being in contact with you..

Menstruating girls were told not to walk amongst men, step on animal dung, or drink omahere.

Menstruating girls were not supposed to scream or else the flow will be very heavy.

Menstruating girls should stay inside the house until their period ends.

You cannot share the same chair with boys while menstruating, or else the boy will develop back problems.



5 Attitudes Toward Menstruation



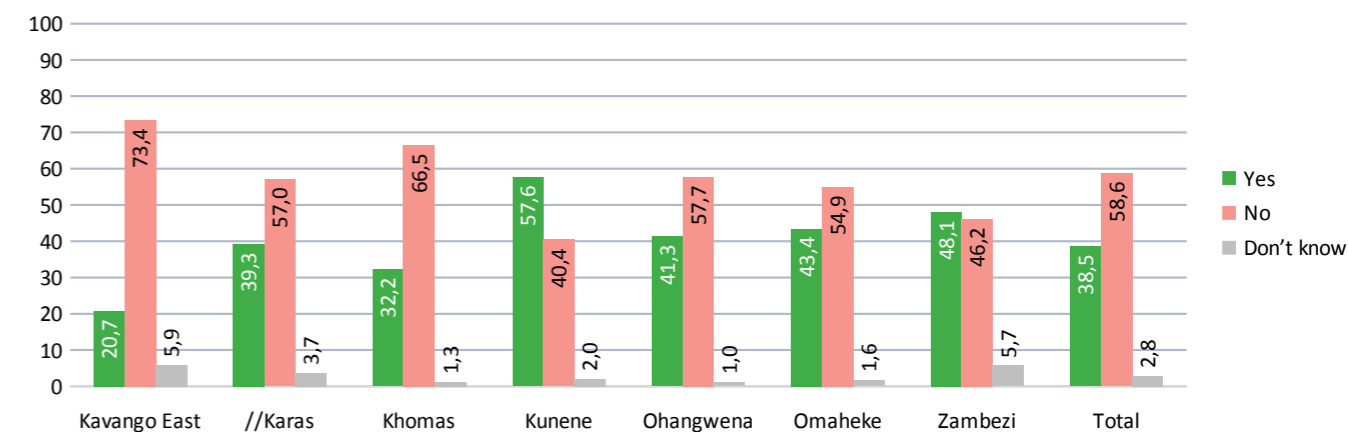
5.1. Introduction

The definition of MHM speaks of enabling attitudes necessary for adequate MHM: Experience a positive and respectful environment in relation to the menstrual cycle, free from stigma and psychological distress, including the resources and support they need to confidently care for their bodies and make informed decisions about self-care throughout their menstrual cycle. Attitudes about menstruation are influenced by willingness and ability to openly speak about, education in schools and at home, culture and tradition, and stigmatisation.

5.2. Open Discussion about Menstruation

Slightly more than half of the survey girl respondents (52%) noted that they openly spoke about menstruation, while 45.7% did not, and 2.3% did not know. Girls were more likely to openly speak about menstruation in the Khomas Region (61.9%), followed by Kavango East and Kunene regions (53.7 and 53.5 percent respectively). Girls were least likely to speak about menstruation in the Zambezi Region (41.8%), followed by //Kharas and Omaheke regions (43.9 and 50.8 percent respectively).

Figure 8: Girls who openly speak about menstruation (%)



In our community, the mothers, aunties, elder sisters, and grandmothers educate girls about menstruation as they grow. They are taught about hygiene and how the girl was expected to take care of herself when she menarche.

(Kavango East, Traditional/Religious Leaders, Urban)

When I saw the blood on her dress, I just followed her and called her to the bedroom where I spoke to her about menstruation and explained to her how to take good care of herself and how to keep safe. (KII Parent, Rural)

We as women, try to talk to our children about life issues. (KII Parent, Rural)

Grandmothers have time and they know what to say to children, like for menstruations. (KII Parent, Rural)

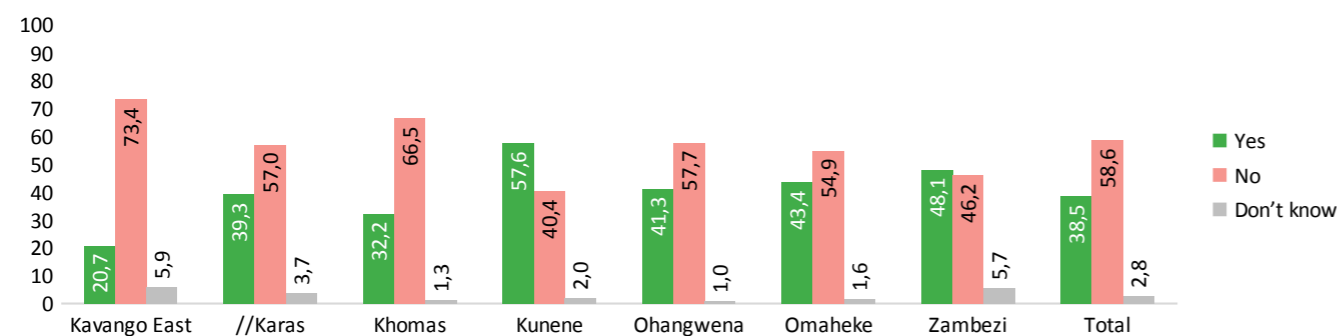
Rural schoolgirls were slightly more likely (54.6%) to openly speak about menstruation compared to the 49.7% urban schoolgirls. In both cases above, much higher proportion felt that it would help to openly speak of menstruation.

Public schoolgirls were slightly more likely (52.6%) to openly speak about menstruation compared to the 46.7 percent private schoolgirls. In both cases above, much higher proportion felt that it would help to openly speak of menstruation.

Close to one-third of girls in grades 4-7 (31.8%) openly spoke about menstruation, while 52.6% thought that it would help to speak openly. Close to two-thirds (67.3%) of girls in grades 8-10 spoke openly about menstruation, while 84% thought that it would help to speak openly. Three quarters (75.65) in grades 11-12 spoke openly about menstruation, while 93.35% thought that it would help to speak openly.

In addition to the above, more than one-third (38.55) of the girl survey respondents felt that menstruation should be kept a secret. More than half of the girl survey respondents in the Kunene Region (57.65) felt that menstruation should be kept a secret, followed by close to half in the Zambezi (48.15) and Omaheke (43.45) regions. Respondents in Kavango East Region were least likely to want to keep menstruation a secret at 20.75, followed by Khomas (32.25) and //Kharas (39.35) regions.

Figure 9: Keep menstruation a secret (%)



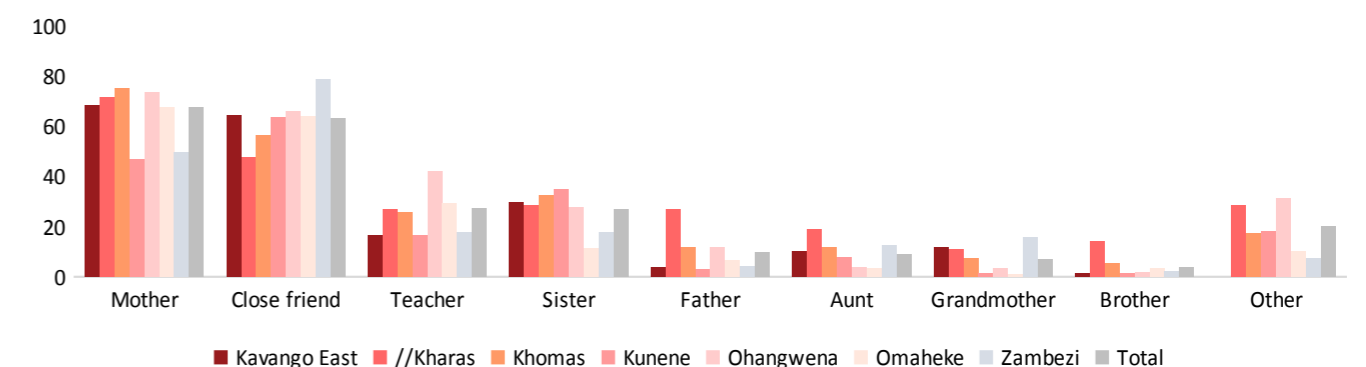
Close to three quarters (70.8%) of girl survey respondents, including those who have not menarched, felt that it would help to speak to someone else about menstruation, while one quarter (25.5%) disagreed. Those who agreed that it would help to speak to someone else about menstruation preferred to speak with their mothers mostly, followed by close friends, teachers, sisters, fathers, aunts, grandmothers and brothers. It is interesting to note that more girls preferred to speak with the fathers, instead of aunts or grandmothers. Others included peers, health workers, other family members and strangers (including NGOs).

Reasons for speaking to others included:

- To learn more about menstruation (54.4%)
- To get help (61%)
- To access sanitary materials (22.9%)
- Relief (13.1%)
- Counselling (12.7%)
- Just to speak with some (3.8%).

Those who preferred not to talk to someone about menstruation noted that they were afraid of some kind of punishment (including to stop playing with boys), menstruation being regarded as a personal matter, stigmatisation (including teasing), bullying, gossiping and the fear that no one could help.

Figure 10: Who to talk to about menstruation (%)



Feels like the information is just too much; we don't need it because we are not girls. It's actually weird to talk about it. (FGD boys)

It is a sensitive subject, and most boys are embarrassed to talk about it. They also did not understand the entire process of menstruation. (FGD boys)

I do not see the need as menstruation is not our business. Girls also do not talk about boy's health, so why should menstruation be an exception? (FGD boys)

It's also disgusting - I do not want to see the blood at all, makes me feel nauseous, (FG boys)

5.2.1. Acceptability for Boys to Talk about Menstruation

Two out of three of the boys in FGDs noted that it was acceptable for boys to talk about menstruation as it was a normal natural phenomenon. They felt that it was acceptable because:

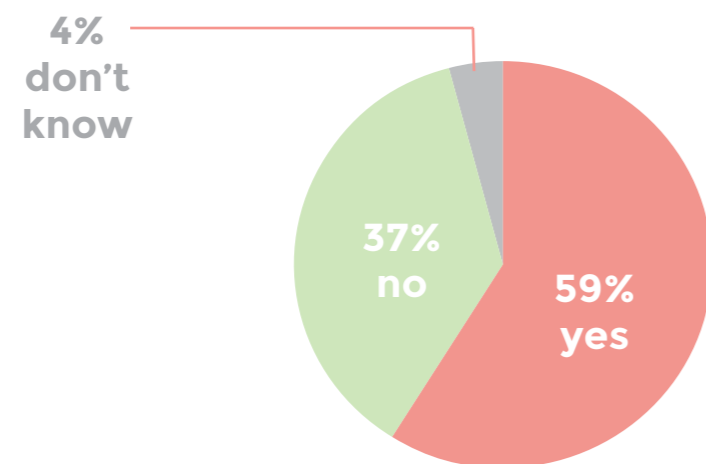
- boys will have daughters one day and need to be informed;
- boys need to understand their future girlfriends better, so that they appreciate what girls go through; and
- menstruation is a natural 'thing'.

One out of three boys who participated in FGDs noted that it was culturally unacceptable to talk about woman issues, while others noted that menstruation was a woman issue only. One noted that menstruation was a sensitive topic and that most boys were embarrassed to talk about it, mainly because they did not understand the process.

5.2.2. Acceptability for Girls to Talk to Boys About Menstruation

As indicated above, more than half of the girl survey respondents (59%) felt that menstruation was a personal matter, while 85.2% felt that it was a female matter, but only one-third thought that it should be kept a secret and did not to talk about it openly. When asked during FGDs if girls talked to boys about menstruations, schoolboys answered no, because menstruation was something very private to girls. Boy FGD participants felt like it was a woman's business. They also said that girls were afraid that boys would go and tell other friends and make fun of them or stigmatize them (Khomas, Urban, State, FGD Boys). Most girls usually did not share these types of issues with their brothers, because they were afraid that brothers would make fun of them or make silly jokes about it, and also tell the 'secret' to their friends or to the neighbors.

Figure11: Menstruation a personal matter (%)



5.3. Stigmatisation

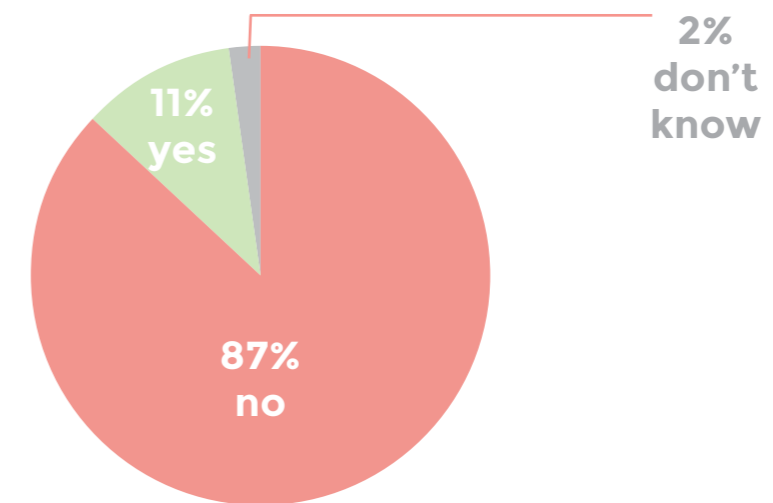
Most of the girls who participated in the survey across the seven regions (87.4%) indicated that they did not feel stigmatised when accessing facilities for menstruation. Overall, 10.8% felt stigmatised when accessing facilities for menstruation. Girls in the Kunene Region felt stigmatised the most at 21.5%, followed by Kavango East Region (14.3%). Ohangwena Region recorded the lowest levels of stigmatisation (7.6%), followed by //Kharas Region (8.3%).

Female survey respondents in rural schools were more likely (13.0%) to report stigmatisation when accessing facilities for menstruation compared with girls in urban schools (8.7%).

Female survey respondents in private schools were more likely (22.4%) to report stigmatisation when accessing facilities for menstruation compared with girls in urban schools (9.8%).

Female survey respondents in grades 8 to 10 were more likely (12.2%) to report stigmatisation when accessing facilities for menstruation, followed by 10.0% of girls in grades 4 to 7 and 8.5 percent in grades 11 to 12.

Figure12: Stigmatisation during menstruation (%)



Stigmatisation mostly included the following for three quarters of girl survey respondents (73.6%) who were stigmatised: teasing, name calling, bullying, funny looks and feeling uncomfortable. One-in-ten girls noted that others gossiped about them. The remainder noted judgements and being seen as sexually active.

One out of every three girls who participated in the MHHM survey did not feel well during menstruation. Two-thirds of the girls who were interviewed wished that they could be happier during menstruation. More than half of the girls felt less confident during menstruation, 37.9% noted to feel less good in comparison to other people, 33.4% were unhappy with themselves, while 31.5% felt 'no good'.

Figure13: Impact of menstruation on girls attitudes (%)



Girls who participated in FGDs across the seven regions were asked what the behaviour of a fictional girl character would be when she menstruates:

- 'She will not play with boys, because boys like touching girls on their private parts.'
- 'She will play with them, so they don't think that she started her period.'
- 'When a boy hits you on the back, the periods will flow more.'
- 'She is very moody.'
- 'Her behavior towards the male friends is a little different, she is careful around them and does not want them touching her. But she behaves normal when with her teacher.'
- 'Her behaviour is normal because they do not know that she is on her menstruation; no one knows.'
- 'She might become angry at her friends more frequently if she is on her period.'
- 'She avoids playing with her male friends like she used to do before, because she feels they might laugh at her when they find out she is menstruating.'
- 'Her behavior towards her teacher won't change, it will remain the same as before.'
- 'She will be moody, rude and will not even feel like talking to anyone. She will feel like everyone knows that she is on her period, and this will affect her confidence in the class. She will be less active in the class with the teacher.'
- 'She will change; she will not play around that much with friends and will respect the male teachers more.'

Girls regarded boys as the main 'culprits' of teasing, calling names and laughing at them when menstruating. Girls were asked what they thought boys' and girls' reactions would be if they saw a red spot on their dresses.

Boys' Reactions	Girls' Reactions
Laugh at them	Give something to cover the red spot
Freak out	Call her privately and tell her politely of the red spot
Tease them	Give her a pad
Be surprised as to what it was	Some will spread stories if they do not like the girl
Blackmail them to give something in return for not telling others	Laugh because the girl does not know how to use pads
Gossip about them	Tease them

5.4. Cultural Influences

Girls in FGDs and opinion leaders (traditional leaders, church pastors) were asked if they were aware of cultural practices in relation to menstruation. Above-mentioned survey respondents noted that they were aware of some cultural practices, but were unaware of the extent to which such were still practiced during these 'modern times'. Most cultural practices and beliefs aimed to protect the menstruating girl against illnesses or being mistreated by others, but at the same time creates false fear in girls. Cultural practices that research participants knew of, not necessarily currently practiced, were as follows:



Kavango Region

- 'Menstruating girls should drink traditional plant/tree roots for pain and place inside their vaginas for managing blood flow.'
- 'Menstruating girls were not allowed to cook while on their period.'
- 'Girls on their periods were not allowed to wear or share shoes with another person, because it was believed to bring bad luck, or menstruation could be transferred to the girl who shared shoes.'
- 'Menstruating girls should not be bare feet, always wear shoes.'
- 'Menstruating girls should not carry heavy things.'
- 'Menstruating girls should not play or run around.'
- 'Menstruating girls should not wash their hair.'
- 'Menstruating girls should not read anything.'
- 'Menstruating girls should not wash their anus.'
- 'Menstruating girls should not have sex, because they will get pregnant.'
- 'Menstruating girls should wear warm clothes.'
- 'Menstruating girls should not wear other people's underwear.'
- 'Menstruating girls should not turn their back to others.'



//Karas Region

Unaware of cultural practices by most respondents in the region.
'Culturally it is believed that a menstruating woman should stay away as far as she can from men, because the menstrual flow would be very heavy if a girl is close to a man. This is why women were kept in dark rooms when menstruating.'



Khomas Region

'Not many known cultural beliefs in Khomas.'
'Girls culturally should stop playing with boys once they started menstruation. The girls were also not allowed to talk to men about menstruation; it should always be a female.'
'Girls should avoid unnecessary movement if it rains, while she is on her periods. She must stay home.'



Zambezi Region

'Menstruating girls are not allowed to step on another girl's feet while menstruating, because the other girl will menarche before her time.'
'It's not allowed to share food with boys, because they will develop a persistent cough that will never end.'
'Once you start menstruating you don't cook food or if you do you shouldn't add salt - this is needed so that the males in the family would know that you are menstruating and avoid being in contact with you to avoid becoming sick (non-stop cough).'
'Menstruating girls can't touch or plait any ones' hair, because it will fall out, or break - even worse it will stop growing.'
'Menstruating girls can't share the same chair or bed with boys/men or else they will develop permanent back problems, infertility and a non-stop cough.' 'Not share the same bath as men, as men could develop back problems.'
'Menstruating girls should not dispose their used pads openly, because if boys see them, the next menstrual cycle will be heavier.'
'Menstruating girls should stay away from boyfriends during menstruation, because boyfriends will fall sick, back problems.'
'Once a girl menarched, a goat is slaughtered and she in prepared into womanhood. Men can then try their 'luck' in marrying her.'
'Menstruating girls are not allowed to go to church or touch the Bible, because if she reads any verse for other members, it's believed that she will make them dirty (it's a sin).'



Kunene Region

Damara Culture
'Menstruating girls must lay on the bed while sour milk is poured on them.'
'Menstruating girls should remain in the house until the periods is over.'
'Menstruating girls should not talk to anyone.'
'Menstruating girls should to take a bath with certain types of herbs and water only.'

Ovahimba Culture
'In Otjiherero culture, a cow is slaughtered for the girl and she is sent away from the homestead for about a week.'
'Once a girl starts menstruating for the first time, a goat is slaughtered and she is prepared into womanhood. The men can then try their 'luck' marrying her.'
'Menstruating girls are told not to walk amongst men, or even step on animal dung. They are also not allowed to drink omaere.'



Ohangwena Region

'We have been taught that a woman does not carry heavy things when they are on their periods.'
'A women should also not run around, because it increases the flow of blood.'
'I learned that a girl must wear warm clothes, and stay inside the house until the period is complete.'



Omaheke Region

'Menstruating girls are expected not to practice sex, especially unsafe sex and are encouraged to always keep themselves clean by bathing as much as possible.'
'Menstruating girls are not expected to play with boys, because when menstruating it means a girl becomes a woman and that playing with boys are forbidden. As kids you can play with boys, but the moment you start to menstruate, a girl must be careful of boys. They are rude if they find out a girl is menstruating; they can tease the girls.'
'Menstruating girls are expected to always wear shoes, because once a girl starts to menstruate, she is prone to illnesses. Not wearing shoes will make you sick.'
'Cold water is also forbidden when you are on your periods, because it can cause illnesses.'
'A girl should not tell her friends, because it is personal and if others know about your situation, they can make fun or tease the girl. Menstruating girls.'
'Menstruating girls were not allowed to attend religious events or make the holy fire.'
'Weddings are postponed, when it is found that the bride is menstruating at the same time.'



Kavango East Region

'When a girl is menstruating, we dig for roots called likakata, ombeke, kakukuru or use leaves from a plant called lituwa mpuku. These roots and leaves are boiled in water and drank to stop or reduce heavy period flow. We also wear katinga in the vagina, which looks like cotton in nature, to stop periods. When I am at home, I inform my mother so that she can excuse me from doing house chores to allow me to rest at home.'

'A girl on her periods cannot serve water or food to her father, brother or any other male.'

'Menstruating girl is expected to tell her boyfriend that she is on her period so that they can avoid seeing each other, because it is believed to bring bad luck (not being able to bear children in the future). The boy and girl are not allowed to have sex during this time, because traditionally it is believed that if they have sex during period, the boy will become infertile and will have legs and foot problems (swelling).'

Girls from the San communities in Zambezi and Omaheke regions noted the following cultural practices:

- 'When menstruating girls first start with the menarche, an aunty or grandmother takes them to the bush and stays with them until the menstruation ends. While there, they are given knowledge on herbs that temporarily stops their period, and herbs for menstrual pains.'
- 'Menstruating girls were forbidden to cook food or even touch dishes, because they will make the men in the house sick with a nonstop cough.'
- 'Menstruating girls were not allowed to touch boys or let boys touch them, because they would get chest problems.'
- 'Menstruating girls were not supposed to hold a small baby, because the baby will get a persistent cough that never ends.'
- 'Menstruating girls were not allowed to walk around, because your menstrual blood would flow like water from a tap.'
- 'Menstruating girls have to wear a cloth/chitenge to show respect.'
- 'Menstruating girls were not to carry heavy things while menstruating.'
- 'Menstruating girls need to stay inside the house for the first day of their period, because the flow of blood is heavy on the first day.'
- 'Do not stay in the cold weather.'
- 'Do not go to the bush, the horses will chase you, because they can smell blood.'
- 'Menstruating girls must not play with kids/babies, because of the Ora.'
- 'Menstruating girls cannot braid someone's hair; the hair will break.'

6 Menstrual Hygiene Management Practices



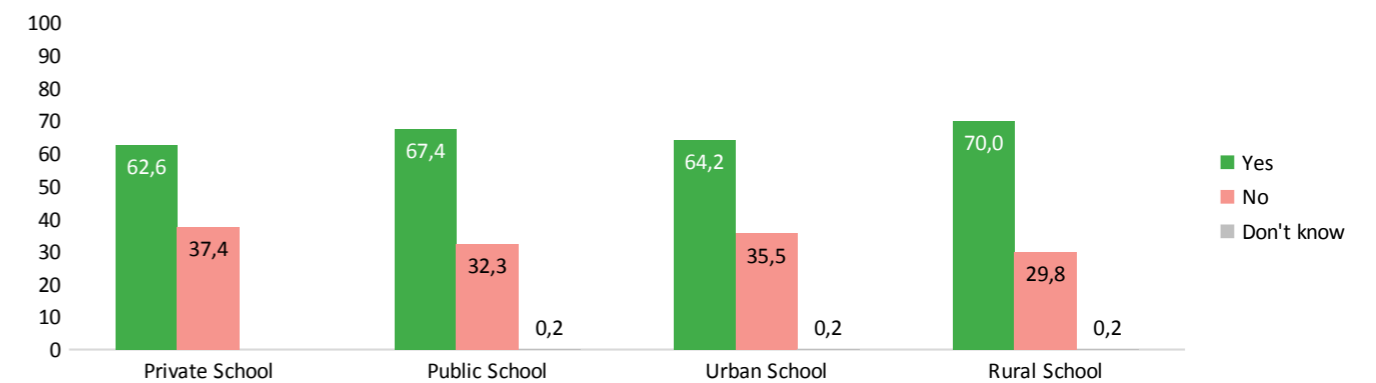
6.1 Introduction

It is essential for the girl child to employ adequate MHM practices, supported by access to appropriate sanitary materials and a conducive home and school environment that provides for comfort and privacy during menstruation and the management thereof. This chapter of the MHHM Assessment Report describes age at menarche and reactions toward it, availability and access to preferred and affordable menstrual products and cultural practices influencing hygiene management.

6.2 Age at Menarche

Of the 1,199 girls interviewed at school from grades 4 to 12, 67% had started their period, 32.8% did not and 0.3% did not know. Slightly more girl survey respondents in public schools have menarched (67.4%), compared with 62.6% in private schools. Slightly more girl survey respondents in rural schools have menarched (70%), compared with 64.% in urban schools. One in three girls (34.1%) in grades 4 to 7 have menarched, while 94.4% of girls in grades 8 to 10 and 98.3% in grades 11 to 12 menarched.

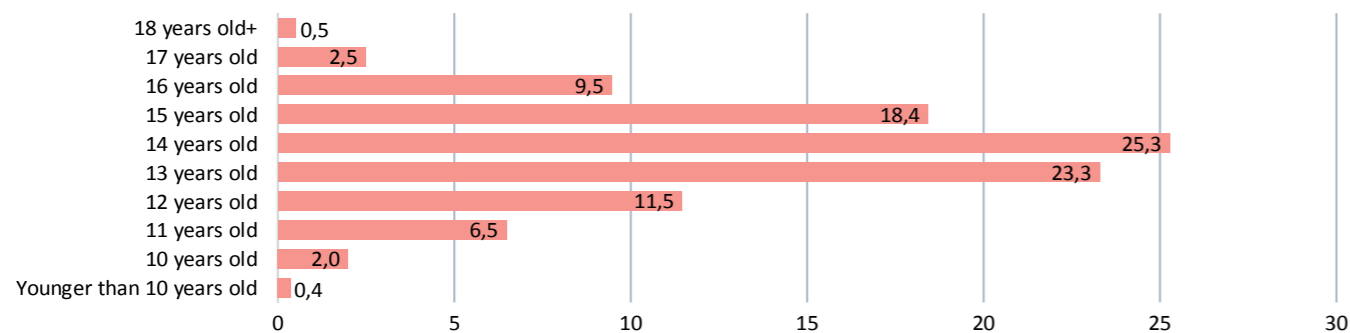
Figure 14: Menarche by type of school (%)



UNFPA (2018) noted that there was not a global comparison of age at menarche. However, the report found the average age of menarche was 14 years of age (varying between 13-16) in 11 countries across five different continents (UNFPA, 2018). Age at menarche in Namibia compared well with age in other African countries.

The most common age range for menarche in Namibia was 13 to 15 years of age, based on the results of the MHHM Assessment. The most common age for menarche amongst schoolgirls who participated in the MHHM Assessment across the seven participating regions was 14 years of age, while the average age was calculated at 13.7 years of age. Slightly more than two-thirds of girl survey respondents experienced their first menstruation at home, followed by school and hostel. Other places included a friend's home, church, shop, playground, outside, car, and health facility amongst others.

Figure15: Age at menarche (%)



6.2.1 First Reaction at Menarche

The first reaction of girls when they first menstruated was that of being panicked/scared/nervous/worried/cried (59.2%), followed by being shocked/ surprised/confused (31.3%), embarrassed/ shy/weird/disgusted (8%), and annoyed/ unhappy/sad/lonely/angry (7%). Close to one out of ten respondents (8.6%) were happy, proud of growing up and calm when they first menstruated. Others felt uncomfortable, sick and tired. Some felt normal while others did not feel anything.

The first reaction of girl survey respondents was to tell a family member (67%) of what happened. This was followed by requesting for or purchasing a menstruation pad to manage the bleeding (36%). Slightly more than one out of ten respondents immediately took a bath (12%), followed by those who went to the toilet/ bathroom (9%), told a teacher (9%), told a friend (8%). One out of ten indicated that they did not have a reaction. Others kept quiet, while one percent went to the bush to see what was going on.



When she got her period for the first time, she immediately asked toilet paper from her classmates and went to the toilet. She sat in the toilet for almost an hour crying and feeling upset. She had no idea of what to do next or who to tell about what just happened. The hostel matron came into the toilet and she brought pads with her. She didn't know who had told the hostel matron that she got her periods - might have been one of her classmates she got the toilet paper from. They might have suspected something and told the matron about it. (IDI, Out of School girl)



Average age at menarche in Namibia is **14 years of age**



6.3. Availability and Access to Menstrual Hygiene Products

There are different types of menstrual hygiene products that can be used based on choice, affordability and access. Menstrual hygiene products available in Namibia included the following:

Disposable Pads:

These are cotton pads that stick to your underwear to soak up blood, and which you throw away after use. They come in many different shapes and types of absorbency (the amount of blood they can soak up). Pads should never be flushed down the toilet, but instead rolled up in some toilet paper and disposed of in a sanitary bin by the toilet. Brands in Namibia included 'Stay Free', 'Anytime', 'Always', 'All Night' and 'Nina' amongst others. Ten to 12 pads are normally in one package.

Reusable Pads:

These are cloth pads that you can wash and reuse. They are usually made of absorbent material like cotton or bamboo and have a snap button on the wings to secure around your underwear. It is recommended that after using the pad, you rinse it, soak it overnight and then wash it.

Tampons:

These are pieces of cotton with a string at one end. You put them into your vagina to soak up your blood, and pull them out using the string. You should change a tampon every 4-6 hours, or as needed. You can choose from a range of sizes, depending on how heavy your period is. Soft tampons are an alternative to traditional tampons. They are stringless.

Menstrual Cups:

These are soft, medical-grade silicone or rubber cups that are put into the vagina to catch the blood flow. You empty the cup every 8-12 hours, rinse it under water, and put it back in.

Period Underwear:

These look and feel like your regular underwear, but are very absorbent. They can be used instead of pads or tampons when you have a light flow, or as a back-up when you have a heavy flow.

Source: <https://www.familyplanning.org.nz/advice/periods/period-products>

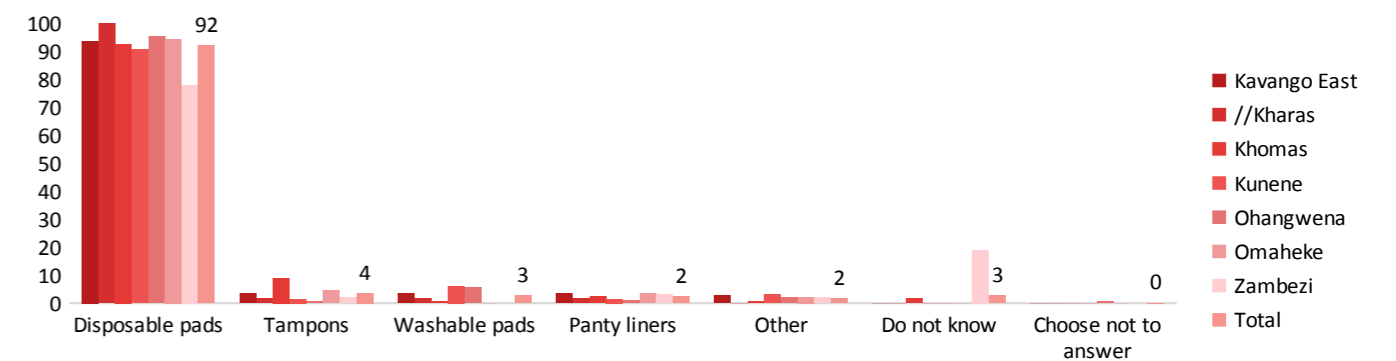


6.3.1 Menstrual Product Availability

Availability of different types of menstrual products depends on a variety of factors such as geographic location (urban/rural setting), distance to towns/cities, types of marketplaces, types of materials and cultural practices. Nine out of ten girl survey respondents (91.4%), who have menarched, were aware of disposable menstrual pads on the market within their communities, followed by close to one-third (29.5%) who were aware of tampons, 10.8% panty liners, and 5.1% washable pads. Other products that were available included: sanitary napkins, sponges, menstrual cups, toilet paper/wipes, cotton, cloths, contraceptives, diapers and underwear. A very limited number of girls in the FGD in the Kavango East Region mentioned herbs and roots as an available product to manage menstrual blood flow.

All girl survey respondents (100%), who have menarched, were aware of disposable pads on the market in their communities in the //Kharas Region, followed by 95.5% in the Khomas Region. The two regions that recorded the lowest levels of awareness of the disposable pads were Zambezi (79%) and Kavango East (88.4%).

Figure 16: Availability of menstrual products in communities (%)



The difference between rural (92.5%) and urban (90.3%) was fairly small for availability of disposable menstrual products in communities. It was interesting to find that slightly more girls in rural settings were aware of disposable pads, in comparison to urban settings. However, significantly higher proportion of girl survey respondents were aware of tampons in urban settings, compared to rural settings. \

Almost all girls survey respondents (97%) in private schools, who have menarched, were aware of disposable pads on the market in their communities, compared with 90.9% in public schools. Girls in private schools were more than twice as likely to know of availability of tampons on the local markets, compared with girls in public schools.

Slightly more girl survey respondents in rural settings were aware of washable pads, compared with urban settings, while more girls in private schools were aware of washable pads, compared with girls in public schools.

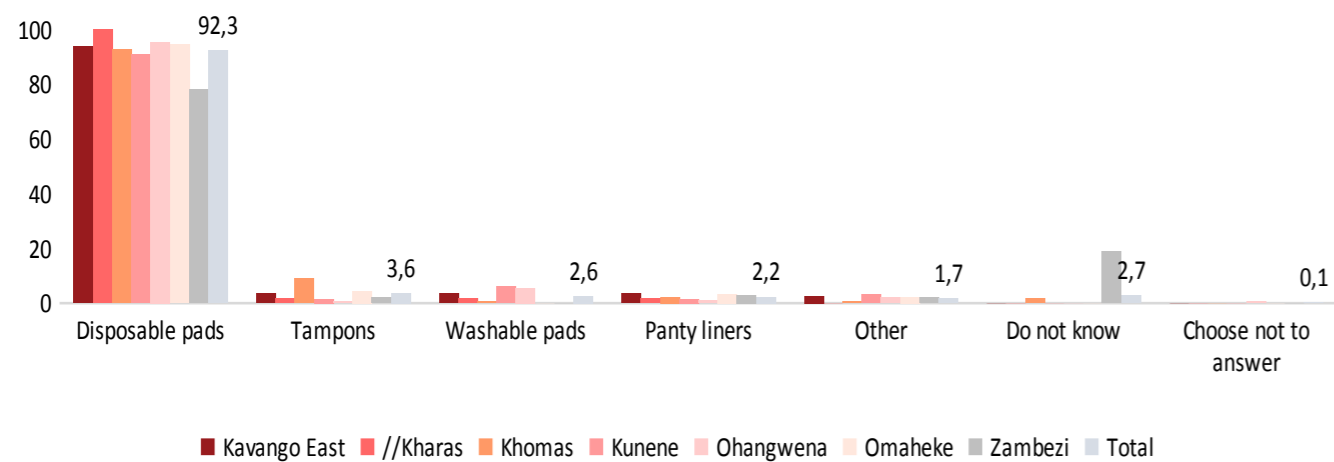
Almost none of the girl survey respondents in public schools knew of availability of menstrual cups in their communities, compared with 10.4% in private schools. Twice as many girl survey respondents in urban settings knew of availability menstrual cups in their communities, compared with rural settings.

San girls who participated in FGDs noted that disposable pads were available in their communities, schools, or closest town. They also had easy access to toilet paper and cloths (chitenge). Girls with special needs who participated in the survey noted readily available disposable pads for their use. All out-of-school girls noted that pads and tampons were available for their use. Their mothers/grandmothers or mother's friend purchased it for them.

6.3.2 Menstrual Product Preference

The list of menstrual product types mentioned above were also the preferred products by girl survey respondents: 92.3% preferred to use disposable pads, followed by tampons (3.6%), washable pads (2.6%), and panty liners (2.2%). The remaining 4.5% chose other types of products, such as sanitary napkins, sponges, menstrual cups, toilet paper/wipes, cotton, cloths, contraceptives, diapers and underwear. A very limited number of girls in the FGD in the Kavango East Region mentioned herbs and roots. Others did not know their preference or choose not to respond to the question.

Figure 17: Menstrual product preference (%)

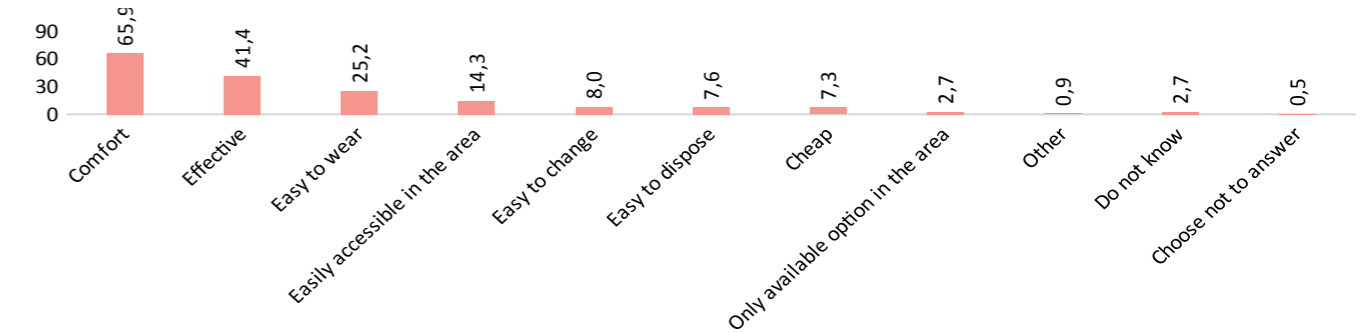


It is essential to understand what influences the choice of a menstrual product. Most of the girl survey respondents (65.9%) preferred menstrual products that were comfortable when used. Preference was thereafter influenced by effectiveness, followed by easy to wear, easily accessible, easy to change, easy to dispose of, and affordability. Some (2.7%) preferred it because it was the only option available in the community.

FGD discussion participants noted that mothers and aunts were most likely to provide pads. Many of the girls respondents were therefore only aware of pads, as this was the only product introduced to them by their providers. Preference, in many instances, was therefore influenced by not knowing other products as well.



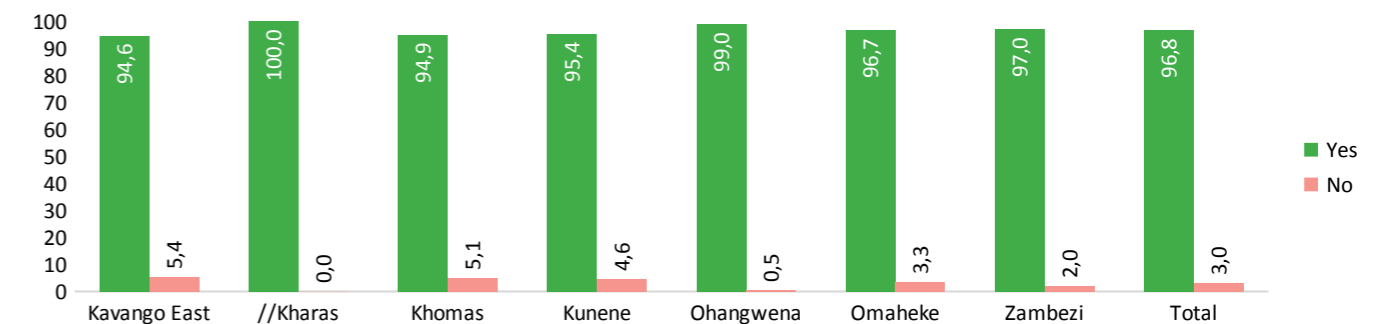
Figure 18: Menstrual product preference influencers (%)



6.3.3 Menstrual Product Use

Girl survey respondents were asked if there were currently using their preferred menstrual product. Almost all girl survey respondents (96.8%) reported that they were currently using their preferred product. All of the girl survey respondents in the //Kharas Region (100%) reported to use their preferred product, followed by 99% in the Ohangwena Region. The Kavango East and Khomas regions reported the lowest proportions in comparison to the other regions, albeit still at very high proportions (94.6 and 94.9% respectively).

Figure 19: Currently using preferred menstrual products (%)



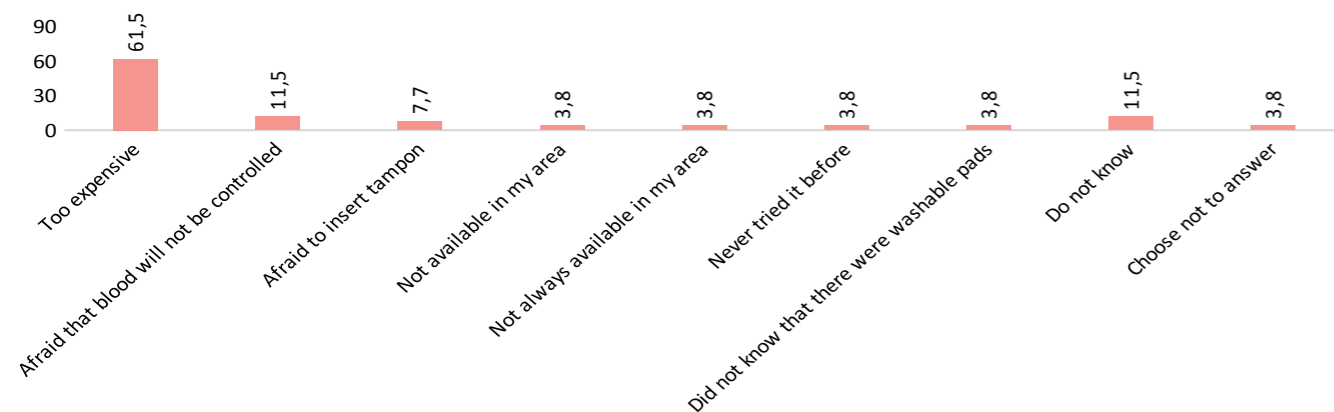
Almost all girl survey respondents (98%) reported that they used disposal pads, one percent used tampons, while the remaining 1% used other products such as pieces of cloth (washable pads), cotton, and toilet paper/tissues amongst others.

The above means that almost all girl survey respondents currently used the menstrual product they preferred. However, the fact that the girls said that they used their preferred product did not necessarily mean that they could use them all of the time. In fact, they may use their preferred products because:

- they did not know of other types of menstrual products;
- they were not properly/sufficiently informed of different types of menstrual products;
- products were available in their residential areas;
- sporadic use when parents bought or availed money; and
- they were distributed by school.

One of the key reasons why girl survey respondents were not using their preferred products was affordability. Close to two-out-of-three girls (61.5%) who did not use their preferred products noted that it was too expensive. This was followed by 11.5% who were concerned about the effectiveness of the products, afraid to insert tampons, unavailability, and not knowing of other products, including washable pads.

Figure 20: Reasons for not using preferred products (%)



I use cotton during the last two days of my periods to save my pads. I use it because it keeps my vagina dry and it is comfortable to use. I only use it for light period's flowing days when I know I cannot make myself dirty. Other girls also use cloth material, but it is not a preferred material to use for their periods, because it soaks in blood easily and is not comfortable. I use pads at school and cloth at home to save my pads from finishing quicker.

(Omaheke, Rural-State, FGD girls)

I just had my last period last week; my periods are not that painful when I get it because my grandmother always gives me traditional roots to drink for pain relief. Some people also wear these traditional roots in their vagina if they want. The purpose is the same. I prefer to wear pads that my grandmother buys for me, because its comfortable. When I am on my periods, I wash myself three times, in the morning when I wake up, in the afternoon after school and in the evening before I sleep. I use my ordinary daily body soap to wash myself. I usually boil water to bath during my periods, because my grandmother told me that hot water helps to loosen the blood in the body and wash it out faster.

(OVC Girl)

In addition to the above, there was little consistency between products used at school compared with products used at home. In fact, lack of resources made it difficult for many girls to use disposable pads all the time. Girls noted that they would wear pads when at school, church or out and about. However, other materials such as cotton, toilet paper and cloths amongst other materials, were used when at home, when blood flow was slow or in cases of inadequate supply of disposable pads.

There was little variation of disposable pads use in private schools (95.5%) and public schools (92%). There was also little variation of washable pads use in private schools (3%) and public schools (2.6%). However, girls in private schools were twice as likely (7.5%) than girls in public schools (3.3%) to use tampons. None of the girls in private schools used toilet paper/wipes, cotton, cloths or diapers, whereas some girls in public schools did.

Very little variation was found between girls in urban and rural settings in relation to the use of disposable pads and other products.

San girls in FGDs also noted the use of pads. They indicated that alternative methods were used in cases where pads were unavailable, such as toilet paper and cloth. Pads were preferred because of comfort and effectiveness in absorbing blood.

Special needs girls who participated in the survey noted to mostly used pads, because this is what parents and grandmothers provided to them.

Out-of-school girls who participated in IDIs indicated using disposable pads as well. Only one of the girls used tampons. Disposable pads were preferred because it they are regarded as comfortable. The tampon was preferred because it was less visible through trousers.

OVC who participated in the survey noted using disposable pads only, due to comfort, affordability and access within communities. One of the girls noted that this was the only materials that she knew of.

6.3.4 Menstrual Product Affordability

The cost of menstrual products depended on the type of product, the brand, type of shop (supermarket, convenient store, cuca shop (small informal shops), etc.), distance to markets and geographic area (urban or rural setting). Most girl survey respondents noted that their products cost between N\$11.00 and N\$20.00 (referring to disposable pads). For example, a package of disposal pads in PEP Stores costs N\$11.00, but in SPAR Supermarket it costs N\$20.00. Cuca shops were more likely to sell single disposable pads instead of packages at a cost of N\$2.00 per single pad.

Three-quarters (73%) of girl survey respondents noted that they purchased their menstrual products at supermarkets, followed by one-third (32.6%) who noted other shops/markets. Five percent noted that they received pads from school/NGO, 2.1% bought from pharmacies, while 1.4 percent made pads from old clothes.

Every three-out-of-four girl survey respondents (75%) noted that they could afford disposable pads. Affordability was found to be highest in the Omaheke Region (88.9%), followed by Kunene and Khomas regions (87.7% and 82.6% respectively). On the other hand, affordability was found to be the lowest in the //Kharas Region (60%), followed by Zambezi and Ohangwena regions (65% and 69.7% respectively).

Affordability in urban areas (76.9%) was slightly higher than affordability in rural areas (72.9%). Most girls in rural and urban FGDs agreed that sanitary products were mostly affordable, except for tampons that were regarded as unaffordable by a few participants.

Affordability in private schools was much higher (86.6%) than in public schools (73.9%).



Urban Girl FGDs on Affordability

- Not expensive at all.
- Not expensive, they can make it themselves, especially the washable pads.
- Tampons are expensive, cheapest N\$18.
- All say it's very cheap, its available at home (cloth).
- All say its cheap 9 dollar (pad).
- The full box of disposable pads is expensive.
- Disposable pads are very affordable.



Rural Girl FGDs on Affordability

- All say unbelievably cheap and easily affordable.
- They all said pads is affordable, but not sure about the price for other products.
- It is not awfully expensive, it cost between N\$19 – N\$20.
- Tampons cost me N\$50.



Even though high proportions of girl survey respondents noted affordability of pads, such affordability was inconsistent. For example, some schoolgirls sleeping in a dormitory buy a package of disposable pads at the beginning of the school semester with money that parents gave them, but then, when those are finished, they do not have funds to buy additional disposable pads. Girls walking to school every day may have one when they go to school but then, they do not have additional disposable pads to change during school hours. In some cases, girls use disposable pads only when at school, but use other materials when at home. Availability is therefore compromised by inconsistent affordability.

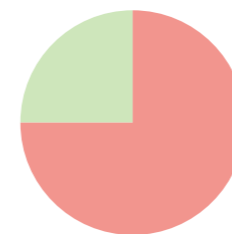
Some of the San girls who participated in FGDs could not speak of affordability as they did not purchase pads – it was purchased for them. Other San girls who participated in FGDs in Zambezi Region noted that disposable pads were expensive, while those in the Kavango Region noted that it was affordable. San in both regions felt that the chitenge (old cloth) was affordable and easily accessible.

The girl knows that pads cost money, so she will only use the pads when going to school. When the girl is at home then she uses a piece of cloth. (Khomas, Rural-State, FGD Girls)

I use cotton towards the last days of my periods. I take a piece of cotton and roll it into an oval like shape that I insert in my vagina. (Kavango East, Urban-State, FGD Girls)

Not all girls can afford sanitary pads - it is sad for a young woman to go through such experiences. (Ohangwena, KII Parent/Guardian Urban-State)

There are girls who cannot afford to buy what they need for menstruation like the pads. Some come to school wearing a piece of cloth for their periods and they are very embarrassed about it, so they do not want to talk at all. (Khomas, Urban-State school, FGD Boys)



75% of girls could afford disposable pads.

Figure 21: Affordability of pads (%)

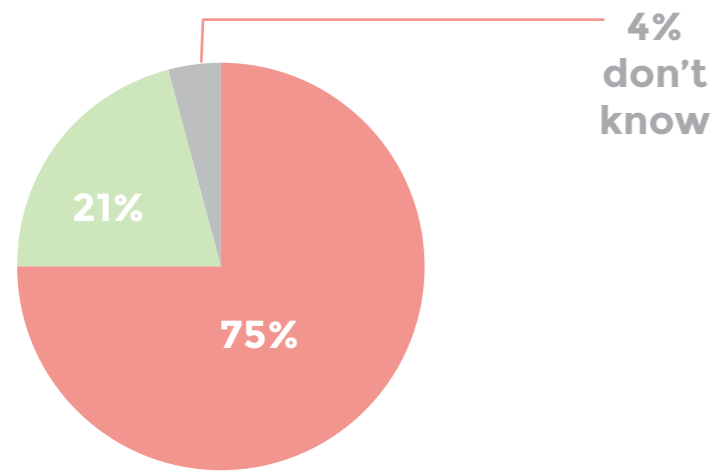
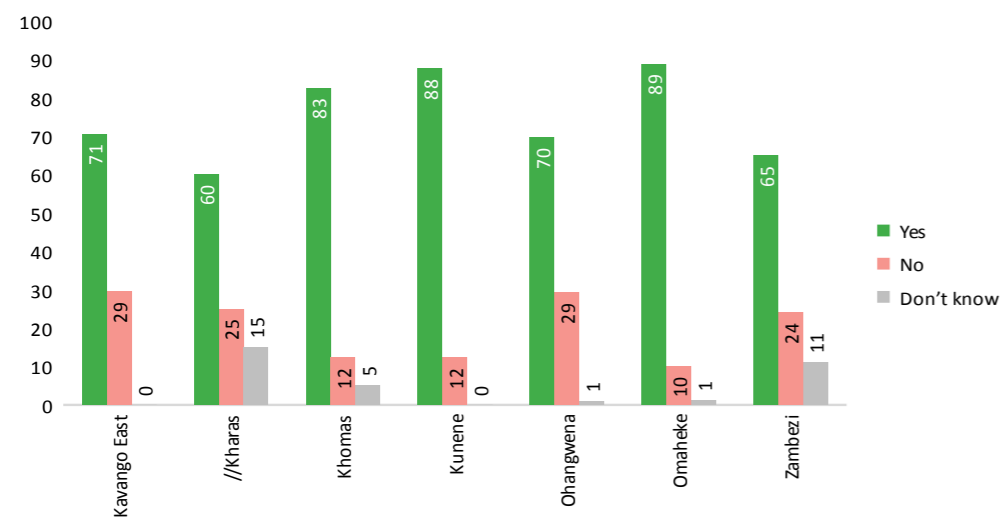


Figure 22: Affordability of pads by region (%)



6.4. Availability of Pads in Schools

When girls were in need of pads while at school, they normally asked Life Skills teachers. However, availability was inconsistent and unsustainable, according to KIIs. Disposable pads were normally donated to schools by civil society, including the private sector. Disposable pads were distributed by delegated teachers, such as the Life Skills Teacher, during school hours on an ad hoc basis to those school-going children in need. Most of the girl FGD participants noted that Life Skills teachers distributed disposable pads when required.

Schools, especially Life Skills teachers fundraise for disposable pads to be distributed to learners in need. Some Life Skills teachers, sometimes, purchased pads from personal funds when left with no other option. Most disposal pads currently derive from external donations, such as NGOs or the private sector. Schools rarely used school funds to purchase pads, as school funds were found to be extremely limited.

We encourage the girls that can afford to buy their own pads so that the school can provide pads to those who cannot afford to buy pads at all. The girls have adhered to this request, and we are managing quite well. (Kavango East, KII Principals & Teachers Rural-State)

Some parents who can afford should also buy pads & bring them to school to assist girls whose parents cannot afford. (Ohangwena, KII Principals & Teachers Rural-State)

We never got pads from school unless we go to Life Skills Teacher. If the pads were finished, the teacher would give toilet paper and permit you to go home. Schools should build new toilets, provide new doors for the toilets, mirrors, water and soap to wash hands, toilet paper and pads. The school should provide pads because they are very expensive. (Ohangwena, Urban-State school, FGD girls)

In the beginning of the year, in January, before coronavirus started, our Social Science teachers started a program that distributed pads to the girls at school, when the girls had their periods. Each girl was given four pads per day for the days they had periods. Two pads were given in the morning and another two pads were given after school. (Kavango East, Rural-State school, FGD Girls)

6.4.1 Use of Washable Pads

Different opinions were reported in relation to washable pads from different KIIs. Some insiders from donor agencies and ministries expressed their concerns about washable pads, mainly due to availability of water and soap in schools and dormitories to wash them safely, especially in a setting of high HIV prevalence. Another concern raised was in relation to the material used to produce washable cloths and the effects on the body. The concern was about the use of cotton or synthetic material and possible cause of fungal disease or the colouring possibly causing skin irritation. In addition, washable pads would need to have initials of the person owning them in order to use by someone else.

Washable pads were distributed in some schools by NGOs that produce washable pads, or by NGOs who wants to support girls in need. Contrary to the above concerns, the NGO OYO found high levels acceptability for washable pads based on a qualitative study with 50 girls from 12 schools in the Kunene Region.

ACCEPTANCE OF REUSABLE SANITARY PADS AMONG OVAHIMBA GIRLS

- 86% of the girls have at least tried the pads once.**
- 93% of the girls who have tried the pads are still using them.**
- 83% of the girls who have tried the pads are still using them eight to nine months later.**

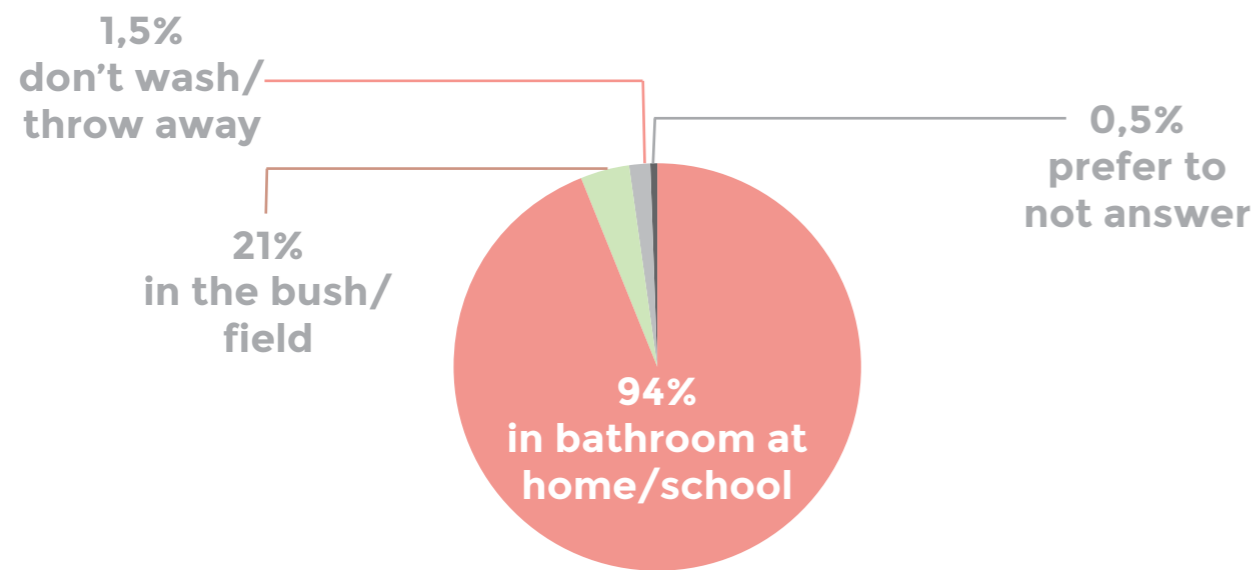
Grand Challenges Canada
Grands Défis Canada

As indicated elsewhere in the report, very few survey respondents were aware of washable pads, while even less made use of it. The MHHM Assessment in Namibia found that 91.6 percent of girl survey respondents did not use washable pads, while 8.4 percent did.

In addition, none of the San girls who participated in FGDs were aware of washable pads, instead of the cloths they improvise themselves. None of the special needs and out-of-schoolgirls who were interviewed used washable pads as they did not know of it.

One of the key aspects of washable pads is that it is well taken care and always kept in an hygienic environment. Of those who used washable pads in the past, 93.6 percent reported to wash such pads in the bathroom/toilet in schools/home, 4.5 percent washed it outside in the bush/field (pond or a river), while 1.5 percent did not wash it, but threw it away instead. The remaining 0.4 percent refused to respond to the question.

Figure 23: Washing of washable pads (%)



An essential aspect of using washable pads is the storage of such pads. Those who have used washable pads in past, mostly stored their clean pads inside their homes (as other clothes or in a bag with other pads), but hidden somewhere for no one to see. The differences in storage across the different weather seasons are detailed in Table 5. A stark difference in storage across the seasons was that only 4.4 stored it outside and in sunlight during the rainy season. Not many respondents stored washable pads in the bathroom/toilet, but mostly inside homes in private places.

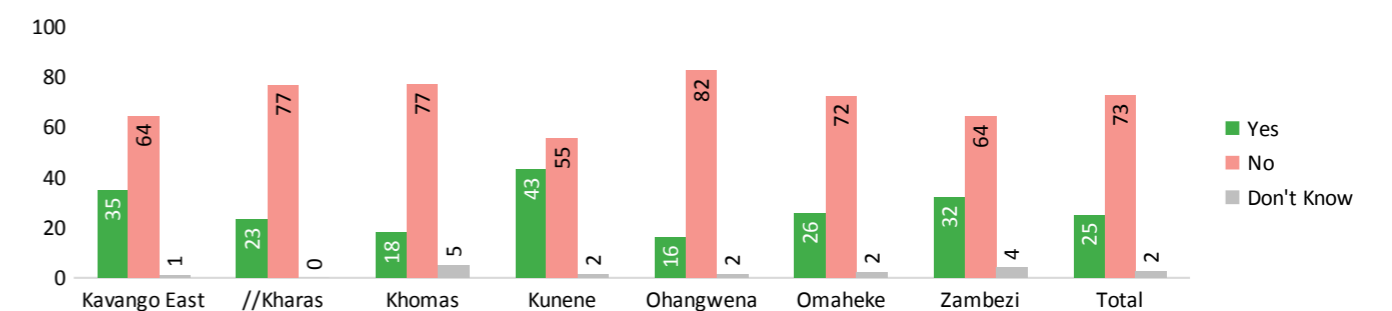
Table 5: Storage of washable pads (%)

Storage Places	Dry Season	Rainy Season	Winter Season
Inside the house but hiding somewhere	45.6	61.8	44.1
Inside the house but open place	11.8	14.7	11.8
Outside the house and in sunlight	22.1	4.4	14.7
Outside the house but hiding somewhere	4.4	2.9	11.8
Inside kitchen over cooking stove	0.0	0.0	0.0
Inside the toilet	2.9	2.9	2.9
Inside the bathroom	7.4	8.8	7.4
NA	2.9	2.9	2.9
Do not know	1.5	1.5	2.9
Choose not to answer	1.5	0.0	1.5

6.5. Cultural Practices in Relation to MHHM

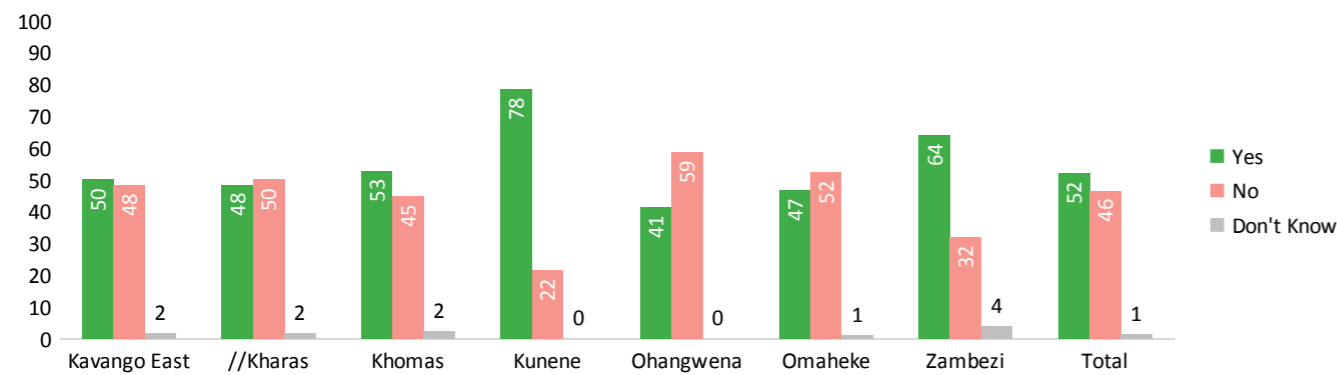
The influence of cultural practices in relation to menstruation can either inhibit or promote good MHHM. Survey respondents were asked if there were any activities required of them during menstruation as part a cultural or traditional ritual. For the seven regions combined, one-quarter reported that they were required to carry out certain activities as part of cultural or traditional rituals during menstruation, while three-quarters reported the opposite. Cultural practices during menstruation were reported to be highest in Kunene Region where almost half of the girls (43.1 percent) noted such activities, followed by Kavango East and Zambezi regions (34.8 percent and 32.0 percent respectively). Cultural practices during menstruation were reported to be lowest in the Ohangwena Region (16.2 percent) followed by Khomas and //Kharas regions (18.0 percent and 23.3 percent respectively).

Figure 24: Cultural practices during menstruation (%)



The survey also found that slightly more than half of the girls (52.1%) were forbidden to do certain activities while menstruating. It seems that such activities were aimed at preventing illnesses, pregnancies and embarrassment. In Kunene Region, 78.5% of girl survey respondents indicated that they were forbidden from certain activities during menstruation, followed by 64% in the Zambezi Region. On the other hand, the above expectation was found to be lowest in Ohangwena Region (41.4%) followed by 46.7% in Omaheke Region. The regions with the highest proportions of cultural practices were also the regions where girls were mostly forbidden certain activities during menstruation. The list of cultural practices is found in Sub-section 5.4.

Figure 25: Forbidden activities during menstruation (%)



7 Water and Sanitation at Schools



7.1 Introduction

Menstruation hygiene and the management thereof is heavily influenced by having supporting facilities and services, including water, sanitation and hygiene services, for washing the body and hands, changing menstrual materials, and cleaning and/or disposing of used materials. This chapter discusses availability, access and status of water and sanitation facilities at schools, including soap, toilet paper, disposable bins, changing rooms, and sick bays amongst others.

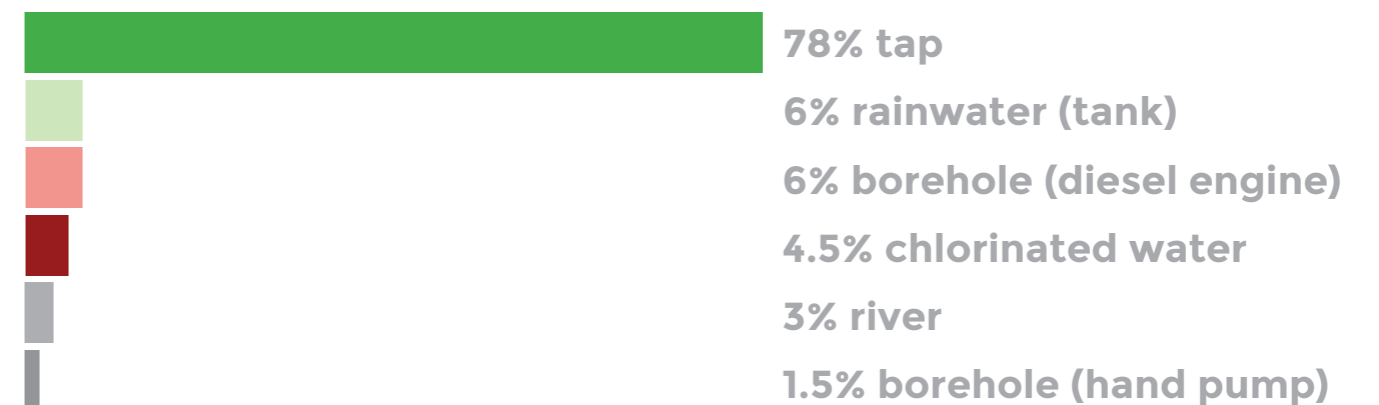
7.2 Water

All 66 schools visited during the MHHM Assessment data collection component have water supplied to school premises. Most of the schools (78%) received water from NamWater via taps on school grounds. This was followed by 12.4 percent who used tanks filled with rain harvested water or from boreholes, and 4.6% who made use of chlorinated water. Engine driven water from close-by rivers were used in 3.1% of the 66 schools. In 86% of the schools water was observed and found to be clean. However, 5% of schools had broken water sources, while stagnant water collected around waterpoints in 39% of the schools. Girls and boys in FGDs complained of salty water at some of the schools. One of the Regional Education directors noted that not all schools had running water, especially those in rural settings. Some of the water sources on school grounds were not protected from animal use.

I do not like the water here at the school because it is salty water. (IDI, Urban-State, Kunene)

No water, no soap, there is nothing we can use for personal hygiene. (Kunene, Urban-State, FGD Girls Urban)

Figure 26: Water sources on school grounds (%)



7.3. Sanitation

There is no water in our toilets. (Zambezi, Rural-State, FGD Girls)

The toilets (pit latrine) are old and smell bad all the time. (IDI, Kunene urban, state school)

The toilets flushes, but there is no water coming from the basins. (Kunene, Urban-State, FGD Girls)

I can get an infection if I use water in the toilets. There are sinks in the toilets, but the water/ taps do not work. There is only water in the flushing toilets, but not at the sinks. There are sinks in the toilets, but the water/ taps do not work. (Kavango East, Urban-State school, FGD Girls)

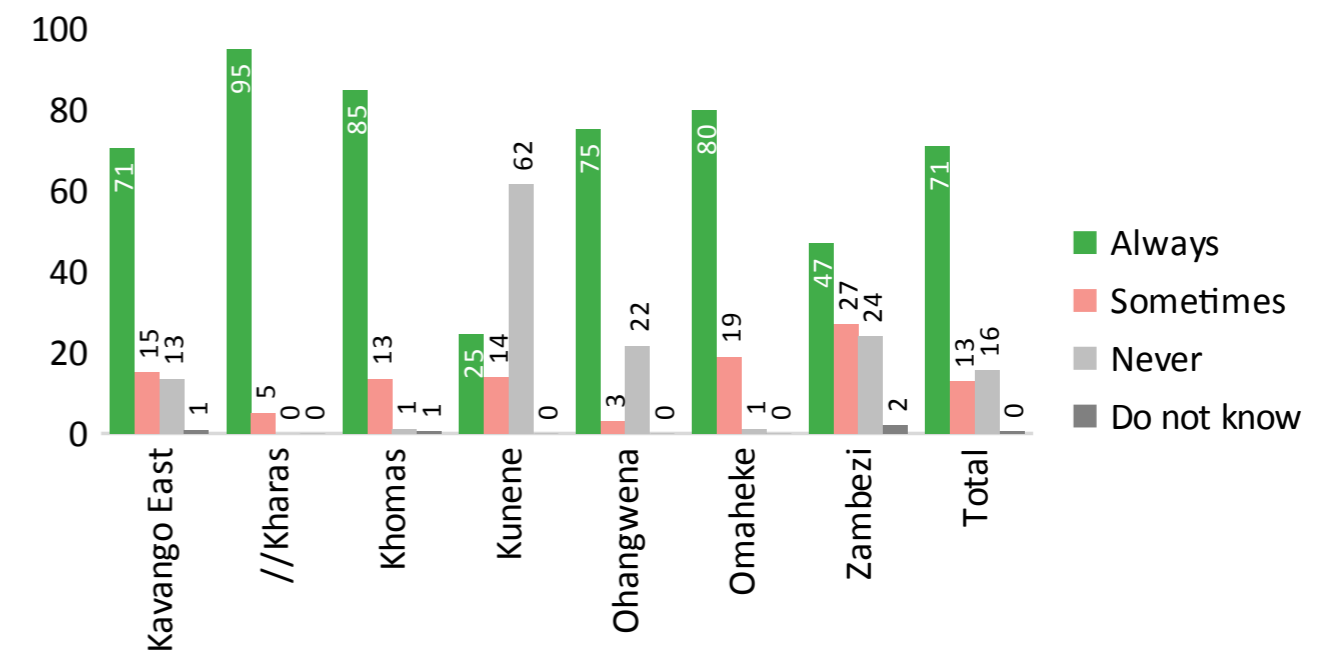
Sometimes we have running water in the toilets and sometimes we do not have. There are times when all the toilets are working well and there are times when some toilets are broken. So, it really depends. (Kavango, KII Principals & Teachers Urban-State School)

Of the 65 schools, two-out-of-three schools (63.1%) used flush toilets connected to a water sewerage system, followed by 27.7% that used pit latrines (no flush). The remaining schools used pit latrines (flush), composting toilets and toilets connected to septic tanks (3.1% respectively). This corresponds with EMIS 2019 data reporting 64.8% flush toilets nationwide. Water supplied to schools does not necessarily mean toilets were supplied with water for flushing or washing purposes. Girl survey respondents were asked if school toilets had water inside toilets. Close to three out of four schools (71.1%) always had water supplied in toilets, 15.6% never had water in toilets, while 12.8 percent sometimes had water.

Almost all of the schools in //Kharas Region (95.0 percent) had schools with water supplied to toilets, followed by 84.8 schools in the Khomas Region and 80% in the Ohangwena Region. On the other hand, 61.5% of schools in the Kunene Region were reported not to have water in toilets, followed by 24.% in Zambezi Region. Only one quarter of the schools in Kunene Region were said to always have water in toilets.

Significant variation was found between private and public schools, and rural and urban schools. Almost all (97%) private schools were said to always have water inside toilets, while the rest sometimes did not. On the contrary, only 68.8% of public schools were said to always have water in toilets, 13.9% sometimes, and 16.8% did not have water inside toilets at all. Most of the schools in urban settings (79.2%) were said to always have water inside toilets, compared with 63.2 percent in rural settings. Only 6% of schools in urban settings were said to never have water inside toilets, compared with 25.1% in rural settings.

Figure 27: Type of toilets in schools, and availability of water inside toilets (%)



7.3.1 Number of Toilets

Government's policy for the number of learners per toilet was 50 for both boys and girls. As per Sphere Handbook, the minimum standard for toilet/learner ratio is 1 toilet:30 schoolgirls and 1:60 for schoolboys. ⁴⁴In Namibia, the assessment team could not find a document clearly indicating minimum standards for school toilets. The MHHM Assessment found on average 67 learners per toilet, which exceeded the required average per government policy. The Assessment also found more girls (71) per toilet than boys (63).

The difference between urban and rural schools was high in relation to learner/toilet ratio. The learner/toilet ratio in urban schools was 79:1 against the 59:1 in rural schools. The learner/toilet ratio for girls in urban schools was 82:1, and for boys 76:1. The learner/toilet ratio for girls in rural schools was 63:1, and for boys 55:1.

Secondary schools tended to have more girls (72) and boys (65) per toilet than primary schools (69 and 62 respectively) for girls and boys.

All, but two of the schools noted to have separate toilets for boys and girls. Based on the Spere Handbook regulation, five of the seven participating regions have exceeded the average number of girls per toilet, with Kunene Region being the highest, followed by the Zambezi and Omaheke regions. //Kharas, Khomas and Ohangwena region met this requirement for numbers of girl learners per toilet.

The shortage of school toilets was a well-known fact by education directors and school principals. The construction of additional toilets was not aligned with school learner population growth. Most of the schools have not built additional toilets for numerous years, while the school population increased annually. With COVID-19, additional funds were availed, which were used to plan for additional toilets in some schools.

When going to the toilet, you have to go with a friend that can stand guard at the door while you clean or change your pads. (Omaheke, Urban-State, FGD Girls Urban)

The toilets are not nice and are old to use. The top concrete/cover seats of the pit latrine are breaking down, but we change our pads there or in the bushes during break time. (Kavango East, Rural-State, FGD Girls)

Most respondents said despite the condition of the toilet they use the toilet to change their pads, because the bushes are far and they can only leave the school premises at break time if they wish to use the bushes. (Kavango East, Rural-State, FGD Girls)

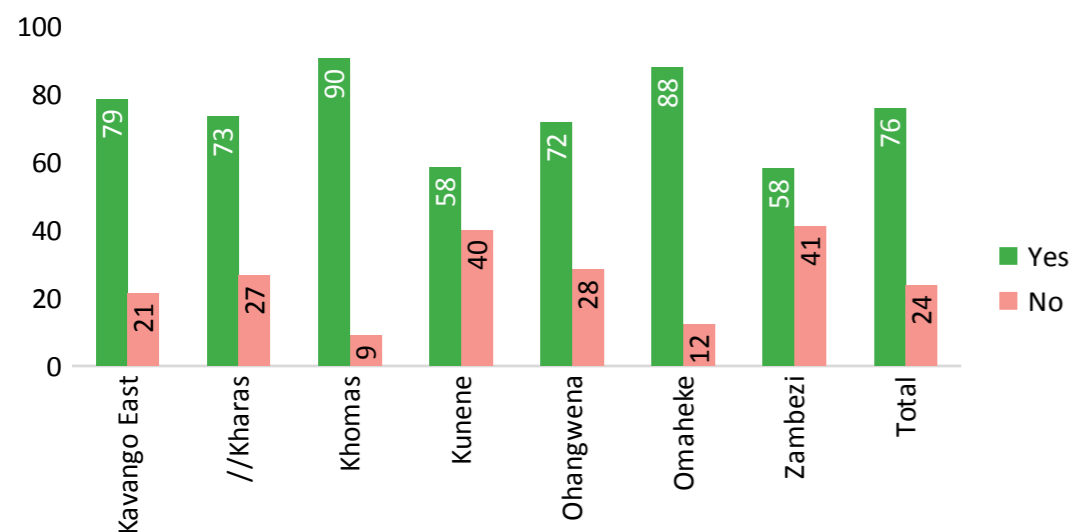
I don't think that girls use the toilet often. I think if they have no choice then they take a friend along to change the pads. But, I don't think they use the toilet often, because there is no privacy. Boys also enters our toilets. (Omaheke, Rural-State, FGD Girls)

Almost all of the schools across the seven participating regions (97.9%) were said to have separate toilets for boys and girls. Little variation was found between urban and rural and private and public schools. However, 11.8% of girl survey respondents in the Kunene Region noted that their schools did not have separate boys and girls toilets.

Notwithstanding the above, one out of four girl survey respondents (23.7%) indicated that schools did not have sufficient toilets for girls and boys. This was especially the case in the Zambezi Region when 41% of girl survey respondents noted that their schools did not have sufficient toilets, followed by 40% percent in the Kunene Region. Almost all of the girl survey respondents in the Khomas Region (90.4%) indicated that their schools had sufficient number of toilets for boys and girls, followed by 87.8 percent in Omaheke Region.

Significant variation was found between private and public schools in relation to sufficient number of girl and boy toilets in schools. Almost all girl survey respondents in private schools (91%) reported that their schools had sufficient number of girl and boy toilets, compared to 74.6% in public schools who agreed to the above. No variation was found between urban and rural schools (sufficient = 75.4% and 76.6% respectively)

Figure 28: Sufficient number of girls and boys toilets in schools (%)



Girl survey respondents were asked if they had to wait in long queues for toilet use. One-third (33.6%) indicated that they normally found long queues when using toilets, especially during break times. Little variation was found between private and public schools. However, more girl survey respondents in urban schools (39%) indicated that they normally found long queues when using toilets, compared with 27.6 percent in rural schools.

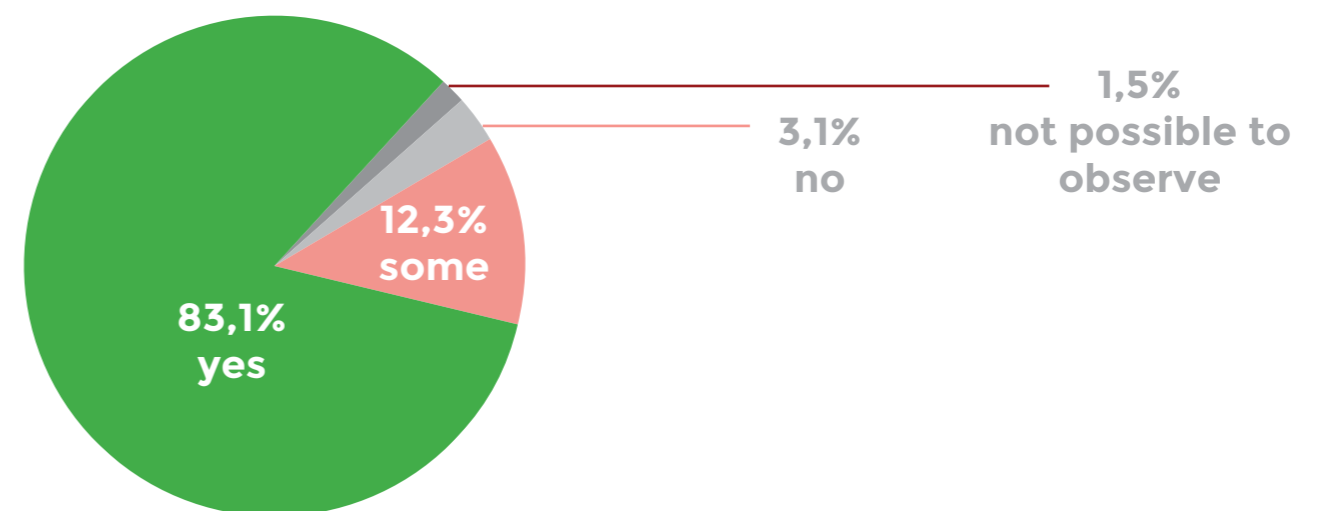
Teachers have their own toilets that can be in the same block as learners or completely separated. Very rarely do teachers use schoolboy (2%) or schoolgirl (4%) toilets.

7.3.2 Condition of Toilets

Although Namibia is doing very well in providing separate toilets for boys and girls in schools, toilets continued to be located in the same block with entrances close to each other. This negatively influenced privacy, especially since toilet doors were sometimes broken and unable to lock. As a consequence, many learners still went to the bush for their sanitary needs.

Almost all the school toilets had doors (95.4%), while 4.6% did not, or some toilets in a block of toilets had doors, while others did not. Toilet doors were found open in 84.6% of the schools and unable to lock. A similar proportion had functional toilets, while the remainder did not have functional toilets (sometimes toilets in a block of toilets worked, while others did not).

Figure 29: Functional school toilets (%)



The toilets are not safe to use, because it is very dirty. The toilets are very disgusting and makes me feel like I want to vomit. I have to walk like a ballerina on my toes because the floor is full of water even when it is cleaned. (Kavango East, Urban-State, FGD Girls Urban)

It is not comfortable to use toilets because the pit latrines are old and broken and smell bad. We must make sure we sit well otherwise we can fall inside. (Kavango East, Rural-State, FGD Girls)

I feel bad to use the toilet because it is dirty. I use the toilet while standing because it is too dirty and has a bad smell. I must hold my nose closed when using it. (Kavango East, Urban-State, FGD Girls Urban)

The boy's toilets are always in an unbelievably bad condition and smell bad all the time. Boys generally are very messy, which resulted in cleaners deciding not to clean their toilets anymore. The principal sometimes tells boys to clean their toilets themselves. (Khomas, Rural-State, FGD Girls)

It is possible to change pads at school, but the challenge is that there is no changing room at school. Girls use toilets that do not have privacy; other girls can see what you do. The toilets are few and the girls in the school are many and they must share. (Khommas, Rural-State, FGD Girls)

There is no separate room for girls to change in, there is no privacy and the school always seemed to run out of pads. They only have pads and no tampons. (Omaheke, Urban, IDI out of school)

The school must have a separate bathroom for girls to go and change during menstruation. (Khommas, Urban-State, FGD Girls Special Needs)

In close to one in three schools (30.8%), stools were visible in toilets (inside pan). More than half of the schools (53.8%) had a faecal smell in the toilet. More than half of the schools did not have cleansing materials in toilets.

7.3.3 Changing Rooms for Menstruation

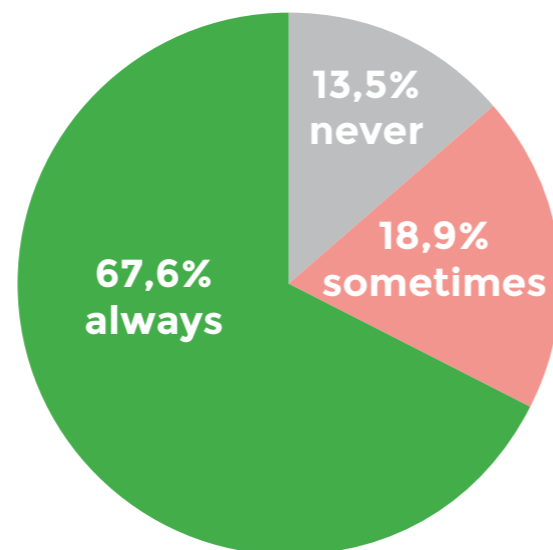
Survey respondents were asked if their schools had a changing room for the change of menstruation sanitary materials during menstruation, separately from toilets. Almost all of the girl survey respondents indicated that their schools did not have such a facility. No variation was found between urban and rural schools. However, 13.4 percent of girls in private schools noted to have such a facility, while 8.8 percent of girls in public schools said the same.

Two out of three girls (67.6%) who indicated to have a changing room at schools, reported to always use the changing room for menstruation hygiene purposes, 18.9% reported to use it sometimes, while 13.5% did not use it at all. Three out of four girls (77%) felt that changing rooms were safe, 10.8% felt that it was not, while another 10.8% noted that it was sometimes safe. Privacy was one of the

reasons, as 80% noted that it was private, while the rest was split between not being private and only sometimes being private. Another reason for not using it was cleanliness; 27% felt that changing rooms were not clean at all, or not clean some of the time. Only 58.1% of the girls who know of changing rooms noted that such rooms had bins to dispose of sanitary product.



Figure 30: Use of changing rooms (%)



7.3.4 Handwashing Materials

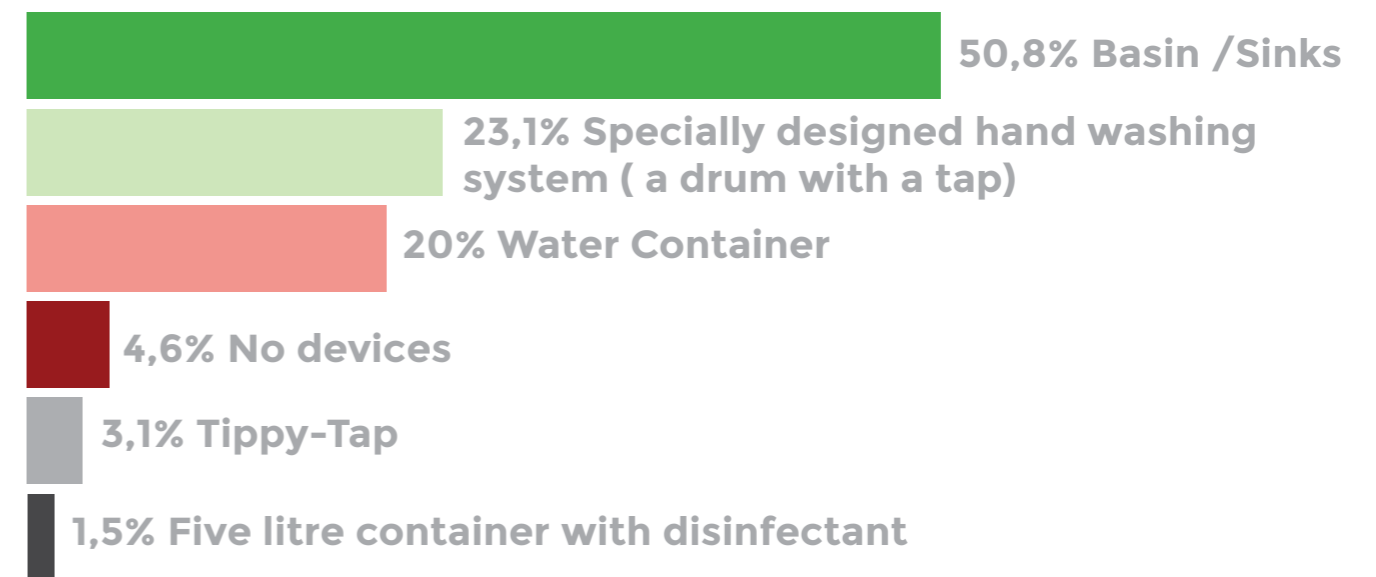
Water and soap were the minimum requirement for learners' hygiene. Two out of five schools around the world lacked basic handwashing facilities prior to the COVID-19 pandemic, according to UNICEF and WHO.⁴⁵

Most of the schools made use of basins (sinks) as handwashing devices inside school toilets, followed by specially designed hand washing systems outside of toilets, water containers, 5l disinfectant, while 4.6% had no handwashing devices.

There is no soap in the school toilets and sometimes the school also doesn't have any water supply for me to wash up during menstruations. (Khommas, Rural-State, FGD Girls)

Recently all the senior girls of the school took part in renovating all girls toilets by themselves. Each girl brought different things from home to make our toilets hygienically clean and attractive. We brought paintings, mirrors, towels and soap to wash hands, sanitisers and many other things. (Khommas, Urban-Private, FGD Girls).

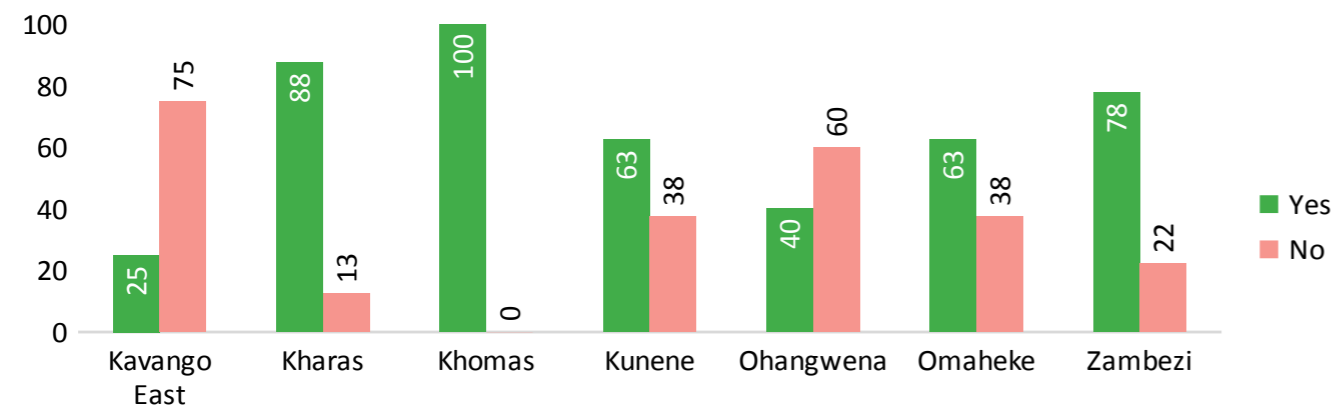
Figure 31: Handwashing devices in schools (%)



Many of the schools visited during the survey (39.1%) indicated that toilets did not have soap, 44.9% noted that soap was within 10 metres of the washing device, while 15.9% noted that it was 10 metres away from the device. Away from the device means outside of the toilet, or with the Life Skills (other teacher) in their classrooms. Just because soap was observed during data collection did not necessarily mean that soap was always available. Close to two out of three (63.5%) girls noted that soap was never available, 4.1% noted that it was sometimes available, while 31.1 percent noted that it was available. Based on observations, 75% of schools in Kavango East Region did not have soap. All schools in the Khomas Region did have soap.

Significant variation was found between private and public schools and urban and rural schools. Public schools were twice as likely never to have soap (66.7%), compared with private schools (33.3%). Rural schools (70.6%) were more likely never to have soap, compared with urban schools (57.5%).

Figure 32: Availability of soap in toilets (%)



During field visits, all schools were observed to have hydroalcoholic solution (sanitiser) in front of their classrooms. One of the KIs noted that while there were jerricans of sanitiser in front of each class, school toilets did not have soap. Some of the learners actually washed their hands with hydroalcoholic solution, in the absence of soap.

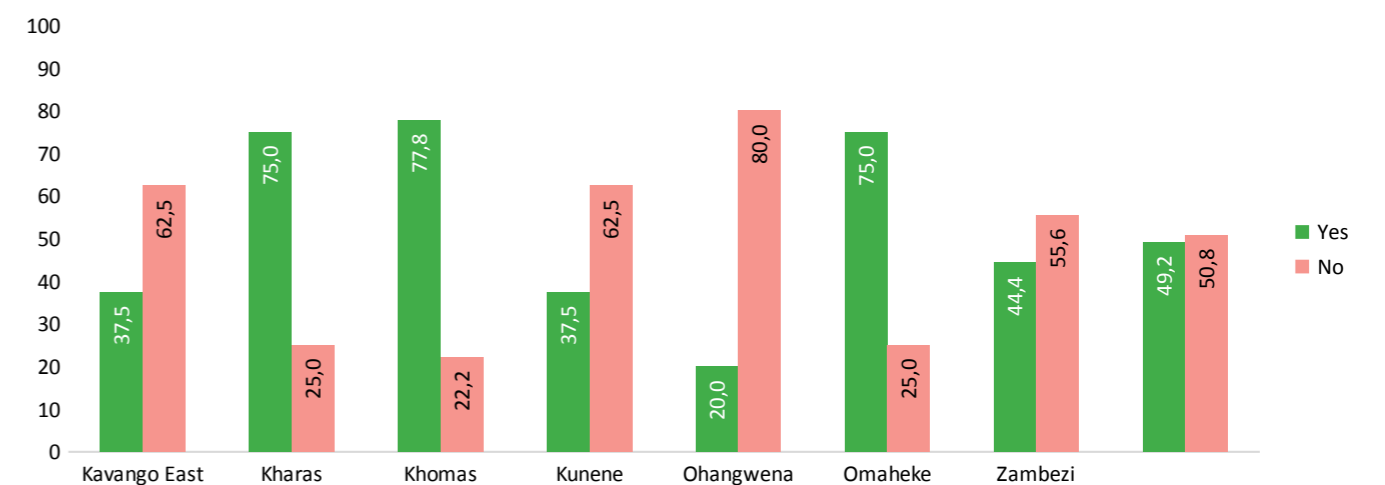
On the other hand, while proper soap and hand sanitizer selection was important, it meant little if the learner population did not use the products, or if hand sanitizer was the only product available. Soap needed to be provided and replenished regularly and consistently. With COVID-19 amongst the populace, it was essential to facilitate basic hygiene in all schools so children could hand wash properly in order to prevent infections. This was essential to consider with reopening of schools after lockdown. "Access to water, sanitation and hygiene services is essential for effective infection prevention and control in all settings, including schools," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. He further stated that, "It must be a major focus of government strategies for the safe reopening and operation of schools during the ongoing COVID-19 global pandemic."⁴⁶

An idea that derived during the assessment was to give schools a revolving fund to make their own soap. A bar of this handmade soap could be given to each learner, while the remaining ones could be sold in order to earn funds to continue producing more handmade soap and thus making it sustainable. The bar of soap could be given to each learner to use as needed. This, of course, has to be accompanied with hygiene and health education and be part of dignity kits.

7.3.5 Toilet Paper

Besides soap, toilet paper was also in short supply across the seven regions, albeit at different levels. Overall, half of the schools had toilet paper (49.2%), while the other half did not (50.8%). The Ohangwena Region was observed to have 80% of schools without toilet paper, followed by the Kavango East and Kunene regions (62.5% respectively). In the Khomas Region, 22.2 percent of schools were without toilet paper, followed by Omaheke and //Kharas regions (25%). This shortage was mainly due to the lack of funds, but also due to learners (and to some extent teachers) not taking care of it.

Figure 33: Absence of toilet paper in schools by region (%)



In instances where the use of toilet paper were not well managed by learners and teachers or where the lack of funds resulted in unavailability, Life Skills teachers kept toilet paper in classrooms, and only gave pieces of toilet paper to those that requested for it. In such cases, only a certain amount of toilet paper was given. This meant that if a girl who menstruated and was in need of toilet paper at one of the above-mentioned schools, then such as girl would first ask the class teacher to be excused from class, then have to go to the Life Skills teacher to request for toilet paper. This is not ideal for the any learner, and especially not ideal for the girl child when menstruating.

There is a separate dustbin in the girl's toilets where the used pads can be disposed of. (Omaheke, Urban, IDI out of school)

I do not like changing pads at school, because there is no dustbin in the toilets. (Khomas, Rural-State, FGD Girls)

I dig a hole and burry the used pads, so that the environment at home does not smell of the period 's blood. (Kavango East, Urban-State, FGD Girls)

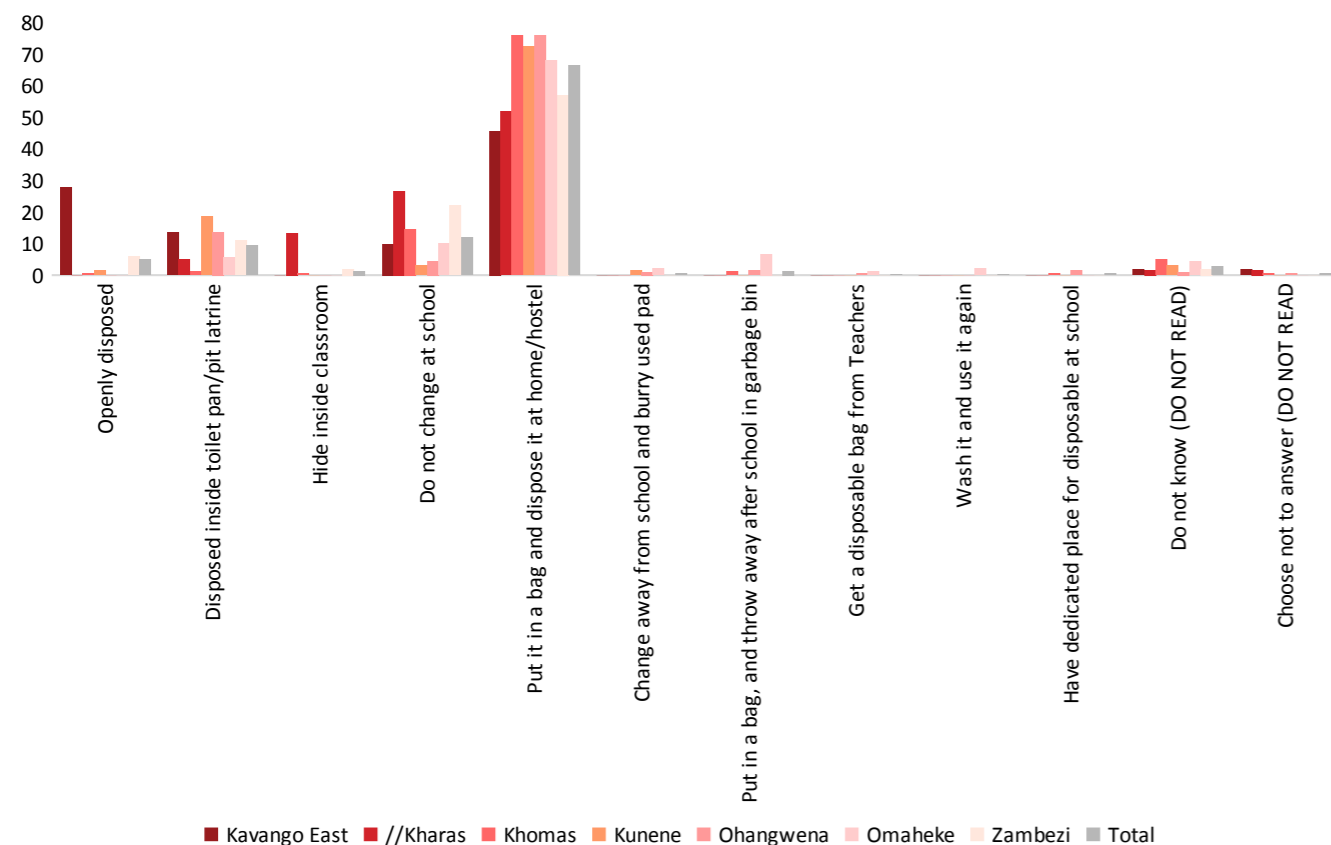
7.4. Waste Disposal

7.4.1 Disposable Bins

The presence of a bin in a toilet or a changing room is essential to dispose used pads in an environmentally safe and private manner. Moreover, it is paramount that bins are covered for hygiene and privacy purposes. Three out of four girl survey respondents (75%) reported that toilets in their schools had disposable bins where pads could be discarded, but such bins did not have covers most of the time. Girls in FGDs reported that they did not use disposable bins in toilets, because such bins did not have lids. They were afraid that someone might see their used pads. They were also afraid that someone might accidentally knock over the bin, scattering waste (including pads) all over the toilet floor. Therefore, many girls wrapped used pads into plastic bags, carry it in their school bag to discard in the bin at home/hostel, or bury it in the ground.

Quite high proportions of girls disposed of their pads inside toilets/pit latrines as well. Flushing of pads into the toilet occurred more frequently in Kunene (19%), Ohangwena (14%), Kavango East (13%) and Zambezi (11%). It is not common to dispose used pads openly apart from Kavango East (28%) and Zambezi (6%).

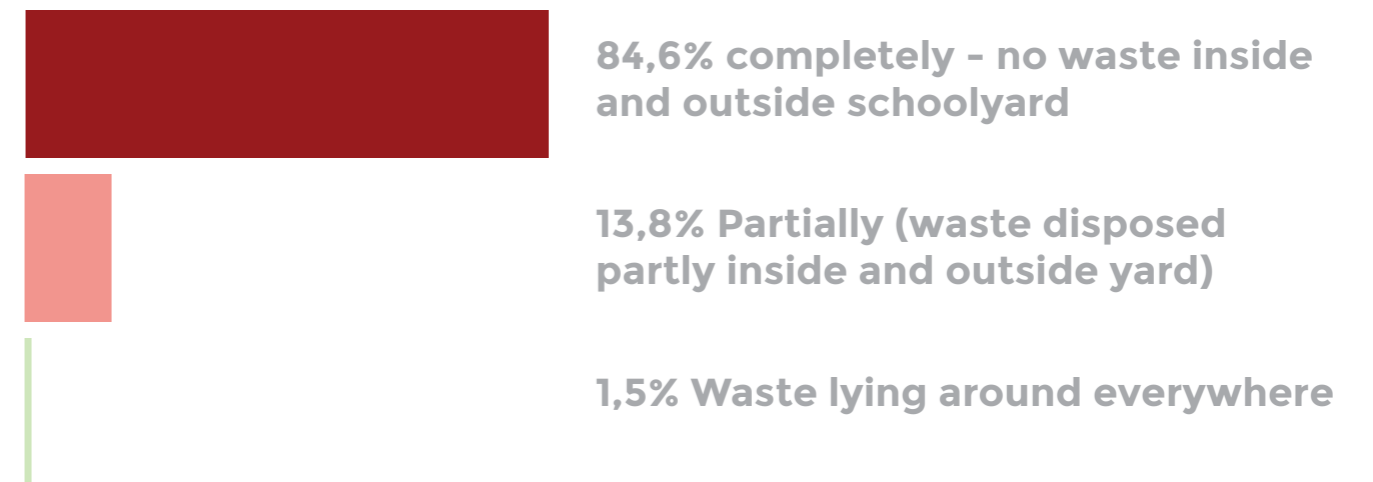
Figure 34: Dispose of disposal sanitary material in absence of disposable bins (%)



7.4.2 Solid Waste Disposal

Schools in Namibia were found to be doing well in terms of waste disposal. Most of the schools (84.6%) had no waste outside the school yard, 13.8% had some waste and 1.5 percent had substantial waste outside the school yard. In addition, 85% of schools had no waste inside the school yard, and 86.2% of the classrooms were clean.

Figure 35: Waste management outside school yards (%)



8

MHM Impacts on Education and Health



8.1 Introduction

The girl child's dignity, right to education, health and well-being should not be influenced by her biological make-up, sex and socio-economic status. The literature review found that the time around menstruations and inadequate menstruation hygiene management leads to absenteeism, if not school dropout and other health related challenges. This chapter describes impacts on school attend and academic performance as well as impacts on health. It explores issues (as per the definition of MHM) around diagnosis, treatment and care for menstrual cycle-related discomforts and disorders, including access to appropriate health services and resources, pain relief, and strategies for self-care.

Most of the girl survey respondents (75.7%) noted that their periods lasted between three and five days. Almost one-third (30.8%) noted four days, one-quarter (22.9%) noted five days, followed by 22% who said 3 days. One out of five girls (20.2%) said it lasted six days and more, while 4% noted up to two days. One respondent did not know the number of days.

On a scale of one to ten for menstrual pain severity (10 being heavy pain and 1 being little pain), about half of the girls noted that they experienced 5+, while the other half experienced less than a five in relation to pain severity. One in five (19.3%) noted extreme pain (9 and 10 severity), while close to one in three girls (29.4%) noted very little pain (1 and 2 severity).

8.2 Impact of Inadequate MHM on Education

Menstruation, overall, impacted upon one-third of respondents across the seven assessment regions, in relation to daily activities, such as carrying out house chores, walking far distances, going to church, and participating in sport amongst other activities. Close to half of the girl survey respondents (48.6%) in Zambezi Region overall felt that menstruation impacted upon daily activities, followed by 38.9% in Khomas Region. Less than one quarter (21.3%) in Ohangwena Region felt that menstruation impacted upon daily activities, followed by 29.1% in Omaheke Region.

Close to half of the survey respondents (46.9%) overall noted that they were unable to do sport while menstruating. This impact was felt the most in Zambezi Region (60%), followed by Khomas Region (57.3%), and least in Ohangwena Region (33.3%), followed by //Kharas Region (41.7%).

Only one quarter felt that menstruation made it difficult to attend church, followed by one third who indicated difficulty carrying out house chores.

Table 6: Impact of menstruation on some daily activities (%)

Activities	Kavango East	Khomas	//Kharas	Omaheke	Kunene	Ohangwena	Zambezi	Total
Does your period make you miss housework/chores?	41.1	37.6	33.3	30.0	29.2	18.7	49.0	33.0
Does your period make you unable to walk far?	35.7	51.1	26.7	34.4	33.8	28.3	55.0	38.7
Does your period make you unable to go to church?	26.8	21.9	25.0	18.9	18.5	13.6	39.0	22.3
Does your period make you unable to do sport?	42.9	57.3	41.7	45.6	53.8	33.3	60.0	46.9
Are there any other activities that your period makes you miss?	29.5	26.4	36.7	16.7	30.8	12.6	40.0	25.2
Overall per Region	35.2	38.9	32.7	29.1	33.2	21.3	48.6	33.2

8.2.1 Impact on School Attendance

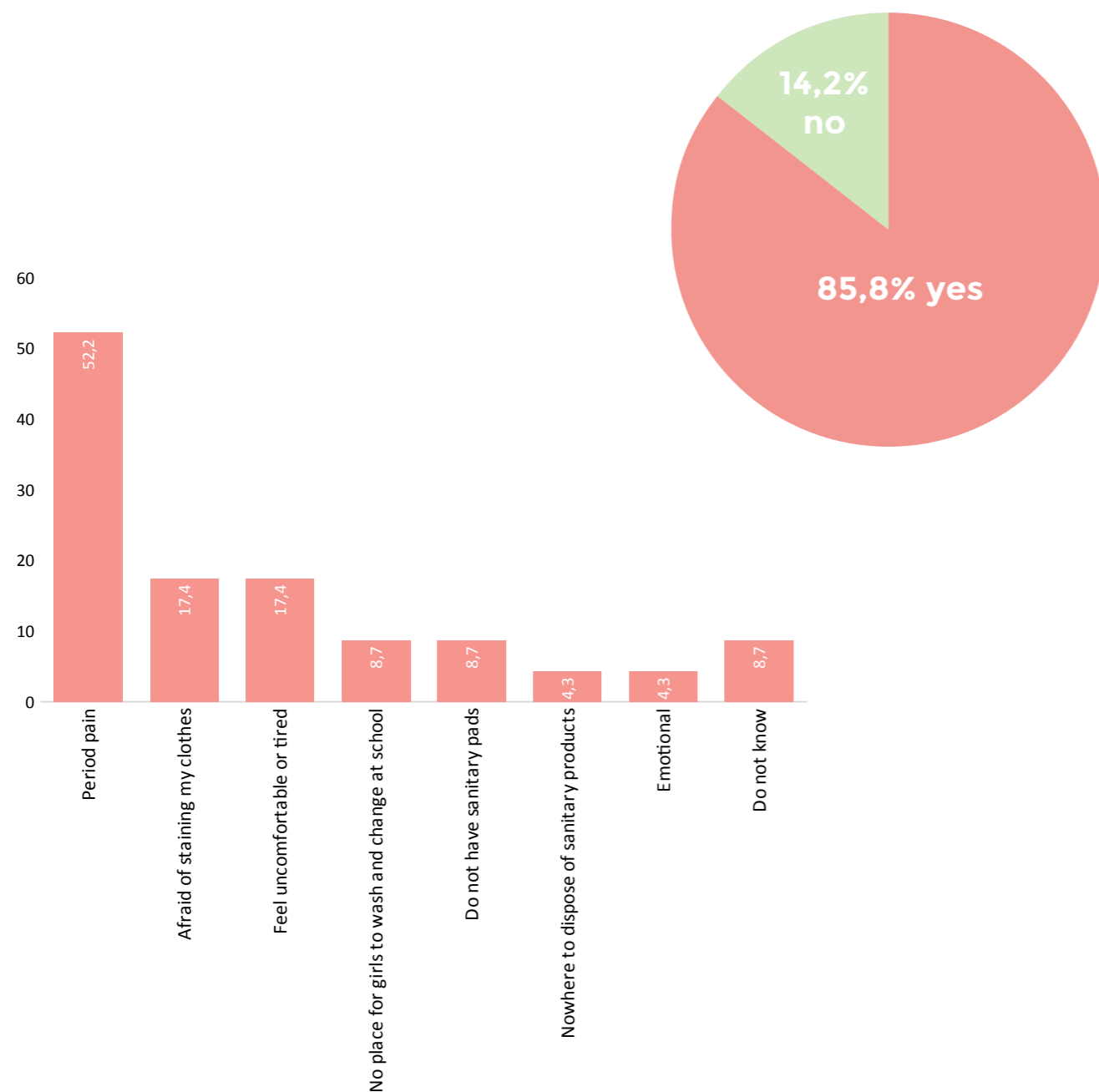
One of the most serious possible implications of menstruation is that of school absenteeism, and the resultant effect on school performance and promotion. Girl survey respondents were asked if they normally came to school when they menstruated. Almost all (97.1%) said yes, while 2.9 percent said no.

Although only 2.9% reported going to school normally when menstruating, 14.2% reported missing school due to menstruation, while 15.8% noted that they have missed classes over the past three months due to menstruation. The above is in addition to the 29.3% of respondents who noted having missed school in the past month due to reasons other than their period; of which 10.7 percent was due to the lack of money.

Very little variation was recorded across the seven regions, rural and urban settings, and private and public schools. In private schools, 89.6% indicated school attendance when menstruating, compared to 85.5% in public schools. In rural schools, 85.3% attended school when menstruating, compared to 86.3% in urban schools. The impact of menstruation on school attendance is relatively the same across different regions and type of school.

The main reason for absenteeism during menstruation was dysmenorrhea (menstrual pain, 52.2%), followed by being afraid of staining clothes and feeling uncomfortable (17.4% respectively), not having a place to change sanitary products and not having sanitary products (8.7% respectively), and nowhere to dispose of sanitary products and being emotional (4.3% respectively).

Figure 36: Percentage school absenteeism during menstruation and reasons (%)



When I am on my period, I feel sick and feel like crying from the pain. When I have these period pains, I drink Panado or Ibruphen to relief the pain. When a girl gets her periods, she becomes rude, moody, and very sleepy. I am told not to cook food when my period is on. I do not miss school because of my periods. My parents make sure that I have enough pads to carry to school and use at home. (FGD girls, Urban School)

I sometimes miss school because of my periods when I have too much pain. I always have abdominal pain throughout my periods. Some days are better than others, and some days are worse than others. I behave normal, but the pain really disturbs me. I always go to the clinic when my period starts to get Panado to reduce the pain. In my tradition, a girl on her periods is not allowed to wear or share shoes with another person because it is believed to bring bad luck or it can transfer menstruation to the next person. (FGD girls, Urban School)

I always attend school no matter the pain, because I believe staying at home will not solve the problem, but will make me miss out of education. (FGD girls, Rural School)

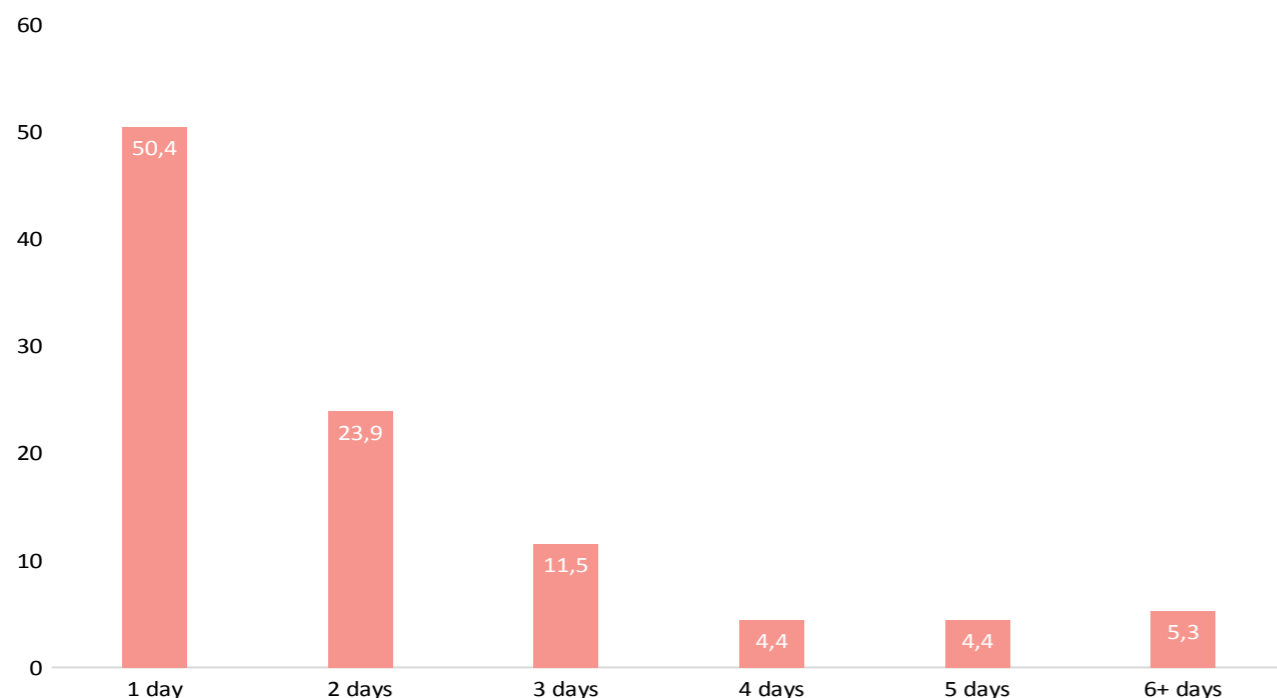
Some girls stay at home if they do not have pads to wear to school, because they are afraid that if they wear a cloth, it will make a red spot on their school uniform. (FGD girls, Rural School)

She cannot attend school because it is very painful for her. She cannot concentrate in the class and feels very tired all the time. She prefers to just stay home if she is suffering from menstrual pains. (FGD girls, Rural School)

Most of the girls in urban and rural schools, who participated in FGDs, noted to have missed school due to menstruation pain and lack of sanitary materials. A few noted that girls stayed at home, because they were embarrassed to be menstruating. San girls in FGDs noted that girls on menstruation missed school because they did not have pads, possible stains on school uniforms, stigmatisation by boys, and extreme pain. A few noted that girls were less likely to miss school when school distributed pads and pain medicine. Others noted that they only missed school when the pain was severe or when bleeding lasted for a long period.

Half of the girl survey respondents (50.4%) reported normally missing one day of school per month during menstruation, followed by 35.4% who normally missed 2-3 days, while 14.1% missed four days or more. The first day is normally due to severe menstrual pain. Girls in FGDs agreed that they mostly missed one or days due to menstruation.

Figure 37: Number of days missed due to menstruation (%)



Slightly more than half (54.8 percent) of girl learners noted not to be comfortable at school during menstruation. More than three quarters (77.6 percent) were uncomfortable sitting next to boy children in school. Close to one out of ten (8.0 percent) indicated that other learners teased when they knew that they were menstruating.

Most of the girls who participated in FGDs noted that mother/guardians normally encouraged girls to attend to school as they did not want their children to miss out on education. Girls in the Kavango FGD were more likely to state that guardians discouraged school attendance during menstruation, because of lack of money to purchase pads, menstrual pain and the need for the girl to rest.

Most of mothers who were interviewed in urban areas noted their daughters sometimes missed school because of bad cramps, sever pain, and lack of money to purchase pads. All, but one of the mothers in rural areas, who were interviewed, noted that their daughters did not miss school due to 'unbearable' menstrual pain the first two days.

San girls in FGDs in the Omaheke and Zambezi regions mostly agreed that parents/guardians encouraged girls to attend to school when menstruating. However, some noted that parents may allow girls to miss school during menstruation in cases when the pain was unbearable, or due to shortage of pads.

Half of the special need girls noted that they stayed in school when menstruating at school, while the other half went home.

8.2.2 Impact on School Performance

Girl survey respondents were asked if menstruation effects interfered with school performance/outcomes. Slightly more than one-quarter (27.1%) reported that menstruation challenges affected school performance, while 72.4% reported that it did not, and the remaining 0.5 percent did not know.

The proportion of respondents who reported that the effects of menstruation impacted on their school performance was highest in the //Kharas Region (38.3%), followed by the Zambezi and Kunene regions (33% and 30.8% respectively). The proportion of girl survey respondents who reported that menstruation challenges impacted on school performance was lowest in the Omaheke Region (22.2%), followed by the Khomas and Ohangwena regions (22.5% and 25.8% respectively).

No variation was found between urban and rural schools. However, variations were found between public and private schools. The effects of menstruation was felt more by respondents in private schools (37.3%) compared to public schools (26.2%).

One of the key effects resulting from menstruation challenges was considered to be low concentration during class lessons (76.2%). This was followed by 20.2% who would skip class and 0.9 percent being uncomfortable due to being teased. Girls who participated in FGDs noted that concentration was influenced primarily by pain, but also worrying about staining dresses/clothes, and sanitary products filling up with blood amongst others.

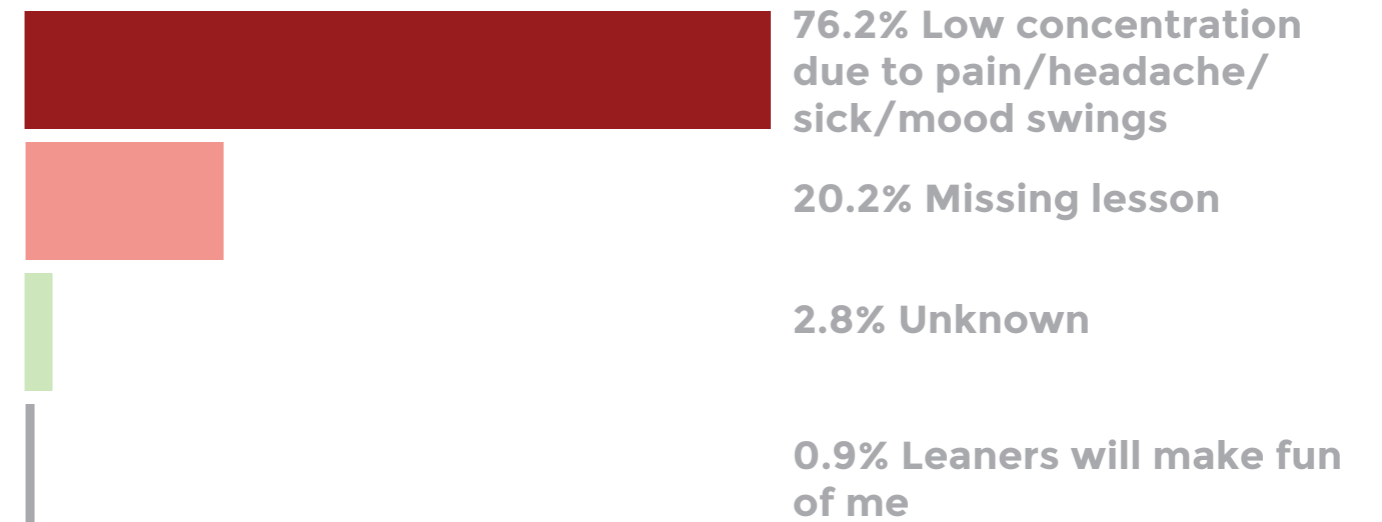
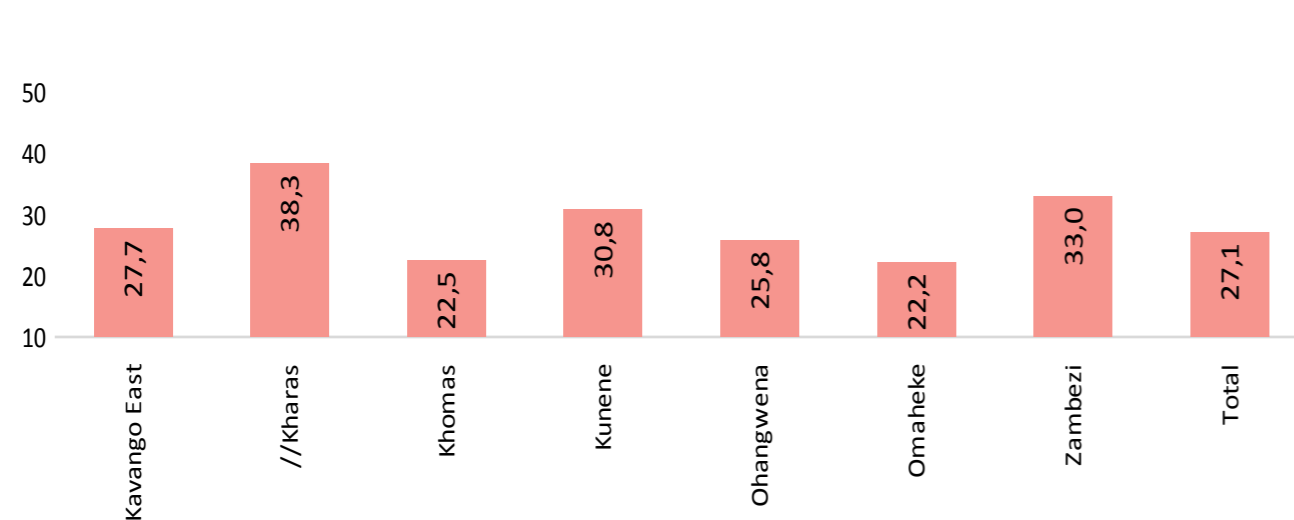
One of the reasons that learners miss school, is that some of them come from low income families and when the girls are on their periods the majority of them cannot afford pads, which is a challenge affecting them. Most of them use pieces of cloths as a pad during their periods and they do not feel comfortable or confident to attend school with the piece of cloth. They feel irritated and uncomfortable using the cloth, and they feel that they should instead stay home during their periods. For example, here at our school it is an obligation that when a learner has to answer a question by a teacher, the learner must stand up to provide the answer. This causes some girls to miss school when on their periods, because they are afraid of blood stains on their clothes and resultant embarrassment. (KII Teacher)

I am aware of cases where some learners, especially boys tease and laugh at girls during their period apparently because of a bad odor. There are cases where some learners laugh at learner that has stained her dress with menstrual blood. Some boys than tease the girl and refuse to sit on the same chair as the girl who stained her dress. This kind of behaviour and reactions from some learners discourages some girls to attend school when menstruating. Another example is when girls and boys teased a girl who stained her dress, saying that she was busy aborting a child or having a miscarriage. (KII Teacher)

Girls in FGDs discussed a story about a fictional girl named 'Ndayela' menstruating. The girls were asked how 'Ndayela' feels in class when menstruating.

- 'Good because periods are normal and happen to every woman.'
- 'She will be worried that she might mess on herself.'
- 'She will be quiet.'
- 'Her concentration is exceptionally low in class; she just wants to go home.'
- 'She feels pain and not concentrating in the class, she is also noticeably quieter than her usual self.'
- 'Ndayela is feeling very shy as well, she thinks that the other learners might notice what is wrong with her and start making fun of her.'
- 'Ndayela is actively participating like usual, there is nothing wrong with her participation, she acts like any other day.'
- 'Her concentration will be disturbed by her on-going thoughts of worry that she is going to mess her uniform'
- 'She will not be free to stand or do anything in class as she is afraid to have messed on her dress.'
- 'She will participate in class, but will not engage like standing up because she will be scared that the blood flow will increase as a result.'
- 'If she is a confident person she will not be affected and will concentrate and participate in class. If she has less confidence, she will be less active in the class most of the time.'
- 'Her concentration in school will be low, because she will be worried about making herself dirty at school, for example when she sneeze, laugh or cough, these will affect her concentration, because she will focus on how her period is flowing most of the time. She will tell her best friend or person she truly trusts.'

Figure 38: Menstruation challenges and reasons for interference with school performance (%)

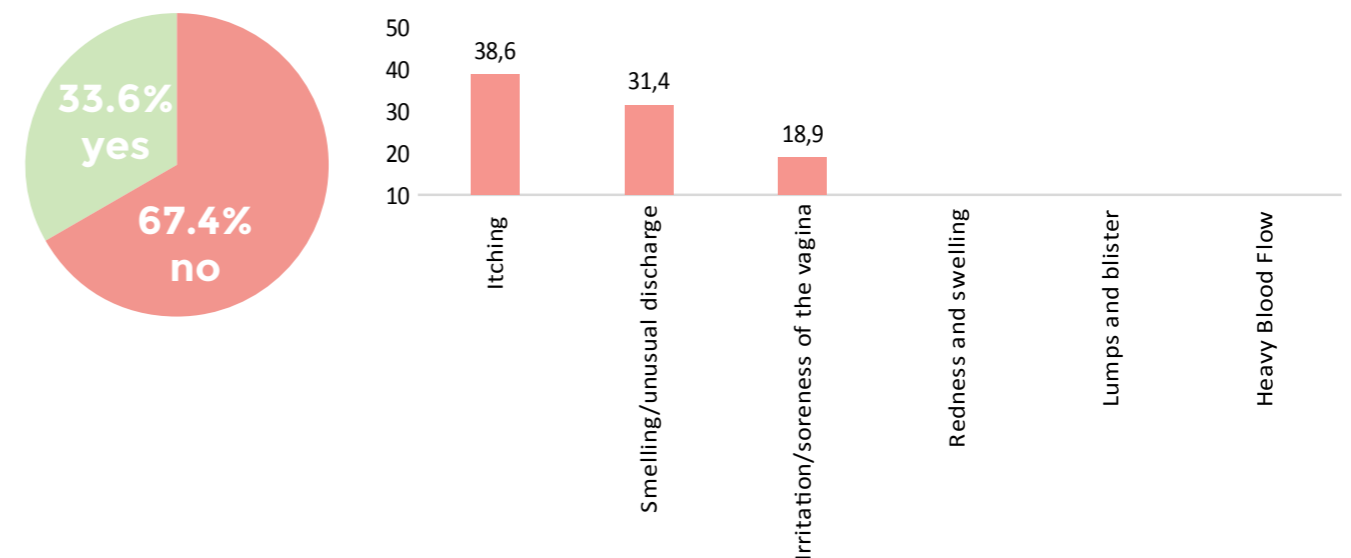


In addition to the above, 6.7% were aware of other girls who dropped out of school due to menstruation. Reasons affecting their choice were transport, poverty, behaviour of other learners and of teachers.

8.3 Impact of Inadequate MHM on Health

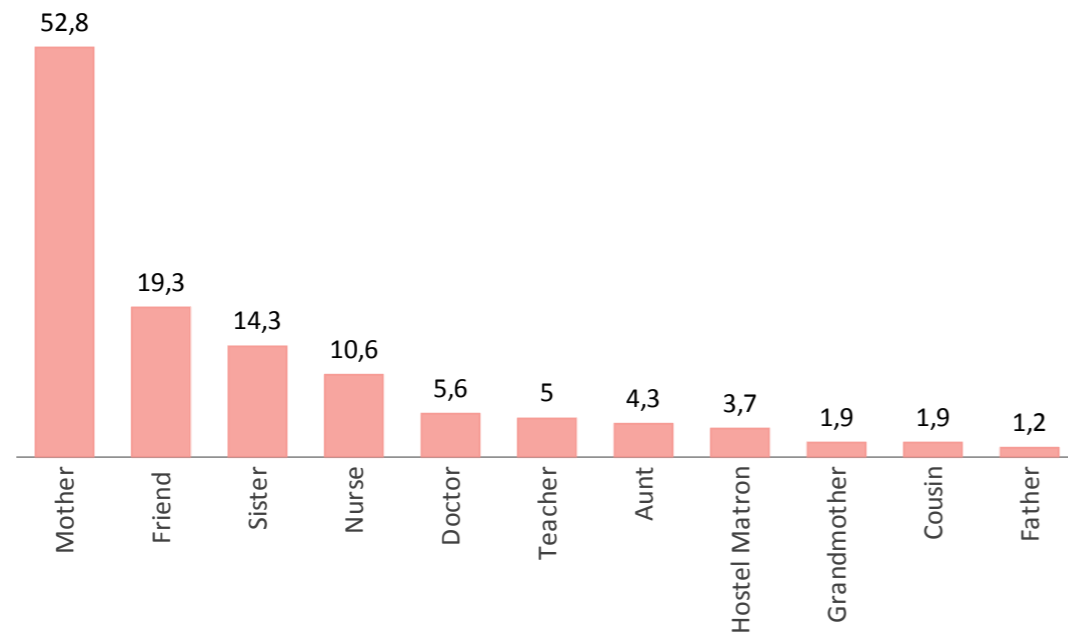
One-third of girl survey respondents noted to have experienced health consequences due to inadequate management of menstrual hygiene, while 67.4% did not. Most experienced vaginal itching, followed by vaginal smelly/unusual discharge, irritation/soreness around the vagina, redness around the vagina, lumps/blisters and heavy bleeding.

Figure 39: Health consequences experienced due to inadequate MHM (%)



Slightly more than one out three girl survey respondents (38.5%) chose not to tell anyone when they experienced above-mentioned symptoms. Of the 61.5% who did tell someone of their symptoms, more than half (52.8%) spoke to their mothers, followed by 19.3% who spoke with friends, sister (14.3%) and nurses (10.6%). The remainder spoke with their doctor, teacher, aunt, hostel matron, grandmother, cousin and father.

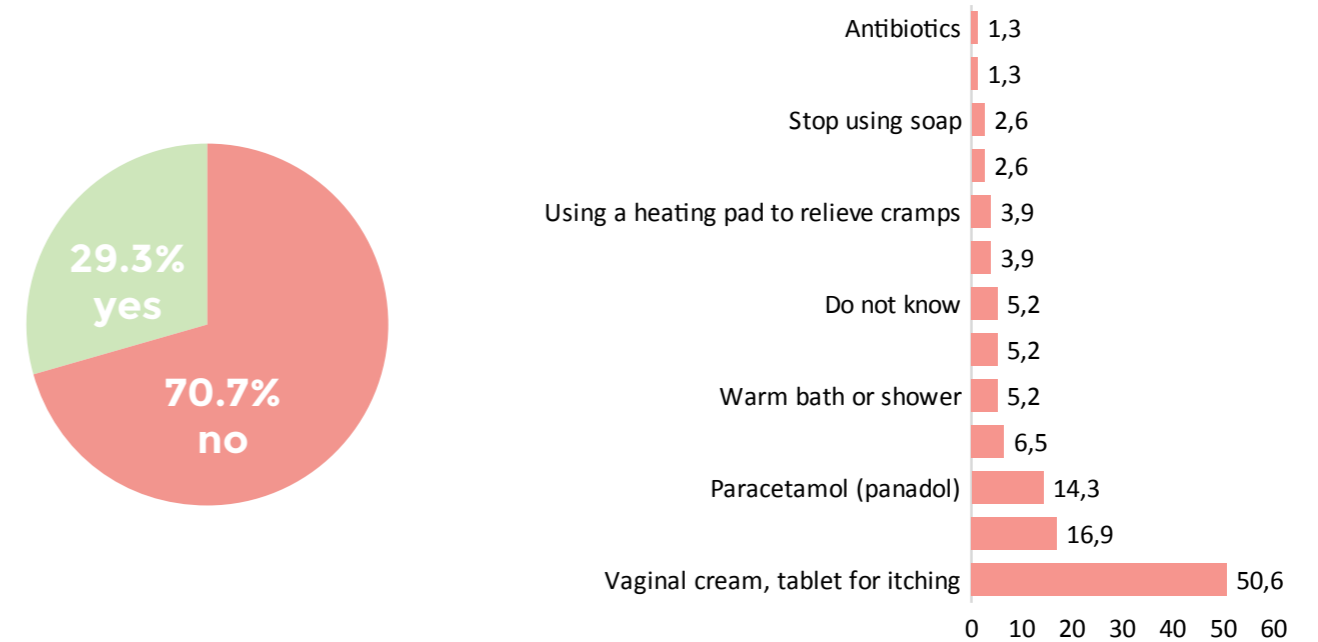
Figure 40: Person consulted when experiencing symptoms (%)



Many of the girl survey respondents (70.7%) noted that they did not get treatment for the symptoms experienced due to inadequate menstruation management, while 29.3% did seek treatment. Respondents in the //Kharas Region (53.8%) were most likely to seek treatment, followed by Kavango East and Omaheke regions (44% and 32.3 percent respectively). On the other hand, girls survey respondents in the Zambezi Region (12.1%) were the least likely to seek treatment, followed by girls in Khomas and Ohangwena regions (26.8% and 28.4 percent respectively).

Of those who received treatment, 80.5% reported having received medical treatment from the local clinic, doctor, nurse who visited the school, or the pharmacy. Of the remaining 19.5%, 13 percent treated themselves at home, while 6.5% received an 'other' type of treatment. Most of the treatments included the use of vaginal cream and/or tablets for itching, followed by a pill (estrogenic and or progestin to help control heavy bleeding) and pain medication. Other types of treatments included warm baths, contraceptives, heating pads, antibiotics or stopping using soap.

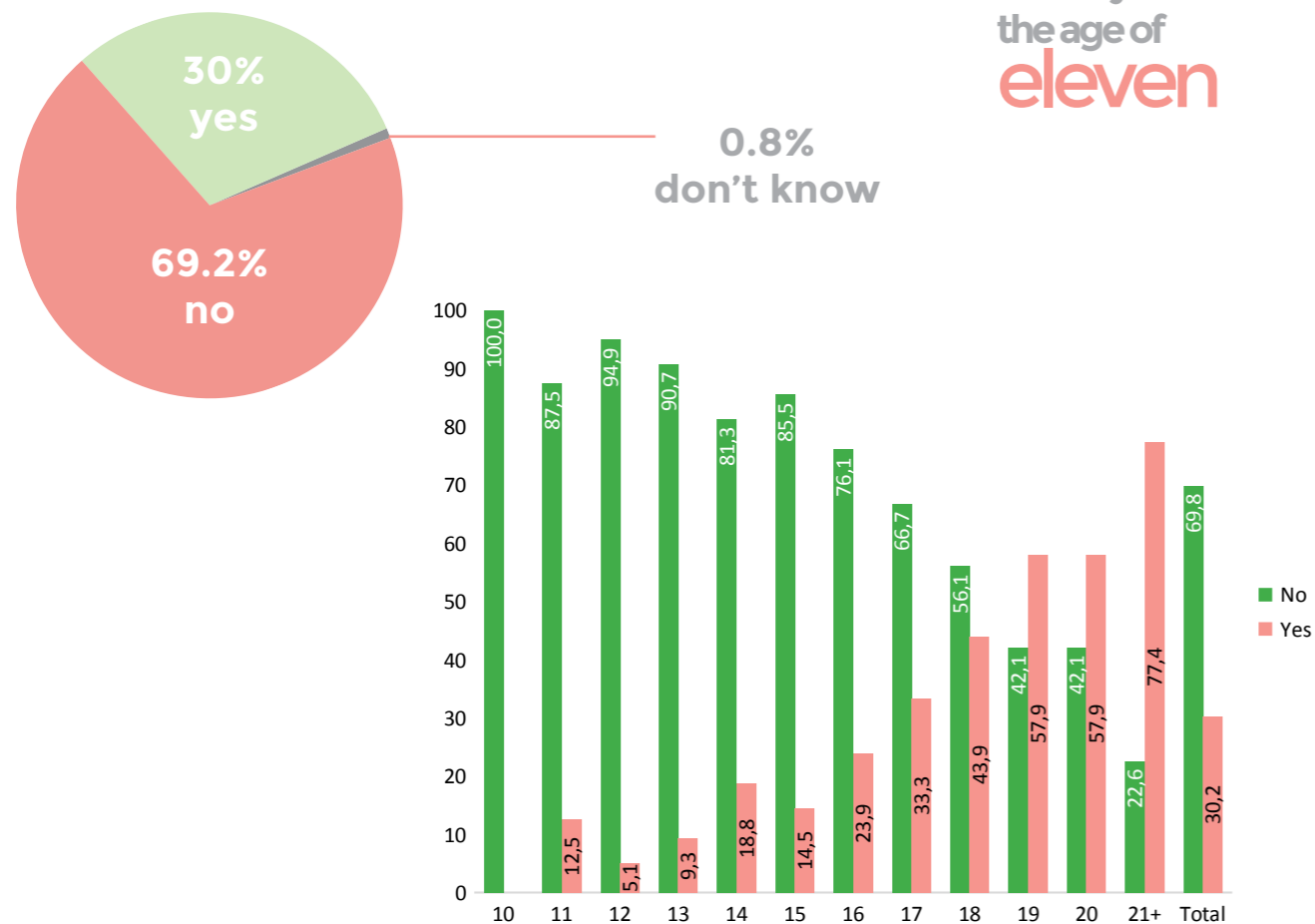
Figure 41: Treatment for symptoms as a consequence of inadequate management of menstruation hygiene (%)



8.4 Sexually Active

Menstruation is also the beginning of fertility. Among schoolgirls interviewed, 30% were found to be sexually active, while 69.2% were not sexually active. Girls reported to be sexually active from the age of eleven, with gradual increases of sexual activity as they grow older.

Figure 42: Sexually active girl survey respondents (%)

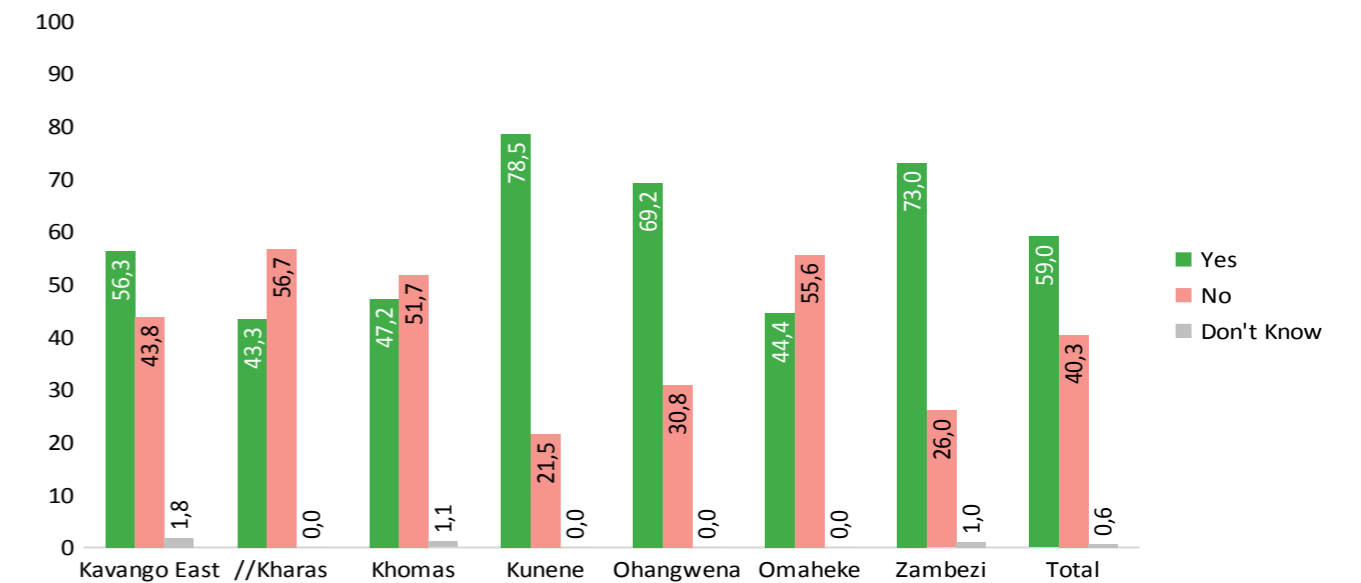


Girl survey respondents were asked if they knew of any schoolmates who were pregnant. More than half of the respondents (59%) said yes. More than three out of four girl survey respondents in the Kunene Region (78.5%) knew of a pregnant schoolmate, followed by 73% in the Zambezi Region and 69.2 percent in the Ohangwena Region. Less than half of girl survey respondents in the //Kharas Region (43.3%) knew of a pregnant schoolmate, followed by Omaheke and Khomas regions (44.4% and 47.2 percent respectively). No variation was found between girls in urban and rural schools in relation to knowing a learner in school who fell pregnant (59.6% and 58.4 percent respectively).

Large differences were found between girls in private and public schools. Only 1.5% of private school girls knew of schoolmates who fell pregnant, compared to 64.3% in public schools.

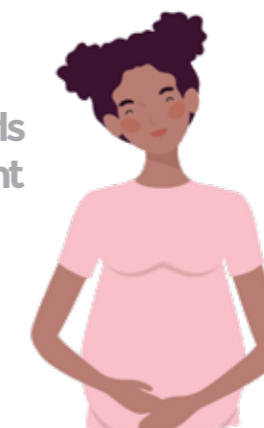
Girls in grades 4 to 7 were also less likely to know of a schoolmate who fell pregnant (29.5%), followed by 65.8% in grades 8 to 10 and 74% in grades 11 and 12. Known pregnant schoolmates were mostly between 15 and 19 years of age, but there were some known cases of girls who were pregnant at 12 years of age.

Figure 43: Knowledge of pregnant schoolmates (%)



Girls who fell pregnant were allowed back to school after giving birth. Most of the girl survey respondents (85.7%) were aware of pregnant schoolmates who were allowed to attend school and return to school after giving birth. Three quarters reported that enough was done to keep pregnant schoolmates in school. Close to three quarters also reported that pregnant schoolmates were not stigmatised due to their pregnancy. Stigma was mostly attributed to boys by 77.3% of the respondents, but also fellow girls (49.2%) and teachers (6.8%). Others included family members, friends/hostel matrons and community members. Most of the girl survey respondents (78.7%) felt that pregnancies could have been prevented.

There were some known cases of girls who were pregnant at the age of twelve



8.5 Response Strategies in Schools

8.5.1 MHHM Policy Framework

All education and health KIs noted that Namibia did not have a dedicated policy for MHHM, but that MHHM was included in other policies such as Education Sector Policy, Education Sector Policy for the Prevention and Management of Learner Pregnancy, Education Policy for HIV and AIDS, OVC Policy, School Health Policy – these policies all dealt with the well-being and education of the girl and boy child, which indirectly deal with menstruation issues.

The National Safe School Framework dealt more with health, hygiene, reproductive health – it was also used to check if schools have proper sanitation and water facilities – these aspects were checked with the aim to ensure absenteeism was reduced and quality of education was improved.

Several initiatives in schools dealt directly with hygiene, and was inclusive of the girl child. However, current policies were regarded as insufficient in relation to menstrual health and hygiene. One KI noted that *“if policies were sufficient then no child would have been neglected.”* KIs further noted that absence of policies should however not stop support to children. A policy would however help implementers sources resources in order to improve such support.

8.5.2 MHHM Programmes in Schools

Life Skills teachers were mainly responsible for MHHM during the Life Skills class, although different aspects of MHHM were tackled by other subjects such as Biology, Natural Sciences, Physical Education, Home Ecology, etc. The Life Skills curriculum makes provision of reproductive health and sexuality education. However, most of the girl survey respondents (77.3%) did not know of the health education curriculum at schools.

Schools did not have school nurses, leaving many social and health issues to the Life Skills teachers who, many a times, felt overwhelmed. In addition to Life Skills teachers, and to some extent other teachers, some NGOs run programmes such as DREAMS that aims to educate learners on comprehensive sexuality education, including MHHM to some extent. Other programmes implemented by NGOs in schools were:

- OYO provided education materials on various topics, including HIV, STIs, pregnancies, family planning and MHHM to some extent. OYO received a donation to support schools with menstruation management corners (only implemented in Kunene north, and not Kunene south).
- Menstruation week heightens awareness and implementation (but drops soon afterward the week)
- The Kunene Regional Governor’s Initiative approached local businesses to contribute toward purchasing of sanitary materials for schools.
- Anna Pants Project, supported by Gondwana and Pupkewitz.
- Youth groups
- Local businesses provided support directly to schools
- ‘First Lady Project’ distributed pads
- RACE Coordinators have some activities, although not clear on what exactly
- FAWENA, My Future is My Choice covered some issues around hygiene and management.

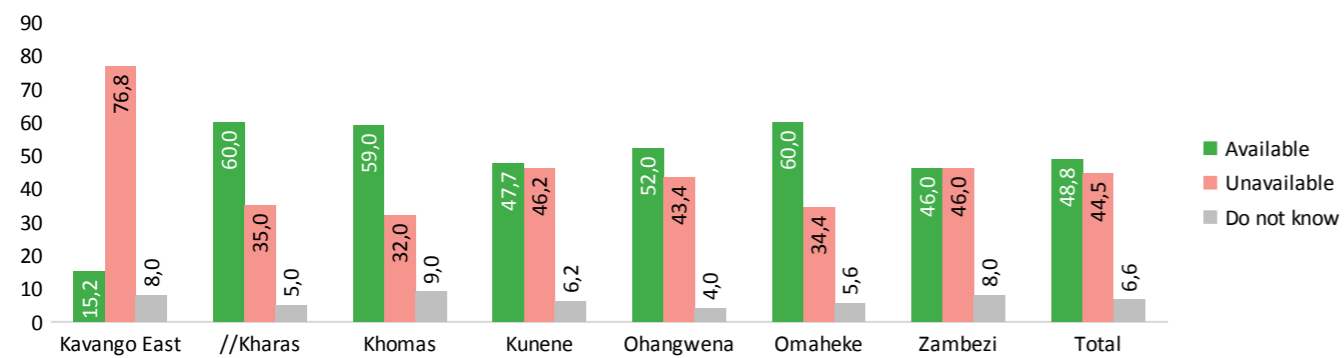
One of the principals noted that, *“We have a theme called Holistic Wellness, where we discussed topics such as: Identity of a Learner and Teenage Pregnancy. The topic was about puberty (the physical changes that boys and girls experience and what they should do) and menstruations. The discussion encouraged learners to be open and free, and it educated boys and girls to better understand menstruations and improve their behaviours towards it. Sexuality education was added to the same curriculum.”* (Kavango East, KI Principals & Teachers Rural-State)

Life Skills teachers were regarded, by KIs, as special teachers selected to teach Life Skills from Grade 4 upwards. There are specific characteristics required to be a Life Skills teacher, among those being able to listen and maintain confidentiality, be passionate to care and support children, and be a role model. Life Skills teachers have non-teaching periods available for counselling, career administration and coordination of learning support. They were responsible for the coordination of Cumulative Records Cards; provided guidance and support on career options, involved in bursary applications and coordinated Learning Support Group in schools. Some Regional Directors, however, explained that Life Skills teachers did not have a career path. Most of the time they left the job for a better one. Other times they were selected from other subjects, and since they were not appointed, they just opted for Life Skills, but without being prepared. Concerns about training of Life Skills teachers were raised by Regional Directors of Education, as well as availability of teaching and learning materials. Currently, Life Skills teachers were found to be overburdened since anything concerning learners were delegated to them.

The number of Life Skills teachers in a school was insufficient, compounded with limited adequate teaching and learning materials. The Circular of May 2011 on appointment of Life Skills teachers⁴⁷ recommended that full time Life Skills teachers be appointed in all schools with more than 250 learners. However, nothing was said about how many should be appointed when the number of learners per school were more. Some Education Director interviewed suggested that a Life Skills Teacher should cover maximum 500 learners each. However, in schools visited with more than 1,000 learners the assessment team found only one Life Skills teacher. It was rare to find principals advocating for additional Life Skills teachers in their schools.



Figure 44: Availability of counselling services in schools according to survey respondents (%)



MHHM Services that girls were aware of included:

- Counselling by teacher
- Counselling or session by nurse
- Separate class for girls
- MHHM School curriculum
- NGO carrying out information session for girls.

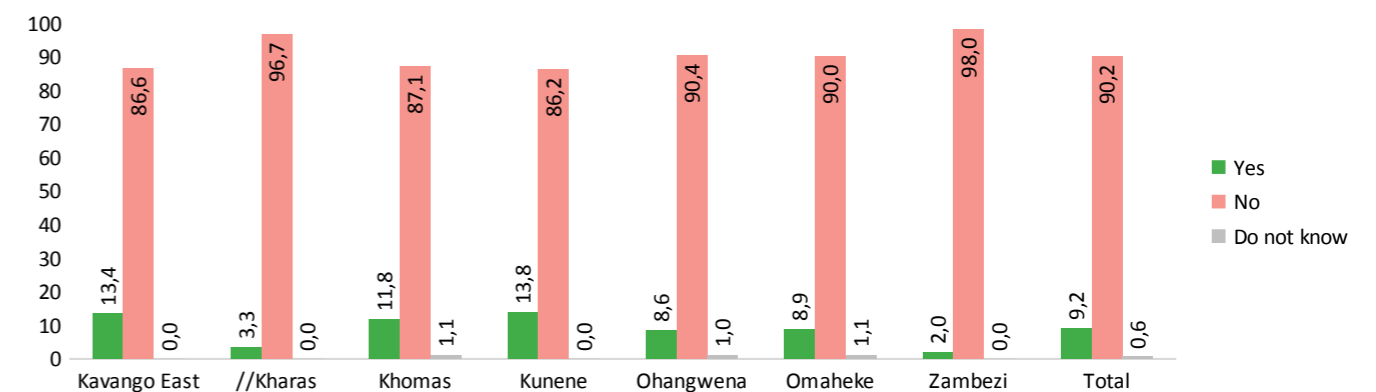
There seems to be disjoint on MHHM from the three key ministries: MoEAC, MoHSS and MGEPEWSW. Many of the education and health KIs noted that relevant ministries have not been very responsive to menstrual needs within schools and at homes. It was suggested that the three ministries design a more collaborative effort to support MHHM in schools and at home. It was also suggested that a Dignity Fund be established at all schools, to support learners in need.

Projects in schools were mostly regarded as ad hoc, uncoordinated and unsustainable. MHHM was actually seen as 'something new to be managed within schools', by a few interviewees. Some felt that girls were experiencing a wide range of challenges, and that MHHM was not as high a priority as others, such as teenage pregnancies, HIV and AIDS, etc. However, some did note that MHHM was becoming more of a priority as of late, as more awareness was raised on the subject.

8.5.3 Availability of School Nurses

Survey respondents were asked, "when you go to school, besides the teacher, is there a nurse you can talk to when needed?" Nine out of ten said no to the above question. It should be noted that public schools do not have school nurses, but that nurses at the nearest clinic normally visit school for health awareness raising. Many of the learners (70.1%) noted that they were normally referred to a nurse when required. About one quarter of private schoolgirl survey respondents noted have a school nurse. Almost all of the girl survey respondents (91.1%) felt that a school nurse would be helpful with menstruation health and hygiene management.

Figure 45: Availability of school nurse (%)



8.5.4 Strategies to Reduce Menstrual Effects at Home and At School

Most of the girls noted to seek for pain medication, such as Panado or Ibuprofen from their mothers at home, from clinic nurses, or from teachers/school secretary/hostel matron at schools. Some noted that schools were not supposed to provide medicine (such as pain medicine) to learners, and that learners were referred to the closest health facility for medicine.

"The Ministry of education should work in collaboration with the Ministry of Health to provide education on MHHM to schools and human resources such as nurses to address MHHM issues. The schools should put into place facilities that support MHHM in terms of infrastructure, educational information, and the provision of sanitary material for the learners. Ministry of Gender should also be in-cooperated to help assist vulnerable children with sanitary pads. All teachers and parents should receive training on MHHM. MHHM should be integrated into all core curriculum subject taught at schools.

(Kavango, Traditional/Religious Leaders, Urban)

Many noted that they tried to rest at home or at school and drink lots of water to reduce pain. In addition to the above, some use a cloth immersed in hot water (or a hot water bottle) to place over the painful area. Other noted to slowly rub ointment onto abdomens until the pain soothes. One of the girls noted to do light exercises or watch television to keep herself calm.

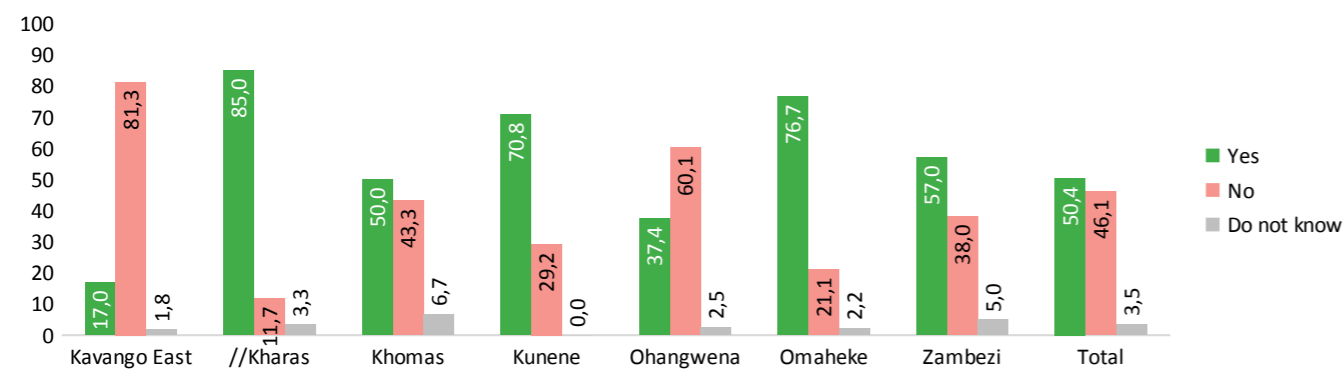
One of the girls in a rural school in the Khomas Region noted that her mother gives her aloe vera to boil and drink when cooled down. She noted that it was a natural remedy that helped a lot for pain. Another girl in the Kavango Region (rural school) noted that "some girls dug for roots called *likakata*, *ombeke*, *kakukuru* or use leaves from a plant called *lituwa mpuku*. These roots or leaves were boiled in water and drank to stop or reduce heavy period flow. They also wore *katinga* in the vagina, which looked like cotton in nature, to stop periods. When I am at home, I inform my mother so that she would excuse me from doing house chores to allow me to rest at home." Some of girls in the Zambezi Region who participated in the FGD also noted that their mothers and grandmothers used to help them with pain.

8.5.5 School Distribution of Sanitary Products

Half of the schools who participated in the MHHM Assessment were found to have some kind of sanitary product distribution mechanism in place, albeit at different levels across the regions. Almost all girl survey respondents in survey participating schools in the //Kharas Region (85%) reported to have a sanitary distribution mechanism, followed by 76.8% in Omaheke Region and 70.8% in Kunene Region. On the other hand, much smaller proportions of respondents in Kavango East Region (17%) reported to have a sanitary distribution mechanism, followed by Ohangwena and Khomas regions (37.4% and 50% respectively).

Half of the girl survey respondents in rural and urban schools reported to have sanitary product distribution programmes (50.% and 49.9 percent respectively). Half of the girl survey respondents in private and public schools reported to have sanitary product distribution programmes (46.3% and 50.8 percent respectively). Similar findings were reported by girls in the different grades.

Figure 46: Schools that distribute sanitary products for menstruation (%)



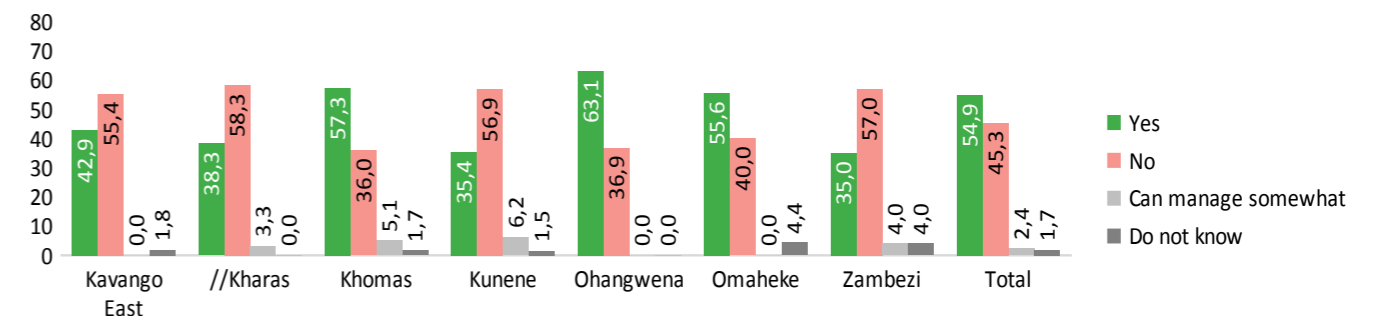
8.5.6 School Facilities

Close to half of the girls interviewed (45.3 percent) said that MHH facilities in schools, i.e., water and sanitation for menstruations, were inadequate for managing menstrual hygiene or to keep clean. No variation was found between urban and rural schools and grades in relation to school facilities being inadequate for managing menstrual hygiene. However, close to half of the girl survey respondents in public schools (46.9 percent) felt that facilities were inadequate, compared with 28.4 percent in private schools.

Inadequacies were based on the following attributes:

- lack of water/hygiene facilities specifically for girls
- lack of private disposal/incinerator for pad disposal
- lack of private changing room for changing pads and cleaning;
- lack of hygiene kit/soap/toilet paper;
- broken and dirty toilets/foul smell in toilets;
- lack of privacy as toilets did not have doors, or doors did not work properly; and
- limited provision of pads at schools

Figure 47: Water and sanitation facilities at schools for managing menstrual hygiene (%)



Girls in FGDs were asked if a fictional 'Ndayela' will be able to change sanitary products at school:

- "Yes because there is a dustbin."
- "The door does not lock."
- "She needs to go with a friend to the toilet."
- "It is very possible, because she might have bought her own pads from home."
- "It is possible, but the challenges are that there is no changing room at the school. She must go to the toilet where other girls could see her and there is no privacy. The toilets are few and the girls in the school are many and they must share."
- "There are no soaps and sometimes the school also does not have any water supply for her to wash up."
- "It is possible, she can change at the toilets, fold her pad in a plastic bag and dispose the pad at home by burying it because the toilets do not have appropriate disposing facilities."
- "She cannot, because of the dirty toilets."
- "The school has toilets where she can change her pads, but there are no free pads at school-that is the challenge. The toilets at the school are also not nice; it's old and smells bad."
- "It is not possible because there is no privacy, and the boys can just open the door since they do not work properly."

8.5.7 School Hygiene Kits

Schools in Namibia did not have hygiene kits, but some did have First Aid kits. Survey respondents were asked if schools had hygiene kits. Caution is advised as survey respondents could have thought of First Aid Kits instead of hygiene kits when responding to this question. Close to three-quarters (71.6%) of girl survey respondents indicated that their schools never had hygiene kits, 9.5% said sometimes, 17.6% said never, while 1.4% did not know.

Kavango and Zambezi regions scored the worst (89% and 88% respectively), in relation to girls knowing that schools have hygiene kits. This, however did mean that hygiene kits did exist, but learners may not be informed, since kits might be kept by Life Skills teachers and used only in case of an emergency.

The toilets are kept clean by the cleaners, but there are some learner's who do not know how to keep toilets clean.'

'The toilets are not clean all the time, in the morning it is clean, but as they day goes along it gets dirty.'

'The cleaners only clean the toilets if asked by the principal, because sometimes the school does not have enough cleaning materials. The teacher's toilets are always kept clean, but for the learners it smells bad sometimes.'

'There are no locks on the doors as well, The doors have been broken for many years. It's very safe because this is just a small village.'



9

Conclusions



9.1 Introduction

The primary challenges that learners experience in schools are access to adequate water and sanitation facilities, access to hygiene products and services (soap and toilet paper amongst others) for washing of hands and the body where needed, facilities for changing of menstrual materials in a safe and private manner, and facilities for cleaning and/or disposing of used materials. The above is the core of the matter. Secondary challenges include moderate knowledge levels, attitudes and misconceptions, and access and affordability to sanitary products.

9.2 Knowledge of Menstruation and MHM

Knowledge about menstruation prior to menarche and MHM was found to be moderate in Namibia. However, knowledge was compromised by misunderstandings and myths that create fear and influences the manner in which girls manage menstruation hygiene.

Close to three out of four (70.1%) girl survey respondents reported to have known about menstruation before menarche, while 29.8% did not know. Knowledge levels were much lower in grades 4 to 7, which is considered the best time to inform girls about menstruation as this is the timeframe before menarche. Girls in private schools were more informed than girls in public schools, while little variation was found between girls in urban and rural settings. Vulnerable girls such as San, OVC, special needs and out of schoolgirls were similarly knowledgeable about menstruation before menarche and also MHHM.

Three out of four schoolgirls (75%) received MHM information from schools (59.5% from Life Skills Teachers and 15.5% from school textbooks). This was followed by 37.7% who received information from their mothers. Menstruation was discussed as part of other subjects, especially when dealing with reproductive process of men and women. This limits in-depth learning about the purpose of menstruation and social and health consequences of inadequate management of menstruation hygiene.

Although 70.1% were informed of menstruation before menarche, 42% noted that they were unaware of hygiene management. Girls were mostly knowledgeable about disposable pads, followed by tampons, cloths, toilet paper, wipes and other less known materials. Most of the girls were not unaware of washable pads.

On average, 30.5% of girl survey respondents misunderstood key aspects of menstruation. The highest levels of misconceptions were found in the Kunene

Region (39.5%), followed by the //Kharas (35.3%) and Zambezi (30.6%) regions. The lowest levels of misconceptions were found in the Khomas Region (26.7%), followed by the Ohangwena (29.1%) and Omaheke (30.0 percent) regions.

Girls in the Khomas, Ohangwena and Omaheke regions were the most informed and most knowledgeable about MHM. Girls in the following regions were least informed and least knowledgeable: Kunene, Zambezi and Kavango East regions. The key conclusion is that information sharing in schools and home translates into enhanced knowledge of MHM.

9.3 Attitudes Toward Menstruation

Attitudes about menstruation are influenced by education in schools and at home, culture and tradition, willingness and ability to openly speak about, and stigmatisation.

Slightly more than half of the survey girl respondents noted that they openly spoke about menstruation, while 45.7 percent did not, and 2.3 percent did not know. Girls were more likely to openly speak about menstruation in the Khomas Region, followed by Kavango East and Kunene regions. Girls were least likely to speak about menstruation in the Zambezi Region, followed by //Kharas and Ohangwena regions.

Only 59.5% of schoolgirls think that menstruation is a normal phenomenon for women. Many girls (59%) felt that menstruation was a personal matter, while 85.2% felt that it was a female matter, but only one-third thought that it should be kept a secret and did not to talk about it openly.

Two out of three of the boys in FGDs noted that it was acceptable for boys to talk about menstruation as it was a normal natural phenomenon. One out of three boys who participated in FGDs noted that it was cultural unacceptable to talk about woman issues, while others noted that menstruation was a woman's issue only.

Most of the girls who participated in the survey across the seven regions (87.4%) indicated that they did not feel stigmatised. Overall, 10.8% felt stigmatised when accessing facilities for menstruation. Girls in the Kunene Region felt stigmatization the most at 21.5%, followed by Kavango East Region (14.3%). Ohangwena Region recorded the lowest levels of stigmatization (7.6%), followed by //Kharas Region (8.3%).

Two-thirds of the girls who were interviewed wished that they could be happier during menstruation. More than half of the girls felt less confident during menstruation, 37.9% noted to feel less good in comparison to other people, 33.3% were unhappy with themselves, while 31.5% felt 'no good'.

Several cultural beliefs create false fears in girls. For example, 41% of girls on average think that it is harmful to run or dance during menstruations. 59% of girls think that menstruations are a personal matter. In reality 52% of schoolgirls talk about it freely and 71% think that it would help to talk to someone. The main reasons for needing to talk to someone are: to get pads and assistance, and for counselling and relief.

9.4 MHM Practices

Two-thirds of girl survey respondents in grades 4 to 12 have menarched, while one-third have not menarched. The average age at menarche was found to be 13.7 years of age. Menarche is a big physiological and psychosocial developmental change in the lives of girl children, resulting in different reactions to it, regardless of levels of knowledge on the subject. On average, nine out of ten girls panicked, were scared, nervous, worried, embarrassed, shy and disgusted at first menstruation, although 70 percent were informed of menstruation before menarche. Only 8.6% reacted more positively toward menstruation.

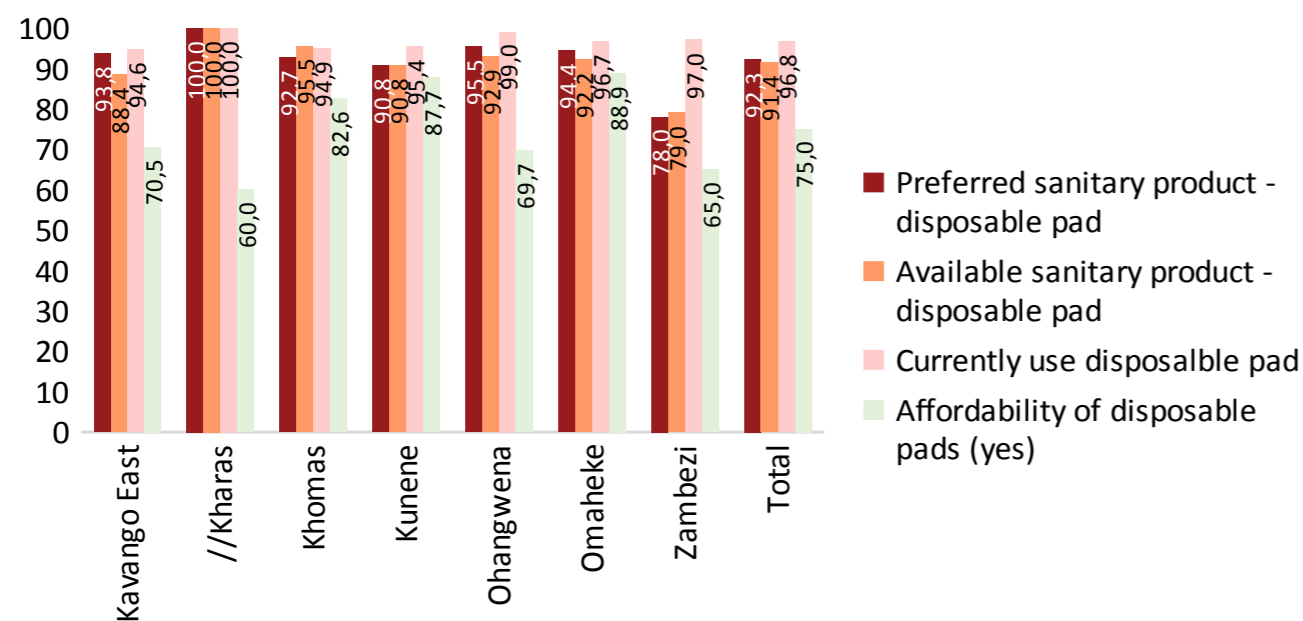
Availability of different types of menstrual products depended on a variety of factors such geographic location (urban/rural setting), distance to towns/cities, types of marketplaces, types of materials and cultural practices. Nine out of ten girl survey respondents (91.4%), who have menarched, were aware of disposal menstrual pads on the market within their communities, followed by close to one-third (29.5 %) who were aware of tampons, 10.8% panty liners, and 5.1% washable pads. Other products that were available included: sanitary napkin, sponges, menstrual cups, toilet paper/wipes, cotton, cloths, contraceptives, diapers and underwear.

The list of menstrual product types mentioned above were also the preferred products by girl survey respondent: 92.3% preferred to use disposable pads, followed by tampons (3.6%), washable pads (2.6%), and panty liners (2.2%). The remaining 4.5% chose other types of products, such as sanitary napkin, sponges, menstrual cups, toilet paper/wipes, cotton, cloths, contraceptives, diapers and underwear. A very limited number of girls in the FGD in the Kavango East Region mentioned herbs and roots.

Almost all girls used preferred menstrual products, while 98% of schoolgirls wear pads. Not using preferred products were mainly influenced by unaffordability, followed by ineffectiveness, availability and not knowing other products. The MHM Assessment found little consistency between products used at school compared with products used at home. In fact, lack of resources made it difficult for many girls to use disposable pads all the time. Girls noted that they would wear pads when at school, church or out and about. However, other materials such as cotton, toilet paper and cloths amongst other materials, were used when at home, when blood flow was slow or in cases of inadequate supply of disposable pads.

Every three-out-of-four girl survey respondents (75%) could afford disposable pads. Almost all girls preferred and used disposable pads, but one-out-of-four girls could not afford it. This should be considered as high unaffordability, especially taking into consideration that disposable pads cost between N\$10 and N\$20. Affordability was worse in the //Kharas Region where only 60% of girls in schools could afford disposable pads, followed by 65% in Zambezi Region, 69% in Ohangwena Region and 70.5% in Kavango East. Figure 48 shows the difference between disposable pad preference, availability, current use and affordability, with affordability much lower than the other three variables. Tampons were considered expensive. Costs for other commercial products were less known. Costs for homemade products were found to be affordable, as some did not cost any money. Even though high proportions of girl survey respondents noted affordability of pads, such affordability was found to be inconsistent.

Figure 48: Disposable pad preference, availability, current use and affordability (%)



Some schools distributed pads at school for girls who were in need. Some schools received donations from NGOs and/or private companies, while a limited number of principals purchased pads from their Education Grant. However, school distribution of pads was found to be inconsistent and unsustainable. Washable pads were used by close to one-out-of-ten survey respondents. Washable pads were mostly distributed in schools via external programmes by NGOs. Concerns were raised about the proper cleaning of washable pads, safe keeping and possible effects it can have on the body, such as fungal disease and skin irritation.

For the seven regions combined, one-quarter reported that they were required to carry out certain activities as part of cultural or traditional rituals during menstruation, while three-quarters reported the opposite.

9.5 Water and Sanitation

Namibia is doing very well with all schools that participated in the assessment having some kind of water supply. Most of the schools received water via a tap, supplied by NamWater, meaning potable water. Some schools in very remote areas were supplied with water from boreholes and rivers, driven by diesel engine. Smaller proportions of schools harvested water from rain, while others made use of chlorinated water. Water in most cases were potable, however, many schools struggled with water stagnation around waterpoints, caused by improper structures or learners' wastage. Some water sources in rural areas were also not protected from animal use.

Most of the schools (63.1%) across the seven regions made use of flush toilets, followed by slightly more than one-quarter that made use of pit latrines (no flush). Smaller proportions used pit latrines (flush), composting toilets and toilets connected to septic tanks. Three key challenges were reported in

relation to sanitation: 1) insufficient number of toilets for five of the seven regions; 2) close to one of three schools did not have consistent water supply to toilets; 2) many toilets lacked privacy due to structure design and doors unable to lock; and 4) unhygienic conditions in toilets.

Almost all of the schools across the seven participating regions (97.9%) were said to have separate toilets for boys and girls. Little variation was found between urban and rural and private and public schools.

Government's policy for the number of learners per toilet is 50 for both boys and girls. However, the assessment found 71 girl learners and 63 boy learners per toilet for all seven regions combined. All, but two of the 66 schools noted to have separate toilets for boys and girls. Five of the seven participating regions have exceeded the average number of girls per toilet, with Kunene Region being the highest, followed by the Zambezi and Omaheke regions. //Kharas, Khomas and Ohangwena region met this requirement for numbers of girl learners per toilet.

Significant variation was found between private and public schools in relation to sufficient number of girl and boys toilets in schools. Almost all girl survey respondents in private schools (91%) reported that their schools had sufficient number of girl and boy toilets, compared to 74.6% in public schools who agreed to the above. No variation was found between urban and rural schools (sufficient=75.4% and 76.6 percent respectively).

Water supplied to schools does not necessarily mean toilets were supplied with water for flushing or washing purposes. Close to three out of four schools always (71.%) had water supplied in toilets, 15.6 % never had water in toilets, while 12.8% sometimes had water.

Although Namibia is doing very well in providing separate toilets for boys and girls, toilets continued to be located in the same bloc with entrances close to each other. This negatively influenced privacy, especially since toilet doors were sometimes broken and unable to lock. As a consequence, many learners still went to the bush for their sanitary needs.

Almost all the school toilets had doors (95.4%), while 4.6% did not, or some toilets in a block of toilets had doors, while others did not. Toilet doors were found open in 84.6 % of the schools.

More than half of the schools did not have cleansing materials in toilets. In close to one in three schools (30.8%), stools were visible in toilets (inside pan). More than half of the schools (53.8%) had a faecal smell in the toilet.

Schools in Namibia do not have 'changing rooms' for the sole purpose of changing menstrual material and allowing the girl child to manage menstruation hygienically. No variation was found between urban and rural schools. However, 13.4 percent of girls in private schools noted to have such a facility, while 8.8 percent of girls in public schools said the same.

Most of the schools made use of basins (sinks) as handwashing devices inside school toilets, followed by specially designed hand washing systems outside of toilets, water containers or 5l disinfectant, while 4.6% did not have handwashing devices.

Many of the schools visited during the survey (39.1%) indicated that toilets did not have soap. 44.9% noted that soap was within 10 metres of the washing device, while 15.9% noted that it was 10 metres away from the device. Close to two out of three (63.5%) respondents noted that soap was never available, 4.1% noted that it was sometimes available, while 31.1% noted that it was available. Significant variation was found between private and public schools and urban and rural schools. Public schools were twice as likely never to have soap (66.7%), compared with private schools (33.3%). Rural schools (70.6%) were more likely never to have soap, compared with urban schools (57.5%).

Besides soap, toilet paper was also in short supply across the seven regions, albeit at different levels. Overall, half of the schools had toilet paper (49.2%), while the other half did not (50.8%)

Three out of four girl survey respondents (75%) reported that toilets in their schools had disposable bins where pads could be discarded. However, bins were in most cases not used to discard pads, because it did not have lids.

The school yard of 86% of schools were clean while 14% of schools were not so clean with some visible waste observed during the visit. The finding of solid waste disposal in-and-outside of school's yards, correlates well with waste management inside classrooms. Most schools (86%) had clean classrooms, whilst, 12% were partly dirty and 2% were very dirty.

9.6 MHM Impacts on Education and Health

A number of studies found that inadequate menstrual hygiene can lead to higher school absenteeism, lowered academic performance and higher levels of infections. UNESCO reported that, "there seems to be no agreed-upon standard for 'adequate' personal hygiene." (UNESCO, 2014, p9). In the absence of international agreed upon standards, this assessment report on girls' opinions of inadequate MHM impacts on education and health.

9.6.1 Impacts of MHM of Education

Menstruation impacted on the willingness and/or ability of girls to undertake daily chores/activities, such as sport, walking long distances, housework attending school and going to church.

School attendance of the girl child was found to be compromised due to the physical and psychosocial effects of menstruation. The MHHM Assessment found that 97.1% of girls attended school when menstruating, although some may miss some of the days during menstruation. Slightly more than one-out-of-ten (14.2%) of girls missed schools due to the effects of menstruation. This is in addition to one-third of girl learners not attending school for other reasons, such as illnesses, funerals and lack of money amongst other reasons. Half of those who missed school, missed one day of school in a month, two-thirds missed 2-3 days, while 14.1% missed four days or more.

The main reason for absenteeism during menstruation was dysmenorrhea (menstrual pain) (52.2%), followed by being afraid of staining clothes and feeling uncomfortable (17.4%), not having a place to change sanitary products and not having sanitary products (8.7%), nowhere to dispose of sanitary products and being emotional (4.3%). Most of the girls were encouraged by their guardians to attend school when menstruating.

School performance of the girl child was found to be compromised due to the physical and psychosocial effects of menstruation. Slightly more than one-quarter (27.1 percent) reported that menstruation challenges affected school performance. The key contributing factor to performance was low concentration brought about by menstrual pains. This was exacerbated girls missing classes, stigmatisation and anxiety about staining school uniforms.

9.6.2 Impacts of Inadequate MHM on Health

One-third of girl survey respondents noted to have experienced health consequences due to inadequate management of menstrual hygiene, while 67.4% did not. Most experienced vaginal itching, followed by vaginal smelly/unusual discharge, irritation/soreness around the vagina, redness around the vagina, lumps/blisters and heavy bleeding.

Slightly more than one out three girl survey respondents (38.5%) chose not to tell anyone when they experienced above-mentioned symptoms. Of those who spoke about consequences, most spoke with their mothers, followed by friends and sisters. Only one-out-of-ten spoke to nurses.

Many of the girl survey respondents (70.7 percent) noted that they did not get treatment for the symptoms experienced due to inadequate menstruation management. Of those who received treatment, 80.5 percent noted to have received medical treatment from the local clinic, doctor, nurse who visited the school, or pharmacy. The rest self-medicated.

9.6.3 Education and Health Responses to MHM Impacts

Namibia does not currently have a policy framework that directly deals with MHHM. However, MHHM is indirectly covered by other education and health policies. The above was considered insufficient for a more coordinated, financed and managed responses to MHHM.

Life Skills teachers were mainly responsible for MHHM during the Life Skills class, although different aspects of MHHM were tackled by other subjects such as Biology, Natural Sciences, Physical Education, Home Ecology, etc. The Life Skills curriculum makes provision of reproductive health and sexuality education. However, most of the girl survey respondents (77.3%) did not know of the health education curriculum at schools. Life Skills teachers were regarded as essential role players in raising awareness and providing support in relation to menstruation, but they were limited in number and lacked adequate training and teaching and learning materials.

Counselling facilities for MHM were limited in schools. Close to half (48.8%) were aware of counselling services at schools, while 44.5% were unaware and 6.% did not know whether there were, or not. Some NGOs or projects such as OYO, DREAMS Anna Pants, youth groups, First Lady Project, FAWNA, and My Future is My Choice amongst others are implemented in some schools in some regions. External support to schools were found to be ad hoc, uncoordinated and unsustainable.

There seems to be disjoint on MHHM responses from the three key ministries: MoEAC, MoHSS and MGEPESW. Relevant ministries have not been very responsive to menstrual needs within schools and at homes.

10

Recommendations



Half of the schools who participated in the MHHM Assessment were found to have some kind of sanitary product distribution mechanism in place, albeit at different levels across the regions. Significant discrepancies were found between regions.

Close to half of the girls interviewed (45.3%) said that MHH facilities in schools, i.e., water and sanitation for menstruations, were inadequate for managing menstrual hygiene or to keep clean.

Schools in Namibia do not have hygiene kits, but some do have First Aid Kits.

Schools did not have school nurses, leaving many social and health issues to the Life Skills teachers who, many a times, felt overwhelmed. Close to three-quarters (71.%) of girl survey respondents indicated that their schools never had hygiene kits, 9.5% said sometimes, 17.6% said never, while 1.4% did not know.

One third of the respondents reported that they received insufficient training on health issues during school hours, including sexual reproductive health.

10.1 Introduction

The key finding of this assessment is that adequate MHHM is complex including levels of age-appropriate knowledge, enabling attitudes toward menstruation, acceptable and suitable MHHM practices, access to suitable sanitary products and pain relievers, access to potable water and functional sanitation facilities and finally MHHM located within a broader SRH Framework. Recommendations should be aimed at strengthening the dignity of the girl child who menstruates and mitigating negative impacts on school attendance, academic performance and overall associated health needs that cater for the above-mentioned complexities. It is therefore recommended that a multi-sectoral approach is applied to respond to the needs of the girl child as it pertains to MHHM. It is essential to focus on strategic and operational strategies and prioritise accordingly.

THIS MENSTRUAL HYGIENE DAY...



10.2 Strategic Recommendations

Recommendation	Implementer	Priority	Timeframe
Integrate MHM into the School Health Policy.	MoEAC MoHSS	High	Long term
Integrate MHM into WASH Programming, or expand the integration thereof.	MoEAC MoHSS	High	Medium term
The MoEAC needs to champion the overall response to inadequate MHM and resultant impacts of education, health and well-being. This response needs to be multi-sectoral with the following key ministries playing active roles: MoHSS, MGEPEWS, Ministry of Agriculture, Water and Forestry, and Ministry of Works and Transport (MWT). Essential development partners and local NGOs need to support the MoEAC, such as UNESCO, UNFPA, UNICEF, WHO, UNWOMEN, DREAMS, OYO and others. Other essential ministries are Ministry of Environment and Tourism (MET), Ministry of Higher Education, Training and Innovation (MHITI), and Ministry of Poverty Eradication and Social Welfare (MPESW) amongst others.	MoEAC MoHSS	High	Short Term
Thematic Working Groups need to be established to respond to the complexities of MHM, including age-appropriate knowledge/information sharing, adequate MHM practices, water and sanitation, education, health, well-being, etc. This needs to be done under the auspices of Integrated School Health and Safety committees where such programmes will be managed, coordinated, monitored and evaluated.			
Curriculum revision to include MHM more directly is not possible at this time, as curriculum revisions were recently completed. Therefore, guidelines towards the integration of MHM more directly needs to be developed and implemented. Develop clear implementation guidelines on MHM, including IGAs, so that all schools comply and implement the guidelines consistently.	MoEAC MoHSS	Medium	Short Term
New training material needs to be developed to complement trainings of Life Skills Teachers, focusing on inclusion of MHHM. MHHM should be integrated in all the subjects, just like HIV and AIDS.	MoEAC MoHSS	Medium	Short Term
The age of Reproductive Health Education embedded in Mother and Child Health has to be revisited.	MoEAC MoHSS	Medium	Medium Term

Recommendation	Implementer	Low	Timeframe
School MHM champions need to be selected, and supported by dedicated school management, to lead and motivate schools on issues pertaining to MHM. Assign a MHM Focal Person in Health Directorates in every region.	MoEAC MoHSS Regions	High	Mid Term
Besides the MHHM Day, celebrated annually on 28 May, organise an annual conference with regional directors and Life Skills teachers, focusing on women and girls' health and hygiene.	MoEAC MoHSS Regions Partners	Low	Medium Term
Carry out regular annual assessments in schools to identify MHM needs. This should also be included in the MHM Guidelines.	MoEAC MoHSS Regions	Medium	Mid Term
Re-design architectural standards for school toilets, ensuring two separate blocks of toilets for male and female learners. New schools should not be opened when toilets have not been built and are functional.	MoEAC MWT	Top Priority	Short Term
Promote, advocate and ensure inclusion of children with special needs or with disabilities.	MoEAC MoHSS UNICEF	Medium	Long term

10.3 Operational Recommendations

10.3.1 Knowledge Menstruation and MHM and Attitudes

Establish mechanisms to enhance access to accurate, timely, age-appropriate information about the menstrual cycle, menstruation, and changes experienced through the life-course, as well as related self-care and hygiene practices.

Recommendation	Implementer	Low	Timeframe
Health Promoting Schools Initiative program in all regions to be strengthened. Regional School Counsellors to reach out quarterly to school principals and Life Skills and other relevant teachers for MHM awareness raising (under the broader SRH topics).	MoEAC MoHSS Regions	Medium	Short Term
Life Skills teachers play an essential role in learning about MHHM. <ul style="list-style-type: none"> Improve career path and working conditions of Life Skills teachers Increasing the number of Life Skill teacher in schools, e.g., 1/500 learners Empower Life Skill teachers with innovative teaching and learning methods for sensitive subjects, especially male Life Skills teachers Life Skills teachers should be part of school management in order to present learner needs on a regular basis. 	MoEAC MoHSS	Medium	Long Term
Come up with innovative ways on capacity building and information sharing amongst girls and boy learners at school level. Produce appropriate information, education and communication material, booklets on MHM, tackling not only reproductive organs but also menstruations cycle (storyboards, posters, video, etc.) to stimulate debates inside schools. Information need to be gender and age sensitive. This should include stigma and cultural practices that protects and create fear.	Regions Partners	High	Short Term
The role of mothers and other family members at homes need to be strengthened. Life Skills teachers need to work closely with parents and other family members (such as fathers and brothers), ensuring that they have accurate, timely and age-appropriate information to be shared at home. Information sharing need to go beyond type of product use, but also about menstrual cycle, menstruation, consequences of adequate and inadequate hygiene practices. Use this opportunity to deal with misconceptions and myth that normally create fear and anxiety amongst girls. This should include stigma and cultural practices that protects and create fear.	Principals Life Skills Parents	High	Short Term

10.3.2 MHM Practices

Provide support to girl learners to access and use effective, affordable and environmentally friendly menstrual products in schools and at home.

Recommendation	Implementer	Low	Timeframe
All schools need to invest in availability and distribution of affordable, effective and environmentally friendly menstrual products in school for learners in need. Such investment needs to be sustainable, especially in regions with greater needs, such as Kavango East, Zambezi and Kunene.	MoEAC MoHSS MGEPEWSW Donors	Top Priority	Short Term
<ul style="list-style-type: none"> Raise awareness amongst girls about other menstrual products on the market, especially products that are more affordable and environmentally friendly. Re-usable pads, such as menstrual cups and re-washable pads are cheaper and environmentally friendly. 	MoEAC NGOs	High	Medium Term
Engage NGOs involved in SRH at community level to strengthen outreach on MHM practices, and use of menstrual products that are affordable, comfortable, effective and environmentally friendly. This should include girls, boys, mothers, fathers, traditional leaders, church pastor and all other relevant community members.	UN Donors NGOs	Top Priority	Short Term
Explore establishment of regulations for the manufacturing of re-washable pads. Standardised practices need to be implemented during manufacturing, storing and distribution. Manufacturers needs to follow strict rules. It is advisable for such manufacturers to be licensed in order to ensure production, storage and distribution of high quality sanitary products. The above could be management by the MHM Coalition. Interested mothers could be engage to make pads. https://data2.unhcr.org/en/documents/download/69059	Regions Private Sector donors	High	Short term
Enhance fundraising capacities of schools with private business and community.	MoEAC Private Sector	Medium	Short Term

10.3.3 Water and Sanitation

Strengthen school physical infrastructure and services including water, sanitation and hygiene services, for washing the body and hands, changing menstrual materials, and cleaning and/or disposing of used materials in order to provide opportunities to change menstrual products in a safe and private environment.

Recommendation	Implementer	Low	Timeframe
Ensure reliable supply of potable water in all schools. Ensure continuous and consistent supply of water in toilets for flushing and handwashing.	MoEAC MoHSS Regions	High	Mid term
Invest in the construction of new toilets or the modification of existing toilets at some schools in order to make it more MHM friendly. This include construction of sufficient number of toilets to achieve the SPHERE standard (1/30 girls & 1/60 boys), flushed toilets, functional doors with locks, adequate ventilation, washable disposable bins with covers. Boys and girl toilets should be separated and not be designed as one block of toilets. Newly-built schools should not be allowed to open, unless toilets have been completed as well. Schools with dysfunctional toilets should be closed, until such a time that toilets are functional.	MoEAC MoHSS Regions Partners	Top Priority	Long term
Redesign girl toilets to include a changing room for menstruation purposes. This changing room needs to be equipped with washing basins, shower, water, soap dispensers, soap, taps, water, lockable door, toilet paper, wet wipes, incinerator, pads and other sanitary products.	MoEAC MWT	Medium	Long term
Schools should be provided with enough sanitary materials regularly, providing extra grants to buy sanitary products for vulnerable girls, soap and toilet paper for all learners. Put in place lockable dispensers of soap and toilet paper to avoid misuse. To complement, schools should implement the income generating activities programme, in order to assist learners. Private sector and private donors may also be involved for fund raising and in-kind contribution.	MoEAC Partners Community	Top Priority	Short Term
Soap could also be locally made by a community led sanitation in school program, involving local NGOs, students, cleaners, parents, etc. One bar of soap could be given to each learner in a box to keep it and use it at school, and the remaining bar soap could be sold, creating a revolving fund. Also, liquid soap can be handmade.	MoEAC Community	Medium	Short Term

Recommendation

Implementer

Low

Timeframe

Provide a sick bay room for girls to rest when sick due to menstruations and resume classes to avoid sending girls home, thus reducing absenteeism.	MoEAC	Medium	Long term
Improve management of menstrual waste by ensuring that all toilets have disposable bins with covers, and that such bins are cleared regularly (at least twice a day)	MoEAC	High	Short Term
Ensure that cleaners clean toilets every day	MoEAC	High	Short Term

10.3.4 MHM Impacts on Education and Health

Provide support to learners to understand the importance of timely diagnosis, treatment and care for menstrual cycle-related discomforts and disorders, including access to appropriate health services and resources, pain relief, and strategies for self-care. Provide a positive and respectful environment at school in relation to the menstrual cycle, free from stigma and psychological distress, including the resources and support to confidently care for their bodies and make informed discission about self-care throughout their menstrual cycle. This will support positive impacts on school attendance, academic performance, health and overall well-being of learners.

The School Health Initiative should include a comprehensive school education program on menarche and menstrual hygiene and health.	MoEAC MoHSS	Medium	Medium Term
Assign (not necessarily employ) a nurse to schools with >500 learners, indicatively, for first aid, painkillers, counselling, supporting life skills teachers in health education, prevention of STDs and early pregnancies.	MoEAC MoHSS	Medium	Long Term
In schools with <500 leaners allow Life Skills teachers to provide basic painkillers specific for menstrual pains and avail first aid kits, regularly replenished. The above will allow for about half of the learners increasing attendance, because 52% miss school due to menstruation pain. The assigned nurse to schools with learners >500 and Life Skills teachers need to raise awareness about health consequences due to inadequate management of menstrual hygiene. This should include awareness of the impacts of stigma and cultural practices that create fear. The assigned nurse should also treat illnesses and/or discomfort effected by menstruations. In the absence of a nurse assigned to schools, the Life Skills teacher needs to have a referral system in place for girls in need.	MoEAC MoHSS	Medium	Long Term
School dropout should be prevented at all costs. Conduct Accelerated Education Programs to go back to youth who already dropped out from school, to resume studies.	MoEAC MoHSS UNICEF	High	Mid Term

References

- Aidara, R. (2016). Poor Access to WASH: a barrier for women in the workplace. *Social Protection and Human Rights*. 16 November 2016. <http://socialprotection-humanrights.org/expertcom/poor-access-wash-barrier-women-workplace/>
- Bobel, C. (2019). *The Managed Body: Developing Girls and Menstrual Health in the Global South*. ISBN 978-3-319-89414-0
- Day, H. (2018). Normalising menstruation, empowering girls. *The Lancet Child & Adolescent Health*, 2(6), 379. DOI:[https://doi.org/10.1016/S2352-4642\(18\)30143-3](https://doi.org/10.1016/S2352-4642(18)30143-3)
- Essity&WSSCC(2018). Personal Well-being –Key to Public Progress. *The Hygiene and Health Report 2018-2019*. <http://reports.essity.com/2018-19/hygiene-and-health-report/en/>
- Hennegan, J.M. (2017). Menstrual Hygiene Management and Human Rights: The Case for an Evidence-Based Approach. *Women's Reproductive Health*, 4:3, 212-231. <https://doi.org/10.1080/23293691.2017.1388720>
- Hennegan, J., & Montgomery, P. (2016). Do menstrual hygiene management interventions improve education and psychosocial outcomes for women and girls in low- and middle-income countries? A systematic review. *PLoS ONE*, 11:e0146985. DOI:10.1371/journal.pone.0146985
- Hennegan, J., Dolan, C., Wu, M., Scott, L., & Montgomery, P. (2016). Measuring the prevalence and impact of poor menstrual hygiene management: a quantitative survey of schoolgirls in rural Uganda. *BMJ Open*, 6:e012596. DOI:10.1136/bmjopen-2016-012596
- Hennegan, J., Dolan, C., Steinfield, L., & Montgomery, P. (2017). A qualitative understanding of the effects of reusable sanitary pads and puberty education: implications for future research and practice. *Reproductive Health*, 14:78. <https://doi.org/10.1186/s12978-017-0339-9>
- Hennegan, J., Winkler, I.T., Bobel, C., Keiser, D., Hampton, J., Larsson, G., Chandra-Mouli, V., Plesons, M., & Mahon, T. (2021) *Menstrual Health: A Definition for Policy, Practice, and Research*. *Sexual and Reproductive Health Matters*. <https://doi.org/10.1080/26410397.2021.1911618>
- Herz, B., & Sperling, G. (2004). *What works in girls' education: evidence and policies from the developing world*. Council on Foreign Relations.
- Hulland, K.R.S., Chase, R.P., Caruso, B.A., Swain, R., Biswal, B., Sahoo, K.C., Panigrahi, P., & Dreifelbis, R. (2015). Sanitation, Stress, and Life Stage: A Systematic Data Collection Study among Women in Odisha, India. *PLoS ONE*, 10(11): e0141883. <https://doi.org/10.1371/journal.pone.0141883>
- Kansiime, C. (2018). Menstrual health interventions and School attendance among Ugandans. 7th Virtual conference on MHM in Schools (30th October 2018). Medical Research Council/ Uganda Virus Research Institute and London School of Hygiene and Tropical Medicine Uganda Research Unit. https://www.dropbox.com/sh/u6sqaefyn4ukquw/AABazb1DAnHagbVqy8onmSK_a?dl=0&preview=3.+MENISCUS-2+in+Wakiso+district%2C+Uganda.pdf
- Mason, L., Nyothach, E., Alexander, K., Odhiambo, F.O., Eleveld, A., Vulule, J., Rheingans, R., Laserson, K.F., MoHSSammed, A., & Phillips-Howard, P.A. (2013). 'We keep it secret so no one should know'—a qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural Western Kenya. *PLoS ONE*, 8: e79132. DOI: 10.1371/journal.pone.0079132
- McMahon, S.A., Winch, P.J., Caruso, B.A., Obure, A.F., Ogutu, E.A., Ochari, I.A., & Rheingans, R.D. (2011). 'The girl with her period is the one to hang her head.' Reflections on menstrual management among schoolgirls in rural Kenya. *BMC Int Health Hum Rights*, 11: 7. DOI: 10.1186/1472-698X-11-7
- Miir, G., Rutakumwa, R., Nakiyingi-Miir, J., Nakuya, K., Musoke, S., Namakula, J., Francis, S., Torondel, B., Gibson, L.J., Ross, D.A., & Weiss, H.A. (2018). Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study. *BMC women's health*, 18(1), 4. DOI:10.1186/s12905-017-0502-z
- Millington, K.A., & Bolton, L. (2015). Improving access to menstrual hygiene products (GSDRC Helpdesk Report 1280). Birmingham, UK: GSDRC, University of Birmingham Prepared for the Australian Government DFAT. <https://gsdrc.org/publications/improving-access-to-menstrual-hygiene-products/>
- MoHSSammed, Y., Durrant, K., Huggett, C., Davis, J., Macintyre, A., Menu, S., Namba Wilson, J., Ramosaea, M., Sami, M., Barrington, D.J., McSkimming, D., & Natoli, L. (2018). A qualitative exploration of menstruation-related restrictive practices in Fiji, Solomon Islands and Papua New Guinea. *PLoS ONE*, 13(12): e0208224. <https://doi.org/10.1371/journal.pone.0208224>
- Montgomery, P., Hennegan, J., Dolan, C., Wu, M., Steinfield, L., & Scott, L. (2016). Menstruation and the Cycle of Poverty: A Cluster Quasi-Randomised Control Trial of Sanitary Pad and Puberty Education Provision in Uganda. *PLoS ONE*, 11(12): e0166122. <https://doi.org/10.1371/journal.pone.0166122>
- Muthengi, E., Farris, E., & Austrian, K. (2017). The NIA Project. Brief. September 2017. https://static1.squarespace.com/static/55cc900ae4b0989acda95cdb/t/59d79ed129f187972703005d/1507303122707/PGY+-+Nia+Project+Baseline+Report+Brief_Final.pdf
- Oppenheim, M. (2018). Kenyan girls forced into sex in exchange for sanitary products. *The Independent*.
- Oduor, C., Alexander, K., Oruko, K., Nyothach, E., Mason, L., Odhiambo, F., Vulule, J., Laserson, K.F., & Phillips-Howard, P.A. (2015). Schoolgirls' experiences of changing and disposal of menstrual hygiene items and inferences for WASH in schools. *Waterlines*, 34, 397–411.
- Paktkar, A., Aidara, R., & Winkler, I.T. (2016). From taboo to empowerment: menstruation and gender equality. <https://www.opendemocracy.net/openglobalrights/archana-paktkar-rockaya-Aidara-inga-t-winkler/from-taboo-to-empowerment-menstruation>
- Phillips-Howard, P.A., Otieno, G., Burmen, B., Otieno, F., Odongo, F., Odour, C., Nyothach, E., Amek, N., Zielinski-Gutierrez, E., Odhiambo, F., Zeh, C., Kwaro, D., Mills, L.A., & Laserson, K.F. (2015). Menstrual Needs and Associations with Sexual and Reproductive Risks in Rural Kenyan Females: A Cross-Sectional Behavioral Survey Linked with HIV Prevalence. *Journal of women's health*, 24(10), 801-11. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4624246/>
- Phillips-Howard, P.A., Nyothach, E., ter Kuile, F.O., Omoto, J., Wang, D., Zeh, C., Onyango, C., Mason, L., Alexander, K.T., Odhiambo, F.O., Eleveld, A., MoHSSammed, A., van Eijk, A.M., Tudor Edwards, R., Vulule, J., Faragher, B., & Laserson, K.F. (2016). 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*, 6:e013229. DOI: 10.1136/bmjopen-2016-013229
- Rop, R., Tinsley, E., & Samah Rabie, T. (2016). Globally, Periods Causing Girls to Be Absent from School. *The World Bank*, 27 June 2016. <http://blogs.worldbank.org/education/globally-periods-are-causing-girls-be-absent-school>
- Sahin, M., Tamiru, S., Mamo, K., Acidria, P., Mushi, R., Satya Ali, C., & Ndebele, L. (2015). Towards a Sustainable Solution for School Menstrual Hygiene Management: Cases of Ethiopia, Uganda, South-Sudan, Tanzania, and Zimbabwe. *Waterlines*, 34(1), 92–102.

- Sommer, M., Cherenack, E., Blake, S., Sahin, M., & Burgers, L. (2015). WASH in Schools Empowers Girls' Education: Proceedings of the Menstrual Hygiene Management in Schools Virtual Conference 2014. New York, USA: United Nations Children's Fund and Colombia University.
- Sommer, M., Caruso, B.A., Sahin, M., Calderon, T., Cavill, S., Mahon, T., & Phillips-Howard, P.A. (2016a). A Time for Global Action: Addressing Girls' Menstrual Hygiene Management Needs in Schools. *PLoS Med*, 13(2), e1001962. <https://doi.org/10.1371/journal.pmed.1001962>
- Sommer, M., Chandraratna, S., Cavill, S., Mahon, T., & Phillips-Howard, P. (2016b). Managing menstruation in the workplace: an overlooked issue in low-and middle-income countries. *Int J Equity Health*, 15: 86. DOI:10.1186/s12939-016-0379-8
- Sommer, M., Phillips-Howard, P.A., Mahon, T., Zients, S., Jones, M., & Caruso, B.A. (2017). Beyond menstrual hygiene: addressing vaginal bleeding throughout the life course in low and middle-income countries. *BMJ Global Health*, 2:e000405. <https://gh.bmj.com/content/2/2/e000405>
- Sumpter, C., & Torondel, B. (2013). A Systematic Review of the Health and Social Effects of Menstrual Hygiene Management. *PLoS One*, 8(4). <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0062004&type=printable>
- The World Bank (2008). Economic impacts of sanitation in Southeast Asia: a four-country study conducted in Cambodia, Indonesia, the Philippines and Vietnam under the Economics of Sanitation Initiative (ESI). Research Report. February 2008. Jakarta: The World Bank; 2008.
- Thomson, S. (2015). 1 in 10 Girls in Africa Will Drop Out of School for This Reason. The World Bank, 9 December 2015. <https://www.weforum.org/agenda/2015/12/1-in-10-girls-in-africa-will-drop-out-of-school-for-this-reason/>
- UNDESA (2015). Sustainable Development Goals Platform. United Nations Department of Economic and Social Affairs. <https://sustainabledevelopment.un.org/sdgs>
- UNESCO (2014). Puberty Education & Menstrual Hygiene Management. Paris, France: The United Nations Educational, Scientific and Cultural Organization. <http://unesdoc.unesco.org/images/0022/002267/226792e.pdf>
- Wateraid (2012). Menstrual Hygiene Matters: A Resource Book. Wateraid.
- WHO (2014). Adolescent Pregnancy. Factsheet 364, September. World Health Organisation. <http://www.who.int/mediacentre/factsheets/fs364/en/>
- WHO/UNICEF (2012). Report of the Second Consultation on Post-2015 Monitoring Report of a Consultation. The Hague. World Health Organization/United Nations International Children's Emergency Fund.
- Williamson, N. (2013). The State of the World Population 2013: Motherhood in Childhood, Facing the Challenge of Adolescent Pregnancy. New York: The United Nations Population Fund.
- Winkler, I. (2019). Human Rights Shine a Light on Unmet Menstrual Health Needs and Menstruation at the Margins. Menstruation: Editorial. *Obstetrics and Gynaecology*.
- Wodon, Q., Montenegro, C., Nguyen, H., & Onagoruma, A. (2018). The Cost of Not Educating Girls. Missed Opportunities: The High Cost of Not Educating Girls. July 2018. The World Bank Series of Notes. <https://www.alnap.org/system/files/content/resource/files/main/HighCostOfNotEducatingGirls.pdf>
- World Bank Group (2017). Providing Sustainable Sanitation Services for All in WASH Interventions through a Menstrual Hygiene Management Approach. A Water Partnership Program (WPP) Topic Brief. <http://menstrualhygieneday.org/wp-content/uploads/2017/12/WP-SustainableSanitationMHM.pdf>
- WSSCC (2013). Celebrating Womanhood: How better menstrual hygiene management is the path to better health, dignity and business. Water Supply and Sanitation Collaborative Council. <https://www.wsscc.org/wp-content/uploads/2016/05/Celebrating-Womanhood-How-better-menstrual-hygiene-management-is-the-path-to-better-health-dignity-and-business-%E2%80%93-WSSCC-2013.pdf>
- WSSCC & UN Women (2015a). Menstrual Hygiene Management: Behaviour and Practices in the Kedougou Region, Senegal. Water Supply and Sanitation Collaborative Council. <http://socialprotection-humanrights.org/resource/menstrual-hygiene-management-behaviour-practices-kedougou-region-senegal/>
- WSSCC & UN Women (2015b). Menstrual Hygiene Management: Behaviour and Practices in Kye-ossi and Bamoungoum, Cameroon. Water Supply and Sanitation Collaborative Council. <http://socialprotection-humanrights.org/resource/menstrual-hygiene-management-behaviour-and-practices-in-kye-ossi-and-bamoungoum-cameroon/>
- <https://esaro.unfpa.org/en/publications/menstrual-health-management-east-and-southern-africa-review-paper>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7100917/>
- https://menstrualhygieneday.org/wp-content/uploads/2019/08/green_paper_monitoring_menstrual_health_and_hygiene.pdf
- https://www.researchgate.net/publication/340657719_Menstrual_health_management_and_schooling_experience_amongst_female_learners_in_Gauteng_South_Africa_a_mixed_method_study
- https://www.researchgate.net/publication/333153301_Women's_and_girls'_experiences_of_menstruation_in_low-_and_middle-income_countries.A_systematic_review_and_qualitative_metasynthesis
- UNICEF. Guidance for monitoring menstrual health and hygiene. June 2020

Annex 1



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

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OFFICE OF THE EXECUTIVE DIRECTOR

Ref: 17/3/3/UNC

Enquiries: Mr. Andreas Shipanga

Date: 16 September 2020

Dr. Natalia Conestà
UNICEF Namibia | UN House, 1st Floor
PO Box 1706
Windhoek, Namibia

Dear Dr. Conestà

Re: Comprehensive Assessment of Menstrual Health and Hygiene Management Knowledge, Practice and Challenges on adolescent girls in Namibia

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
 - 3.1 The data to be collected must only be used for operational purpose;
 - 3.2 No other data should be collected other than the data stated in the proposal;
 - 3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;
 - 3.4 A quarterly report to be submitted to the Ministry's Research Unit;
 - 3.5 Preliminary findings to be submitted upon completion of the study;
 - 3.6 Final report to be submitted upon completion of the study;

"Health for All"

- 3.7 Separate permission should be sought from the Ministry for the publication of the findings.
4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,

BEN NANGOMBE
EXECUTIVE DIRECTOR



"Health for All"



REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

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TO: THE CHIEF REGIONAL OFFICER
IKHARAS, KHOMAS, KAVANGO EAST, OMAHEKE,
KUNENE, ZAMBEZI AND OHANGWENA REGIONS
ATTENTION: THE DIRECTORS OF EDUCATION
PRINCIPALS OF SELECTED SCHOOLS

Dear Directors,

SUBJECTS: PARTICIPATION IN THE NAMIBIAN MENSTRUAL HEALTH
AND HYGIENE MANAGEMENT (MHHM) STUDY

The Ministry of Education, Arts and Culture (MoEAC), Ministry of Health and Social Services (MoHSS), with support from United Nations Population Fund (UNFPA) and United Nations Children Fund (UNICEF) are currently carrying out Namibian Menstrual Health and Hygiene Management (MHHM) Baseline Study.

The goal of the MHHM Baseline Study is to assess the prevalence of MHHM knowledge and practices among adolescent schoolgirls in Namibia, and identify factors associated with poor menstrual health and hygiene management and school absenteeism due to menstruation. The objectives of the MHHM Baseline Survey are:

- To investigate the current knowledge, attitude and practices of girls, boys, parents and teachers towards menstrual health and hygiene
To identify menstrual health and hygiene related challenges at school and at home and the determinant causes of these challenges
To determine the effects of menstrual health and hygiene on school attendance and academic performance.

Sustainable Development Africa, cc. (SusDAf), a local research firm was awarded the consultancy contract to carry out the MHHM Baseline Study.

This letter serves to humbly request the selected schools from your regions to participate in this study. Schools' participation will entail availing learners for one-on-one interviews and in some cases small group discussions. It will also entail interviews with principals and/or teachers. The SusDAf team will get into direct contact with the schools for more details as it relates to data collection.

Participation is voluntary, however we wish to request school participation as this very important study aims to better respond to the needs of the girl child in schools and communities.

All official correspondence must be addressed to the Executive Director

[Signature]

Attached, please find a list of schools that were selected to participate. Data collection will take place from the 2nd to the 13th of November 2020.

The Team Leader for the Survey is Mr. Randolph Mouton, while the Survey Coordinator is Ms. Jeany Auala. They can be reached at the following contact details:

Randolph Mouton: randolphmouton@susdaf.com / 081718 2966
Jenny Auala: jeany@susdaf.com / 081 286 8868

The MoEAC and MOHSS trust that your esteemed office will find the above in order and that SusDAf can rely on your office to support the successful execution of this important study. Regional offices are requested to please share this communication with the principals of selected schools.

I look forward to your usual support.

Sincerely,

[Signature]
Sanet L. Steenkamp
EXECUTIVE DIRECTOR



23.10.2020
Date

All official correspondence must be addressed to the Executive Director

Annex 2

List of Schools by Region that Participated in the MHHM Assessment

School Code	School Name	State/Private	Urban/Rural
//Kharas Region			
8818	Lüderitz Christian Private School	P	U
7875	Adam Steve Combined School	S	R
8961	Tsau khaeb S.S	S	U
8849	Noordoewer Junior Secondary School	S	R
9008	Logos Christian Academy	P	U
8885	Excelsior Private School	P	R
7808	Krönlein Primary School	S	U
7860	J. A. Kahuika Primary School	S	R
Kavango East Region			
7462	Kaisosi COMBINED SCHOOL	S	U
7654	Neyuva Combined School	S	R
7655	Shadipwera Primary School	S	R
7763	Kehemu Primary School	S	U
7573	Kamutjonga Primary School	S	R
7523	St. Boniface College	P	R
9054	Vazungu H.S	P	U
7760	Max Makushe Secondary School	S	R
Khomas Region			
7320	Dordabis Primary School	S	R
8890	Constantia Private Combined School	P	R
8979	WESTMONT HIGH SCHOOL	S	U
9000	Na' an ku se Primary School	P	U
7840	Eldorado Secondary School	P	U
7368	Tobias Hainyeko Primary School	S	U
8501	Groot-Aub Junior Secondary School	S	R
7339	Immanuel Shifidi Secondary School	S	U
7061	Emma Hoogenhout Primary School	S	U
7319	St. Joseph's R. C. School Döbra	P	R
Kunene Region			
7439	Etanga Primary School	S	R
7216	Th. F. Gaeb Primary School	S	U
7006	Outjo Secondary School	S	U

8902	OPUWO CHRISTIAN SCHOOL	P	U
7436	Hungua Combined School	S	R
7245	Otjikondavirongo Primary School	S	R
7237	Oukongo Primary School	S	R
8842	Omuhonga Combined School	S	R
Ohangwena Region			
7930	Paulus Hamutenya Primary School	S	U
8632	Omahenge Combined School	S	R
8985	Brainson English Primary	P	U
7937	Ongenga English Private Primary School	P	R
8125	Eudafano Combined School	S	R
8137	Omungwelumbe Secondary School	S	R
8186	Efuta Primary School	S	R
7931	Shifidi Primary School	S	R
8657	Tuyoleni Primary School	S	R
8156	Ehafo Combined School	S	R
8899	Dr Abraham Iyambo S.S.S	S	R
8764	Eenhana Primary School	S	U
8185	Eenhana Secondary School	S	U
8433	Ohameva Combined School	S	R
8254	Oshela Secondary School	S	U
Omaheke Region			
8816	Gobabis Gymnasium Private School	P	U
7380	Nossob Combined School	S	R
7401	C. Heuva Junior Secondary School	S	R
7422	Gustav Kandjii Junior Secondary School	S	U
7301	Mokaleng Roman Catholic Primary School	P	U
7406	Dr. Fischer Primary School	S	R
7814	Nossobville Primary School	S	U
7296	Helena Primary School	S	R
Zambezi Region			
7157	Simataa Secondary School	S	R
7949	Children of Zion	P	R
9057	Tobias Hainyeko CS	P	U
7182	Makanga Combined School	S	R
7146	Ngweze Senior Secondary School	S	U
7093	Kandunda Kasetta Primary School	S	R
8782	Kisako Primary School	S	R
7841	Brendan Simbwaye Primary School	S	U
7139	Mulumba Primary School	S	U

Annex 3

List of Data Collection Offices

#	Name	Position	Organisation
Survey Management			
1	Kakuna Venokulavo	Chief Health Officer	MoHSS
2	Friedel Dausab	SRH/GBV Officer	UNFPA
3	Randolph Mouton	Survey Manager	SusDAf
4	Jeany Auala	Survey Coordinator	SusDAf
//Kharas			
1	Brandon Bock	Field Supervisor	Khoe-khoegowab/Afrikaans
2	Deborah Gowases	Enumerator	Khoe-khoegowab/Afrikaans
3	Laina Uushona	Enumerator	English/Afrikaans
Kavango East			
1	Anniki Kavara	Field Supervisor	Rukwangali/Gciriku/Shambyu
2	Lucia Munaye	Enumerator	Rukwangali/Rumanyo
3	Selda Muyamba	Enumerator	Rukwangali/Gciriku/Shambyu
Khomas			
1	Brenda Oarum	Field Supervisor	Oshiwambo
2	Hendrina Shikalepo	Enumerator	Otjiherero/Afrikaans
3	Ethel Kayanga	Enumerator	English/Silozi
4	Kakuna Venokulavo	Enumerator	English/Afrikaans
5	Ndilimeke Waimine	Enumerator	English/Oshiwambo
Kunene			
1	Caroline Nguvauva	Field Supervisor	Otjiherero
2	Memory Saller	Enumerator	Zhemba/Setswana
3	Suwama Mwahi	Enumerator	Otjiherero
Ohangwena			
1	Mathew Haufiku	Field Supervisor	Oshiwambo
2	Saima Ndjimba	Enumerator	Oshiwambo
3	Selma Nuule	Enumerator	Oshiwambo
4	Klaudia Ndinondjene (KV)	Enumerator	Oshiwambo
5	Tuuliki Amunyela (KV)	Enumerator	Oshiwambo
Omaheke			
1	Blasius Murorua	Field Supervisor	Otjiherero
2	Crezeltha Bokatsane	Enumerator	Setswana/Afrikaans
3	Vanessa Kandjeo	Enumerator	Otjiherero/Afrikaans
Zambezi			
1	Deltin Simataa	Field Supervisor	Silozi
2	Cynthia Sitali	Enumerator	Silozi
3	Patience N. Liyeke (KV)	Enumerator	Silozi (Subia)
4	Moyao	Extra Supervisor	Otjiherero/Afrikaans

Endnotes

¹Hennegan, J., Winkler, I.T., Bobel, C., Keiser, D., Hampton, J., Larsson, G., Chandra-Mouli, V., Plesons, M., & Mahon, T. (2021) Menstrual Health: A Definition for Policy, Practice, and Research. Sexual and Reproductive Health Matters. <https://doi.org/1080/26410397.2021.1911618>

²K4D: Period poverty impact on the economic empowerment of women. K4D, 23 January 2019

³ibid

⁴Aidara, 2016

⁵https://esaro.unfpa.org/sites/default/files/pub-pdf/UNFPA_percent20Review_percent20Menstrual_percent20Health_percent20Management_percent20Final_percent2004_percent20June_percent202018.pdf

⁶Sumpter and Torendel, 2013

⁷Aidara, 2016

⁸Mason et al.

⁹Sommer et al., 2016a

¹⁰https://www.moe.gov.na/files/downloads/3c0_EMIS_percent2015th_percent20School_percent20Day_percent20Report_percent202019.pdf

¹¹Knatterud, G.L., Rockhold, F.W., George, S.L., Barton, F.B., Davis, C.E., Fairweather, W.R., Honohan, T., Mowery, R, O'Neill, R. (1998). Guidelines for quality assurance in multicenter trials: a position paper. *Controlled Clinical Trials*, 19:477-493.

¹²Namibia Ministry of Agriculture, Water and Forestry (2015), Formative Research Report on Open Defecation Status in Namibia

¹³WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (2017), Progress on Drinking Water Sanitation and Hygiene, 2017, Update and SDG Baselines.

¹⁴Ministry of Education, Arts and Culture: The National Curriculum for Basic Education. Namibia, 2016

¹⁵First Annual Health School Forum, Windhoek, Namibia, 2015

¹⁶"Young People Today - Time to Act now", 2013

¹⁷Training of Trainers Manual on School Health. UNICEF Namibia/2011

¹⁸2018 EMIS report, MoEAC

¹⁹Primary, secondary, combined and "other" schools, State as well as Private schools

²⁰Primary, secondary, combined and "other" schools, State as well as Private schools

²¹WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (2018), Drinking Water Sanitation and Hygiene in Schools, Global baseline report 2018.

²²DFID Evidence Paper by Joanna Esteves Mills and Oliver Cumming: The impact of WASH on key health and social outcomes, June 2016

²³WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (2018), Drinking Water Sanitation and Hygiene in Schools, Global baseline report 2018.

²⁴WHO 2016. Prioritizing pupils' education, health and well-being. WHO office for Europe

²⁵YOUNG PEOPLE TODAY. Time to Act now. Why adolescents and young people need comprehensive sexuality education and sexual and reproductive health services in Eastern and Southern Africa. UNESCO 2013

²⁶Parliamentary standing committee on human resources and community development, following regional visits by parliamentarians to eight northern regions between May and August 2018.

²⁷https://namibia.unfpa.org/en/news/percentE2_percent80_percent9Cfamily-planning-must-be-available-every-woman-who-needs-it-including-adolescent-girls_percentE2_percent80_percent9D-percentE2_percent80_percent93

²⁸Kaplowitz P. Pubertal development in girls: Secular trends. *Curr Opin Obstet Gynecol* 2006;18:487-91.

²⁹Abioye-Kuteyi EA, Ojofeitimi EO, Aina OI, Kio F, Aluko Y, Mosuro O, et al. The influence of socioeconomic and nutritional status on menarche in Nigerian schoolgirls. *Nutr Health* 1997;11:185-95.

³⁰American Academy of Pediatrics Committee on Adolescence, American College of Obstetricians and Gynecologists Committee on Adolescent Health Care, Diaz A, Laufer MR, Breech LL. Menstruation in girls and adolescents: Using the menstrual cycle as a vital sign. *Pediatrics* 2006;118:2245-50.

³¹Adams Hillard PJ. Menstruation in young girls: A clinical perspective. *Obstet Gynecol* 2002;99:655-62

³²Shabnam Omidvar et al.: A study on menstruation of Indian adolescent girls in an urban area of South India. Year: 2018 | Volume : 7 | Issue : 4 | Page : 698-702

³³Everson Ndlovu and Ednah Bhala Menstrual hygiene – A salient hazard in rural schools: A case of Masvingo district of Zimbabwe. Jamba 2016

³⁴Chinyama J et al.: Menstrual hygiene management in rural schools of Zambia: a descriptive study of knowledge, experiences and challenges faced by schoolgirls.

- ³⁵Victor Kasulo. Do sanitation facilities in primary and secondary schools address Menstrual Hygiene needs? A study from Mzuzu City, Malawi. University of Mzuzu, Feb 2020
- ³⁶Margaret Akinwaare: Menstrual hygiene practices among adolescents in selected secondary schools around the university of Ibadan, Nigeria. JMBR, June 2016
- ³⁷ O. Olufemi Aluko et al.: Knowledge and menstrual hygiene practices among adolescents in senior secondary schools in Ile Ife, south-western Nigeria. *Journal of Water, Sanitation and Hygiene for Development* |04.2 |2014
- ³⁸ Emmanuel C. Inyang Etoh et al.: Attainment of menstrual hygiene by girls in boarding secondary schools in a state in Sub-Saharan Africa. *Int J Reprod Contracept Obstet Gynecol.* 2020 Mar;9(3):984-990
- ³⁹ J Davis et al: Menstrual hygiene management and school absenteeism among adolescent students in Indonesia: evidence from a cross-sectional school-based survey. *Trop Med Int Health.* Dec 2018
- ⁴⁰ Mu Alam et al.:Menstrual hygiene management among Bangladeshi adolescent schoolgirls and risk factors affecting school absence: results from a cross-sectional survey. *BMJ Open.* Jul 2017
- ⁴¹ Emily Ball: Menstrual Hygiene Management Policy Brief.
- ⁴² Penelope A Phillips-Howard, Julie Hennegan, Helen A Weiss, Laura Hytti, Marni Sommer: Inclusion of menstrual health in sexual and reproductive health and rights. *Article* · August 2018 DOI: 10.1016/S2352-4642(18)30204-9
- ⁴³ Sommer M, Chandraratna S, Cavill S, Mahon T, Phillips-Howard P. Managing menstruation in the workplace: an overlooked issue in low- and middle-income countries. *Int J Equity Health* 2016; 15: 86.
- ⁴⁴ Sphere-Handbook-2018
- ⁴⁵ <https://www.unicef.org/press-releases/2-5-schools-around-world-lacked-basic-handwashing-facilities-prior-covid-19-pandemic>
- ⁴⁶ <https://www.unicef.org/press-releases/2-5-schools-around-world-lacked-basic-handwashing-facilities-prior-covid-19-pandemic>

